

Science: Biology / Applying

B_SD1_01 SE72002: Unusual characteristics of echidna - MC - Key: D

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1207	69.0	17.8	7.3	5.4	68.1	0.5	0.9	70.5	67.8
Austria	685	67.2	16.5	9.1	7.1	66.9	0.5	0.0	67.7	66.8
Azerbaijan	897	48.4	19.0	19.0	12.7	47.6	1.4	0.3	44.3	52.3
Bahrain	745	50.5	18.3	18.9	12.1	50.3	0.2	0.2	55.7	45.7
Brazil	3299	47.2	30.9	10.5	10.6	46.5	0.6	1.0	45.6	48.9
Chile	648	50.2	25.0	12.3	11.2	48.9	2.2	0.3	52.4	47.8
Chinese Taipei	1102	63.1	23.7	6.1	7.1	63.0	0.0	0.1	64.4	61.8
Cyprus	610	55.7	16.8	13.6	13.7	55.4	0.2	0.3	63.8	48.0
Czech Republic	1172	77.4	11.6	6.6	4.3	77.0	0.3	0.3	80.8	74.2
England	601	67.0	14.3	6.9	11.1	65.4	1.1	1.2	65.6	68.5
Finland	858	67.4	15.9	7.4	9.0	66.7	0.7	0.2	74.3	61.2
France	651	69.7	10.4	10.0	9.8	69.4	0.4	0.0	72.9	66.5
Georgia	708	58.2	22.0	11.0	8.7	58.0	0.3	0.0	59.0	57.4
Hong Kong SAR	645	71.8	10.6	8.8	8.2	70.3	1.4	0.7	70.1	73.4
Hungary	798	71.9	10.0	7.3	10.9	71.9	0.0	0.0	74.7	69.2
Ireland	727	63.3	18.6	8.4	9.6	63.1	0.1	0.3	62.2	64.2
Israel	760	55.6	17.8	12.5	13.7	55.1	0.4	0.5	56.4	54.8
Italy	670	67.1	18.2	7.8	6.9	66.8	0.1	0.2	67.5	66.6
Japan	774	79.0	6.6	8.4	6.1	78.8	0.0	0.2	79.1	78.9
Jordan	601	38.4	23.2	22.4	15.1	37.8	1.1	0.3	40.6	36.3
Kazakhstan	926	50.5	21.1	11.6	16.5	50.2	0.5	0.1	48.8	52.1
Korea, Rep. of	849	81.0	7.5	6.4	5.0	80.6	0.4	0.1	81.7	80.4
Lithuania	790	68.5	14.7	8.2	8.6	68.3	0.2	0.0	70.2	66.6
Malaysia	1275	31.0	20.1	15.2	33.6	31.0	0.0	0.2	29.2	33.0
Malta	593	61.9	14.5	14.4	9.1	61.7	0.3	0.0	61.5	62.3
Morocco	760	21.6	28.1	26.6	22.6	21.2	0.9	0.5	27.9	14.0
New Zealand	555	66.5	17.3	8.6	6.9	65.2	1.8	0.2	63.2	69.6
Norway (9)	908	63.4	17.3	9.2	9.4	62.0	0.5	1.6	66.2	60.7
Oman	712	41.1	16.3	29.8	12.0	40.5	0.7	0.7	48.0	35.0
Palestinian Nat'l Auth.	567	34.4	23.5	22.8	18.8	34.2	0.3	0.4	40.9	28.2
Portugal	774	66.8	18.4	6.2	8.7	66.8	0.0	0.0	69.3	64.4
Qatar	618	50.2	18.7	16.7	13.8	49.5	0.5	0.7	50.0	50.3
Romania	547	60.2	17.4	12.4	8.7	58.4	0.8	2.3	68.6	52.9
Saudi Arabia	505	37.6	24.7	17.1	20.1	37.4	0.5	0.2	43.5	32.2
Singapore	948	81.0	7.9	6.1	4.9	80.9	0.0	0.2	83.0	79.3
Sweden	725	65.3	18.0	5.9	10.3	64.5	1.0	0.3	66.2	64.5
Turkiye	701	66.7	14.6	8.8	9.9	66.7	0.0	0.0	64.0	69.6
United Arab Emirates	4045	60.1	16.2	12.2	11.2	59.7	0.3	0.4	61.8	58.5
United States	1168	67.6	14.1	10.6	7.1	66.5	0.3	1.4	67.8	67.4
Uzbekistan	632	42.3	17.6	32.3	7.1	41.8	0.4	0.8	39.9	44.6
International Avg. (40)	36756	58.9	17.4	12.4	10.9	58.4	0.5	0.4	60.5	57.4
Abu Dhabi, UAE	1036	49.0	18.9	16.6	15.2	48.7	0.3	0.3	52.0	46.2
Dubai, UAE	1178	73.6	13.0	6.9	6.4	73.2	0.1	0.3	74.1	73.1
Sharjah, UAE	942	59.2	16.7	13.0	10.6	58.5	0.6	0.6	61.8	56.6

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Knowing

B_SD1_02 SE72403: Classifying animals into groups (DERIVED) - CR - 1 Point

COUNTRY	N	DIFF %	10 %	79 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1207	51.2	50.5	48.0	50.5	48.0	0.6	0.9	49.3	52.9
Austria	685	51.4	51.3	48.4	51.3	48.4	0.3	0.0	48.1	54.3
Azerbaijan	897	56.2	54.6	42.5	54.6	42.5	2.5	0.4	57.7	54.8
Bahrain	745	38.5	38.3	61.2	38.3	61.2	0.1	0.4	41.6	35.6
Brazil	3299	34.0	33.3	64.6	33.3	64.6	0.6	1.4	33.2	34.8
Chile	648	41.8	41.2	57.2	41.2	57.2	0.8	0.7	46.3	37.1
Chinese Taipei	1102	68.5	68.4	31.5	68.4	31.5	0.0	0.1	67.8	69.2
Cyprus	610	44.1	43.8	55.6	43.8	55.6	0.3	0.3	47.2	41.1
Czech Republic	1172	69.2	69.0	30.7	69.0	30.7	0.1	0.3	69.6	68.9
England	601	47.1	45.6	51.2	45.6	51.2	1.9	1.3	41.4	53.7
Finland	858	42.1	41.8	57.6	41.8	57.6	0.3	0.3	43.4	41.0
France	651	56.3	56.2	43.7	56.2	43.7	0.1	0.0	58.6	54.0
Georgia	708	58.7	58.3	41.0	58.3	41.0	0.7	0.0	57.8	59.7
Hong Kong SAR	645	56.5	55.9	42.9	55.9	42.9	0.5	0.7	55.6	57.4
Hungary	798	59.0	59.0	41.0	59.0	41.0	0.0	0.0	56.2	61.6
Ireland	727	59.5	59.3	40.3	59.3	40.3	0.1	0.3	56.3	62.3
Israel	760	57.9	57.5	41.8	57.5	41.8	0.2	0.5	56.5	59.2
Italy	670	59.0	58.8	40.9	58.8	40.9	0.1	0.2	58.0	59.9
Japan	774	66.0	65.7	33.8	65.7	33.8	0.3	0.2	64.0	67.8
Jordan	601	22.9	22.6	76.1	22.6	76.1	1.0	0.3	23.1	22.7
Kazakhstan	926	13.9	13.8	85.8	13.8	85.8	0.3	0.1	12.1	15.6
Korea, Rep. of	849	33.9	33.8	65.8	33.8	65.8	0.3	0.1	33.8	34.0
Lithuania	790	32.5	32.5	67.5	32.5	67.5	0.0	0.0	31.5	33.7
Malaysia	1275	26.5	26.4	73.2	26.4	73.2	0.2	0.2	25.5	27.6
Malta	593	45.3	45.1	54.4	45.1	54.4	0.5	0.0	40.9	49.9
Morocco	760	7.4	7.3	90.6	7.3	90.6	1.3	0.8	7.8	7.0
New Zealand	555	48.4	47.6	50.7	47.6	50.7	1.4	0.2	44.1	52.4
Norway (9)	908	47.4	46.4	51.5	46.4	51.5	0.4	1.7	50.0	45.0
Oman	712	26.2	25.8	72.8	25.8	72.8	0.4	0.9	32.7	20.5
Palestinian Nat'l Auth.	567	18.1	18.0	81.4	18.0	81.4	0.2	0.4	22.8	13.5
Portugal	774	54.2	54.2	45.8	54.2	45.8	0.0	0.0	52.6	55.7
Qatar	618	38.9	38.4	60.2	38.4	60.2	0.7	0.7	36.8	40.9
Romania	547	58.4	56.4	40.2	56.4	40.2	1.1	2.3	61.9	55.3
Saudi Arabia	505	22.5	22.4	77.1	22.4	77.1	0.2	0.3	25.9	19.4
Singapore	948	73.3	73.2	26.7	73.2	26.7	0.0	0.2	71.3	75.0
Sweden	724	43.3	42.6	55.9	42.6	55.9	1.3	0.3	40.5	45.7
Turkiye	701	71.1	71.1	28.9	71.1	28.9	0.0	0.0	71.5	70.8
United Arab Emirates	4045	45.0	44.6	54.5	44.6	54.5	0.5	0.4	42.5	47.4
United States	1168	47.1	46.2	51.9	46.2	51.9	0.3	1.5	47.0	47.2
Uzbekistan	632	28.3	27.7	70.0	27.7	70.0	1.4	0.9	27.5	29.1
International Avg. (40)	36755	45.5	45.1	53.9	45.1	53.9	0.5	0.5	45.3	45.8
Abu Dhabi, UAE	1036	34.1	33.6	65.0	33.6	65.0	1.1	0.3	31.5	36.5
Dubai, UAE	1178	56.4	56.1	43.4	56.1	43.4	0.2	0.3	51.6	60.7
Sharjah, UAE	942	45.9	45.3	53.4	45.3	53.4	0.6	0.6	46.7	45.1

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Knowing

B_SD1_02A SE72403A: Classifying animals into groups - fish - MC - Key: D

COUNTRY	N	DIFF %	A %	B %	C %	D %	E %	F %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1207	87.9	0.2	1.0	2.4	86.6	0.5	7.8	0.6	0.9	88.6	87.3
Austria	685	80.8	0.2	1.3	4.8	80.1	0.4	12.3	0.8	0.0	78.3	82.9
Azerbaijan	897	76.4	1.0	0.8	4.2	73.6	0.9	15.8	3.3	0.4	77.8	75.2
Bahrain	745	67.8	0.5	2.1	3.2	67.1	0.3	25.8	0.6	0.4	69.0	66.6
Brazil	3299	67.0	1.7	6.3	4.3	64.7	1.5	18.1	1.9	1.4	65.9	68.1
Chile	648	81.7	0.6	1.2	1.9	79.7	0.1	14.1	1.6	0.7	81.2	82.1
Chinese Taipei	1102	91.9	0.5	0.3	0.6	91.8	0.4	6.3	0.0	0.1	91.1	92.6
Cyprus	610	74.9	1.7	1.5	3.9	74.1	1.2	16.4	0.8	0.3	78.8	71.2
Czech Republic	1172	89.7	0.3	0.2	1.6	89.1	0.0	8.2	0.3	0.3	89.4	89.9
England	601	84.0	0.6	1.6	3.1	81.3	0.5	9.8	1.9	1.3	81.2	87.1
Finland	858	91.5	0.7	0.8	1.0	90.9	0.4	5.6	0.3	0.3	91.4	91.6
France	651	88.6	0.5	0.3	2.5	88.1	0.3	7.7	0.6	0.0	89.2	88.1
Georgia	708	75.4	0.2	0.6	8.0	74.0	0.5	14.9	1.9	0.0	74.1	76.7
Hong Kong SAR	645	86.0	1.2	1.5	2.2	84.8	0.4	8.6	0.7	0.7	83.2	88.6
Hungary	798	88.4	0.3	1.4	2.0	88.3	0.3	7.5	0.1	0.0	87.7	89.0
Ireland	727	90.5	0.1	1.3	2.4	89.0	0.0	5.5	1.4	0.3	90.1	90.9
Israel	760	84.3	1.0	0.7	2.0	83.6	0.3	11.6	0.3	0.5	82.7	85.8
Italy	670	89.0	0.4	0.8	1.6	88.7	0.1	8.1	0.1	0.2	87.3	90.5
Japan	774	95.0	0.4	0.2	0.3	94.5	0.4	3.6	0.3	0.2	94.3	95.6
Jordan	601	43.4	3.5	2.2	6.0	42.2	0.9	42.4	2.4	0.3	40.7	46.0
Kazakhstan	926	29.5	0.2	1.3	13.3	29.3	1.7	53.6	0.6	0.1	28.0	30.9
Korea, Rep. of	849	90.2	0.5	0.9	0.5	89.7	0.7	7.1	0.4	0.1	89.5	90.9
Lithuania	790	90.2	0.6	0.1	1.9	90.0	0.1	7.0	0.2	0.0	90.1	90.3
Malaysia	1275	53.8	1.4	3.6	5.4	53.1	1.8	33.5	1.1	0.2	53.4	54.2
Malta	593	78.9	0.8	2.5	4.3	78.6	0.9	12.4	0.5	0.0	76.5	81.5
Morocco	760	30.7	13.0	10.0	12.4	29.5	4.6	26.4	3.2	0.8	32.2	29.0
New Zealand	555	86.3	0.0	1.4	2.3	84.8	0.6	9.1	1.5	0.2	82.9	89.6
Norway (9)	908	90.5	1.2	2.0	1.9	87.9	0.1	3.9	1.1	1.7	92.6	88.5
Oman	712	53.1	1.4	4.7	4.1	52.1	1.2	34.5	1.0	0.9	55.8	50.7
Palestinian Nat'l Auth.	567	42.9	5.0	3.0	4.0	42.3	1.5	42.9	0.9	0.4	47.8	38.1
Portugal	774	90.5	0.4	1.7	0.5	90.5	0.2	6.8	0.0	0.0	92.8	88.3
Qatar	618	69.0	0.9	2.3	3.8	67.7	0.8	22.6	1.3	0.7	67.3	70.6
Romania	547	86.0	1.6	0.4	2.0	82.9	0.8	8.7	1.3	2.3	87.2	84.9
Saudi Arabia	505	50.0	1.5	4.6	4.1	49.5	1.0	38.3	0.7	0.3	49.1	50.9
Singapore	948	91.9	0.4	0.4	1.9	91.7	0.2	5.2	0.0	0.2	89.9	93.7
Sweden	724	91.3	1.6	0.9	2.0	89.6	0.3	3.8	1.5	0.3	89.6	92.8
Turkiye	701	86.8	0.6	0.4	2.7	86.8	0.1	9.4	0.1	0.0	86.3	87.3
United Arab Emirates	4045	75.2	1.7	2.7	3.9	74.3	1.0	15.2	0.8	0.4	74.0	76.3
United States	1168	85.0	0.7	1.1	2.7	83.2	1.2	8.9	0.6	1.5	83.7	86.2
Uzbekistan	632	40.2	3.4	3.1	13.2	36.5	1.1	33.4	8.4	0.9	40.3	40.1
International Avg. (40)	36755	76.2	1.3	1.8	3.6	75.1	0.7	15.8	1.1	0.5	75.8	76.5
Abu Dhabi, UAE	1036	68.4	3.6	5.7	4.6	67.0	2.5	14.6	1.7	0.3	68.4	68.4
Dubai, UAE	1178	81.3	0.5	1.8	3.5	80.7	0.4	12.4	0.4	0.3	78.1	84.1
Sharjah, UAE	942	76.9	1.5	1.5	3.8	75.6	0.5	15.3	1.0	0.6	76.2	77.6

DIFF = Percent correct

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Science: Biology / Knowing

B_SD1_02B SE72403B: Classifying animals into groups - insects - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	C %	D %	E %	F %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1207	95.9	94.2	1.2	0.9	0.8	0.7	0.4	0.9	0.9	96.9	95.1
Austria	685	95.0	94.8	1.1	2.1	0.5	1.3	0.0	0.3	0.0	96.2	94.0
Azerbaijan	897	90.8	86.9	2.1	3.0	0.7	2.1	1.0	3.8	0.4	92.2	89.4
Bahrain	745	91.0	89.9	1.6	2.8	1.3	2.7	0.5	0.8	0.4	95.3	86.9
Brazil	3299	84.1	81.0	2.1	9.0	1.2	2.3	0.8	2.2	1.4	84.9	83.2
Chile	648	92.5	90.1	2.1	3.3	0.0	2.0	0.0	1.8	0.7	94.0	90.9
Chinese Taipei	1102	95.9	95.7	0.7	3.1	0.0	0.3	0.0	0.1	0.1	95.8	95.9
Cyprus	610	87.6	86.6	2.3	4.1	1.5	3.8	0.6	0.9	0.3	91.8	83.6
Czech Republic	1172	98.1	97.7	0.1	1.2	0.3	0.4	0.0	0.1	0.3	98.2	97.9
England	601	92.7	89.1	1.9	3.4	0.5	1.2	0.0	2.6	1.3	93.6	91.6
Finland	858	95.8	95.2	0.9	1.9	0.3	0.7	0.4	0.3	0.3	98.3	93.5
France	651	95.2	94.7	1.0	1.3	0.0	2.0	0.4	0.5	0.0	97.0	93.5
Georgia	708	93.0	91.1	3.1	1.7	0.4	1.3	0.4	2.0	0.0	92.4	93.6
Hong Kong SAR	645	91.4	89.9	1.9	3.4	1.4	1.4	0.4	1.0	0.7	92.1	90.7
Hungary	798	96.4	96.3	0.5	2.2	0.2	0.6	0.0	0.2	0.0	95.6	97.2
Ireland	727	92.7	92.2	1.4	3.3	0.5	2.1	0.0	0.2	0.3	93.6	91.9
Israel	760	88.3	87.3	2.2	5.7	1.0	2.3	0.5	0.6	0.5	90.5	86.1
Italy	670	96.9	96.4	0.8	0.6	0.1	1.5	0.0	0.3	0.2	96.6	97.2
Japan	774	92.1	91.6	0.3	3.2	0.3	3.7	0.4	0.3	0.2	91.7	92.5
Jordan	601	83.6	80.5	2.8	6.1	4.6	1.9	0.3	3.4	0.3	90.3	77.1
Kazakhstan	926	89.2	87.9	1.3	5.6	2.4	0.9	0.4	1.3	0.1	89.6	88.7
Korea, Rep. of	849	92.5	91.9	0.5	3.9	0.0	2.8	0.3	0.5	0.1	90.5	94.3
Lithuania	790	96.5	95.6	0.9	1.5	0.1	0.9	0.1	0.9	0.0	98.1	94.6
Malaysia	1275	78.8	78.3	3.8	7.5	4.4	4.7	0.6	0.4	0.2	80.2	77.2
Malta	593	90.4	89.5	1.3	4.4	1.5	2.2	0.2	1.0	0.0	89.8	91.0
Morocco	760	48.6	46.4	13.3	12.0	8.2	9.2	6.3	3.7	0.8	47.9	49.4
New Zealand	555	94.7	92.4	0.7	2.7	0.3	1.2	0.3	2.2	0.2	95.9	93.7
Norway (9)	908	89.6	87.2	1.8	6.1	0.6	1.3	0.3	0.9	1.7	94.1	85.4
Oman	712	80.9	79.5	3.3	8.6	2.8	3.8	0.3	0.9	0.9	88.1	74.8
Palestinian Nat'l Auth.	567	81.2	79.5	3.0	7.3	4.0	2.8	1.3	1.8	0.4	86.5	75.9
Portugal	774	93.7	93.6	1.0	2.9	0.3	2.0	0.1	0.1	0.0	94.1	93.3
Qatar	618	91.2	89.5	0.8	3.5	1.0	2.6	0.6	1.1	0.7	93.4	89.1
Romania	547	94.6	90.7	2.8	1.6	0.2	0.6	0.0	1.9	2.3	97.8	91.7
Saudi Arabia	505	88.3	87.3	2.3	5.2	1.3	1.7	1.0	0.7	0.3	94.9	82.2
Singapore	948	98.2	98.0	0.7	0.8	0.1	0.2	0.0	0.1	0.2	98.1	98.4
Sweden	724	93.2	91.3	1.9	2.2	0.6	1.7	0.3	1.8	0.3	94.2	92.3
Turkiye	701	90.2	89.7	1.5	4.7	0.5	2.8	0.2	0.6	0.0	90.2	90.2
United Arab Emirates	4045	87.0	85.7	2.8	4.0	1.9	3.0	1.1	1.1	0.4	89.3	84.7
United States	1168	93.9	92.0	0.8	3.5	0.2	1.2	0.2	0.5	1.5	93.2	94.6
Uzbekistan	632	88.1	79.5	2.8	4.3	2.2	0.9	0.6	8.8	0.9	90.4	86.0
International Avg. (40)	36755	90.2	88.7	1.9	3.9	1.2	2.0	0.5	1.3	0.5	91.8	88.7
Abu Dhabi, UAE	1036	74.1	72.2	6.7	5.9	3.8	5.7	3.0	2.4	0.3	76.4	72.0
Dubai, UAE	1178	94.1	93.2	0.8	2.2	1.4	1.2	0.2	0.6	0.3	95.4	93.0
Sharjah, UAE	942	89.9	88.6	2.5	3.2	1.0	2.5	0.7	0.9	0.6	93.6	86.3

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Knowing

B_SD1_02C SE72403C: Classifying animals into groups - mammals - MC - Key: F

COUNTRY	N	DIFF %	A %	B %	C %	D %	E %	F %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1207	60.2	0.5	31.0	4.8	0.8	2.0	59.0	1.1	0.9	58.1	62.1
Austria	685	68.3	0.7	13.8	8.9	3.8	4.1	67.5	1.3	0.0	64.5	71.7
Azerbaijan	897	68.1	2.0	9.0	11.5	4.6	2.8	63.6	6.2	0.4	67.9	68.2
Bahrain	745	48.6	1.4	17.3	20.0	6.0	5.7	47.7	1.5	0.4	50.9	46.5
Brazil	3299	61.0	2.1	13.0	7.6	4.8	9.9	58.4	2.8	1.4	61.7	60.2
Chile	648	53.7	1.2	27.6	8.4	1.7	5.3	51.3	3.8	0.7	57.9	49.4
Chinese Taipei	1102	87.4	0.7	6.3	3.1	1.8	0.7	87.2	0.0	0.1	87.5	87.3
Cyprus	610	64.8	1.8	15.7	9.1	2.0	5.7	63.3	2.1	0.3	71.3	58.6
Czech Republic	1172	74.7	0.2	17.6	4.6	2.0	0.7	73.8	0.8	0.3	74.9	74.4
England	601	58.2	0.5	29.8	4.4	2.2	3.0	55.6	3.1	1.3	52.7	64.4
Finland	858	53.4	1.3	26.1	15.2	0.9	2.7	52.8	0.6	0.3	53.8	53.0
France	651	64.8	0.8	20.4	10.1	1.0	2.6	64.4	0.7	0.0	64.7	64.9
Georgia	708	76.1	0.7	9.9	3.6	6.6	2.3	73.3	3.6	0.0	72.6	79.4
Hong Kong SAR	645	75.9	1.7	10.5	6.4	3.0	2.1	74.5	1.2	0.7	76.9	74.9
Hungary	798	76.4	0.3	13.5	6.2	0.8	2.5	75.3	1.5	0.0	74.0	78.6
Ireland	727	76.3	0.8	15.1	4.1	0.9	2.5	75.3	1.1	0.3	77.5	75.3
Israel	760	66.0	1.2	17.7	10.1	2.1	2.5	65.1	0.8	0.5	61.3	70.5
Italy	670	77.4	0.8	13.0	4.9	0.7	2.8	76.3	1.3	0.2	77.3	77.5
Japan	774	87.1	0.8	4.7	5.5	0.7	1.2	86.5	0.5	0.2	87.9	86.4
Jordan	601	31.4	4.6	19.1	22.2	10.6	10.5	30.7	2.0	0.3	30.5	32.3
Kazakhstan	926	25.8	1.8	17.5	6.6	41.3	5.8	25.4	1.4	0.1	23.9	27.6
Korea, Rep. of	849	68.5	0.7	21.7	5.2	0.6	3.0	67.9	0.8	0.1	63.7	73.2
Lithuania	790	59.8	0.8	27.1	1.9	1.3	8.9	59.5	0.5	0.0	61.3	58.1
Malaysia	1275	48.1	3.1	19.4	8.1	5.8	14.8	47.5	1.1	0.2	47.8	48.5
Malta	593	57.6	1.4	27.7	6.8	2.3	3.5	56.8	1.4	0.0	52.8	62.7
Morocco	760	17.7	8.5	16.1	20.4	18.7	12.4	16.4	6.7	0.8	17.7	17.8
New Zealand	555	60.2	2.4	26.2	5.0	2.0	3.5	59.0	1.7	0.2	59.4	60.9
Norway (9)	908	60.5	2.3	13.3	16.9	1.1	4.6	58.3	1.9	1.7	61.1	59.9
Oman	712	32.4	5.1	20.9	23.3	11.4	5.3	31.6	1.6	0.9	37.9	27.6
Palestinian Nat'l Auth.	567	29.0	3.7	15.1	25.7	17.0	7.7	28.3	2.0	0.4	32.9	25.2
Portugal	774	67.2	1.0	22.3	5.2	1.0	3.3	66.9	0.5	0.0	67.0	67.5
Qatar	618	50.3	2.0	19.6	15.6	5.4	6.4	49.5	1.0	0.7	52.6	48.3
Romania	547	70.0	0.1	15.8	9.3	1.0	2.4	66.8	2.2	2.3	74.5	65.9
Saudi Arabia	505	28.4	1.4	23.4	28.7	8.2	8.9	28.1	0.9	0.3	31.7	25.3
Singapore	948	85.8	0.3	10.3	1.9	0.4	1.2	85.3	0.3	0.2	85.0	86.4
Sweden	724	54.7	1.6	16.1	17.6	0.1	8.7	53.2	2.4	0.3	50.0	59.0
Turkiye	701	83.9	0.5	6.1	5.8	2.7	0.8	83.5	0.4	0.0	84.6	83.1
United Arab Emirates	4045	57.3	2.3	19.9	10.2	3.7	5.8	56.1	1.6	0.4	55.7	58.8
United States	1168	60.4	0.8	30.0	2.9	1.8	2.6	58.2	2.1	1.5	58.9	62.0
Uzbekistan	632	50.0	2.1	6.9	6.0	25.1	4.8	44.8	9.4	0.9	49.7	50.2
International Avg. (40)	36755	59.9	1.7	17.7	9.8	5.2	4.7	58.6	1.9	0.5	59.8	60.1
Abu Dhabi, UAE	1036	49.1	4.9	20.1	9.3	5.4	9.4	47.5	3.1	0.3	47.2	51.0
Dubai, UAE	1178	67.5	1.2	18.6	6.1	2.3	3.9	66.7	0.9	0.3	65.0	69.8
Sharjah, UAE	942	57.7	1.7	19.9	11.6	3.0	5.2	56.6	1.3	0.6	58.9	56.6

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Knowing

B_SD1_02D SE72403D: Classifying animals into groups - reptiles - MC - Key: E

COUNTRY	N	DIFF %	A %	B %	C %	D %	E %	F %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1207	86.6	0.5	1.4	9.5	0.3	85.1	1.5	0.9	0.9	84.0	89.0
Austria	685	76.3	0.3	3.9	15.5	2.2	75.8	1.6	0.6	0.0	76.2	76.3
Azerbaijan	897	91.9	0.7	2.0	2.1	1.6	87.8	1.4	4.1	0.4	93.7	90.2
Bahrain	745	76.5	1.6	2.9	13.4	2.5	75.5	2.8	1.0	0.4	81.5	71.9
Brazil	3299	59.6	3.3	8.6	19.7	4.1	57.2	3.1	2.6	1.4	57.8	61.4
Chile	648	80.7	1.2	4.4	11.6	0.6	78.7	1.1	1.7	0.7	81.3	80.1
Chinese Taipei	1102	82.3	1.6	0.4	15.0	0.4	82.2	0.1	0.0	0.1	83.5	81.3
Cyprus	610	65.8	2.4	17.5	10.2	1.2	65.1	2.6	0.7	0.3	69.8	61.9
Czech Republic	1172	95.9	0.3	0.1	3.0	0.5	95.5	0.1	0.1	0.3	96.7	95.2
England	601	81.6	1.2	2.6	11.7	0.6	78.6	1.7	2.3	1.3	80.3	83.1
Finland	858	77.4	1.1	2.0	17.2	0.3	76.7	1.8	0.5	0.3	77.8	77.0
France	651	89.2	0.3	5.1	4.2	0.6	88.9	0.6	0.3	0.0	91.7	86.8
Georgia	708	87.6	1.4	1.5	6.9	0.8	85.7	1.5	2.2	0.0	89.2	86.1
Hong Kong SAR	645	75.3	1.0	2.6	19.4	0.6	74.0	0.9	1.1	0.7	75.1	75.5
Hungary	798	79.0	0.9	1.1	16.9	0.7	78.7	1.3	0.3	0.0	76.7	81.1
Ireland	727	81.3	0.2	1.8	13.3	1.3	80.3	1.9	0.9	0.3	78.2	83.9
Israel	760	92.2	1.7	1.4	2.3	1.3	91.4	1.0	0.3	0.5	92.4	91.9
Italy	670	76.5	0.6	7.3	13.1	0.5	76.0	1.7	0.5	0.2	75.7	77.2
Japan	774	75.8	2.4	4.2	16.5	0.3	75.3	0.8	0.4	0.2	73.4	78.0
Jordan	601	81.1	0.6	2.8	7.4	5.3	78.3	2.3	3.0	0.3	83.8	78.4
Kazakhstan	926	76.7	1.1	5.3	11.2	3.3	75.9	2.1	1.0	0.1	74.9	78.5
Korea, Rep. of	849	53.5	3.4	1.9	40.3	0.4	53.1	0.2	0.6	0.1	56.9	50.2
Lithuania	790	47.4	0.5	1.2	48.5	0.4	47.2	1.7	0.5	0.0	48.4	46.4
Malaysia	1275	45.6	4.6	16.6	21.3	5.4	45.3	6.1	0.5	0.2	44.8	46.5
Malta	593	79.5	1.2	3.4	12.0	2.0	78.4	1.6	1.3	0.0	77.5	81.6
Morocco	760	40.9	9.2	8.5	12.4	10.1	38.3	15.1	5.6	0.8	42.4	39.3
New Zealand	555	78.1	0.9	4.3	11.9	2.1	76.9	2.3	1.4	0.2	74.4	81.7
Norway (9)	908	78.3	1.6	5.2	9.8	0.6	75.9	3.8	1.2	1.7	81.7	75.0
Oman	712	80.6	2.3	4.4	5.2	2.4	78.8	4.7	1.3	0.9	86.0	75.9
Palestinian Nat'l Auth.	567	76.3	4.1	2.5	10.7	3.7	74.8	2.1	1.7	0.4	81.6	71.1
Portugal	774	79.5	1.0	1.6	16.2	0.2	79.1	1.4	0.5	0.0	77.8	81.1
Qatar	618	77.5	1.4	3.4	13.7	1.2	76.1	2.4	1.1	0.7	75.4	79.4
Romania	547	87.1	0.6	2.0	7.0	2.1	83.7	0.7	1.6	2.3	92.3	82.4
Saudi Arabia	505	75.8	1.6	2.9	11.3	3.1	75.3	5.2	0.3	0.3	80.0	72.0
Singapore	948	86.4	0.4	0.6	11.1	0.7	86.1	0.7	0.2	0.2	85.2	87.5
Sweden	724	70.9	1.6	8.1	13.1	1.0	69.3	4.7	2.0	0.3	73.3	68.8
Turkiye	701	96.1	0.0	0.5	2.2	0.9	96.0	0.2	0.1	0.0	96.9	95.3
United Arab Emirates	4045	74.3	1.8	3.9	13.3	2.2	73.3	4.1	1.0	0.4	75.0	73.7
United States	1168	77.9	0.4	3.1	15.1	1.5	76.3	1.5	0.6	1.5	79.5	76.4
Uzbekistan	632	89.4	0.6	2.6	3.2	1.8	80.1	1.2	9.5	0.9	90.6	88.3
International Avg. (40)	36755	77.1	1.5	3.9	13.0	1.8	75.7	2.3	1.4	0.5	77.8	76.4
Abu Dhabi, UAE	1036	57.9	4.4	8.2	16.2	4.5	56.5	7.7	2.2	0.3	59.5	56.4
Dubai, UAE	1178	82.7	0.5	1.8	11.9	1.1	82.2	1.9	0.2	0.3	81.6	83.6
Sharjah, UAE	942	78.3	0.7	3.1	12.2	1.2	76.7	3.9	1.5	0.6	80.8	75.9

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Biology / Knowing

B_SD1_03 SE72021: Origin of new cells as organisms grow - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1207	54.4	19.4	53.2	20.3	4.8	1.2	1.0	54.2	54.6
Austria	685	46.8	10.6	46.4	33.6	8.6	0.9	0.0	41.6	51.4
Azerbaijan	897	45.8	23.3	43.9	21.1	7.5	3.6	0.6	48.1	43.7
Bahrain	745	51.2	23.2	50.7	14.9	10.3	0.4	0.4	55.0	47.7
Brazil	3299	44.9	22.5	43.7	20.8	10.3	1.0	1.6	44.4	45.4
Chile	648	45.5	24.4	43.6	19.6	8.3	3.3	0.7	49.1	41.6
Chinese Taipei	1102	82.6	6.5	82.5	8.1	2.7	0.0	0.1	84.2	81.3
Cyprus	610	45.9	19.7	45.5	22.7	11.2	0.5	0.3	50.0	42.0
Czech Republic	1172	58.6	19.8	57.9	15.6	5.4	0.9	0.3	61.6	55.8
England	601	63.8	15.7	62.0	13.8	5.7	1.0	1.8	64.5	62.9
Finland	858	58.2	16.4	57.2	17.2	7.5	1.4	0.3	64.6	52.5
France	651	52.3	22.1	51.8	16.5	8.7	0.8	0.0	55.7	49.0
Georgia	708	40.6	27.6	40.0	24.5	6.5	1.3	0.1	37.3	43.9
Hong Kong SAR	645	67.2	10.9	66.5	15.9	5.7	0.4	0.7	63.5	70.7
Hungary	798	65.1	6.1	65.1	21.4	7.4	0.0	0.0	65.3	64.8
Ireland	727	52.1	19.2	51.8	20.4	8.0	0.4	0.3	47.1	56.4
Israel	760	47.4	20.2	46.7	22.8	8.9	0.8	0.6	43.6	51.0
Italy	670	61.0	16.2	60.5	17.0	5.4	0.7	0.2	59.7	62.1
Japan	774	58.6	19.2	58.3	17.2	4.9	0.2	0.2	57.5	59.5
Jordan	601	52.2	21.9	51.7	13.4	12.0	0.5	0.3	56.5	48.3
Kazakhstan	926	41.1	24.7	40.3	21.9	11.2	1.7	0.3	40.0	42.1
Korea, Rep. of	849	59.3	15.6	59.0	16.7	8.3	0.2	0.1	55.6	62.8
Lithuania	790	56.6	17.8	56.5	17.0	8.4	0.3	0.0	55.7	57.6
Malaysia	1275	30.7	25.4	30.5	29.9	13.8	0.2	0.2	27.2	34.4
Malta	593	47.2	19.0	46.8	26.3	7.0	1.0	0.0	49.8	44.6
Morocco	760	32.5	19.5	31.9	28.5	18.3	1.0	0.8	35.0	29.5
New Zealand	555	43.3	23.9	42.5	20.4	11.2	1.7	0.2	43.1	43.6
Norway (9)	908	52.7	20.7	50.9	17.3	7.6	1.7	1.8	52.2	53.2
Oman	712	50.3	23.0	49.6	16.7	9.3	0.5	1.0	56.1	45.3
Palestinian Nat'l Auth.	567	56.2	17.2	56.0	16.5	9.9	0.0	0.4	62.7	49.9
Portugal	774	44.1	21.2	44.0	28.2	6.4	0.3	0.0	43.5	44.6
Qatar	618	43.4	25.8	42.8	19.0	11.1	0.3	1.0	43.8	43.0
Romania	547	53.7	21.2	52.0	15.9	7.8	0.9	2.3	60.5	47.6
Saudi Arabia	505	45.6	29.0	45.3	15.1	9.9	0.4	0.3	50.5	41.2
Singapore	948	75.2	10.0	75.0	11.2	3.5	0.1	0.2	74.7	75.7
Sweden	725	59.3	17.9	57.8	11.6	10.3	2.1	0.4	62.2	56.6
Turkiye	701	63.0	13.6	62.2	13.8	9.0	1.4	0.0	65.0	61.1
United Arab Emirates	4045	56.4	17.8	55.8	15.1	10.3	0.6	0.5	55.8	56.9
United States	1168	57.7	18.5	56.7	16.8	6.3	0.0	1.7	59.2	56.3
Uzbekistan	632	39.8	23.0	38.8	22.7	13.0	1.3	1.2	36.3	43.2
International Avg. (40)	36756	52.6	19.2	51.8	18.9	8.6	0.9	0.6	53.3	51.8
Abu Dhabi, UAE	1036	45.2	16.4	44.7	19.3	18.4	0.7	0.5	43.4	46.9
Dubai, UAE	1178	65.7	15.2	65.0	13.1	5.7	0.7	0.4	66.1	65.3
Sharjah, UAE	942	59.5	17.9	58.7	13.1	8.9	0.4	0.9	59.7	59.4

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Biology / Applying

B_SD1_04 SE72082: How fewer vehicles affects air quality - CR - 1 Point

COUNTRY	N	DIFF %	10 %	79 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1207	30.7	29.6	67.0	29.6	67.0	2.3	1.0	28.8	32.3
Austria	685	47.0	46.7	52.8	46.7	52.8	0.5	0.0	44.1	49.5
Azerbaijan	897	24.9	23.1	69.9	23.1	69.9	6.1	0.9	28.6	21.5
Bahrain	745	24.8	24.2	73.7	24.2	73.7	1.5	0.6	26.5	23.1
Brazil	3299	33.9	32.3	62.9	32.3	62.9	3.0	1.8	34.2	33.7
Chile	648	43.5	41.1	53.3	41.1	53.3	4.5	1.0	45.0	42.0
Chinese Taipei	1102	42.4	42.4	57.5	42.4	57.5	0.0	0.1	46.7	38.5
Cyprus	610	44.0	43.3	55.1	43.3	55.1	1.2	0.3	51.9	36.6
Czech Republic	1172	44.8	44.3	54.6	44.3	54.6	0.7	0.4	42.3	47.1
England	601	54.9	53.2	43.6	53.2	43.6	1.4	1.8	53.3	56.7
Finland	858	49.4	48.8	49.9	48.8	49.9	0.9	0.5	52.2	47.0
France	651	49.5	49.3	50.3	49.3	50.3	0.4	0.0	50.1	49.0
Georgia	708	29.5	28.5	68.1	28.5	68.1	3.0	0.5	29.2	29.8
Hong Kong SAR	645	46.5	45.3	52.1	45.3	52.1	2.0	0.7	51.0	42.4
Hungary	798	54.0	54.0	45.9	54.0	45.9	0.1	0.0	55.7	52.5
Ireland	727	41.2	40.7	58.1	40.7	58.1	0.9	0.3	44.2	38.6
Israel	760	51.5	50.5	47.5	50.5	47.5	1.3	0.8	51.8	51.3
Italy	670	41.9	41.3	57.4	41.3	57.4	1.1	0.2	39.8	43.6
Japan	774	62.8	62.3	36.9	62.3	36.9	0.6	0.2	63.5	62.2
Jordan	601	41.9	41.5	57.5	41.5	57.5	0.7	0.3	48.5	35.8
Kazakhstan	926	46.8	45.8	52.1	45.8	52.1	1.6	0.5	48.4	45.3
Korea, Rep. of	849	59.9	59.7	39.9	59.7	39.9	0.3	0.2	61.7	58.3
Lithuania	790	63.0	63.0	37.0	63.0	37.0	0.0	0.0	64.2	61.7
Malaysia	1275	27.4	27.2	72.0	27.2	72.0	0.4	0.4	30.1	24.5
Malta	593	50.3	49.8	49.2	49.8	49.2	1.0	0.0	50.4	50.2
Morocco	760	5.9	5.7	91.1	5.7	91.1	1.9	1.3	6.8	4.8
New Zealand	555	24.9	24.4	73.9	24.4	73.9	1.5	0.2	27.4	22.4
Norway (9)	908	46.7	44.9	51.2	44.9	51.2	1.9	1.9	47.6	45.9
Oman	712	39.0	38.4	60.0	38.4	60.0	0.6	1.0	46.9	32.1
Palestinian Nat'l Auth.	567	16.4	16.2	82.4	16.2	82.4	0.9	0.4	22.0	11.0
Portugal	774	71.1	71.0	28.9	71.0	28.9	0.2	0.0	73.0	69.2
Qatar	618	52.8	51.5	46.1	51.5	46.1	1.4	1.0	54.9	50.9
Romania	547	51.2	49.3	47.0	49.3	47.0	1.4	2.4	55.5	47.4
Saudi Arabia	505	20.3	20.1	78.9	20.1	78.9	0.5	0.5	23.3	17.6
Singapore	948	44.0	43.8	55.9	43.8	55.9	0.1	0.2	42.4	45.4
Sweden	0	.	.	.	.	.	.	.	.	.
Turkiye	701	78.5	78.1	21.4	78.1	21.4	0.5	0.0	80.5	76.5
United Arab Emirates	4043	21.5	21.2	77.1	21.2	77.1	1.1	0.7	22.7	20.4
United States	1168	58.2	56.7	40.7	56.7	40.7	0.9	1.7	60.8	55.8
Uzbekistan	632	13.0	12.7	84.7	12.7	84.7	1.2	1.4	13.9	12.2
International Avg. (39)	36029	42.3	41.6	56.5	41.6	56.5	1.3	0.7	44.1	40.6
Abu Dhabi, UAE	1034	16.1	15.8	82.3	15.8	82.3	1.1	0.7	18.3	14.0
Dubai, UAE	1178	26.4	26.1	72.8	26.1	72.8	0.5	0.6	28.1	24.8
Sharjah, UAE	942	23.3	22.8	75.0	22.8	75.0	1.4	0.9	22.7	23.9

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Applying

B_SD1_05 SE72066: Identify predators in diagram - MC - Key: C

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1207	50.0	21.7	13.3	48.9	13.9	1.1	1.2	44.6	54.6
Austria	685	42.3	22.7	22.9	42.0	11.8	0.7	0.0	40.8	43.6
Azerbaijan	897	28.3	41.8	21.2	27.5	6.7	1.9	1.0	24.4	31.9
Bahrain	745	42.4	23.9	19.7	42.0	13.4	0.2	0.9	39.3	45.3
Brazil	3299	34.7	29.6	23.2	33.7	10.6	0.9	2.0	32.6	36.9
Chile	648	42.6	24.9	23.8	42.0	7.8	0.5	1.0	40.5	44.9
Chinese Taipei	1102	69.6	7.2	20.5	69.5	2.7	0.0	0.1	70.6	68.7
Cyprus	610	45.1	23.2	24.2	44.6	6.9	0.7	0.3	47.0	43.2
Czech Republic	1172	55.7	14.2	22.6	55.3	7.2	0.3	0.4	56.4	55.1
England	601	48.8	25.3	15.6	47.6	9.0	0.7	1.8	48.0	49.8
Finland	858	47.5	25.6	18.9	46.8	7.2	0.9	0.5	47.2	47.8
France	651	51.6	21.3	19.0	51.4	7.9	0.4	0.0	49.6	53.5
Georgia	708	29.5	28.2	31.6	29.2	9.8	0.5	0.7	31.3	27.8
Hong Kong SAR	645	56.6	15.2	23.5	56.1	4.3	0.3	0.7	52.5	60.5
Hungary	798	48.1	23.1	21.2	48.0	7.5	0.2	0.0	46.8	49.4
Ireland	727	46.2	28.7	11.5	46.0	13.2	0.3	0.3	42.2	49.6
Israel	760	55.0	23.9	14.6	54.2	5.8	0.5	0.9	50.9	59.0
Italy	670	52.1	26.9	14.1	51.8	6.7	0.3	0.2	46.4	56.8
Japan	774	69.5	7.2	19.2	69.2	4.0	0.1	0.2	65.8	72.8
Jordan	601	30.6	31.3	26.3	30.4	11.5	0.2	0.3	27.0	33.9
Kazakhstan	926	39.5	20.2	31.2	38.7	8.0	1.0	0.9	39.1	39.8
Korea, Rep. of	849	72.1	5.4	21.6	71.9	0.8	0.0	0.2	71.4	72.8
Lithuania	790	48.6	21.1	25.0	48.6	5.2	0.1	0.0	46.8	50.6
Malaysia	1275	39.9	29.7	20.1	39.4	9.6	0.4	0.7	34.9	45.4
Malta	593	40.3	29.9	17.1	40.0	12.3	0.7	0.0	39.6	41.0
Morocco	760	22.8	25.2	37.3	22.3	13.1	0.7	1.3	22.0	23.8
New Zealand	555	47.6	24.9	14.9	46.7	11.7	1.4	0.4	42.3	52.5
Norway (9)	908	36.7	31.4	12.2	35.3	17.3	1.7	2.0	36.9	36.5
Oman	712	40.0	26.3	23.6	39.2	9.1	0.6	1.2	45.4	35.3
Palestinian Nat'l Auth.	567	29.5	25.8	28.8	29.3	15.2	0.6	0.4	32.4	26.7
Portugal	774	58.9	19.9	16.3	58.6	4.6	0.5	0.0	57.8	60.0
Qatar	618	45.4	27.0	16.6	44.6	10.0	0.7	1.1	44.1	46.6
Romania	547	48.5	26.0	18.9	46.8	4.8	1.0	2.4	47.7	49.2
Saudi Arabia	505	35.0	34.5	18.6	34.7	11.2	0.4	0.5	33.5	36.4
Singapore	948	76.2	13.8	6.1	76.1	3.8	0.0	0.2	72.1	79.9
Sweden	725	44.5	23.2	16.2	43.0	14.2	2.7	0.6	43.5	45.4
Turkiye	701	64.4	13.1	18.0	64.4	4.5	0.0	0.0	64.4	64.4
United Arab Emirates	4045	49.6	23.4	17.0	49.0	9.3	0.5	0.7	48.4	50.8
United States	1168	53.7	22.6	13.8	52.4	8.8	0.4	1.9	52.4	54.9
Uzbekistan	632	31.3	30.8	30.3	30.4	5.8	1.0	1.7	29.5	32.9
International Avg. (40)	36756	46.8	23.5	20.3	46.2	8.7	0.6	0.7	45.2	48.2
Abu Dhabi, UAE	1036	40.6	26.4	21.4	39.9	10.6	1.0	0.7	38.2	42.8
Dubai, UAE	1178	62.2	18.7	10.2	61.8	8.5	0.1	0.7	63.0	61.5
Sharjah, UAE	942	45.8	24.1	20.5	45.0	8.7	0.8	0.9	44.0	47.5

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Knowing

B_SD1_06 SE72063: How carbon gets into wood - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1207	30.7	25.3	29.9	31.2	10.9	1.3	1.4	31.5	29.9
Austria	685	31.8	18.8	31.6	30.3	18.7	0.4	0.2	28.2	35.0
Azerbaijan	897	46.8	21.0	45.0	21.3	8.9	2.0	1.8	49.9	43.8
Bahrain	745	35.1	24.5	34.7	28.4	11.2	0.4	0.9	32.9	37.2
Brazil	3299	23.8	23.0	22.8	33.5	16.5	1.8	2.3	22.6	25.1
Chile	648	23.9	25.7	22.9	35.8	11.5	3.0	1.0	22.2	25.7
Chinese Taipei	1102	42.1	20.5	42.1	30.5	6.7	0.0	0.1	41.6	42.6
Cyprus	610	30.0	23.5	29.6	27.2	18.5	0.5	0.7	28.5	31.4
Czech Republic	1172	21.2	14.7	20.9	53.8	9.4	0.8	0.4	19.5	22.7
England	601	34.4	24.8	33.3	26.6	12.0	1.5	1.9	33.6	35.5
Finland	858	31.3	27.2	30.9	32.4	8.2	0.8	0.5	29.3	33.0
France	651	30.9	18.2	30.5	36.5	13.6	1.0	0.2	25.9	35.6
Georgia	708	32.2	27.8	31.5	24.3	14.3	1.4	0.7	29.8	34.5
Hong Kong SAR	645	26.6	25.9	26.3	39.8	6.9	0.5	0.7	25.6	27.6
Hungary	798	21.9	16.6	21.8	53.1	8.1	0.4	0.0	18.0	25.4
Ireland	727	39.4	19.5	39.1	29.1	11.5	0.3	0.5	35.8	42.5
Israel	760	38.9	28.1	38.1	23.8	7.8	1.1	1.0	36.9	40.8
Italy	670	21.1	21.4	21.0	44.6	12.3	0.5	0.2	20.5	21.6
Japan	774	34.8	33.7	34.6	26.9	4.2	0.3	0.3	36.9	32.9
Jordan	601	25.2	23.2	24.9	35.6	15.2	0.8	0.3	26.4	24.0
Kazakhstan	926	27.9	26.6	27.3	26.8	17.1	1.1	1.1	28.2	27.6
Korea, Rep. of	849	43.0	25.6	42.9	24.3	7.0	0.0	0.2	43.5	42.6
Lithuania	790	27.0	20.1	26.8	42.6	9.8	0.6	0.0	23.3	31.0
Malaysia	1275	28.2	28.8	27.8	25.2	17.0	0.2	1.1	27.6	28.8
Malta	593	29.0	18.3	28.8	36.0	16.3	0.7	0.0	28.8	29.2
Morocco	760	29.2	18.8	28.5	32.6	17.6	1.0	1.5	26.8	32.2
New Zealand	555	30.2	25.2	29.4	29.3	13.6	2.1	0.4	26.3	33.9
Norway (9)	908	36.2	27.4	35.0	23.7	10.5	1.0	2.4	37.6	34.9
Oman	712	36.4	29.4	35.9	23.0	10.2	0.3	1.2	37.9	35.1
Palestinian Nat'l Auth.	567	23.9	29.8	23.7	31.6	14.1	0.3	0.4	19.4	28.2
Portugal	774	36.8	20.1	36.5	33.7	8.9	0.8	0.0	33.4	40.0
Qatar	618	34.4	27.4	33.7	26.8	10.2	0.5	1.3	33.0	35.5
Romania	547	23.7	15.2	23.0	40.1	18.5	0.8	2.4	22.5	24.8
Saudi Arabia	505	22.2	37.7	21.9	27.2	12.2	0.2	0.9	23.2	21.2
Singapore	948	51.8	20.3	51.7	22.9	4.9	0.0	0.2	51.1	52.4
Sweden	725	34.5	20.5	33.6	36.6	6.7	1.5	1.1	31.7	36.9
Turkiye	701	33.7	14.5	33.4	38.0	13.1	1.1	0.0	32.6	34.9
United Arab Emirates	4045	39.4	23.7	38.9	25.4	10.6	0.6	0.9	39.9	39.0
United States	1168	34.9	20.7	34.0	30.4	12.3	0.3	2.3	34.3	35.5
Uzbekistan	0	.	.	.	.	.	.	.	.	.
International Avg. (39)	36124	31.9	23.4	31.4	31.8	11.7	0.8	0.8	30.7	33.1
Abu Dhabi, UAE	1036	33.1	19.8	32.5	27.2	18.6	0.8	1.0	34.0	32.2
Dubai, UAE	1178	46.6	21.5	46.1	25.3	6.1	0.4	0.7	47.2	46.0
Sharjah, UAE	942	41.2	25.6	40.4	23.0	9.0	0.6	1.3	41.5	40.9

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Chemistry / Knowing

B_SD1_07 SE72102: Subatomic particle not included in diagram - CR - 1 Point

COUNTRY	N	DIFF %	10 %	79 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1207	46.7	41.1	47.0	41.1	47.0	10.2	1.6	40.0	52.0
Austria	685	62.1	54.6	33.3	54.6	33.3	11.9	0.2	59.9	64.0
Azerbaijan	897	34.5	19.9	37.7	19.9	37.7	40.5	1.8	43.0	26.9
Bahrain	745	37.0	32.7	55.7	32.7	55.7	10.4	1.2	39.8	34.4
Brazil	3299	17.7	12.4	57.6	12.4	57.6	27.3	2.6	16.0	19.3
Chile	648	42.7	30.6	41.1	30.6	41.1	26.9	1.5	41.0	44.4
Chinese Taipei	1102	50.4	48.2	47.3	48.2	47.3	4.4	0.1	49.2	51.6
Cyprus	610	53.9	45.4	38.8	45.4	38.8	15.1	0.7	61.6	46.5
Czech Republic	1172	71.3	62.6	25.2	62.6	25.2	11.9	0.4	73.3	69.5
England	601	61.3	52.5	33.2	52.5	33.2	12.4	1.9	58.6	64.5
Finland	858	44.6	39.0	48.4	39.0	48.4	12.2	0.5	46.7	43.0
France	650	22.4	15.2	52.8	15.2	52.8	31.8	0.2	19.3	24.9
Georgia	708	67.6	50.2	24.1	50.2	24.1	24.8	0.8	74.8	60.9
Hong Kong SAR	644	16.8	14.1	70.1	14.1	70.1	14.9	0.8	12.1	21.0
Hungary	798	70.5	65.4	27.4	65.4	27.4	7.2	0.0	70.5	70.4
Ireland	727	57.6	51.2	37.7	51.2	37.7	10.6	0.5	59.2	56.3
Israel	760	51.3	41.6	39.5	41.6	39.5	17.8	1.1	53.3	49.6
Italy	670	66.0	53.2	27.4	53.2	27.4	19.2	0.2	74.4	59.7
Japan	774	14.9	12.1	68.8	12.1	68.8	18.8	0.3	11.1	18.3
Jordan	601	32.8	30.5	62.5	30.5	62.5	6.7	0.3	43.2	22.6
Kazakhstan	926	40.7	30.6	44.6	30.6	44.6	23.4	1.5	43.2	38.6
Korea, Rep. of	849	22.9	20.1	67.7	20.1	67.7	12.0	0.2	21.2	24.5
Lithuania	790	59.2	51.7	35.6	51.7	35.6	12.7	0.0	59.3	59.2
Malaysia	1275	17.7	17.0	79.1	17.0	79.1	2.7	1.3	17.1	18.2
Malta	593	28.9	23.9	58.9	23.9	58.9	17.2	0.0	24.9	33.4
Morocco	760	3.1	2.2	67.8	2.2	67.8	28.5	1.5	3.5	2.7
New Zealand	554	44.9	38.7	47.5	38.7	47.5	13.0	0.7	41.8	47.5
Norway (9)	908	50.0	41.1	41.1	41.1	41.1	15.2	2.5	50.1	49.8
Oman	712	45.1	42.2	51.5	42.2	51.5	5.1	1.2	56.2	35.1
Palestinian Nat'l Auth.	567	33.1	29.9	60.3	29.9	60.3	9.2	0.6	44.7	21.5
Portugal	774	53.5	46.2	40.2	46.2	40.2	13.4	0.2	50.5	56.2
Qatar	618	50.7	45.6	44.3	45.6	44.3	8.4	1.6	58.3	43.9
Romania	547	44.0	36.7	46.8	36.7	46.8	13.9	2.5	47.7	40.6
Saudi Arabia	505	25.9	24.5	70.1	24.5	70.1	4.5	0.9	36.4	16.1
Singapore	948	60.6	59.6	38.8	59.6	38.8	1.4	0.2	55.2	65.3
Sweden	725	62.0	55.1	33.8	55.1	33.8	9.9	1.2	62.7	61.3
Turkiye	701	55.7	42.1	33.5	42.1	33.5	24.4	0.0	57.7	53.6
United Arab Emirates	4045	56.0	52.8	41.5	52.8	41.5	4.6	1.1	57.3	54.7
United States	1167	50.1	47.5	47.3	47.5	47.3	2.9	2.3	46.1	53.8
Uzbekistan	632	18.1	13.8	62.5	13.8	62.5	20.6	3.1	18.2	18.0
International Avg. (40)	36752	43.6	37.3	47.2	37.3	47.2	14.5	1.0	45.0	42.3
Abu Dhabi, UAE	1036	39.4	36.6	56.4	36.6	56.4	5.7	1.4	41.3	37.6
Dubai, UAE	1178	67.0	64.0	31.6	64.0	31.6	3.7	0.8	65.9	67.9
Sharjah, UAE	942	62.0	57.9	35.6	57.9	35.6	5.1	1.5	63.1	60.9

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Chemistry / Reasoning

B_SD1_08A SE72141A: Best measurement to answer George's question - CR - 1 Point

COUNTRY	N	DIFF %	10 %	79 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1207	35.1	31.0	57.4	31.0	57.4	10.0	1.7	36.2	34.1
Austria	685	34.2	26.5	51.0	26.5	51.0	22.2	0.3	36.4	32.4
Azerbaijan	897	17.7	5.7	26.7	5.7	26.7	64.8	2.8	19.5	15.9
Bahrain	745	26.3	21.4	59.9	21.4	59.9	17.5	1.2	33.4	19.6
Brazil	3299	9.8	6.5	59.7	6.5	59.7	30.0	3.8	9.0	10.5
Chile	648	15.7	9.0	48.2	9.0	48.2	40.6	2.2	15.5	16.0
Chinese Taipei	1102	35.6	32.3	58.3	32.3	58.3	9.0	0.4	36.7	34.7
Cyprus	610	22.2	15.2	53.4	15.2	53.4	30.6	0.7	24.9	19.2
Czech Republic	1171	34.4	24.2	46.2	24.2	46.2	29.2	0.4	32.2	36.3
England	601	44.2	36.9	46.6	36.9	46.6	14.4	2.0	41.6	47.2
Finland	858	46.6	39.7	45.6	39.7	45.6	14.0	0.7	53.4	40.8
France	651	22.9	17.4	58.7	17.4	58.7	23.6	0.3	24.2	21.5
Georgia	708	19.1	10.6	45.1	10.6	45.1	42.5	1.8	19.3	18.9
Hong Kong SAR	644	31.4	24.2	52.9	24.2	52.9	21.8	1.0	30.5	32.2
Hungary	798	45.3	35.6	42.9	35.6	42.9	21.3	0.2	46.2	44.5
Ireland	727	39.7	35.7	54.2	35.7	54.2	9.6	0.5	44.4	35.3
Israel	760	36.2	27.8	49.0	27.8	49.0	21.6	1.6	36.7	35.7
Italy	670	21.6	15.5	56.3	15.5	56.3	27.7	0.6	20.4	22.5
Japan	774	26.5	19.1	53.0	19.1	53.0	27.6	0.4	28.2	24.8
Jordan	601	11.6	9.0	68.9	9.0	68.9	21.7	0.4	10.3	12.7
Kazakhstan	926	12.7	7.7	52.8	7.7	52.8	36.7	2.8	12.1	13.2
Korea, Rep. of	849	24.7	21.1	64.5	21.1	64.5	14.2	0.2	26.3	23.1
Lithuania	790	39.0	29.3	45.9	29.3	45.9	24.8	0.0	41.0	36.7
Malaysia	1275	5.4	4.9	85.6	4.9	85.6	8.1	1.3	5.0	5.9
Malta	593	40.6	32.7	47.8	32.7	47.8	19.3	0.2	37.9	43.5
Morocco	760	3.5	1.6	42.5	1.6	42.5	53.5	2.4	4.5	2.3
New Zealand	554	39.2	32.7	50.7	32.7	50.7	15.6	0.9	32.1	45.8
Norway (9)	908	20.5	16.0	61.8	16.0	61.8	19.6	2.6	20.9	20.2
Oman	712	24.7	20.7	63.0	20.7	63.0	14.8	1.5	33.5	16.3
Palestinian Nat'l Auth.	567	6.1	5.0	76.4	5.0	76.4	17.9	0.8	7.7	4.6
Portugal	774	27.8	20.9	54.2	20.9	54.2	24.4	0.5	27.1	28.6
Qatar	618	19.4	15.9	66.0	15.9	66.0	16.2	1.9	21.3	17.6
Romania	547	25.0	16.3	48.8	16.3	48.8	31.8	3.1	28.7	21.7
Saudi Arabia	505	7.5	6.4	78.2	6.4	78.2	13.8	1.6	10.4	4.8
Singapore	948	51.3	49.6	47.0	49.6	47.0	3.1	0.3	51.7	51.0
Sweden	724	48.4	38.6	41.1	38.6	41.1	18.4	2.0	49.3	47.6
Turkiye	701	36.2	24.0	42.2	24.0	42.2	33.8	0.0	37.2	35.2
United Arab Emirates	4043	29.3	25.1	60.5	25.1	60.5	12.9	1.5	28.4	30.2
United States	1168	37.9	35.1	57.4	35.1	57.4	5.0	2.6	39.9	36.0
Uzbekistan	632	9.5	4.9	46.4	4.9	46.4	44.8	3.9	8.5	10.4
International Avg. (40)	36750	27.1	21.3	54.2	21.3	54.2	23.2	1.3	28.1	26.2
Abu Dhabi, UAE	1035	22.0	18.6	66.1	18.6	66.1	13.6	1.7	19.7	24.1
Dubai, UAE	1178	42.7	38.0	51.0	38.0	51.0	10.1	0.9	41.4	43.9
Sharjah, UAE	941	27.2	22.8	61.0	22.8	61.0	14.1	2.1	28.9	25.6

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Chemistry / Reasoning

B_SD1_08B SE72141B: Variables George should hold constant - CR - 2 Points

COUNTRY	N	DIFF %	20 %	10 %	79 %	2pt %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1207	61.4	40.9	23.0	21.5	40.9	23.0	21.5	12.5	2.1	63.6	59.5
Austria	685	27.0	7.3	16.1	33.3	7.3	16.1	33.3	42.4	0.9	20.8	31.0
Azerbaijan	897	13.4	2.3	3.5	24.2	2.3	3.5	24.2	66.8	3.2	16.4	11.0
Bahrain	745	20.8	11.1	10.1	56.6	11.1	10.1	56.6	21.0	1.2	25.3	16.4
Brazil	3299	31.0	9.5	15.7	31.0	9.5	15.7	31.0	39.4	4.3	32.6	29.7
Chile	648	15.3	2.8	9.1	36.0	2.8	9.1	36.0	49.3	2.8	13.9	16.7
Chinese Taipei	1102	41.6	24.0	29.1	39.5	24.0	29.1	39.5	7.0	0.4	43.6	39.7
Cyprus	610	56.5	31.4	21.0	21.7	31.4	21.0	21.7	25.2	0.7	61.9	50.7
Czech Republic	1172	34.1	9.3	15.4	25.1	9.3	15.4	25.1	49.7	0.4	34.2	34.0
England	601	58.8	38.3	17.0	24.3	38.3	17.0	24.3	18.2	2.2	58.5	59.1
Finland	858	27.1	11.2	18.1	45.4	11.2	18.1	45.4	24.4	0.9	29.2	25.5
France	651	22.4	6.3	14.2	39.2	6.3	14.2	39.2	40.0	0.4	22.4	22.3
Georgia	708	9.3	2.0	3.8	36.5	2.0	3.8	36.5	55.2	2.4	12.9	6.1
Hong Kong SAR	644	55.5	36.1	20.3	26.9	36.1	20.3	26.9	15.7	1.0	57.0	54.1
Hungary	798	12.4	3.9	8.0	51.7	3.9	8.0	51.7	36.3	0.2	11.2	13.4
Ireland	727	38.3	17.4	25.3	35.8	17.4	25.3	35.8	20.8	0.6	37.1	39.4
Israel	760	49.7	26.0	26.5	26.5	26.0	26.5	26.5	19.1	2.0	49.1	50.2
Italy	670	30.8	9.2	19.3	32.7	9.2	19.3	32.7	38.1	0.7	32.8	29.2
Japan	774	65.8	37.3	28.5	12.5	37.3	28.5	12.5	21.3	0.4	67.5	64.2
Jordan	601	12.9	3.1	13.8	61.1	3.1	13.8	61.1	20.4	1.4	14.8	11.0
Kazakhstan	926	10.3	2.4	6.4	45.9	2.4	6.4	45.9	41.7	3.5	10.8	9.9
Korea, Rep. of	849	63.5	35.8	41.2	11.8	35.8	41.2	11.8	10.9	0.2	66.6	60.4
Lithuania	790	31.5	12.5	13.2	34.9	12.5	13.2	34.9	39.4	0.0	31.7	31.3
Malaysia	1275	7.3	2.8	7.9	81.1	2.8	7.9	81.1	6.4	1.8	7.0	7.7
Malta	593	42.8	22.7	15.8	33.0	22.7	15.8	33.0	28.2	0.2	41.3	44.4
Morocco	760	3.1	0.4	1.9	40.3	0.4	1.9	40.3	54.0	3.5	4.4	1.5
New Zealand	554	50.2	31.2	15.0	30.8	31.2	15.0	30.8	21.5	1.4	48.9	51.4
Norway (9)	908	15.9	5.2	8.5	46.0	5.2	8.5	46.0	37.0	3.2	18.6	13.7
Oman	712	43.6	23.5	27.8	34.5	23.5	27.8	34.5	12.0	2.2	53.6	34.4
Palestinian Nat'l Auth.	567	7.6	1.4	8.7	66.6	1.4	8.7	66.6	22.2	1.0	10.6	4.0
Portugal	774	38.7	16.4	20.5	32.0	16.4	20.5	32.0	30.6	0.5	41.8	35.8
Qatar	618	21.0	8.4	17.2	55.5	8.4	17.2	55.5	16.3	2.6	19.7	22.2
Romania	547	21.3	4.2	13.7	34.0	4.2	13.7	34.0	45.0	3.1	23.9	19.0
Saudi Arabia	505	22.5	13.2	11.3	59.4	13.2	11.3	59.4	13.6	2.5	29.2	15.6
Singapore	948	78.5	68.0	17.4	12.4	68.0	17.4	12.4	1.9	0.3	78.3	78.6
Sweden	725	22.5	9.0	9.8	42.9	9.0	9.8	42.9	36.1	2.2	22.3	22.6
Turkiye	701	76.7	53.9	17.8	10.2	53.9	17.8	10.2	18.1	0.0	79.9	73.1
United Arab Emirates	4045	30.2	15.9	18.0	48.5	15.9	18.0	48.5	15.7	1.9	31.4	29.1
United States	1168	33.1	20.0	19.5	50.3	20.0	19.5	50.3	7.0	3.2	27.7	38.1
Uzbekistan	632	5.4	0.9	3.4	43.9	0.9	3.4	43.9	46.9	4.9	7.0	4.0
International Avg. (40)	36754	32.7	16.9	15.8	37.4	16.9	15.8	37.4	28.2	1.7	34.0	31.5
Abu Dhabi, UAE	1036	17.5	7.9	12.6	60.7	7.9	12.6	60.7	16.5	2.3	19.8	15.2
Dubai, UAE	1178	47.1	26.8	27.5	31.8	26.8	27.5	31.8	12.5	1.3	47.0	47.2
Sharjah, UAE	942	28.2	14.2	16.4	48.7	14.2	16.4	48.7	18.2	2.5	30.1	26.6

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Chemistry / Applying

B_SD1_09 SE72921: Combining Solution 2 and Solution 3 - CR - 1 Point

COUNTRY	N	DIFF %	10 %	79 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1207	4.0	3.7	89.1	3.7	89.1	5.1	2.1	3.6	4.4
Austria	685	9.5	9.2	87.3	9.2	87.3	2.5	0.9	9.5	9.6
Azerbaijan	897	2.6	2.1	78.6	2.1	78.6	16.0	3.3	2.8	2.4
Bahrain	745	13.1	12.6	84.2	12.6	84.2	1.9	1.3	15.3	10.9
Brazil	3299	1.6	1.4	87.7	1.4	87.7	5.3	5.6	1.9	1.3
Chile	648	1.7	1.3	77.9	1.3	77.9	17.7	3.0	2.4	0.9
Chinese Taipei	1102	46.1	45.7	53.5	45.7	53.5	0.3	0.4	49.5	43.0
Cyprus	610	6.3	6.0	89.5	6.0	89.5	3.7	0.7	8.2	4.6
Czech Republic	1172	5.1	5.0	92.0	5.0	92.0	2.4	0.6	6.0	4.4
England	601	19.1	17.9	75.9	17.9	75.9	4.1	2.2	16.5	21.8
Finland	858	24.3	23.5	73.4	23.5	73.4	2.2	0.9	30.0	19.2
France	651	1.9	1.8	92.9	1.8	92.9	4.8	0.5	1.3	2.5
Georgia	707	5.5	4.8	82.8	4.8	82.8	9.8	2.7	3.7	7.2
Hong Kong SAR	644	40.3	39.6	58.7	39.6	58.7	0.7	1.0	41.7	38.9
Hungary	798	18.5	18.4	80.7	18.4	80.7	0.8	0.2	18.0	19.1
Ireland	727	18.1	17.8	80.5	17.8	80.5	1.1	0.6	20.0	16.5
Israel	760	6.1	5.7	87.3	5.7	87.3	4.9	2.1	4.5	7.6
Italy	670	4.5	4.3	90.8	4.3	90.8	4.2	0.7	4.5	4.6
Japan	773	20.7	19.9	76.1	19.9	76.1	3.6	0.4	20.0	21.4
Jordan	601	13.3	12.9	83.7	12.9	83.7	1.3	2.1	17.2	9.7
Kazakhstan	926	5.7	5.1	84.9	5.1	84.9	6.4	3.7	7.9	3.7
Korea, Rep. of	849	9.3	9.0	87.8	9.0	87.8	2.9	0.2	11.1	7.5
Lithuania	790	2.9	2.9	95.4	2.9	95.4	1.7	0.0	2.8	3.0
Malaysia	1275	10.7	10.3	86.3	10.3	86.3	1.2	2.2	9.7	11.8
Malta	593	25.6	24.8	72.4	24.8	72.4	2.6	0.2	27.2	23.9
Morocco	760	0.2	0.2	93.7	0.2	93.7	2.4	3.8	0.0	0.5
New Zealand	553	8.6	7.9	83.6	7.9	83.6	6.7	1.8	6.6	10.5
Norway (9)	908	6.3	5.7	84.6	5.7	84.6	6.0	3.7	7.6	5.2
Oman	712	19.0	18.1	77.2	18.1	77.2	2.5	2.2	29.5	9.9
Palestinian Nat'l Auth.	567	6.2	6.0	90.3	6.0	90.3	1.9	1.8	12.0	0.7
Portugal	774	23.4	22.9	75.0	22.9	75.0	1.6	0.5	25.7	21.2
Qatar	618	10.8	10.4	86.2	10.4	86.2	0.8	2.6	11.9	9.8
Romania	547	4.3	4.1	90.8	4.1	90.8	1.9	3.1	4.3	4.4
Saudi Arabia	505	5.3	5.1	90.7	5.1	90.7	1.2	3.0	7.7	3.2
Singapore	947	52.6	52.3	47.1	52.3	47.1	0.3	0.3	54.7	50.8
Sweden	725	26.9	25.2	68.5	25.2	68.5	3.9	2.4	28.4	25.5
Turkiye	701	43.7	42.6	55.0	42.6	55.0	2.3	0.0	48.5	38.7
United Arab Emirates	4045	19.6	18.6	76.4	18.6	76.4	2.7	2.3	19.5	19.7
United States	1167	5.3	5.0	89.0	5.0	89.0	2.7	3.3	5.5	5.1
Uzbekistan	632	0.6	0.5	87.5	0.5	87.5	6.3	5.7	0.7	0.4
International Avg. (40)	36749	13.7	13.3	81.1	13.3	81.1	3.8	1.9	14.9	12.6
Abu Dhabi, UAE	1036	9.8	9.3	85.2	9.3	85.2	2.9	2.7	9.8	9.8
Dubai, UAE	1178	32.6	31.0	64.2	31.0	64.2	2.7	2.1	31.5	33.5
Sharjah, UAE	942	19.1	18.0	76.4	18.0	76.4	2.8	2.8	20.3	17.9

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Applying

B_SD1_10 SE72234: Energy transfer during temperature change - MC - Key: D

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1207	28.3	25.4	23.9	20.0	27.4	1.2	2.2	23.7	32.4
Austria	685	31.3	25.1	21.0	21.5	30.9	0.5	0.9	28.3	34.1
Azerbaijan	897	18.5	30.6	21.0	24.4	17.3	3.3	3.3	16.4	20.5
Bahrain	745	24.3	25.2	24.0	25.1	23.9	0.3	1.5	24.8	23.8
Brazil	3299	16.3	28.8	24.8	23.2	15.0	2.4	5.8	17.0	15.7
Chile	648	21.7	20.5	28.4	22.9	19.9	5.1	3.2	21.5	22.0
Chinese Taipei	1102	47.8	28.3	12.0	11.6	47.5	0.2	0.4	47.0	48.6
Cyprus	610	21.4	28.0	22.1	27.1	21.0	0.9	0.7	19.3	23.4
Czech Republic	1172	38.5	26.7	17.6	16.1	37.8	1.2	0.6	33.7	43.2
England	601	34.5	25.4	21.1	16.7	33.2	1.4	2.2	33.3	35.7
Finland	858	38.6	26.5	15.9	17.6	37.7	1.4	0.9	37.6	39.4
France	651	20.3	26.1	25.6	26.5	19.9	1.4	0.5	17.1	23.4
Georgia	708	19.0	37.9	18.8	19.9	18.0	2.6	2.7	17.4	20.7
Hong Kong SAR	645	36.0	22.9	24.3	15.7	35.4	0.6	1.0	31.5	40.3
Hungary	798	30.3	33.7	16.1	19.8	30.3	0.0	0.2	26.0	34.4
Ireland	727	33.4	21.0	23.8	21.4	33.1	0.1	0.6	34.9	32.1
Israel	760	25.2	28.4	21.9	21.1	24.0	2.3	2.3	20.8	29.1
Italy	670	24.9	22.7	24.1	26.8	24.5	1.2	0.7	24.9	25.0
Japan	774	35.7	21.5	12.7	29.0	35.1	1.2	0.4	38.2	33.4
Jordan	601	18.9	22.7	30.9	24.9	18.2	0.7	2.6	20.3	17.6
Kazakhstan	926	25.2	30.0	15.3	24.6	23.6	2.4	4.0	24.8	25.7
Korea, Rep. of	849	33.4	23.1	18.2	25.0	33.2	0.2	0.2	31.3	35.5
Lithuania	790	35.5	32.2	17.7	14.2	35.3	0.6	0.0	32.9	38.4
Malaysia	1275	24.8	21.8	25.6	25.0	24.0	0.7	2.8	25.4	24.3
Malta	593	26.1	25.3	23.5	23.8	25.6	1.6	0.2	23.8	28.4
Morocco	0	.	.	.	.	.	.	.	.	.
New Zealand	555	27.6	24.0	24.9	20.8	26.5	1.8	2.0	25.7	29.3
Norway (9)	908	29.9	25.1	22.6	18.6	28.3	1.6	3.7	28.7	31.1
Oman	712	16.5	28.1	25.4	26.5	15.8	1.1	3.1	19.2	14.1
Palestinian Nat'l Auth.	567	17.1	25.9	30.3	24.3	16.6	0.5	2.5	16.7	17.5
Portugal	774	28.6	27.4	20.1	22.8	28.1	0.9	0.7	26.1	30.9
Qatar	618	23.6	30.7	20.0	23.4	22.9	0.3	2.6	25.3	22.0
Romania	547	22.5	30.1	17.2	27.3	21.6	0.8	3.1	17.9	26.4
Saudi Arabia	505	17.3	30.6	27.2	21.3	16.5	1.1	3.2	19.7	15.2
Singapore	948	50.8	19.4	18.9	10.5	50.5	0.1	0.5	50.0	51.5
Sweden	725	36.6	23.4	19.2	17.6	34.7	2.5	2.6	34.6	38.4
Turkiye	701	40.5	27.7	14.9	16.4	40.1	0.9	0.0	39.5	41.4
United Arab Emirates	4045	26.6	27.6	24.2	18.8	25.6	1.1	2.8	25.0	28.1
United States	1168	32.6	19.4	28.8	16.2	31.2	0.7	3.7	32.8	32.4
Uzbekistan	632	14.9	35.8	17.2	25.2	13.6	1.7	6.5	15.3	14.5
International Avg. (39)	35996	28.1	26.5	21.6	21.4	27.3	1.2	2.0	26.9	29.2
Abu Dhabi, UAE	1036	18.6	24.5	30.3	22.9	17.7	1.1	3.5	17.6	19.5
Dubai, UAE	1178	34.7	27.7	22.9	12.3	33.5	1.2	2.5	29.8	39.1
Sharjah, UAE	942	27.2	28.9	20.8	20.0	26.1	1.1	3.2	27.2	27.3

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Reasoning

B_SD1_11 SE72251: Where Megan should stand - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1207	42.0	40.9	13.8	30.3	12.4	0.5	2.2	38.8	44.8
Austria	685	40.6	40.2	10.7	33.8	14.4	0.0	0.9	33.6	46.8
Azerbaijan	897	33.4	31.1	17.5	25.4	19.0	3.3	3.6	31.9	34.9
Bahrain	745	32.1	31.5	17.6	31.5	17.3	0.5	1.5	33.4	30.9
Brazil	3299	28.4	26.2	20.0	28.0	18.0	1.3	6.5	27.5	29.4
Chile	648	24.4	22.9	17.5	37.0	16.5	2.3	3.8	21.8	27.1
Chinese Taipei	1102	60.5	60.2	4.8	25.2	9.3	0.1	0.4	62.0	59.2
Cyprus	610	31.0	30.7	13.1	40.5	14.7	0.3	0.7	30.6	31.4
Czech Republic	1172	52.9	52.2	8.5	28.0	10.0	0.7	0.6	50.5	55.2
England	601	36.5	35.5	13.1	36.6	12.1	0.5	2.3	34.8	38.3
Finland	858	59.5	58.1	11.6	18.1	9.9	1.4	0.9	58.5	60.4
France	651	41.2	40.8	10.7	34.6	12.9	0.3	0.6	41.2	41.1
Georgia	708	38.8	36.9	17.7	28.1	12.4	1.2	3.7	36.5	41.1
Hong Kong SAR	645	45.7	44.7	10.4	31.5	11.3	1.0	1.2	41.9	49.3
Hungary	798	20.8	20.7	11.2	57.8	10.0	0.0	0.2	18.4	22.9
Ireland	727	33.4	32.7	10.7	38.5	16.2	1.3	0.6	26.2	39.6
Israel	760	33.3	32.0	13.6	34.3	16.2	0.8	3.2	28.6	37.6
Italy	670	34.1	33.5	12.0	38.4	14.3	0.9	0.8	35.3	33.1
Japan	774	62.3	61.5	5.6	22.2	9.5	0.3	0.8	64.9	59.8
Jordan	601	32.2	31.2	19.1	27.4	19.2	0.3	2.9	27.8	36.2
Kazakhstan	926	38.1	35.0	13.2	30.8	12.8	3.2	4.9	36.1	39.9
Korea, Rep. of	849	50.4	50.2	7.3	31.8	10.2	0.3	0.2	48.8	52.0
Lithuania	790	50.4	50.4	9.8	27.3	12.6	0.0	0.0	48.6	52.4
Malaysia	1275	31.8	30.6	16.8	34.1	14.7	0.4	3.4	31.1	32.5
Malta	593	33.4	33.1	14.0	36.2	15.9	0.5	0.3	30.9	35.9
Morocco	0	.	.	.	.	.	.	.	.	.
New Zealand	555	43.1	41.6	12.5	32.1	10.2	1.2	2.3	35.6	50.2
Norway (9)	908	29.9	28.4	13.6	41.7	11.4	1.0	3.8	25.6	33.8
Oman	712	28.3	27.1	21.2	26.3	21.2	0.7	3.6	26.4	30.0
Palestinian Nat'l Auth.	567	33.8	32.8	21.7	25.1	17.3	0.4	2.8	36.0	31.7
Portugal	774	32.4	32.1	11.3	42.3	13.2	0.5	0.7	29.4	35.4
Qatar	618	32.9	32.0	16.5	29.1	19.6	0.2	2.7	31.6	34.1
Romania	547	20.0	19.2	17.1	48.2	11.5	0.8	3.2	24.5	16.1
Saudi Arabia	505	31.3	30.0	24.3	27.4	14.0	0.6	3.7	35.4	27.7
Singapore	948	50.8	50.4	6.2	33.1	9.6	0.0	0.6	46.5	54.5
Sweden	725	52.6	50.1	10.9	21.6	12.6	1.4	3.4	49.2	55.7
Turkiye	701	47.7	47.4	7.5	30.4	14.2	0.5	0.0	46.4	49.1
United Arab Emirates	4045	36.2	34.6	15.7	31.4	14.0	1.2	3.1	33.9	38.4
United States	1168	39.3	37.7	15.5	30.0	12.7	0.3	3.9	38.8	39.7
Uzbekistan	632	35.0	32.0	16.0	25.6	17.8	1.0	7.5	36.1	33.9
International Avg. (39)	35996	38.5	37.4	13.6	32.1	13.9	0.8	2.3	36.8	40.1
Abu Dhabi, UAE	1036	31.1	29.6	19.6	28.6	17.4	1.1	3.8	28.3	33.7
Dubai, UAE	1178	42.4	40.6	9.8	34.9	10.5	1.6	2.6	41.0	43.6
Sharjah, UAE	942	37.0	35.2	16.7	30.0	13.3	1.4	3.4	34.5	39.4

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Physics / Knowing

B_SD1_12 SE72284: Force represented by arrow in picture - CR - 1 Point

COUNTRY	N	DIFF %	10 %	79 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1207	74.3	69.9	24.1	69.9	24.1	3.8	2.2	71.0	77.2
Austria	685	71.2	66.9	27.0	66.9	27.0	5.2	0.9	68.9	73.2
Azerbaijan	897	54.9	39.8	32.7	39.8	32.7	22.8	4.6	57.9	52.2
Bahrain	745	50.6	46.3	45.2	46.3	45.2	6.7	1.9	50.6	50.5
Brazil	3299	33.0	24.6	49.8	24.6	49.8	18.5	7.1	30.1	35.7
Chile	648	56.9	42.8	32.4	42.8	32.4	20.4	4.3	46.7	66.2
Chinese Taipei	1102	65.2	63.4	33.8	63.4	33.8	2.4	0.4	58.3	71.6
Cyprus	610	57.9	49.5	36.1	49.5	36.1	13.7	0.7	61.2	54.7
Czech Republic	1171	69.0	61.9	27.8	61.9	27.8	9.5	0.8	65.8	72.0
England	601	64.0	58.4	32.9	58.4	32.9	6.4	2.3	62.0	66.1
Finland	858	71.5	67.0	26.7	67.0	26.7	5.3	0.9	73.3	70.1
France	651	51.3	45.2	42.9	45.2	42.9	11.2	0.8	38.5	63.0
Georgia	708	51.9	43.1	39.9	43.1	39.9	12.8	4.2	49.5	54.1
Hong Kong SAR	645	55.6	51.8	41.3	51.8	41.3	5.4	1.6	53.8	57.4
Hungary	798	69.5	66.1	29.0	66.1	29.0	4.8	0.2	63.6	74.9
Ireland	727	70.2	65.7	27.9	65.7	27.9	4.7	1.8	68.5	71.6
Israel	760	62.5	54.7	32.9	54.7	32.9	9.0	3.4	60.0	64.7
Italy	670	61.3	52.8	33.4	52.8	33.4	12.7	1.1	51.7	68.5
Japan	774	74.9	70.9	23.7	70.9	23.7	4.5	0.9	73.7	76.0
Jordan	601	30.4	28.4	64.8	28.4	64.8	3.9	2.9	29.5	31.3
Kazakhstan	926	57.2	47.7	35.6	47.7	35.6	10.6	6.1	56.5	57.9
Korea, Rep. of	849	78.4	75.1	20.6	75.1	20.6	4.0	0.2	74.3	82.4
Lithuania	790	64.9	58.9	31.8	58.9	31.8	9.3	0.0	67.5	62.3
Malaysia	1275	21.3	20.0	73.9	20.0	73.9	2.5	3.6	16.8	26.2
Malta	593	48.9	45.4	47.5	45.4	47.5	6.8	0.3	40.9	57.1
Morocco	760	10.4	7.1	60.7	7.1	60.7	25.7	6.5	10.1	10.8
New Zealand	555	62.5	57.1	34.3	57.1	34.3	6.1	2.6	60.5	64.2
Norway (9)	908	56.1	49.4	38.7	49.4	38.7	7.9	4.0	53.0	59.0
Oman	712	39.4	36.4	55.9	36.4	55.9	3.9	3.8	41.4	37.6
Palestinian Nat'l Auth.	567	20.4	18.4	71.8	18.4	71.8	6.7	3.0	21.1	19.8
Portugal	774	59.1	49.8	34.5	49.8	34.5	14.6	1.1	53.0	64.4
Qatar	618	54.6	51.1	42.5	51.1	42.5	3.5	2.9	50.9	58.1
Romania	547	51.5	45.1	42.4	45.1	42.4	9.3	3.2	42.0	59.6
Saudi Arabia	505	33.1	31.2	63.2	31.2	63.2	1.7	3.9	34.5	31.8
Singapore	948	80.1	79.3	19.7	79.3	19.7	0.4	0.6	76.1	83.8
Sweden	725	65.6	58.4	30.7	58.4	30.7	6.8	4.1	59.1	71.6
Turkiye	701	59.4	53.9	36.9	53.9	36.9	9.0	0.2	54.8	64.1
United Arab Emirates	4045	62.2	57.5	35.0	57.5	35.0	4.0	3.5	62.2	62.1
United States	1168	68.1	64.3	30.1	64.3	30.1	1.6	4.0	58.3	77.2
Uzbekistan	632	39.2	31.4	48.7	31.4	48.7	11.7	8.2	35.9	42.1
International Avg. (40)	36755	55.7	50.2	39.0	50.2	39.0	8.2	2.6	52.6	58.6
Abu Dhabi, UAE	1036	46.5	42.4	48.8	42.4	48.8	4.8	4.1	45.7	47.3
Dubai, UAE	1178	73.7	68.4	24.4	68.4	24.4	4.0	3.2	71.3	75.8
Sharjah, UAE	942	65.6	60.7	31.8	60.7	31.8	3.3	4.2	69.2	62.2

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Earth Science / Applying

B_SD1_13 SE72345: Reduce, reuse, recycle (DERIVED) - CR - 2 Points

COUNTRY	N	DIFF %	20 %	10 %	79 %	2pt %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1207	51.4	28.5	42.0	25.9	28.5	42.0	25.9	1.4	2.2	53.4	49.6
Austria	685	50.5	26.5	46.5	25.5	26.5	46.5	25.5	0.6	0.9	54.7	46.7
Azerbaijan	897	16.0	2.7	22.6	62.3	2.7	22.6	62.3	7.3	5.1	18.2	13.9
Bahrain	745	36.3	17.1	35.8	43.5	17.1	35.8	43.5	1.3	2.3	40.4	32.5
Brazil	3299	26.7	7.3	32.3	48.2	7.3	32.3	48.2	3.9	8.3	30.3	23.1
Chile	648	30.9	11.1	34.2	46.1	11.1	34.2	46.1	3.9	4.6	33.0	28.7
Chinese Taipei	1102	37.3	16.6	41.1	41.8	16.6	41.1	41.8	0.1	0.4	39.4	35.4
Cyprus	610	28.0	10.2	33.6	52.6	10.2	33.6	52.6	2.0	1.6	32.9	23.3
Czech Republic	1172	52.5	28.7	44.7	23.9	28.7	44.7	23.9	1.9	0.9	52.7	52.2
England	601	48.6	25.3	43.6	27.9	25.3	43.6	27.9	0.5	2.6	49.9	47.2
Finland	858	45.0	21.1	45.2	30.9	21.1	45.2	30.9	1.7	1.0	47.5	42.7
France	651	48.3	26.8	39.9	30.0	26.8	39.9	30.0	2.2	1.2	51.3	45.3
Georgia	708	24.9	7.7	29.8	53.4	7.7	29.8	53.4	4.5	4.6	24.2	25.6
Hong Kong SAR	644	47.6	21.8	49.0	26.4	21.8	49.0	26.4	0.8	1.9	48.6	46.8
Hungary	798	46.7	27.1	38.5	33.5	27.1	38.5	33.5	0.6	0.3	48.3	45.3
Ireland	727	49.0	23.0	49.0	25.0	23.0	49.0	25.0	0.9	2.0	49.7	48.3
Israel	760	42.7	24.2	32.3	38.1	24.2	32.3	38.1	1.6	3.7	44.6	40.9
Italy	670	44.6	22.6	41.3	33.0	22.6	41.3	33.0	1.7	1.5	45.0	44.3
Japan	774	54.1	32.7	40.9	24.6	32.7	40.9	24.6	0.4	1.4	55.5	52.9
Jordan	601	28.8	11.5	31.9	51.9	11.5	31.9	51.9	1.7	3.0	34.1	23.9
Kazakhstan	926	30.4	12.7	29.5	48.2	12.7	29.5	48.2	2.9	6.8	30.4	30.4
Korea, Rep. of	849	74.8	59.8	28.9	10.6	59.8	28.9	10.6	0.5	0.2	75.6	74.0
Lithuania	790	44.9	20.2	48.6	30.2	20.2	48.6	30.2	1.1	0.0	48.4	41.1
Malaysia	1275	23.5	5.4	33.9	55.7	5.4	33.9	55.7	0.9	4.2	24.5	22.4
Malta	593	40.9	17.6	45.5	35.7	17.6	45.5	35.7	0.8	0.3	42.3	39.4
Morocco	760	6.2	0.6	9.8	78.5	0.6	9.8	78.5	3.6	7.4	6.9	5.3
New Zealand	555	49.9	26.7	41.9	26.8	26.7	41.9	26.8	1.9	2.7	50.3	49.6
Norway (9)	908	38.6	12.6	46.6	33.7	12.6	46.6	33.7	2.7	4.4	40.5	36.9
Oman	712	23.4	9.2	25.7	59.3	9.2	25.7	59.3	1.6	4.2	32.7	15.2
Palestinian Nat'l Auth.	567	17.7	4.3	25.1	65.8	4.3	25.1	65.8	1.3	3.5	23.4	12.3
Portugal	774	43.5	16.9	51.9	29.6	16.9	51.9	29.6	0.4	1.1	45.1	42.0
Qatar	618	39.2	18.4	38.6	39.3	18.4	38.6	39.3	0.7	3.0	43.2	35.4
Romania	547	32.5	12.9	35.5	45.9	12.9	35.5	45.9	2.4	3.3	34.2	31.0
Saudi Arabia	505	32.5	14.3	33.3	47.7	14.3	33.3	47.7	0.7	3.9	40.3	25.5
Singapore	948	56.1	31.0	49.3	18.9	31.0	49.3	18.9	0.2	0.6	54.8	57.3
Sweden	725	43.7	22.5	35.7	34.2	22.5	35.7	34.2	2.9	4.7	46.2	41.4
Turkiye	701	52.5	28.7	46.8	23.7	28.7	46.8	23.7	0.6	0.2	56.7	48.1
United Arab Emirates	4045	37.4	17.5	35.6	41.2	17.5	35.6	41.2	1.6	4.0	39.3	35.6
United States	1168	47.8	23.8	43.5	28.0	23.8	43.5	28.0	0.7	4.1	48.0	47.6
Uzbekistan	632	7.4	0.7	11.5	74.5	0.7	11.5	74.5	3.7	9.6	8.5	6.4
International Avg. (40)	36755	38.8	18.7	37.3	39.3	18.7	37.3	39.3	1.8	3.0	41.1	36.6
Abu Dhabi, UAE	1036	27.9	11.7	28.7	53.0	11.7	28.7	53.0	2.1	4.5	29.7	26.2
Dubai, UAE	1178	51.0	28.3	40.4	26.4	28.3	40.4	26.4	1.3	3.6	51.5	50.6
Sharjah, UAE	942	35.4	14.1	37.8	41.4	14.1	37.8	41.4	2.0	4.7	39.0	31.9

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Earth Science / Applying

B_SD1_13A SE72345A: Reduce, reuse, or recycle - items with little packaging - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	C %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1207	87.4	83.7	6.4	5.7	1.9	2.2	90.5	84.7
Austria	685	88.0	86.1	4.5	7.2	1.3	0.9	89.9	86.3
Azerbaijan	897	68.6	57.6	13.5	12.8	11.0	5.1	65.4	71.7
Bahrain	745	75.4	72.4	15.7	8.0	1.7	2.3	82.9	68.3
Brazil	3299	75.0	64.3	10.7	10.8	5.9	8.3	77.5	72.6
Chile	648	83.1	74.9	7.9	7.2	5.2	4.6	84.3	81.9
Chinese Taipei	1102	96.1	95.5	2.3	1.6	0.2	0.4	97.2	95.1
Cyprus	610	69.0	66.0	17.6	12.0	2.8	1.6	72.5	65.6
Czech Republic	1172	86.4	83.0	5.9	7.2	3.1	0.9	86.8	86.0
England	601	88.8	85.9	4.8	6.1	0.6	2.6	87.3	90.6
Finland	858	84.5	81.7	9.1	5.9	2.2	1.0	87.6	81.7
France	651	78.7	75.6	5.7	14.7	2.7	1.2	80.1	77.4
Georgia	708	65.6	58.8	15.6	15.2	5.8	4.6	62.8	68.5
Hong Kong SAR	644	90.7	88.2	4.3	4.8	0.8	1.9	90.0	91.4
Hungary	798	85.3	84.0	8.9	5.7	1.1	0.3	87.5	83.2
Ireland	727	89.6	86.2	3.5	6.5	1.8	2.0	92.2	87.3
Israel	760	81.6	76.0	10.5	6.6	3.1	3.7	84.1	79.3
Italy	670	83.5	80.2	8.0	7.8	2.4	1.5	84.3	82.8
Japan	774	80.4	78.7	15.3	3.8	0.8	1.4	83.7	77.6
Jordan	601	72.3	68.1	13.1	13.1	2.7	3.0	74.9	69.7
Kazakhstan	926	60.1	53.6	21.4	14.2	4.0	6.8	60.5	59.7
Korea, Rep. of	849	96.4	95.3	2.4	1.2	0.9	0.2	97.7	95.1
Lithuania	790	85.8	84.6	8.1	6.0	1.4	0.0	87.9	83.4
Malaysia	1275	60.6	57.4	19.0	18.2	1.2	4.2	61.7	59.5
Malta	593	84.2	82.3	7.7	7.8	1.9	0.3	84.7	83.6
Morocco	760	51.1	43.9	23.8	18.2	6.7	7.4	51.3	50.8
New Zealand	555	86.3	81.7	6.0	7.0	2.6	2.7	86.6	86.0
Norway (9)	908	84.0	76.7	8.1	6.5	4.2	4.4	85.8	82.1
Oman	712	66.5	61.9	18.6	12.6	2.7	4.2	73.5	60.3
Palestinian Nat'l Auth.	567	63.5	59.0	22.9	11.0	3.5	3.5	68.7	58.3
Portugal	774	88.7	86.7	3.9	7.1	1.1	1.1	90.5	86.9
Qatar	618	79.5	76.1	13.0	6.6	1.3	3.0	79.8	79.3
Romania	547	70.6	66.2	10.9	16.6	3.0	3.3	69.1	72.0
Saudi Arabia	505	84.1	79.5	9.3	5.7	1.6	3.9	89.3	79.5
Singapore	948	96.1	95.3	1.7	2.2	0.2	0.6	95.8	96.3
Sweden	725	82.0	75.0	7.6	8.8	3.9	4.7	82.8	81.3
Turkiye	701	80.9	79.5	13.6	5.2	1.5	0.2	81.5	80.3
United Arab Emirates	4045	78.6	73.3	12.2	7.7	2.7	4.0	80.5	76.8
United States	1168	86.7	82.1	6.2	6.4	1.2	4.1	83.9	89.4
Uzbekistan	632	49.6	40.5	18.1	23.0	8.7	9.6	50.2	49.1
International Avg. (40)	36755	79.1	74.9	10.5	8.9	2.8	3.0	80.6	77.8
Abu Dhabi, UAE	1036	71.5	65.9	15.4	10.8	3.4	4.5	73.4	69.7
Dubai, UAE	1178	85.6	80.5	8.1	5.5	2.3	3.6	86.8	84.5
Sharjah, UAE	942	78.7	73.0	13.2	6.6	2.5	4.7	80.5	76.9

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Earth Science / Applying

B_SD1_13B SE72345B: Reduce, reuse, or recycle - refilling plastic water bottles - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	C %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1207	85.6	3.9	82.1	9.9	1.9	2.2	90.3	81.5
Austria	685	84.0	3.3	82.3	12.4	1.1	0.9	89.3	79.3
Azerbaijan	897	54.9	8.6	46.6	29.6	10.0	5.1	56.8	53.2
Bahrain	745	63.7	8.4	60.7	26.2	2.4	2.3	64.7	62.8
Brazil	3299	74.8	7.2	64.2	14.4	5.9	8.3	76.6	73.0
Chile	648	71.9	8.7	64.0	16.4	6.3	4.6	76.6	66.8
Chinese Taipei	1102	93.4	2.0	92.6	4.6	0.4	0.4	95.3	91.6
Cyprus	610	73.6	12.2	69.9	12.9	3.5	1.6	81.2	65.9
Czech Republic	1172	82.8	4.4	80.3	12.2	2.2	0.9	84.9	80.9
England	601	86.8	3.3	83.4	9.4	1.3	2.6	84.3	89.7
Finland	858	87.1	5.3	83.7	7.1	2.9	1.0	88.9	85.4
France	651	81.3	4.5	78.2	13.5	2.6	1.2	82.9	79.8
Georgia	708	65.9	9.5	58.6	20.8	6.4	4.6	69.4	62.3
Hong Kong SAR	644	83.3	6.5	80.8	9.7	1.1	1.9	81.2	85.2
Hungary	798	82.3	4.0	81.2	13.4	1.1	0.3	82.9	81.8
Ireland	727	91.0	2.3	87.7	6.4	1.7	2.0	91.0	91.1
Israel	760	73.4	5.8	68.7	19.1	2.7	3.7	76.1	70.8
Italy	670	78.3	6.6	75.3	14.3	2.3	1.5	79.1	77.6
Japan	774	77.1	13.4	75.4	9.1	0.7	1.4	79.8	74.6
Jordan	601	57.9	9.2	54.2	30.3	3.3	3.0	62.0	54.0
Kazakhstan	926	63.8	8.1	57.2	24.4	3.6	6.8	62.9	64.6
Korea, Rep. of	849	87.6	2.9	86.8	9.5	0.6	0.2	89.2	85.9
Lithuania	790	78.1	4.8	76.9	16.8	1.6	0.0	79.9	76.2
Malaysia	1275	66.1	11.8	62.4	20.1	1.5	4.2	68.1	64.0
Malta	593	85.0	4.5	83.4	10.3	1.6	0.3	84.7	85.2
Morocco	760	45.4	23.7	38.3	22.3	8.3	7.4	46.6	44.1
New Zealand	555	84.8	5.0	79.7	9.3	3.2	2.7	84.5	85.1
Norway (9)	908	86.7	5.5	79.5	6.7	3.8	4.4	89.3	84.2
Oman	712	53.6	10.4	49.6	32.5	3.3	4.2	57.9	49.8
Palestinian Nat'l Auth.	567	53.1	13.9	48.2	28.8	5.6	3.5	58.6	47.5
Portugal	774	90.6	3.2	89.0	6.0	0.7	1.1	93.1	88.3
Qatar	618	69.1	7.4	66.2	22.1	1.3	3.0	72.4	66.1
Romania	547	71.0	6.3	66.0	20.7	3.7	3.3	72.9	69.3
Saudi Arabia	505	63.1	8.8	59.5	25.9	1.8	3.9	68.7	58.1
Singapore	948	93.5	1.6	92.5	4.9	0.4	0.6	94.1	92.9
Sweden	725	81.2	6.3	74.5	11.0	3.5	4.7	83.3	79.2
Turkiye	701	85.5	3.7	84.7	10.6	0.8	0.2	87.3	83.7
United Arab Emirates	4045	70.0	7.8	65.4	20.3	2.5	4.0	71.9	68.2
United States	1168	82.8	4.5	78.8	11.9	0.7	4.1	83.5	82.1
Uzbekistan	632	53.9	15.8	41.7	19.8	13.1	9.6	53.3	54.5
International Avg. (40)	36755	75.3	7.1	71.3	15.6	3.0	3.0	77.4	73.4
Abu Dhabi, UAE	1036	60.9	13.5	56.0	22.4	3.7	4.5	64.5	57.6
Dubai, UAE	1178	82.8	4.4	78.4	11.9	1.7	3.6	84.2	81.6
Sharjah, UAE	942	69.6	6.2	64.6	22.0	2.5	4.7	71.8	67.4

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Applying

B_SD1_13C SE72345C: Reduce, reuse, or recycle - recharging batteries - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	C %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1207	84.0	5.9	77.5	8.9	5.5	2.2	85.9	82.3
Austria	685	85.0	4.0	82.6	10.6	1.8	0.9	85.2	84.8
Azerbaijan	897	55.4	10.7	45.0	25.6	13.6	5.1	55.6	55.2
Bahrain	745	73.6	9.7	69.2	15.1	3.7	2.3	76.3	71.1
Brazil	3299	66.9	16.3	54.9	10.8	9.7	8.3	66.5	67.4
Chile	648	71.4	15.0	62.0	9.9	8.4	4.6	69.9	72.9
Chinese Taipei	1102	88.1	3.7	87.4	8.0	0.4	0.4	87.8	88.5
Cyprus	610	66.2	9.3	62.3	22.6	4.3	1.6	71.5	61.1
Czech Republic	1172	85.0	7.6	81.6	6.8	3.1	0.9	84.1	85.8
England	601	82.5	5.4	77.6	11.1	3.3	2.6	86.0	78.4
Finland	858	82.3	6.5	78.3	10.4	3.9	1.0	84.4	80.4
France	651	78.0	7.2	73.3	13.5	4.8	1.2	79.9	76.1
Georgia	708	66.6	13.1	56.7	15.4	10.3	4.6	62.9	70.3
Hong Kong SAR	644	82.1	8.0	79.3	9.3	1.4	1.9	82.5	81.7
Hungary	798	75.9	6.2	73.6	17.2	2.8	0.3	75.3	76.5
Ireland	727	81.9	6.9	75.9	9.9	5.4	2.0	81.3	82.4
Israel	760	73.1	10.7	67.7	14.2	3.7	3.7	76.0	70.3
Italy	670	73.3	10.9	69.0	14.3	4.4	1.5	70.6	75.6
Japan	774	68.3	25.6	66.5	5.2	1.2	1.4	68.4	68.2
Jordan	601	70.5	11.1	64.5	15.9	5.6	3.0	73.2	68.0
Kazakhstan	926	67.6	11.5	60.1	17.3	4.3	6.8	69.8	65.8
Korea, Rep. of	849	84.8	10.9	83.4	4.1	1.4	0.2	82.5	87.0
Lithuania	790	70.4	16.2	68.6	12.7	2.5	0.0	69.7	71.2
Malaysia	1275	69.2	16.2	64.3	12.5	2.8	4.2	68.5	69.9
Malta	593	83.1	7.6	78.8	8.4	4.8	0.3	83.1	83.0
Morocco	760	39.4	21.5	31.2	26.6	13.3	7.4	41.8	36.5
New Zealand	555	81.6	6.8	74.8	10.1	5.6	2.7	84.0	79.3
Norway (9)	908	73.9	15.3	67.4	8.5	4.4	4.4	72.0	75.8
Oman	712	65.5	11.5	58.4	19.2	6.7	4.2	71.6	60.0
Palestinian Nat'l Auth.	567	56.4	14.6	50.0	24.1	7.8	3.5	64.2	48.3
Portugal	774	83.5	6.0	81.3	10.0	1.6	1.1	84.8	82.3
Qatar	618	77.5	9.1	72.4	11.9	3.6	3.0	83.1	72.4
Romania	547	78.8	8.6	72.6	10.9	4.6	3.3	76.3	81.2
Saudi Arabia	505	70.8	11.5	66.3	15.9	2.4	3.9	74.3	67.5
Singapore	948	89.5	4.2	87.1	5.9	2.1	0.6	88.5	90.5
Sweden	725	80.3	5.7	72.2	12.1	5.3	4.7	80.3	80.3
Turkiye	701	82.5	5.5	81.1	11.7	1.6	0.2	82.6	82.4
United Arab Emirates	4045	73.5	10.0	67.3	14.2	4.4	4.0	72.7	74.2
United States	1168	83.2	8.4	78.2	7.4	1.9	4.1	81.1	85.2
Uzbekistan	632	52.6	13.8	36.9	19.4	20.2	9.6	53.5	51.7
International Avg. (40)	36755	74.4	10.2	68.9	12.9	5.0	3.0	75.2	73.5
Abu Dhabi, UAE	1036	63.3	15.8	57.2	17.3	5.2	4.5	60.4	66.1
Dubai, UAE	1178	83.1	6.0	76.9	9.6	3.9	3.6	81.1	84.9
Sharjah, UAE	942	73.2	9.2	66.5	15.2	4.4	4.7	73.7	72.7

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Applying

B_SD1_13D SE72345D: Reduce, reuse, or recycle - new cardboard from old boxes - MC - Key: C

COUNTRY	N	DIFF %	A %	B %	C %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1207	68.4	5.5	24.5	64.9	2.9	2.2	67.2	69.4
Austria	685	82.3	2.4	14.8	79.5	2.4	0.9	84.6	80.1
Azerbaijan	897	60.7	7.2	24.9	49.6	13.1	5.1	63.2	58.3
Bahrain	745	72.2	10.1	16.3	68.4	2.9	2.3	78.1	66.7
Brazil	3299	55.2	9.7	27.9	46.3	7.8	8.3	59.1	51.2
Chile	648	57.3	5.1	32.6	50.7	6.9	4.6	59.6	54.9
Chinese Taipei	1102	54.6	1.7	43.3	54.1	0.6	0.4	54.2	55.0
Cyprus	610	56.2	11.0	29.9	52.6	5.0	1.6	57.4	55.1
Czech Republic	1172	81.4	3.6	14.3	78.6	2.6	0.9	81.3	81.6
England	601	64.5	4.8	29.1	61.8	1.7	2.6	65.0	64.1
Finland	858	61.4	7.1	29.4	58.0	4.4	1.0	62.9	60.0
France	651	75.5	3.4	19.7	71.5	4.2	1.2	78.0	73.0
Georgia	708	58.8	10.5	24.5	49.9	10.5	4.6	58.7	58.8
Hong Kong SAR	644	78.3	5.3	15.7	75.7	1.3	1.9	79.1	77.5
Hungary	798	77.4	4.9	17.1	75.5	2.2	0.3	77.7	77.1
Ireland	727	64.2	3.8	30.4	61.4	2.3	2.0	62.5	65.7
Israel	760	72.8	7.4	17.8	67.3	3.8	3.7	77.2	68.6
Italy	670	75.9	6.0	16.6	71.1	4.8	1.5	76.9	75.0
Japan	774	89.1	3.7	7.0	87.3	0.6	1.4	91.9	86.6
Jordan	601	71.1	10.0	16.6	65.2	5.2	3.0	77.4	65.0
Kazakhstan	926	74.7	6.8	15.3	65.3	5.8	6.8	72.5	76.7
Korea, Rep. of	849	89.7	2.5	7.6	88.7	0.9	0.2	91.0	88.5
Lithuania	790	81.9	5.1	12.6	79.9	2.4	0.0	83.9	79.7
Malaysia	1275	70.5	11.1	16.3	65.6	2.8	4.2	72.2	68.7
Malta	593	56.4	6.6	35.9	54.8	2.5	0.3	56.1	56.7
Morocco	760	41.3	24.5	21.8	32.6	13.7	7.4	43.2	39.2
New Zealand	555	71.6	4.1	22.5	67.0	3.7	2.7	73.0	70.3
Norway (9)	908	53.6	6.4	35.9	48.8	4.5	4.4	51.1	56.0
Oman	712	65.2	12.0	19.4	58.7	5.8	4.2	77.8	53.7
Palestinian Nat'l Auth.	567	64.5	14.5	17.1	57.4	7.5	3.5	73.6	55.1
Portugal	774	64.8	3.7	30.7	63.2	1.3	1.1	66.1	63.5
Qatar	618	74.2	6.7	17.8	70.2	2.3	3.0	78.0	70.5
Romania	547	67.4	10.0	20.0	62.1	4.6	3.3	70.3	64.8
Saudi Arabia	505	68.4	12.4	16.8	63.3	3.5	3.9	77.8	59.7
Singapore	948	72.9	2.0	24.8	72.1	0.5	0.6	73.7	72.3
Sweden	725	64.3	5.3	27.3	58.8	3.9	4.7	63.7	64.8
Turkiye	701	83.9	3.9	12.0	82.3	1.7	0.2	85.0	82.7
United Arab Emirates	4045	70.7	8.5	18.6	65.5	3.4	4.0	74.2	67.5
United States	1168	63.8	5.8	28.4	60.2	1.6	4.1	62.7	64.8
Uzbekistan	632	57.4	8.9	22.0	41.6	18.0	9.6	59.6	55.1
International Avg. (40)	36755	68.4	7.1	21.9	63.7	4.4	3.0	70.4	66.4
Abu Dhabi, UAE	1036	61.0	15.1	20.6	55.8	4.0	4.5	64.2	58.0
Dubai, UAE	1178	78.8	4.1	15.7	73.8	2.7	3.6	80.1	77.7
Sharjah, UAE	942	70.7	6.4	20.7	65.3	2.9	4.7	75.9	65.5

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Applying

B_SD1_13E SE72345E: Reduce, reuse, or recycle - composting - MC - Key: C

COUNTRY	N	DIFF %	A %	B %	C %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1207	66.7	15.9	15.8	63.4	2.7	2.2	67.0	66.5
Austria	685	62.2	19.9	16.9	60.6	1.7	0.9	61.2	63.1
Azerbaijan	897	28.3	22.2	35.3	22.7	14.7	5.1	28.9	27.7
Bahrain	745	55.6	20.8	21.0	52.3	3.6	2.3	58.9	52.6
Brazil	3299	42.4	24.6	23.1	35.0	9.0	8.3	44.9	39.8
Chile	648	49.1	17.4	27.2	43.0	7.8	4.6	53.4	44.4
Chinese Taipei	1102	48.4	3.8	47.3	48.0	0.5	0.4	51.2	45.8
Cyprus	610	47.7	23.1	25.3	44.0	6.1	1.6	52.8	42.7
Czech Republic	1172	60.0	22.7	15.6	57.4	3.4	0.9	60.0	60.0
England	601	62.0	17.2	19.4	59.7	1.1	2.6	63.5	60.4
Finland	858	73.9	12.9	11.8	69.9	4.3	1.0	80.4	68.0
France	651	65.7	18.2	14.2	62.2	4.2	1.2	69.4	62.0
Georgia	708	50.5	22.9	18.6	42.4	11.5	4.6	53.2	47.8
Hong Kong SAR	644	59.2	14.4	25.2	57.5	1.0	1.9	60.5	58.0
Hungary	798	54.5	25.5	18.7	53.0	2.5	0.3	54.3	54.7
Ireland	727	69.1	14.4	15.2	66.0	2.5	2.0	69.4	68.9
Israel	760	60.3	12.7	24.1	55.9	3.7	3.7	62.4	58.4
Italy	670	58.0	21.0	18.6	54.7	4.1	1.5	57.3	58.6
Japan	774	66.4	14.9	18.0	65.0	0.7	1.4	64.0	68.6
Jordan	601	39.5	21.1	33.9	36.0	6.0	3.0	40.7	38.4
Kazakhstan	926	52.3	18.7	22.5	45.1	7.0	6.8	54.0	50.7
Korea, Rep. of	849	85.1	3.4	11.2	83.8	1.3	0.2	85.6	84.6
Lithuania	790	56.4	23.5	19.0	55.0	2.4	0.0	55.4	57.5
Malaysia	1275	27.7	40.4	26.5	25.6	3.3	4.2	26.6	28.8
Malta	593	61.7	21.4	15.6	59.8	2.8	0.3	62.1	61.3
Morocco	760	28.9	27.2	30.6	23.5	11.3	7.4	28.3	29.5
New Zealand	555	61.6	22.1	14.0	58.0	3.1	2.7	64.5	58.9
Norway (9)	908	69.5	18.5	9.1	62.7	5.3	4.4	73.1	65.8
Oman	712	45.3	18.6	30.6	40.8	5.8	4.2	55.3	36.7
Palestinian Nat'l Auth.	567	30.8	26.3	33.5	26.7	10.0	3.5	37.5	23.9
Portugal	774	60.6	17.2	21.3	59.1	1.4	1.1	60.4	60.7
Qatar	618	52.9	22.1	22.0	49.6	3.3	3.0	56.6	49.5
Romania	547	43.2	26.0	25.8	39.3	5.6	3.3	43.5	42.9
Saudi Arabia	505	48.0	24.2	23.7	44.2	3.9	3.9	54.2	42.5
Singapore	948	64.3	16.1	19.2	63.5	0.6	0.6	61.8	66.5
Sweden	725	66.6	16.8	13.4	60.3	4.7	4.7	66.7	66.5
Turkiye	701	77.7	9.0	12.9	76.1	1.8	0.2	82.6	72.5
United Arab Emirates	4045	47.1	24.6	23.8	43.1	4.5	4.0	46.4	47.9
United States	1168	63.5	21.4	13.0	59.9	1.7	4.1	61.8	65.2
Uzbekistan	632	25.3	27.2	25.1	17.7	20.4	9.6	22.7	27.9
International Avg. (40)	36755	54.7	19.7	21.5	51.1	4.8	3.0	56.3	53.2
Abu Dhabi, UAE	1036	39.0	28.1	26.6	35.0	5.8	4.5	41.0	37.2
Dubai, UAE	1178	61.5	18.7	17.2	57.2	3.3	3.6	61.7	61.3
Sharjah, UAE	942	43.9	25.1	26.0	39.9	4.3	4.7	41.7	46.0

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Applying

B_SD1_13F SE72345F: Reduce, reuse, or recycle - using solar energy panels - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	C %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1207	74.6	71.0	13.2	10.9	2.7	2.2	82.4	67.7
Austria	685	67.6	65.7	21.6	9.9	1.9	0.9	74.6	61.4
Azerbaijan	897	43.8	35.9	29.1	17.0	12.9	5.1	48.1	39.8
Bahrain	745	59.5	55.8	24.9	13.1	4.0	2.3	63.3	56.0
Brazil	3299	62.0	51.9	21.3	10.5	8.0	8.3	66.1	57.9
Chile	648	64.1	56.5	18.8	12.8	7.3	4.6	70.4	57.4
Chinese Taipei	1102	57.7	57.2	31.9	10.0	0.6	0.4	60.0	55.6
Cyprus	610	64.8	60.8	17.6	15.4	4.7	1.6	69.7	60.0
Czech Republic	1172	80.7	77.6	14.6	3.9	3.1	0.9	82.6	79.0
England	601	77.3	74.0	12.1	9.6	1.6	2.6	77.8	76.7
Finland	858	69.2	65.9	16.5	12.9	3.7	1.0	75.1	63.9
France	651	74.4	70.5	14.6	9.6	4.1	1.2	79.2	69.7
Georgia	708	49.5	41.5	26.5	15.9	11.5	4.6	52.6	46.4
Hong Kong SAR	644	52.4	50.7	28.2	17.9	1.3	1.9	54.1	50.8
Hungary	798	68.7	67.0	19.3	11.2	2.1	0.3	73.9	63.8
Ireland	727	77.0	74.0	14.3	7.9	1.9	2.0	82.8	71.9
Israel	760	65.4	60.8	18.1	14.0	3.3	3.7	66.0	64.8
Italy	670	72.8	69.7	16.2	9.8	2.8	1.5	78.5	68.0
Japan	774	73.5	71.6	21.0	4.8	1.2	1.4	74.9	72.2
Jordan	601	61.0	55.8	25.0	10.6	5.5	3.0	60.7	61.3
Kazakhstan	926	53.1	45.4	27.8	12.3	7.8	6.8	53.8	52.4
Korea, Rep. of	849	94.1	93.2	3.7	2.1	0.7	0.2	94.4	93.9
Lithuania	790	59.5	58.2	27.9	11.8	2.0	0.0	68.4	49.8
Malaysia	1275	41.7	38.9	36.0	18.3	2.7	4.2	44.6	38.7
Malta	593	72.9	71.4	15.4	11.1	1.8	0.3	74.5	71.3
Morocco	760	40.3	33.9	27.1	23.1	8.6	7.4	39.3	41.6
New Zealand	555	74.8	70.0	14.7	8.9	3.6	2.7	77.7	72.0
Norway (9)	908	76.0	69.1	11.7	10.1	4.7	4.4	82.7	69.5
Oman	712	42.4	38.4	36.3	16.0	5.0	4.2	45.8	39.3
Palestinian Nat'l Auth.	567	44.9	40.7	33.9	16.0	5.9	3.5	50.5	39.2
Portugal	774	70.2	68.5	19.1	9.9	1.3	1.1	73.6	66.9
Qatar	618	59.7	56.3	25.2	12.8	2.6	3.0	65.6	54.0
Romania	547	72.2	66.6	17.8	7.9	4.4	3.3	79.3	65.9
Saudi Arabia	505	62.9	57.6	19.8	14.2	4.4	3.9	68.1	58.1
Singapore	948	72.7	71.6	12.1	14.8	0.8	0.6	74.9	70.6
Sweden	725	63.4	57.7	19.8	13.4	4.4	4.7	68.3	58.8
Turkiye	701	53.7	52.8	24.6	20.9	1.5	0.2	58.7	48.6
United Arab Emirates	4045	60.5	55.5	21.6	14.7	4.1	4.0	65.4	55.8
United States	1168	74.8	70.7	15.3	8.5	1.5	4.1	78.1	71.7
Uzbekistan	632	27.1	19.9	37.0	16.5	17.0	9.6	30.2	24.1
International Avg. (40)	36755	63.3	59.3	21.3	12.3	4.2	3.0	67.2	59.7
Abu Dhabi, UAE	1036	54.6	49.7	24.5	16.7	4.6	4.5	60.3	49.3
Dubai, UAE	1178	68.4	63.8	16.5	13.0	3.0	3.6	72.0	65.2
Sharjah, UAE	942	60.3	54.5	22.8	13.0	5.0	4.7	69.1	51.8

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Applying

B_SD1_13G SE72345G: Reduce, reuse, or recycle - windows from glass bottles - MC - Key: C

COUNTRY	N	DIFF %	A %	B %	C %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1207	66.8	5.7	25.9	63.7	2.5	2.2	67.8	66.0
Austria	685	66.6	8.9	23.6	64.8	1.8	0.9	73.1	60.7
Azerbaijan	897	56.5	9.9	25.9	46.6	12.5	5.1	61.4	52.0
Bahrain	745	63.6	11.7	22.7	60.0	3.3	2.3	65.7	61.6
Brazil	3299	47.8	11.0	32.3	39.8	8.5	8.3	47.4	48.3
Chile	648	51.9	8.1	34.6	46.2	6.5	4.6	49.7	54.2
Chinese Taipei	1102	48.5	4.7	46.4	48.1	0.4	0.4	51.3	45.9
Cyprus	610	47.4	14.0	35.7	44.8	4.0	1.6	48.3	46.6
Czech Republic	1172	68.8	8.2	22.1	66.6	2.3	0.9	69.4	68.2
England	601	68.2	6.7	24.0	65.8	0.8	2.6	68.7	67.5
Finland	858	52.3	7.2	38.2	49.7	3.8	1.0	51.4	53.0
France	651	69.4	7.2	22.0	66.2	3.4	1.2	69.5	69.3
Georgia	708	55.5	12.3	26.0	47.7	9.5	4.6	52.0	59.0
Hong Kong SAR	644	74.5	8.0	16.7	72.1	1.3	1.9	74.3	74.7
Hungary	798	70.1	8.9	20.4	68.6	1.7	0.3	71.3	68.9
Ireland	727	65.0	4.8	28.7	62.3	2.2	2.0	62.1	67.7
Israel	760	62.1	11.9	23.2	57.6	3.5	3.7	62.4	61.7
Italy	670	68.3	10.4	19.9	65.3	2.9	1.5	70.6	66.4
Japan	774	90.5	4.2	5.0	87.8	1.6	1.4	90.3	90.7
Jordan	601	62.8	13.9	20.3	57.9	4.9	3.0	70.3	55.5
Kazakhstan	926	64.7	9.8	20.6	55.8	7.0	6.8	65.6	63.9
Korea, Rep. of	849	83.1	2.5	14.1	81.8	1.3	0.2	83.9	82.3
Lithuania	790	77.3	7.9	14.3	75.7	2.1	0.0	78.8	75.7
Malaysia	1275	65.7	16.4	15.7	61.3	2.4	4.2	66.2	65.2
Malta	593	53.3	6.9	38.4	51.8	2.5	0.3	53.2	53.5
Morocco	760	37.2	27.4	23.5	30.1	11.6	7.4	33.4	41.6
New Zealand	555	70.1	4.9	23.1	65.6	3.7	2.7	69.0	71.1
Norway (9)	908	40.9	7.9	45.7	37.1	4.8	4.4	40.5	41.3
Oman	712	56.9	15.2	24.0	51.8	4.9	4.2	63.5	51.1
Palestinian Nat'l Auth.	567	53.3	19.3	23.1	48.5	5.6	3.5	59.7	46.9
Portugal	774	50.0	4.8	44.1	48.8	1.2	1.1	48.7	51.2
Qatar	618	64.8	12.3	21.0	61.3	2.4	3.0	67.7	62.1
Romania	547	43.8	26.3	25.5	40.4	4.4	3.3	44.9	42.9
Saudi Arabia	505	52.7	23.2	20.5	48.6	3.8	3.9	57.1	48.8
Singapore	948	71.7	2.7	25.3	70.7	0.7	0.6	69.7	73.5
Sweden	725	55.3	9.1	31.7	50.4	4.2	4.7	53.4	57.0
Turkiye	701	79.5	6.2	14.0	78.4	1.3	0.2	84.5	74.4
United Arab Emirates	4045	68.0	9.9	19.6	62.6	3.9	4.0	72.5	63.7
United States	1168	63.8	7.0	27.3	60.3	1.4	4.1	65.2	62.3
Uzbekistan	632	53.2	12.0	23.5	40.4	14.5	9.6	51.1	55.2
International Avg. (40)	36755	61.6	10.2	25.2	57.6	4.0	3.0	62.6	60.5
Abu Dhabi, UAE	1036	62.0	14.5	19.7	55.8	5.5	4.5	66.7	57.6
Dubai, UAE	1178	74.3	6.0	18.0	69.4	3.0	3.6	76.5	72.3
Sharjah, UAE	942	70.5	8.1	18.8	64.4	3.9	4.7	76.4	64.7

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Reasoning

B_SD1_14 SE72349: Why an area floods more often after a forest is cleared - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1207	64.9	63.0	17.0	10.7	6.5	0.4	2.5	63.7	65.9
Austria	685	59.8	58.7	19.9	12.0	7.7	0.6	1.1	58.4	60.9
Azerbaijan	897	49.3	45.4	21.9	16.9	8.0	1.7	6.2	44.7	53.5
Bahrain	745	42.4	41.1	27.1	17.0	11.8	0.2	2.8	43.2	41.6
Brazil	3299	40.9	36.5	19.9	23.3	9.5	0.6	10.2	40.1	41.6
Chile	648	54.5	49.9	15.3	18.0	8.5	2.5	5.8	55.8	53.0
Chinese Taipei	1102	74.4	74.0	6.8	12.5	6.2	0.1	0.4	73.7	75.0
Cyprus	610	45.2	43.9	29.1	15.6	8.7	0.5	2.2	47.9	42.6
Czech Republic	1172	64.5	63.5	13.4	12.4	9.1	0.3	1.2	62.8	66.1
England	601	59.5	57.6	23.0	10.3	5.9	0.3	2.9	62.8	55.8
Finland	858	62.8	61.7	17.3	12.9	6.4	0.7	1.0	63.8	61.9
France	651	57.3	56.0	14.6	12.9	14.3	0.2	1.9	56.5	58.0
Georgia	708	46.8	43.5	28.8	14.3	6.3	0.3	6.7	46.4	47.3
Hong Kong SAR	645	68.2	65.7	12.6	13.3	4.6	1.3	2.4	64.7	71.6
Hungary	798	55.8	55.4	25.1	14.9	3.8	0.2	0.5	55.1	56.5
Ireland	727	60.9	59.1	20.5	9.6	7.8	0.4	2.6	59.3	62.3
Israel	760	58.8	55.4	17.3	14.2	7.4	0.8	4.8	59.3	58.3
Italy	670	49.6	48.7	22.3	18.4	8.7	0.1	1.7	49.4	49.8
Japan	774	85.8	83.7	6.2	5.2	2.5	0.3	2.1	88.2	83.7
Jordan	601	37.0	35.5	27.8	21.3	11.3	0.2	3.8	38.8	35.4
Kazakhstan	926	26.8	24.4	30.7	19.3	16.5	0.8	8.4	23.9	29.4
Korea, Rep. of	849	78.9	78.5	12.7	4.6	3.8	0.2	0.3	81.1	76.7
Lithuania	790	56.5	56.2	16.8	18.4	8.1	0.3	0.3	54.8	58.3
Malaysia	1275	38.4	36.2	33.3	16.5	8.2	0.4	5.4	37.0	40.0
Malta	593	50.2	49.4	26.8	14.2	7.8	1.0	0.7	47.9	52.6
Morocco	760	19.2	17.4	28.3	34.6	10.3	1.0	8.4	19.8	18.4
New Zealand	555	61.4	59.2	20.9	11.5	4.8	0.8	2.9	60.3	62.5
Norway (9)	908	62.6	58.8	12.8	15.0	7.4	0.9	5.0	66.0	59.3
Oman	712	46.8	43.5	23.1	16.3	10.1	1.4	5.7	52.5	41.9
Palestinian Nat'l Auth.	567	35.0	33.5	23.2	25.1	13.8	0.2	4.2	39.3	31.0
Portugal	774	61.7	60.3	12.3	15.2	9.8	0.8	1.6	63.9	59.7
Qatar	618	45.6	43.4	23.4	17.5	10.9	1.1	3.6	49.7	41.6
Romania	547	48.1	45.6	20.7	16.9	11.6	0.8	4.4	47.9	48.3
Saudi Arabia	505	36.3	34.6	27.9	20.3	12.6	0.0	4.6	40.6	32.5
Singapore	948	75.2	74.6	14.5	6.2	4.0	0.1	0.6	73.4	76.7
Sweden	725	65.5	60.7	18.3	7.4	6.3	1.9	5.5	64.1	66.8
Turkiye	701	76.1	75.5	8.8	7.5	7.4	0.5	0.4	77.8	74.4
United Arab Emirates	4045	51.7	48.3	20.1	15.2	9.7	1.1	5.7	49.7	53.7
United States	1168	63.1	59.8	18.0	10.4	6.6	0.8	4.5	59.5	66.6
Uzbekistan	632	45.8	39.9	21.7	14.0	11.5	1.3	11.6	42.9	48.4
International Avg. (40)	36756	54.6	52.5	20.0	14.8	8.4	0.7	3.7	54.7	54.5
Abu Dhabi, UAE	1036	39.4	36.8	22.6	21.6	12.5	0.9	5.7	36.6	42.0
Dubai, UAE	1178	65.2	60.9	16.5	9.1	6.9	1.2	5.4	62.2	67.8
Sharjah, UAE	942	52.9	48.9	20.7	14.7	8.1	0.9	6.8	52.6	53.3

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Knowing

B_SD1_15 SE72363: How the Sun produces light - MC - Key: C

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1207	61.0	7.5	7.7	58.9	22.4	1.0	2.5	59.1	62.7
Austria	685	68.0	7.8	6.9	67.2	17.0	0.1	1.1	69.6	66.5
Azerbaijan	897	41.1	20.5	19.1	37.8	14.6	0.9	7.1	39.7	42.3
Bahrain	745	50.1	12.4	13.4	48.5	22.5	0.3	2.9	54.2	46.4
Brazil	3299	52.4	17.2	9.7	46.4	15.2	0.8	10.6	55.3	49.4
Chile	648	59.5	14.0	7.1	54.3	15.8	1.8	7.0	56.1	63.1
Chinese Taipei	1102	64.3	7.7	13.5	63.9	14.3	0.2	0.4	60.5	67.7
Cyprus	610	60.9	15.6	10.4	58.9	11.9	0.8	2.5	63.6	58.4
Czech Republic	1172	82.9	4.2	4.7	81.4	7.8	0.4	1.4	86.5	79.5
England	601	58.9	7.9	12.0	56.8	19.6	0.5	3.1	58.5	59.4
Finland	858	72.6	7.2	6.5	71.8	13.3	0.2	1.0	75.5	70.1
France	651	61.6	11.2	7.0	59.8	19.1	1.0	1.9	62.2	61.0
Georgia	708	61.3	19.3	7.1	56.5	9.3	1.1	6.8	60.1	62.5
Hong Kong SAR	645	65.6	7.1	11.6	63.7	14.7	0.0	2.8	59.1	71.7
Hungary	798	60.9	7.0	10.3	60.1	21.3	0.6	0.6	67.1	55.2
Ireland	727	66.4	4.5	9.1	64.4	19.0	0.0	3.0	67.2	65.6
Israel	760	49.0	14.0	12.7	45.5	20.7	1.5	5.6	47.2	50.6
Italy	670	76.7	7.4	6.5	74.6	8.7	1.1	1.7	78.8	75.0
Japan	774	44.2	9.3	14.9	43.1	30.2	0.2	2.2	37.7	49.9
Jordan	601	47.4	17.7	18.5	45.3	14.1	0.4	4.0	52.9	42.3
Kazakhstan	926	62.5	9.5	12.6	55.8	11.4	1.6	9.1	63.1	62.0
Korea, Rep. of	849	41.1	31.2	15.4	40.8	12.0	0.2	0.4	36.1	45.9
Lithuania	790	71.5	6.7	9.0	71.2	12.6	0.2	0.3	72.6	70.4
Malaysia	1275	34.7	17.3	18.9	32.6	25.2	0.2	5.8	31.6	37.9
Malta	593	64.8	7.1	11.3	63.8	16.3	0.5	1.0	66.5	63.2
Morocco	760	39.4	18.3	18.4	35.6	18.0	0.8	8.8	39.1	39.8
New Zealand	555	54.9	9.3	10.0	53.2	24.4	0.2	2.9	51.1	58.4
Norway (9)	908	62.4	10.5	8.1	58.4	16.6	0.8	5.6	64.9	60.0
Oman	712	47.3	14.6	20.0	44.2	14.6	0.2	6.4	51.6	43.7
Palestinian Nat'l Auth.	567	45.1	12.3	26.1	42.9	13.7	0.7	4.2	49.6	40.9
Portugal	774	69.8	11.8	6.1	68.2	11.7	0.2	2.0	70.7	68.9
Qatar	618	56.0	11.8	15.1	53.1	14.8	0.7	4.6	56.4	55.7
Romania	547	62.0	11.4	8.6	59.0	16.2	0.4	4.4	64.4	60.0
Saudi Arabia	505	41.0	16.6	20.4	39.0	19.1	0.4	4.6	41.8	40.4
Singapore	948	72.9	3.6	12.9	72.3	10.4	0.1	0.7	68.8	76.5
Sweden	725	66.5	8.3	9.1	61.7	13.7	0.9	6.3	74.3	59.4
Turkiye	701	56.7	18.8	11.7	55.7	11.9	1.3	0.4	59.4	54.0
United Arab Emirates	4045	64.6	8.1	10.5	60.0	14.3	0.8	6.3	63.3	65.8
United States	1168	60.1	6.1	10.5	56.9	21.2	0.3	5.1	57.5	62.6
Uzbekistan	632	46.9	19.1	14.9	39.8	11.1	2.5	12.7	45.8	48.0
International Avg. (40)	36756	58.1	11.8	12.0	55.6	16.0	0.7	4.0	58.5	57.8
Abu Dhabi, UAE	1036	54.4	10.9	11.6	50.7	20.0	0.7	6.1	51.0	57.6
Dubai, UAE	1178	74.3	5.4	6.4	68.9	12.0	1.1	6.1	73.1	75.3
Sharjah, UAE	942	64.8	7.3	12.6	59.9	12.7	0.3	7.3	65.2	64.3

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Knowing

B_SD2_01 SE62099: Cell development in young animals - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1236	49.7	14.8	49.6	28.9	6.5	0.1	0.1	42.9	55.1
Austria	669	44.0	16.5	43.8	32.9	6.4	0.2	0.2	39.8	48.2
Azerbaijan	894	41.3	37.1	40.7	12.0	8.5	1.5	0.1	40.7	41.9
Bahrain	751	43.4	29.2	43.2	20.1	7.1	0.4	0.0	47.2	39.4
Brazil	3283	36.0	25.8	35.7	26.5	11.4	0.3	0.4	30.7	41.2
Chile	644	48.8	22.5	48.2	21.0	7.2	1.1	0.0	46.8	50.6
Chinese Taipei	1110	79.4	5.5	79.4	12.6	2.4	0.0	0.0	76.4	82.3
Cyprus	616	49.4	17.8	49.3	26.3	6.4	0.2	0.0	51.3	47.4
Czech Republic	1181	51.5	14.4	51.3	30.6	3.4	0.3	0.0	49.2	53.7
England	620	52.8	14.3	52.7	26.0	6.7	0.3	0.0	49.8	55.8
Finland	862	54.2	10.2	53.8	25.6	9.7	0.4	0.3	54.5	54.0
France	649	48.6	19.8	48.4	21.1	10.4	0.3	0.0	50.0	47.0
Georgia	712	33.9	27.1	33.6	29.4	9.0	0.6	0.2	33.3	34.4
Hong Kong SAR	651	65.8	11.9	65.5	18.7	3.5	0.4	0.0	60.6	69.9
Hungary	798	56.6	14.5	56.6	24.0	4.9	0.0	0.0	53.7	59.6
Ireland	733	39.7	16.7	39.3	33.8	9.2	1.0	0.0	33.5	45.1
Israel	755	45.7	27.8	45.2	18.4	7.7	0.7	0.3	42.5	48.8
Italy	672	57.5	9.5	57.5	28.3	4.6	0.0	0.0	52.1	63.3
Japan	770	59.7	12.7	59.7	21.8	5.7	0.1	0.0	53.6	65.6
Jordan	610	38.3	41.7	38.2	13.2	6.5	0.3	0.0	38.1	38.5
Kazakhstan	931	34.2	32.8	33.8	16.6	15.6	0.8	0.4	33.6	34.7
Korea, Rep. of	860	50.9	10.6	50.8	31.7	6.7	0.1	0.0	45.3	56.0
Lithuania	785	48.1	11.0	48.1	34.1	6.8	0.0	0.0	44.6	51.7
Malaysia	1255	36.6	24.5	36.5	23.2	15.7	0.0	0.1	35.7	37.4
Malta	580	33.4	22.7	33.3	35.1	8.6	0.2	0.2	29.5	37.1
Morocco	749	27.5	30.7	27.3	25.3	15.9	0.3	0.5	25.7	29.2
New Zealand	569	42.6	20.7	42.5	28.4	8.2	0.0	0.2	40.8	44.2
Norway (9)	903	55.2	8.7	55.0	25.0	11.0	0.3	0.1	54.2	56.0
Oman	716	44.8	33.4	44.5	14.7	6.7	0.6	0.1	48.4	41.3
Palestinian Nat'l Auth.	567	48.4	31.7	48.3	10.9	8.9	0.0	0.1	51.6	45.6
Portugal	796	47.7	16.4	47.5	28.3	7.4	0.4	0.0	47.2	48.1
Qatar	632	38.3	30.1	38.1	23.5	7.7	0.6	0.0	37.7	39.0
Romania	541	44.1	18.3	43.9	30.7	6.8	0.4	0.0	42.1	45.9
Saudi Arabia	515	39.6	33.6	39.6	22.0	4.6	0.1	0.0	40.4	38.9
Singapore	964	75.7	9.1	75.6	13.5	1.6	0.1	0.1	74.8	76.5
Sweden	744	57.0	8.6	56.9	26.2	8.1	0.1	0.1	53.4	60.5
Turkiye	703	69.1	7.7	68.8	15.1	7.9	0.5	0.0	68.7	69.6
United Arab Emirates	4040	52.5	18.6	52.2	22.2	6.4	0.4	0.2	48.7	56.1
United States	1159	53.4	18.0	53.3	21.2	7.3	0.1	0.1	52.5	54.2
Uzbekistan	628	31.1	33.0	30.9	16.8	18.6	0.7	0.0	29.4	33.0
International Avg. (40)	36853	48.2	20.3	48.0	23.4	7.9	0.3	0.1	46.3	49.9
Abu Dhabi, UAE	1032	43.1	18.8	42.9	27.9	10.0	0.2	0.2	33.6	52.2
Dubai, UAE	1181	65.1	11.8	64.7	19.4	3.5	0.3	0.2	62.8	67.2
Sharjah, UAE	933	53.3	21.6	53.0	19.7	5.3	0.4	0.2	52.1	54.4

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Knowing

B_SD2_02 SE62095: Fill in organ names - CR - 2 Points

COUNTRY	N	DIFF %	20 %	10 %	79 %	2pt %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1236	24.5	14.8	17.8	64.1	14.8	17.8	64.1	3.3	0.1	23.5	25.4
Austria	668	35.2	18.6	32.3	47.8	18.6	32.3	47.8	1.3	0.1	36.1	34.3
Azerbaijan	894	18.1	4.7	24.4	64.3	4.7	24.4	64.3	6.4	0.3	18.5	17.6
Bahrain	751	28.8	17.0	22.4	58.4	17.0	22.4	58.4	2.2	0.0	34.4	22.9
Brazil	3282	11.6	4.9	10.3	71.4	4.9	10.3	71.4	12.9	0.4	9.3	13.8
Chile	644	25.5	12.2	21.2	56.1	12.2	21.2	56.1	10.5	0.0	25.5	25.4
Chinese Taipei	1110	54.4	39.4	29.4	30.7	39.4	29.4	30.7	0.5	0.0	53.1	55.5
Cyprus	616	47.4	30.6	31.1	35.7	30.6	31.1	35.7	2.6	0.0	47.3	47.4
Czech Republic	1181	34.8	20.2	28.6	50.4	20.2	28.6	50.4	0.9	0.0	32.8	36.6
England	620	41.1	27.6	23.9	44.6	27.6	23.9	44.6	3.8	0.0	42.2	40.1
Finland	862	22.8	7.2	30.3	60.6	7.2	30.3	60.6	1.7	0.3	23.8	21.9
France	649	14.5	6.9	14.4	76.2	6.9	14.4	76.2	2.5	0.0	13.5	15.5
Georgia	712	43.8	23.3	37.6	35.2	23.3	37.6	35.2	3.7	0.2	45.9	41.9
Hong Kong SAR	650	28.3	16.7	19.7	57.4	16.7	19.7	57.4	6.2	0.0	26.7	29.6
Hungary	798	38.3	21.8	32.4	44.9	21.8	32.4	44.9	0.9	0.0	37.3	39.4
Ireland	733	35.8	22.6	24.8	50.5	22.6	24.8	50.5	2.2	0.0	32.9	38.2
Israel	754	8.6	2.0	12.2	79.7	2.0	12.2	79.7	5.8	0.3	8.0	9.2
Italy	672	13.5	3.8	18.5	74.6	3.8	18.5	74.6	3.1	0.0	12.0	15.1
Japan	770	74.3	62.0	23.9	13.6	62.0	23.9	13.6	0.5	0.0	72.9	75.7
Jordan	610	19.6	10.5	17.5	70.3	10.5	17.5	70.3	1.7	0.0	23.0	16.4
Kazakhstan	931	10.7	4.1	12.4	80.0	4.1	12.4	80.0	3.1	0.4	10.3	11.0
Korea, Rep. of	860	57.1	42.1	27.9	28.2	42.1	27.9	28.2	1.8	0.0	57.3	56.9
Lithuania	785	27.7	12.4	29.8	56.3	12.4	29.8	56.3	1.5	0.0	29.7	25.6
Malaysia	1255	35.1	22.2	25.1	51.6	22.2	25.1	51.6	1.0	0.1	38.9	31.1
Malta	580	33.8	19.3	27.7	51.0	19.3	27.7	51.0	1.8	0.2	36.0	31.7
Morocco	749	11.2	4.0	7.6	58.3	4.0	7.6	58.3	29.5	0.5	13.7	8.8
New Zealand	569	21.8	14.0	13.9	68.3	14.0	13.9	68.3	3.6	0.2	16.8	26.2
Norway (9)	903	15.3	4.1	21.1	70.5	4.1	21.1	70.5	4.2	0.1	17.2	13.8
Oman	716	38.2	21.8	32.2	45.1	21.8	32.2	45.1	0.8	0.1	43.2	33.4
Palestinian Nat'l Auth.	567	13.8	5.4	15.9	75.6	5.4	15.9	75.6	3.0	0.1	15.6	12.1
Portugal	796	27.8	14.1	26.1	57.2	14.1	26.1	57.2	2.6	0.0	26.2	29.4
Qatar	632	54.2	42.3	22.6	34.0	42.3	22.6	34.0	0.8	0.3	58.2	49.9
Romania	541	25.9	15.3	19.4	61.7	15.3	19.4	61.7	3.6	0.0	27.8	24.1
Saudi Arabia	515	17.1	9.1	15.5	73.9	9.1	15.5	73.9	1.5	0.0	21.0	13.4
Singapore	964	91.1	85.5	10.9	3.4	85.5	10.9	3.4	0.1	0.1	90.4	91.8
Sweden	744	27.3	13.6	26.9	58.7	13.6	26.9	58.7	0.7	0.1	25.3	29.3
Turkiye	703	48.1	30.8	33.1	34.5	30.8	33.1	34.5	1.6	0.0	49.6	46.5
United Arab Emirates	4040	46.2	33.0	23.5	40.3	33.0	23.5	40.3	2.9	0.2	47.0	45.5
United States	1159	13.0	5.2	14.8	77.3	5.2	14.8	77.3	2.5	0.1	12.0	13.9
Uzbekistan	628	12.4	2.4	19.2	75.4	2.4	19.2	75.4	2.7	0.2	12.9	11.9
International Avg. (40)	36849	31.2	19.2	22.5	54.7	19.2	22.5	54.7	3.5	0.1	31.7	30.7
Abu Dhabi, UAE	1032	29.4	19.9	16.1	59.2	19.9	16.1	59.2	4.6	0.2	27.6	31.2
Dubai, UAE	1181	54.9	40.8	25.3	31.2	40.8	25.3	31.2	2.4	0.2	54.6	55.3
Sharjah, UAE	934	52.0	37.6	26.6	33.7	37.6	26.6	33.7	2.0	0.2	54.7	49.4

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Knowing

B_SD2_03 SE62106: Characteristics of young rabbits - MC - Key: D

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1236	70.3	14.8	9.7	5.1	69.9	0.5	0.1	76.3	65.3
Austria	669	74.2	10.4	8.5	6.9	74.0	0.1	0.2	78.4	70.0
Azerbaijan	894	50.9	22.1	15.2	10.7	49.8	1.8	0.4	55.3	46.8
Bahrain	751	61.9	17.8	12.0	8.1	61.7	0.4	0.0	70.0	53.4
Brazil	3283	54.3	23.3	13.0	8.6	53.4	0.7	1.0	57.5	51.1
Chile	644	69.0	12.5	10.7	7.4	68.0	1.3	0.1	71.8	66.5
Chinese Taipei	1110	69.0	19.2	5.0	6.8	69.0	0.0	0.0	76.2	62.4
Cyprus	616	68.7	12.1	13.3	5.7	68.4	0.5	0.0	72.9	64.4
Czech Republic	1181	83.7	8.1	4.6	3.5	83.6	0.1	0.0	88.5	79.2
England	620	72.9	11.6	9.7	5.6	72.4	0.7	0.0	78.0	67.9
Finland	862	67.6	18.0	9.0	5.0	67.0	0.7	0.3	71.4	64.6
France	649	71.2	17.0	7.0	4.8	71.0	0.2	0.0	73.1	69.2
Georgia	712	63.5	19.7	10.1	6.5	63.3	0.1	0.3	64.7	62.5
Hong Kong SAR	651	65.1	17.7	8.4	8.7	65.0	0.2	0.0	69.8	61.4
Hungary	798	75.7	11.3	6.8	6.2	75.7	0.0	0.0	80.7	70.2
Ireland	733	75.5	11.0	8.6	4.9	75.2	0.4	0.0	78.0	73.4
Israel	755	72.7	10.7	8.9	7.5	72.1	0.4	0.4	75.4	70.1
Italy	672	67.7	18.2	5.2	8.8	67.6	0.2	0.0	72.4	62.7
Japan	770	77.3	9.1	9.8	3.8	77.3	0.0	0.0	81.7	73.1
Jordan	610	55.0	25.5	11.0	8.2	54.9	0.3	0.0	60.6	49.9
Kazakhstan	931	68.4	12.3	10.5	8.5	67.6	0.6	0.4	72.4	64.9
Korea, Rep. of	860	80.1	10.1	3.8	5.9	79.8	0.3	0.0	83.4	77.0
Lithuania	785	85.5	6.9	2.7	4.9	85.5	0.1	0.0	91.2	79.6
Malaysia	1255	49.3	31.5	11.8	7.4	49.2	0.0	0.1	53.4	45.0
Malta	580	60.7	17.9	11.2	10.0	60.4	0.4	0.2	65.7	56.0
Morocco	749	36.4	17.5	25.6	19.8	35.9	0.7	0.5	39.1	33.7
New Zealand	569	70.8	14.2	8.0	6.9	70.6	0.2	0.2	75.1	67.0
Norway (9)	903	65.6	15.3	11.4	7.5	65.2	0.5	0.1	73.1	59.6
Oman	716	57.8	24.7	11.1	6.3	57.6	0.2	0.1	65.0	50.7
Palestinian Nat'l Auth.	567	54.4	20.8	15.0	9.7	54.1	0.3	0.1	61.8	47.7
Portugal	796	69.6	11.8	9.8	8.6	69.3	0.5	0.0	70.1	69.1
Qatar	632	64.8	19.3	10.7	5.1	64.5	0.1	0.3	72.2	57.1
Romania	541	69.8	16.4	7.8	5.8	69.6	0.1	0.1	75.0	64.8
Saudi Arabia	515	54.1	26.5	11.5	8.0	54.1	0.0	0.0	54.8	53.4
Singapore	964	82.2	10.8	5.1	1.8	82.2	0.0	0.1	85.1	79.6
Sweden	744	70.6	14.1	7.8	7.3	69.9	0.8	0.1	74.3	66.8
Turkiye	703	85.4	8.1	2.9	3.6	85.1	0.4	0.0	90.3	79.8
United Arab Emirates	4041	63.0	19.7	9.8	7.2	62.5	0.4	0.3	66.0	60.1
United States	1159	61.1	21.5	8.8	8.4	60.8	0.3	0.2	65.9	56.6
Uzbekistan	628	54.2	23.9	13.9	7.8	54.0	0.3	0.2	60.4	47.6
International Avg. (40)	36854	66.8	16.3	9.6	7.1	66.4	0.4	0.1	71.2	62.5
Abu Dhabi, UAE	1032	51.2	21.4	16.4	10.7	50.9	0.3	0.2	51.1	51.3
Dubai, UAE	1181	75.0	15.0	5.2	4.6	74.4	0.5	0.3	78.2	71.9
Sharjah, UAE	934	66.0	19.4	8.4	5.9	65.4	0.6	0.3	69.9	62.1

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Reasoning

B_SD2_04 SE62064: Bones of a bird are hollow - CR - 1 Point

COUNTRY	N	DIFF %	10 %	79 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1236	79.3	75.8	19.8	75.8	19.8	4.3	0.1	79.7	78.8
Austria	668	82.8	79.2	16.5	79.2	16.5	4.2	0.1	81.0	84.6
Azerbaijan	894	73.3	53.3	19.4	53.3	19.4	26.8	0.5	74.6	72.2
Bahrain	750	52.2	47.6	43.7	47.6	43.7	8.6	0.1	62.2	41.1
Brazil	3282	53.2	43.5	38.3	43.5	38.3	17.1	1.1	51.8	54.4
Chile	644	50.6	40.8	39.8	40.8	39.8	19.2	0.1	50.5	50.8
Chinese Taipei	1110	76.9	75.7	22.7	75.7	22.7	1.6	0.0	75.6	78.2
Cyprus	616	62.6	47.9	28.6	47.9	28.6	23.5	0.0	63.3	62.0
Czech Republic	1181	82.0	76.6	16.8	76.6	16.8	6.6	0.0	78.2	85.4
England	620	83.1	77.0	15.6	77.0	15.6	7.3	0.1	81.8	84.4
Finland	862	80.4	77.0	18.8	77.0	18.8	3.9	0.3	80.6	80.2
France	649	70.8	62.7	25.9	62.7	25.9	11.5	0.0	67.0	74.8
Georgia	712	58.5	42.6	30.3	42.6	30.3	26.8	0.3	60.4	56.9
Hong Kong SAR	651	63.5	56.8	32.7	56.8	32.7	10.5	0.0	60.7	65.9
Hungary	797	82.4	77.6	16.5	77.6	16.5	5.9	0.0	82.2	82.7
Ireland	733	79.5	73.9	19.0	73.9	19.0	7.1	0.0	78.9	80.2
Israel	754	63.0	54.6	32.0	54.6	32.0	12.9	0.5	62.3	63.6
Italy	672	77.0	66.1	19.8	66.1	19.8	14.2	0.0	79.9	74.1
Japan	770	49.6	46.9	47.6	46.9	47.6	5.5	0.0	45.2	53.9
Jordan	610	55.3	50.7	41.1	50.7	41.1	8.2	0.0	55.6	54.9
Kazakhstan	931	47.0	37.7	42.5	37.7	42.5	19.4	0.4	45.0	48.7
Korea, Rep. of	860	74.3	71.3	24.6	71.3	24.6	4.1	0.0	72.0	76.4
Lithuania	785	76.8	68.3	20.6	68.3	20.6	11.1	0.0	77.8	75.7
Malaysia	1255	36.9	35.2	60.3	35.2	60.3	4.4	0.1	36.0	37.8
Malta	580	68.0	63.9	30.1	63.9	30.1	5.8	0.2	67.0	68.9
Morocco	749	14.4	8.7	51.6	8.7	51.6	39.0	0.7	14.0	14.7
New Zealand	569	78.5	75.3	20.6	75.3	20.6	3.8	0.2	78.8	78.2
Norway (9)	903	38.1	31.5	51.2	31.5	51.2	17.0	0.2	39.0	37.4
Oman	716	48.7	44.9	47.3	44.9	47.3	7.7	0.1	54.3	43.1
Palestinian Nat'l Auth.	567	45.7	41.8	49.7	41.8	49.7	8.3	0.1	47.3	44.2
Portugal	796	69.2	60.7	27.0	60.7	27.0	12.2	0.2	66.3	71.8
Qatar	632	62.8	59.6	35.3	59.6	35.3	4.8	0.3	63.4	62.2
Romania	541	70.1	65.0	27.8	65.0	27.8	7.1	0.1	71.2	69.0
Saudi Arabia	515	44.2	41.7	52.6	41.7	52.6	5.8	0.0	45.7	42.8
Singapore	964	83.1	81.9	16.7	81.9	16.7	1.3	0.1	78.8	86.9
Sweden	744	63.9	58.3	32.9	58.3	32.9	8.7	0.1	64.7	63.2
Turkiye	703	82.3	72.2	15.5	72.2	15.5	12.2	0.0	83.8	80.7
United Arab Emirates	4040	51.7	48.2	45.0	48.2	45.0	6.4	0.4	50.3	53.1
United States	1159	76.2	74.9	23.4	74.9	23.4	1.4	0.4	74.0	78.3
Uzbekistan	628	50.4	41.2	40.5	41.2	40.5	17.9	0.4	45.6	55.0
International Avg. (40)	36848	64.0	57.7	31.5	57.7	31.5	10.6	0.2	63.7	64.2
Abu Dhabi, UAE	1031	38.0	35.1	57.2	35.1	57.2	7.4	0.3	35.5	40.4
Dubai, UAE	1181	65.7	61.5	32.1	61.5	32.1	5.9	0.5	63.8	67.5
Sharjah, UAE	934	53.7	51.0	44.1	51.0	44.1	4.6	0.3	53.6	53.7

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Applying

B_SD2_05 SE62132: Water and tea graphs - MC - Key: C

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1236	70.8	10.5	6.9	69.8	11.4	1.3	0.1	70.3	71.8
Austria	669	72.8	9.6	5.3	72.2	12.0	0.6	0.2	72.6	73.1
Azerbaijan	894	34.1	23.4	16.1	32.0	22.3	5.3	0.8	34.1	34.1
Bahrain	751	42.8	20.3	15.6	42.5	21.0	0.6	0.1	44.3	41.2
Brazil	3283	36.4	18.4	21.1	35.2	22.0	2.1	1.2	35.0	37.7
Chile	644	48.5	19.0	11.3	47.2	20.0	2.4	0.1	52.7	44.7
Chinese Taipei	1110	81.8	6.3	2.3	81.6	9.6	0.2	0.0	84.5	79.2
Cyprus	616	53.4	18.2	12.4	53.0	15.6	0.7	0.1	56.5	50.2
Czech Republic	1181	74.0	7.9	5.4	73.3	12.4	1.0	0.0	70.3	77.5
England	620	67.0	16.4	4.1	65.1	11.5	2.8	0.1	68.2	65.9
Finland	862	71.2	9.7	7.2	69.9	11.4	1.5	0.3	74.4	68.5
France	649	64.5	13.2	7.2	63.7	14.7	1.2	0.0	62.4	66.7
Georgia	712	43.7	16.4	15.3	42.6	23.3	1.9	0.5	45.2	42.4
Hong Kong SAR	651	72.1	8.5	5.5	71.6	13.8	0.6	0.0	74.7	69.9
Hungary	798	73.7	6.8	5.7	73.3	13.7	0.6	0.0	74.7	72.6
Ireland	733	66.8	10.0	6.3	65.4	16.2	2.1	0.0	63.9	69.3
Israel	755	53.5	12.3	12.8	52.9	20.9	0.6	0.5	53.4	53.6
Italy	672	58.8	11.5	9.6	58.2	19.7	1.1	0.0	59.0	58.6
Japan	770	78.8	8.7	3.7	78.7	8.6	0.2	0.0	77.9	79.8
Jordan	610	28.4	20.1	23.5	28.4	27.9	0.2	0.0	24.8	31.7
Kazakhstan	931	55.6	16.2	10.6	54.6	16.7	1.2	0.7	53.4	57.6
Korea, Rep. of	860	73.9	10.8	4.0	73.6	11.3	0.3	0.0	71.1	76.4
Lithuania	785	76.2	8.6	5.8	75.7	9.2	0.7	0.0	78.2	74.2
Malaysia	1255	51.3	19.8	12.4	51.0	16.3	0.2	0.2	48.6	54.0
Malta	580	53.0	16.9	11.4	52.2	18.0	1.3	0.2	56.3	49.9
Morocco	749	33.3	17.5	29.7	32.3	17.6	2.2	0.7	30.8	35.6
New Zealand	569	66.7	10.4	6.7	65.7	15.7	1.4	0.2	68.5	65.1
Norway (9)	903	71.3	8.7	5.3	69.1	13.7	2.6	0.5	73.6	69.5
Oman	716	36.1	27.9	21.2	35.9	14.4	0.5	0.1	34.5	37.7
Palestinian Nat'l Auth.	567	33.1	25.0	20.4	32.7	20.6	1.2	0.1	31.4	34.7
Portugal	796	63.6	15.4	7.7	63.3	13.2	0.3	0.2	64.2	63.0
Qatar	632	50.4	20.3	10.4	49.7	18.3	1.0	0.3	50.7	50.0
Romania	541	47.3	13.9	14.7	46.0	22.7	2.4	0.1	42.5	52.0
Saudi Arabia	515	36.4	26.3	18.1	36.1	18.8	0.7	0.0	37.5	35.3
Singapore	964	84.6	5.2	1.8	84.4	8.4	0.1	0.1	85.6	83.7
Sweden	744	65.3	13.0	5.7	64.3	15.4	1.4	0.1	67.0	63.7
Turkiye	703	45.8	18.7	9.6	45.6	25.7	0.4	0.0	45.3	46.4
United Arab Emirates	4041	54.5	19.8	9.2	53.8	15.9	0.8	0.6	52.8	56.2
United States	1159	60.3	14.6	7.2	60.0	17.7	0.1	0.4	62.6	58.3
Uzbekistan	628	40.9	20.7	17.5	39.9	19.4	2.0	0.4	40.3	41.5
International Avg. (40)	36854	57.3	14.9	10.7	56.6	16.4	1.2	0.2	57.3	57.3
Abu Dhabi, UAE	1032	49.7	22.6	9.6	49.2	17.6	0.5	0.6	46.6	52.7
Dubai, UAE	1181	66.0	13.1	5.4	65.3	15.2	0.4	0.5	63.4	68.4
Sharjah, UAE	934	51.7	22.4	9.1	50.6	15.8	1.6	0.5	51.7	51.6

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Reasoning

B_SD2_06 SE62163: Truck sank into the mud - CR - 1 Point

COUNTRY	N	DIFF %	10 %	70 %	79 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1236	15.9	15.5	18.4	63.9	15.5	82.3	2.0	0.2	13.4	18.1
Austria	668	22.2	21.7	16.9	59.2	21.7	76.1	1.9	0.2	18.9	25.4
Azerbaijan	894	2.1	1.7	3.8	76.1	1.7	79.8	17.5	0.9	0.4	3.5
Bahrain	751	7.1	6.7	10.8	76.7	6.7	87.5	5.6	0.2	7.3	6.9
Brazil	3282	3.9	3.6	8.8	78.9	3.6	87.7	7.5	1.2	2.9	5.0
Chile	644	3.7	3.4	4.3	85.0	3.4	89.3	7.1	0.1	3.3	4.1
Chinese Taipei	1110	17.0	16.8	23.4	58.6	16.8	82.0	1.2	0.0	17.2	16.8
Cyprus	616	9.1	8.3	12.7	70.0	8.3	82.7	8.9	0.1	11.2	6.9
Czech Republic	1181	26.6	26.2	17.3	55.1	26.2	72.4	1.4	0.0	21.0	31.9
England	620	17.8	17.1	25.9	53.0	17.1	78.9	4.0	0.1	17.2	18.4
Finland	862	24.8	24.1	22.6	50.4	24.1	73.0	2.5	0.3	24.3	25.3
France	649	5.3	5.2	14.8	77.1	5.2	91.9	3.0	0.0	3.6	7.1
Georgia	712	13.5	12.4	8.8	70.4	12.4	79.2	7.9	0.5	12.0	14.8
Hong Kong SAR	651	11.7	10.7	13.9	67.2	10.7	81.1	8.2	0.0	7.4	15.2
Hungary	798	29.6	29.1	10.0	59.2	29.1	69.3	1.6	0.0	25.5	34.0
Ireland	733	13.1	12.6	13.4	70.3	12.6	83.7	3.7	0.0	10.6	15.2
Israel	754	7.2	6.7	7.0	78.9	6.7	86.0	6.6	0.7	5.5	8.8
Italy	672	5.9	5.7	5.4	86.0	5.7	91.4	2.8	0.1	3.3	8.7
Japan	770	33.7	33.0	22.4	42.3	33.0	64.8	2.3	0.0	30.0	37.3
Jordan	610	9.7	9.2	2.8	82.2	9.2	85.0	5.8	0.0	12.3	7.3
Kazakhstan	931	8.3	7.9	10.4	77.0	7.9	87.4	4.0	0.7	7.5	8.9
Korea, Rep. of	860	18.1	17.5	38.0	41.2	17.5	79.2	3.3	0.0	15.6	20.4
Lithuania	785	16.2	15.8	12.9	68.6	15.8	81.6	2.7	0.0	16.3	16.2
Malaysia	1255	2.0	2.0	5.7	90.0	2.0	95.7	2.1	0.2	1.5	2.6
Malta	580	19.2	18.5	20.6	57.1	18.5	77.7	3.6	0.2	18.9	19.5
Morocco	749	0.7	0.5	1.8	67.4	0.5	69.2	29.5	0.8	1.5	0.0
New Zealand	569	16.4	16.0	12.9	68.8	16.0	81.7	2.0	0.2	12.3	20.0
Norway (9)	903	17.9	17.1	10.7	67.7	17.1	78.4	4.0	0.5	14.6	20.6
Oman	715	2.4	2.3	11.4	83.3	2.3	94.7	2.7	0.3	2.1	2.6
Palestinian Nat'l Auth.	567	5.5	5.2	5.9	82.9	5.2	88.8	5.8	0.1	4.4	6.5
Portugal	796	4.8	4.6	2.7	88.5	4.6	91.2	4.0	0.2	4.1	5.4
Qatar	632	7.7	7.3	8.7	79.9	7.3	88.6	3.4	0.6	6.0	9.5
Romania	541	8.9	8.4	8.8	77.1	8.4	85.9	5.3	0.5	6.9	10.8
Saudi Arabia	515	1.6	1.6	9.4	86.3	1.6	95.7	2.5	0.2	1.1	2.2
Singapore	964	53.7	53.4	19.1	26.9	53.4	46.1	0.5	0.1	53.9	53.5
Sweden	744	27.8	26.8	21.2	48.2	26.8	69.5	3.6	0.1	22.1	33.6
Turkiye	703	45.0	43.8	24.1	29.4	43.8	53.4	2.8	0.0	47.8	41.8
United Arab Emirates	4041	16.1	15.4	12.7	67.5	15.4	80.3	3.7	0.6	15.4	16.7
United States	1159	11.9	11.7	9.2	77.6	11.7	86.7	1.2	0.4	8.2	15.2
Uzbekistan	628	1.0	0.9	3.0	88.1	0.9	91.1	7.5	0.4	0.0	2.0
International Avg. (40)	36850	14.1	13.7	12.8	68.4	13.7	81.2	4.9	0.3	12.7	15.5
Abu Dhabi, UAE	1032	9.8	9.2	8.4	76.8	9.2	85.2	5.0	0.6	7.6	11.8
Dubai, UAE	1181	26.4	25.6	17.3	54.1	25.6	71.4	2.4	0.5	26.2	26.5
Sharjah, UAE	934	14.7	14.1	12.3	70.0	14.1	82.3	3.1	0.5	15.0	14.3

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Reasoning

B_SD2_07 SE62153: Flashlight on blue ball - MC - Key: C

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1236	47.3	17.9	16.5	47.0	18.1	0.3	0.2	46.9	47.2
Austria	669	51.7	9.4	14.5	51.4	24.2	0.3	0.3	46.4	57.0
Azerbaijan	894	36.8	13.6	21.0	35.5	26.3	2.6	1.1	36.3	37.3
Bahrain	751	38.8	18.7	20.2	38.3	21.4	1.0	0.4	42.0	35.5
Brazil	3283	31.4	19.9	20.9	30.7	26.1	0.9	1.4	31.2	31.7
Chile	644	34.0	17.1	23.6	33.1	23.8	2.1	0.3	33.5	34.4
Chinese Taipei	1110	63.8	8.9	11.0	63.7	16.3	0.1	0.0	62.0	65.5
Cyprus	616	41.3	15.7	20.8	40.8	21.4	1.1	0.1	45.5	36.9
Czech Republic	1181	50.8	13.1	14.1	50.6	21.7	0.3	0.1	50.1	51.6
England	620	52.2	14.8	15.3	51.8	17.4	0.6	0.1	45.3	58.9
Finland	862	60.4	13.1	9.2	60.0	16.9	0.5	0.3	59.3	61.4
France	649	34.7	20.1	24.4	34.4	20.2	1.0	0.0	33.1	36.4
Georgia	712	47.8	17.8	12.7	47.2	20.9	0.7	0.7	44.0	51.1
Hong Kong SAR	651	52.6	12.5	15.5	52.5	19.2	0.2	0.0	50.7	54.2
Hungary	798	51.8	11.0	14.6	51.8	22.7	0.0	0.0	50.0	53.8
Ireland	733	43.3	12.6	16.9	42.6	26.3	1.6	0.0	38.6	47.4
Israel	755	46.4	10.8	22.2	45.8	19.8	0.7	0.7	41.7	51.0
Italy	672	40.4	18.0	21.6	40.2	19.7	0.5	0.1	41.3	39.5
Japan	770	61.7	13.3	9.1	61.5	15.8	0.3	0.0	59.3	64.0
Jordan	610	32.6	17.0	24.9	32.5	25.3	0.2	0.1	30.8	34.3
Kazakhstan	931	38.4	17.9	17.7	37.5	24.5	0.9	1.5	35.8	40.7
Korea, Rep. of	860	66.1	17.8	7.9	66.0	8.2	0.2	0.0	65.6	66.6
Lithuania	785	50.8	12.6	23.6	50.7	12.8	0.3	0.0	53.2	48.3
Malaysia	1255	35.1	15.2	28.4	34.9	21.0	0.3	0.2	33.2	37.0
Malta	580	39.2	11.7	15.3	39.0	33.5	0.3	0.2	35.0	43.1
Morocco	0	.	.	.	.	.	.	.	.	.
New Zealand	569	47.8	13.2	20.8	47.3	17.7	0.8	0.2	46.9	48.6
Norway (9)	903	44.5	14.9	17.8	43.8	21.9	1.1	0.6	43.2	45.6
Oman	716	41.9	15.7	21.6	41.6	20.5	0.2	0.5	41.0	42.7
Palestinian Nat'l Auth.	567	38.3	19.1	17.2	38.0	25.0	0.4	0.4	42.6	34.3
Portugal	796	47.2	17.3	16.1	47.0	19.3	0.2	0.2	47.7	46.7
Qatar	632	39.7	18.5	15.6	39.4	25.6	0.3	0.6	38.2	41.3
Romania	541	43.1	19.2	19.1	42.7	18.2	0.3	0.5	44.0	42.1
Saudi Arabia	515	28.4	19.5	21.4	28.1	29.8	0.9	0.4	26.0	30.7
Singapore	964	56.4	7.2	7.4	56.3	29.0	0.1	0.1	50.0	62.2
Sweden	744	51.9	15.2	14.1	51.4	18.3	0.7	0.3	52.4	51.5
Turkiye	703	58.1	15.3	10.9	57.1	15.0	1.6	0.0	61.0	54.7
United Arab Emirates	4041	47.7	15.2	17.1	46.8	19.1	0.8	1.0	45.1	50.1
United States	1159	49.7	15.2	18.5	49.2	16.1	0.4	0.6	46.4	52.8
Uzbekistan	628	25.0	16.2	21.5	24.3	35.5	1.6	0.9	24.1	25.9
International Avg. (39)	36105	45.4	15.2	17.5	44.9	21.4	0.7	0.3	44.1	46.5
Abu Dhabi, UAE	1032	44.8	14.2	17.7	44.0	22.2	0.7	1.1	42.6	46.9
Dubai, UAE	1181	58.2	11.4	13.0	57.0	16.6	1.1	1.0	53.9	62.2
Sharjah, UAE	934	42.6	18.1	19.3	42.0	19.2	0.5	0.8	42.4	42.8

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Chemistry / Knowing

B_SD2_08 SE62018: Element, compound, mixture (DERIVED) - CR - 2 Points

COUNTRY	N	DIFF %	20 %	10 %	79 %	2pt %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1236	14.1	8.8	10.5	80.1	8.8	10.5	80.1	0.4	0.2	10.7	17.0
Austria	669	13.9	7.5	12.6	79.2	7.5	12.6	79.2	0.3	0.4	13.3	14.5
Azerbaijan	894	21.5	12.8	14.9	66.5	12.8	14.9	66.5	4.4	1.3	23.3	19.9
Bahrain	751	12.8	8.7	7.9	82.5	8.7	7.9	82.5	0.0	0.8	15.1	10.3
Brazil	3283	2.0	0.8	2.2	94.1	0.8	2.2	94.1	1.0	1.8	1.7	2.2
Chile	644	5.5	2.8	5.2	90.0	2.8	5.2	90.0	1.4	0.6	5.7	5.5
Chinese Taipei	1109	49.6	35.9	27.2	36.7	35.9	27.2	36.7	0.1	0.0	47.5	51.6
Cyprus	616	11.8	5.2	13.0	81.4	5.2	13.0	81.4	0.3	0.1	11.8	11.7
Czech Republic	1181	19.0	8.1	21.8	70.0	8.1	21.8	70.0	0.0	0.1	17.7	20.2
England	620	17.6	10.4	14.3	74.8	10.4	14.3	74.8	0.5	0.1	16.7	18.5
Finland	862	12.9	7.9	9.8	81.4	7.9	9.8	81.4	0.6	0.3	11.7	13.9
France	649	3.6	1.7	3.8	94.3	1.7	3.8	94.3	0.2	0.0	3.5	3.7
Georgia	712	23.0	13.8	17.3	66.7	13.8	17.3	66.7	1.2	1.0	22.5	23.4
Hong Kong SAR	651	19.8	13.2	13.0	73.3	13.2	13.0	73.3	0.4	0.1	13.9	24.5
Hungary	798	27.2	17.8	18.8	63.3	17.8	18.8	63.3	0.0	0.0	27.2	27.3
Ireland	733	10.4	6.0	8.7	84.5	6.0	8.7	84.5	0.9	0.0	7.3	13.1
Israel	755	16.3	9.2	13.8	75.7	9.2	13.8	75.7	0.4	1.0	15.4	17.1
Italy	672	11.5	8.2	6.5	84.7	8.2	6.5	84.7	0.5	0.1	10.6	12.5
Japan	770	21.3	12.5	17.6	69.7	12.5	17.6	69.7	0.2	0.0	18.5	24.0
Jordan	610	9.1	5.0	8.2	86.7	5.0	8.2	86.7	0.0	0.1	8.0	10.1
Kazakhstan	931	18.9	10.0	16.7	70.3	10.0	16.7	70.3	1.2	1.8	19.3	18.6
Korea, Rep. of	860	15.0	6.5	16.9	76.3	6.5	16.9	76.3	0.3	0.0	11.6	18.1
Lithuania	785	18.1	10.6	15.1	74.3	10.6	15.1	74.3	0.0	0.0	17.8	18.5
Malaysia	1255	8.5	4.6	7.9	87.1	4.6	7.9	87.1	0.1	0.5	8.1	9.0
Malta	580	21.2	15.2	11.5	72.4	15.2	11.5	72.4	0.5	0.3	22.0	20.3
Morocco	749	9.1	4.6	8.5	84.3	4.6	8.5	84.3	1.3	1.3	8.7	9.5
New Zealand	569	11.7	5.7	11.8	81.6	5.7	11.8	81.6	0.2	0.7	9.3	13.8
Norway (9)	903	12.2	7.2	9.6	81.5	7.2	9.6	81.5	1.2	0.6	10.6	13.5
Oman	716	13.3	7.4	11.5	80.5	7.4	11.5	80.5	0.1	0.5	16.1	10.5
Palestinian Nat'l Auth.	567	15.5	9.6	11.6	78.0	9.6	11.6	78.0	0.2	0.6	18.0	13.4
Portugal	796	6.0	3.8	4.4	91.5	3.8	4.4	91.5	0.1	0.2	6.0	6.0
Qatar	632	18.3	10.9	14.5	73.6	10.9	14.5	73.6	0.0	1.0	20.6	15.9
Romania	541	16.2	11.0	10.1	78.1	11.0	10.1	78.1	0.4	0.5	20.1	12.3
Saudi Arabia	515	10.4	6.4	7.7	84.9	6.4	7.7	84.9	0.2	0.9	13.6	7.3
Singapore	964	41.3	30.3	22.0	47.6	30.3	22.0	47.6	0.0	0.1	38.3	44.1
Sweden	744	10.2	4.9	10.4	83.7	4.9	10.4	83.7	0.7	0.3	8.7	11.8
Turkiye	703	18.5	12.5	11.5	75.1	12.5	11.5	75.1	0.8	0.0	15.8	21.5
United Arab Emirates	4041	29.8	22.9	12.9	62.6	22.9	12.9	62.6	0.4	1.2	29.3	30.4
United States	1159	9.3	5.4	7.6	86.1	5.4	7.6	86.1	0.1	0.7	6.4	12.1
Uzbekistan	628	12.0	5.6	12.0	79.5	5.6	12.0	79.5	1.1	1.8	14.2	9.6
International Avg. (40)	36853	16.0	9.8	12.0	77.1	9.8	12.0	77.1	0.5	0.5	15.4	16.4
Abu Dhabi, UAE	1032	19.5	13.8	10.7	73.8	13.8	10.7	73.8	0.6	1.1	18.5	20.4
Dubai, UAE	1181	38.9	31.6	13.5	53.4	31.6	13.5	53.4	0.3	1.3	35.8	41.8
Sharjah, UAE	934	31.3	23.4	15.2	60.3	23.4	15.2	60.3	0.3	0.8	33.5	29.2

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Chemistry / Knowing

B_SD2_08A SE62018A: Element, compound, mixture: sugar - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	C %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1236	49.4	13.2	48.9	37.0	0.8	0.2	46.7	51.4
Austria	669	38.9	14.9	38.5	45.6	0.6	0.4	36.0	41.7
Azerbaijan	894	43.4	19.8	39.1	31.3	8.5	1.3	46.8	40.1
Bahrain	751	43.4	32.7	42.6	22.9	1.0	0.8	48.9	37.5
Brazil	3283	28.1	23.4	26.6	44.5	3.6	1.8	26.8	29.5
Chile	644	43.8	19.7	41.7	33.8	4.1	0.6	45.7	42.1
Chinese Taipei	1109	58.4	6.6	57.9	34.6	0.9	0.0	54.7	61.9
Cyprus	616	26.4	42.6	26.1	30.3	0.9	0.1	25.8	27.0
Czech Republic	1181	27.2	8.7	27.1	64.0	0.0	0.1	25.2	29.1
England	620	39.7	12.8	39.3	46.9	0.9	0.1	40.0	39.4
Finland	862	44.7	14.9	44.0	39.6	1.1	0.3	42.5	46.4
France	649	29.2	46.1	29.0	24.3	0.6	0.0	29.5	29.0
Georgia	712	53.4	14.8	50.8	29.4	3.9	1.0	56.3	50.8
Hong Kong SAR	651	45.3	21.0	44.5	32.8	1.6	0.1	36.4	52.4
Hungary	798	45.7	25.2	45.7	29.0	0.0	0.0	47.1	44.2
Ireland	733	45.8	13.7	45.4	39.9	1.1	0.0	45.3	46.3
Israel	755	46.5	23.6	45.5	28.8	1.1	1.0	48.4	44.6
Italy	672	42.6	38.7	42.2	18.2	0.8	0.1	41.4	43.9
Japan	770	42.8	20.0	42.3	36.6	1.2	0.0	41.3	44.2
Jordan	610	40.3	31.6	39.5	26.9	1.9	0.1	36.0	44.3
Kazakhstan	931	35.9	14.9	34.2	46.2	2.8	1.8	37.5	34.6
Korea, Rep. of	860	44.2	12.8	42.7	41.0	3.4	0.0	40.4	47.7
Lithuania	785	36.3	22.1	36.3	41.4	0.2	0.0	36.1	36.6
Malaysia	1255	48.3	18.2	48.0	33.2	0.1	0.5	50.4	46.0
Malta	580	48.7	19.6	48.0	31.0	1.1	0.3	50.0	47.4
Morocco	749	38.8	36.9	37.1	21.6	3.0	1.3	41.6	36.2
New Zealand	569	45.3	7.4	44.5	46.4	1.0	0.7	41.8	48.2
Norway (9)	903	38.7	23.9	37.6	35.6	2.4	0.6	36.5	40.5
Oman	716	29.3	47.7	28.8	21.8	1.2	0.5	29.0	29.6
Palestinian Nat'l Auth.	567	54.5	31.6	53.5	13.1	1.2	0.6	55.5	53.5
Portugal	796	33.1	50.8	32.9	15.8	0.4	0.2	31.8	34.3
Qatar	632	39.9	34.4	39.3	24.9	0.4	1.0	38.2	41.6
Romania	541	45.1	30.8	44.3	23.1	1.3	0.5	50.0	40.4
Saudi Arabia	515	43.3	36.8	42.1	18.3	1.9	0.9	47.0	39.8
Singapore	964	58.6	13.7	58.4	27.6	0.3	0.1	57.0	60.1
Sweden	744	42.5	20.1	41.9	36.7	1.0	0.3	41.1	43.8
Turkiye	703	58.2	18.0	57.6	23.4	1.0	0.0	60.1	55.9
United Arab Emirates	4041	53.8	18.0	52.5	27.0	1.3	1.2	54.9	52.8
United States	1159	41.6	11.4	41.1	46.3	0.5	0.7	41.2	41.9
Uzbekistan	628	35.4	19.8	33.1	40.5	4.8	1.8	34.7	36.2
International Avg. (40)	36853	42.7	23.3	41.8	32.8	1.6	0.5	42.4	42.8
Abu Dhabi, UAE	1032	42.3	23.6	41.1	32.6	1.6	1.1	41.7	42.8
Dubai, UAE	1181	60.0	12.5	58.6	26.5	1.1	1.3	58.4	61.5
Sharjah, UAE	934	58.6	17.7	57.7	23.1	0.7	0.8	62.6	54.6

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Chemistry / Knowing

B_SD2_08B SE62018B: Element, compound, mixture: iron - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	C %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1236	72.8	72.0	23.3	3.7	0.9	0.2	74.1	71.7
Austria	669	68.7	68.1	21.6	9.4	0.4	0.4	67.2	70.2
Azerbaijan	894	69.8	62.5	19.6	7.4	9.3	1.3	73.2	66.6
Bahrain	751	60.9	59.3	33.0	5.1	1.9	0.8	61.9	59.9
Brazil	3283	40.3	37.6	46.0	9.7	4.9	1.8	38.0	42.6
Chile	644	59.0	57.1	31.3	8.3	2.7	0.6	54.0	63.5
Chinese Taipei	1109	76.6	76.1	13.7	9.6	0.7	0.0	78.5	74.9
Cyprus	616	57.7	57.3	30.5	11.5	0.6	0.1	54.9	60.7
Czech Republic	1181	84.0	83.9	11.8	4.1	0.0	0.1	83.2	84.8
England	620	68.2	67.0	26.0	5.2	1.7	0.1	65.6	70.8
Finland	862	82.9	81.6	9.6	7.3	1.3	0.3	82.6	83.1
France	649	52.7	52.0	26.4	20.3	1.3	0.0	47.7	58.0
Georgia	712	67.9	64.0	17.5	12.8	4.8	1.0	71.5	64.8
Hong Kong SAR	651	60.4	59.8	27.2	12.0	0.9	0.1	53.4	66.0
Hungary	798	80.2	80.0	15.5	4.2	0.3	0.0	80.5	79.9
Ireland	733	64.0	62.9	28.3	7.0	1.7	0.0	64.5	63.6
Israel	755	67.0	65.8	23.2	9.3	0.8	1.0	67.8	66.1
Italy	672	61.7	61.1	28.3	9.6	0.8	0.1	58.2	65.4
Japan	770	71.5	70.9	22.5	5.7	0.8	0.0	68.7	74.1
Jordan	610	67.9	65.6	25.6	5.4	3.3	0.1	70.4	65.5
Kazakhstan	931	83.4	79.5	11.4	4.5	2.8	1.8	87.2	80.1
Korea, Rep. of	860	70.9	69.1	17.2	11.1	2.6	0.0	68.7	73.0
Lithuania	785	75.8	75.4	16.4	7.7	0.4	0.0	75.6	75.9
Malaysia	1255	51.7	51.2	29.6	18.3	0.4	0.5	53.5	49.8
Malta	580	67.8	66.8	26.5	5.2	1.1	0.3	70.3	65.3
Morocco	749	42.9	39.9	37.3	15.7	5.8	1.3	45.6	40.4
New Zealand	569	68.3	67.0	27.5	3.6	1.2	0.7	67.2	69.3
Norway (9)	903	71.9	69.6	18.5	8.7	2.6	0.6	67.9	75.1
Oman	716	58.5	57.1	31.4	9.1	1.9	0.5	61.5	55.6
Palestinian Nat'l Auth.	567	66.3	63.8	28.0	4.4	3.2	0.6	67.6	65.1
Portugal	796	32.7	32.3	50.2	16.3	1.0	0.2	28.8	36.5
Qatar	632	69.6	68.6	25.8	4.2	0.5	1.0	72.6	66.4
Romania	541	71.5	70.0	18.8	9.1	1.7	0.5	74.6	68.5
Saudi Arabia	515	59.3	56.6	32.8	5.9	3.8	0.9	64.1	54.7
Singapore	964	80.8	80.3	16.9	2.2	0.5	0.1	80.1	81.4
Sweden	744	75.6	74.2	16.0	8.0	1.5	0.3	73.3	77.9
Turkiye	703	77.9	77.2	18.2	3.8	0.9	0.0	78.9	76.7
United Arab Emirates	4041	75.4	73.3	20.1	3.9	1.6	1.2	76.8	74.1
United States	1159	71.3	70.1	23.8	4.5	0.9	0.7	71.3	71.2
Uzbekistan	628	72.3	64.1	18.3	6.2	9.6	1.8	74.7	69.8
International Avg. (40)	36853	67.0	65.3	24.1	8.0	2.1	0.5	66.9	67.0
Abu Dhabi, UAE	1032	67.3	64.8	24.8	6.7	2.6	1.1	68.1	66.5
Dubai, UAE	1181	81.9	80.2	15.1	2.6	0.8	1.3	81.2	82.6
Sharjah, UAE	934	77.5	75.9	19.8	2.3	1.1	0.8	80.3	74.7

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Chemistry / Knowing

B_SD2_08C SE62018C: Element, compound, mixture: air - MC - Key: C

COUNTRY	N	DIFF %	A %	B %	C %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1236	26.3	40.8	31.9	26.0	1.2	0.2	25.5	27.1
Austria	669	33.3	36.3	29.6	32.9	0.8	0.4	32.0	34.6
Azerbaijan	894	57.2	18.8	19.6	51.3	9.1	1.3	53.8	60.5
Bahrain	751	31.7	36.7	29.8	30.9	1.9	0.8	32.4	31.0
Brazil	3283	8.1	63.9	20.9	7.5	5.9	1.8	8.3	7.9
Chile	644	15.7	48.3	30.9	14.8	5.4	0.6	16.7	14.9
Chinese Taipei	1109	73.0	15.7	10.8	71.7	1.9	0.0	74.2	71.9
Cyprus	616	34.6	31.3	32.7	33.9	1.9	0.1	36.4	32.6
Czech Republic	1181	35.9	17.1	46.7	35.7	0.4	0.1	33.8	37.9
England	620	35.1	32.0	31.8	34.5	1.6	0.1	29.6	40.4
Finland	862	26.6	27.1	44.9	26.1	1.7	0.3	25.2	27.7
France	649	21.9	27.0	50.6	21.8	0.6	0.0	21.3	22.6
Georgia	712	49.2	19.9	27.7	46.1	5.3	1.0	51.6	47.2
Hong Kong SAR	651	45.4	34.1	20.1	45.0	0.6	0.1	44.8	45.8
Hungary	798	54.0	17.3	28.4	53.6	0.7	0.0	54.1	53.9
Ireland	733	27.2	43.8	26.9	26.5	2.8	0.0	22.9	31.1
Israel	755	37.5	31.2	29.9	36.7	1.3	1.0	35.6	39.4
Italy	672	28.0	39.0	32.1	27.7	1.1	0.1	27.5	28.6
Japan	770	61.5	20.2	17.8	60.9	1.1	0.0	59.7	63.3
Jordan	610	21.8	43.3	32.2	21.0	3.4	0.1	21.9	21.7
Kazakhstan	931	42.1	24.9	30.1	40.1	3.0	1.8	46.3	38.5
Korea, Rep. of	860	54.8	27.1	16.9	53.2	2.8	0.0	54.6	55.0
Lithuania	785	47.8	24.0	27.7	47.3	1.0	0.0	49.2	46.3
Malaysia	1255	27.0	49.0	22.9	26.6	1.0	0.5	25.9	28.2
Malta	580	42.4	33.5	23.1	41.7	1.5	0.3	46.8	38.3
Morocco	749	42.4	28.9	25.6	40.1	4.0	1.3	45.4	39.6
New Zealand	569	25.2	49.8	23.4	24.7	1.4	0.7	21.4	28.6
Norway (9)	903	25.6	36.5	35.5	24.8	2.7	0.6	25.5	25.7
Oman	716	40.2	34.9	23.0	39.0	2.6	0.5	45.4	35.1
Palestinian Nat'l Auth.	567	37.7	24.9	33.3	35.3	6.0	0.6	43.0	32.9
Portugal	796	33.5	41.3	24.6	33.1	0.9	0.2	31.6	35.2
Qatar	632	37.8	30.0	31.4	37.3	0.4	1.0	40.5	34.9
Romania	541	29.7	33.1	35.2	28.8	2.5	0.5	34.8	24.7
Saudi Arabia	515	27.2	40.0	29.8	26.0	3.3	0.9	32.9	21.7
Singapore	964	59.5	17.0	23.3	59.2	0.4	0.1	59.2	59.7
Sweden	744	29.7	32.0	36.4	28.9	2.4	0.3	27.8	31.6
Turkiye	703	44.1	17.7	37.4	43.6	1.3	0.0	43.4	45.0
United Arab Emirates	4041	46.2	26.7	25.5	44.8	1.8	1.2	44.6	47.7
United States	1159	18.9	49.6	30.0	18.5	1.1	0.7	14.6	22.9
Uzbekistan	628	34.2	21.8	34.9	29.5	11.9	1.8	38.0	30.2
International Avg. (40)	36853	36.8	32.2	29.1	35.7	2.5	0.5	36.9	36.5
Abu Dhabi, UAE	1032	38.5	28.8	30.9	37.4	1.8	1.1	36.4	40.6
Dubai, UAE	1181	54.7	22.2	22.0	53.4	1.1	1.3	52.1	57.1
Sharjah, UAE	934	46.8	28.3	23.5	45.6	1.8	0.8	47.4	46.2

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Chemistry / Knowing

B_SD2_08D SE62018D: Element, compound, mixture: sodium bicarb - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	C %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1236	36.4	10.2	35.7	52.0	1.8	0.2	33.9	38.8
Austria	669	41.3	13.6	40.4	43.9	1.8	0.4	38.5	44.1
Azerbaijan	894	49.4	24.0	43.1	20.2	11.4	1.3	48.7	50.0
Bahrain	751	42.0	16.1	40.8	40.2	2.1	0.8	44.1	39.9
Brazil	3283	31.0	9.0	28.8	55.0	5.4	1.8	31.3	30.8
Chile	644	35.6	11.7	33.6	49.1	5.0	0.6	36.8	34.5
Chinese Taipei	1109	75.8	6.1	75.1	17.9	0.9	0.0	73.8	77.7
Cyprus	616	57.7	8.9	57.0	32.9	1.1	0.1	59.0	56.2
Czech Republic	1181	64.2	9.7	64.0	26.1	0.1	0.1	65.7	62.6
England	620	47.9	9.1	46.9	41.9	2.0	0.1	44.2	51.6
Finland	862	49.7	10.9	48.9	38.5	1.4	0.3	46.7	52.2
France	649	20.6	11.5	20.5	67.4	0.6	0.0	20.1	21.1
Georgia	712	44.8	7.6	41.7	43.8	5.9	1.0	45.3	44.4
Hong Kong SAR	651	49.2	18.9	48.7	31.5	0.8	0.1	50.5	48.1
Hungary	798	49.1	10.8	48.9	40.0	0.4	0.0	47.6	50.7
Ireland	733	33.8	13.7	33.3	51.3	1.7	0.0	28.0	39.0
Israel	755	48.1	22.7	46.9	28.0	1.5	1.0	47.9	48.3
Italy	672	43.6	10.9	43.0	44.7	1.2	0.1	43.9	43.4
Japan	770	56.6	7.1	56.0	35.8	1.1	0.0	52.6	60.5
Jordan	610	54.4	21.4	52.2	22.4	3.9	0.1	53.2	55.5
Kazakhstan	931	45.5	23.7	42.6	27.3	4.6	1.8	45.0	46.0
Korea, Rep. of	860	52.2	18.6	51.0	28.1	2.3	0.0	50.9	53.3
Lithuania	785	47.6	12.0	47.3	40.1	0.7	0.0	48.2	46.9
Malaysia	1255	36.9	17.4	36.5	45.0	0.7	0.5	34.9	39.0
Malta	580	45.8	11.5	44.6	41.3	2.2	0.3	45.6	46.0
Morocco	749	35.1	18.2	32.3	41.5	6.6	1.3	33.1	37.0
New Zealand	569	36.0	16.0	35.0	46.1	2.2	0.7	34.1	37.7
Norway (9)	903	53.1	18.1	51.1	27.0	3.2	0.6	48.0	57.2
Oman	716	53.7	11.0	51.8	33.5	3.2	0.5	58.8	48.9
Palestinian Nat'l Auth.	567	55.8	16.4	52.6	25.4	5.0	0.6	56.9	54.8
Portugal	796	35.3	11.7	34.8	52.0	1.3	0.2	37.0	33.7
Qatar	632	55.2	15.2	54.5	29.1	0.2	1.0	59.2	50.9
Romania	541	48.2	5.7	46.6	44.4	2.8	0.5	54.6	42.0
Saudi Arabia	515	43.7	17.7	41.5	35.6	4.3	0.9	44.1	43.4
Singapore	964	67.6	6.1	67.2	26.0	0.5	0.1	66.4	68.7
Sweden	744	35.5	6.8	34.8	56.5	1.6	0.3	31.3	39.7
Turkiye	703	38.7	14.6	38.0	45.7	1.7	0.0	38.9	38.4
United Arab Emirates	4041	54.7	14.8	53.1	29.2	1.7	1.2	55.4	54.0
United States	1159	38.7	16.5	38.0	43.7	1.1	0.7	36.5	40.7
Uzbekistan	628	37.3	22.5	32.2	31.6	11.8	1.8	39.7	34.7
International Avg. (40)	36853	46.2	13.7	44.8	38.3	2.7	0.5	45.8	46.6
Abu Dhabi, UAE	1032	48.0	17.6	46.6	32.9	1.8	1.1	48.3	47.7
Dubai, UAE	1181	61.2	10.3	59.8	27.6	1.0	1.3	61.2	61.2
Sharjah, UAE	934	54.1	14.7	52.7	30.0	1.8	0.8	56.9	51.3

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Chemistry / Knowing

B_SD2_08E SE62018E: Element, compound, mixture: cobalt - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	C %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1236	50.2	49.3	33.6	15.3	1.7	0.2	41.0	57.7
Austria	669	63.0	61.9	21.4	14.9	1.4	0.4	60.1	66.0
Azerbaijan	894	52.7	46.1	23.0	18.4	11.3	1.3	51.7	53.5
Bahrain	751	37.2	36.0	29.4	31.4	2.4	0.8	36.0	38.3
Brazil	3283	25.8	23.6	42.4	25.6	6.6	1.8	24.9	26.7
Chile	644	35.3	32.9	32.3	27.9	6.3	0.6	34.1	36.4
Chinese Taipei	1109	85.8	85.3	8.8	5.3	0.6	0.0	87.3	84.4
Cyprus	616	42.5	41.9	29.3	27.4	1.3	0.1	43.1	41.8
Czech Republic	1181	78.4	77.8	11.8	9.6	0.7	0.1	79.0	77.9
England	620	54.9	53.6	28.9	15.0	2.3	0.1	52.9	56.9
Finland	862	39.9	39.3	28.2	31.1	1.1	0.3	37.9	41.5
France	649	31.6	30.4	34.1	31.5	4.1	0.0	32.3	30.9
Georgia	712	66.2	60.5	17.4	13.6	7.5	1.0	63.9	68.2
Hong Kong SAR	651	51.1	50.5	30.1	18.2	1.1	0.1	46.5	54.8
Hungary	798	63.7	63.1	20.9	15.0	1.0	0.0	61.0	66.7
Ireland	733	39.7	38.8	37.0	22.0	2.1	0.0	31.8	46.6
Israel	755	38.5	37.2	26.0	33.4	2.5	1.0	36.0	40.9
Italy	672	40.3	39.0	27.7	30.2	3.0	0.1	37.1	43.6
Japan	770	39.2	38.8	40.6	19.6	1.1	0.0	36.6	41.7
Jordan	610	37.3	35.9	26.3	34.2	3.6	0.1	40.1	34.5
Kazakhstan	931	60.5	56.6	23.3	13.6	4.7	1.8	61.4	59.7
Korea, Rep. of	860	26.5	25.4	43.0	27.3	4.3	0.0	19.6	33.1
Lithuania	785	52.7	52.1	29.3	17.4	1.2	0.0	46.7	59.1
Malaysia	1255	36.0	35.5	34.0	29.1	1.0	0.5	36.7	35.3
Malta	580	43.4	42.6	35.8	19.7	1.5	0.3	42.0	44.8
Morocco	749	38.8	35.4	28.5	27.5	7.3	1.3	38.0	39.5
New Zealand	569	38.4	37.6	39.6	20.7	1.4	0.7	34.1	42.2
Norway (9)	903	50.9	48.8	25.2	21.8	3.6	0.6	49.0	52.5
Oman	716	37.8	36.4	34.2	25.8	3.2	0.5	39.8	35.8
Palestinian Nat'l Auth.	567	33.2	31.0	25.7	36.8	5.9	0.6	35.2	31.3
Portugal	796	29.9	29.4	38.5	30.6	1.4	0.2	29.3	30.4
Qatar	632	49.0	47.9	23.0	26.8	1.4	1.0	53.2	44.5
Romania	541	54.5	52.9	23.1	21.1	2.5	0.5	54.3	54.6
Saudi Arabia	515	38.1	35.7	29.7	28.2	5.5	0.9	42.7	33.7
Singapore	964	66.3	65.9	24.8	8.6	0.6	0.1	63.5	69.0
Sweden	744	38.4	37.5	37.3	22.8	2.1	0.3	33.2	43.5
Turkiye	703	47.2	45.7	29.0	22.1	3.2	0.0	43.8	51.1
United Arab Emirates	4041	57.9	55.9	25.1	15.4	2.3	1.2	57.0	58.8
United States	1159	41.7	40.9	36.3	20.9	1.2	0.7	37.4	45.8
Uzbekistan	628	69.1	59.0	16.1	10.2	12.9	1.8	72.2	65.7
International Avg. (40)	36853	47.1	45.3	28.8	22.2	3.2	0.5	45.6	48.5
Abu Dhabi, UAE	1032	49.9	47.7	28.6	19.2	3.4	1.1	48.5	51.4
Dubai, UAE	1181	62.9	61.5	22.3	14.0	1.0	1.3	59.6	66.0
Sharjah, UAE	934	59.3	57.6	26.3	13.2	2.1	0.8	61.1	57.6

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Applying

B_SD2_09 SE62143: Heating water in test tube - CR - 1 Point

COUNTRY	N	DIFF %	10 %	79 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1236	14.2	13.2	79.9	13.2	79.9	6.6	0.4	10.6	17.1
Austria	668	17.3	14.9	71.3	14.9	71.3	13.5	0.3	14.4	20.0
Azerbaijan	894	7.3	4.0	51.2	4.0	51.2	43.5	1.3	7.8	6.9
Bahrain	751	4.8	4.3	85.2	4.3	85.2	9.7	0.8	5.3	4.3
Brazil	3282	5.7	4.3	69.8	4.3	69.8	23.8	2.2	5.2	6.2
Chile	644	6.0	4.5	71.3	4.5	71.3	23.4	0.8	5.0	6.8
Chinese Taipei	1110	18.1	17.7	80.1	17.7	80.1	2.2	0.0	14.9	21.2
Cyprus	616	3.8	2.7	69.0	2.7	69.0	28.2	0.1	2.4	5.2
Czech Republic	1181	28.8	25.0	61.6	25.0	61.6	13.3	0.1	25.6	31.8
England	620	9.4	8.0	77.6	8.0	77.6	14.3	0.1	7.8	11.0
Finland	862	12.4	11.3	79.9	11.3	79.9	8.5	0.3	8.1	15.8
France	649	5.9	5.0	79.4	5.0	79.4	15.6	0.0	3.7	8.3
Georgia	712	11.5	7.9	60.9	7.9	60.9	30.1	1.1	5.6	16.0
Hong Kong SAR	651	13.7	12.1	76.2	12.1	76.2	11.6	0.1	11.5	15.6
Hungary	798	12.9	11.3	76.6	11.3	76.6	12.0	0.0	8.9	16.9
Ireland	733	7.1	6.2	81.8	6.2	81.8	12.0	0.0	4.1	9.7
Israel	754	2.5	2.0	77.9	2.0	77.9	18.9	1.1	1.9	3.2
Italy	672	5.0	4.0	76.0	4.0	76.0	19.9	0.1	4.1	6.1
Japan	770	11.8	10.3	76.9	10.3	76.9	12.8	0.0	9.4	14.2
Jordan	610	9.7	8.6	79.7	8.6	79.7	11.2	0.5	10.5	9.0
Kazakhstan	931	15.8	12.6	67.1	12.6	67.1	18.2	2.1	16.5	15.2
Korea, Rep. of	860	15.3	14.1	77.9	14.1	77.9	8.0	0.0	15.1	15.5
Lithuania	785	13.7	11.6	72.9	11.6	72.9	15.5	0.0	11.6	15.8
Malaysia	1255	4.1	4.0	91.7	4.0	91.7	3.6	0.7	3.8	4.5
Malta	580	10.5	9.3	79.5	9.3	79.5	10.8	0.3	9.1	11.9
Morocco	749	3.5	2.2	62.3	2.2	62.3	33.0	2.4	2.5	4.3
New Zealand	569	18.5	16.8	74.1	16.8	74.1	8.4	0.7	16.1	20.4
Norway (9)	902	17.3	14.3	68.3	14.3	68.3	16.6	0.8	13.5	20.2
Oman	716	7.8	7.0	82.1	7.0	82.1	10.5	0.5	10.0	5.7
Palestinian Nat'l Auth.	567	4.7	4.1	83.8	4.1	83.8	11.5	0.6	4.6	4.8
Portugal	796	4.3	3.4	75.2	3.4	75.2	21.2	0.3	2.8	5.7
Qatar	631	3.3	3.0	87.4	3.0	87.4	8.6	1.0	3.5	3.1
Romania	541	15.3	11.7	64.8	11.7	64.8	23.0	0.5	13.5	17.0
Saudi Arabia	515	2.2	2.1	92.2	2.1	92.2	4.9	0.9	1.9	2.4
Singapore	964	35.6	35.2	63.5	35.2	63.5	1.3	0.1	35.6	35.7
Sweden	744	18.4	15.6	69.2	15.6	69.2	14.7	0.5	13.3	23.2
Turkiye	703	9.0	7.0	70.6	7.0	70.6	22.3	0.2	9.9	8.0
United Arab Emirates	4036	4.6	4.1	86.7	4.1	86.7	7.8	1.4	5.6	3.6
United States	1159	13.5	12.9	82.8	12.9	82.8	3.6	0.7	13.7	13.3
Uzbekistan	628	4.8	3.5	69.0	3.5	69.0	24.7	2.8	3.6	6.0
International Avg. (40)	36844	10.8	9.3	75.1	9.3	75.1	15.0	0.6	9.3	12.0
Abu Dhabi, UAE	1031	3.4	3.0	87.8	3.0	87.8	7.8	1.4	2.9	3.8
Dubai, UAE	1180	6.7	6.1	84.7	6.1	84.7	7.7	1.5	9.1	4.5
Sharjah, UAE	933	4.7	4.3	87.8	4.3	87.8	6.8	1.2	6.2	3.2

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Chemistry / Applying

B_SD2_10 SE62276: Iron object changes color - CR - 1 Point

COUNTRY	N	DIFF %	10 %	79 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1235	26.8	26.4	72.0	26.4	72.0	1.2	0.4	25.0	28.6
Austria	668	13.5	13.3	85.2	13.3	85.2	1.2	0.3	11.4	15.6
Azerbaijan	894	7.5	6.9	84.8	6.9	84.8	6.5	1.8	8.5	6.5
Bahrain	751	31.1	30.6	67.7	30.6	67.7	0.6	1.1	39.9	22.0
Brazil	3282	11.1	10.6	84.7	10.6	84.7	2.3	2.4	10.7	11.6
Chile	644	16.2	15.3	78.8	15.3	78.8	5.0	1.0	11.5	20.6
Chinese Taipei	1110	61.2	61.2	38.7	61.2	38.7	0.1	0.0	60.1	62.3
Cyprus	616	6.2	6.0	92.0	6.0	92.0	1.9	0.1	6.4	5.9
Czech Republic	1181	23.1	22.9	76.3	22.9	76.3	0.6	0.2	20.0	26.0
England	620	26.8	26.5	72.4	26.5	72.4	0.9	0.1	24.8	28.8
Finland	862	23.4	23.2	75.9	23.2	75.9	0.6	0.3	24.5	22.6
France	649	17.0	16.8	82.3	16.8	82.3	0.9	0.0	17.7	16.2
Georgia	712	30.4	29.9	68.4	29.9	68.4	0.5	1.2	28.7	32.0
Hong Kong SAR	650	21.9	21.7	77.5	21.7	77.5	0.6	0.3	22.4	21.4
Hungary	798	26.5	26.4	73.3	26.4	73.3	0.3	0.0	24.9	28.2
Ireland	733	23.2	22.8	75.4	22.8	75.4	1.8	0.0	17.8	28.0
Israel	754	22.5	21.8	75.2	21.8	75.2	1.6	1.4	21.7	23.3
Italy	672	13.0	12.8	86.1	12.8	86.1	0.8	0.2	9.6	16.7
Japan	770	54.4	53.6	44.9	53.6	44.9	1.5	0.0	48.6	60.0
Jordan	610	17.8	17.6	81.3	17.6	81.3	0.2	0.9	21.0	14.7
Kazakhstan	931	31.7	30.5	65.7	30.5	65.7	1.0	2.8	35.2	28.6
Korea, Rep. of	860	21.0	20.8	78.2	20.8	78.2	1.0	0.0	14.3	27.2
Lithuania	785	38.3	38.3	61.6	38.3	61.6	0.1	0.0	42.4	34.0
Malaysia	1255	17.7	17.6	81.3	17.6	81.3	0.3	0.8	18.2	17.3
Malta	580	28.1	27.7	71.0	27.7	71.0	1.0	0.3	29.3	26.9
Morocco	749	6.1	5.9	90.1	5.9	90.1	1.4	2.6	7.4	4.9
New Zealand	569	24.7	24.1	73.7	24.1	73.7	1.0	1.2	25.1	24.3
Norway (9)	903	22.1	21.4	75.6	21.4	75.6	2.1	0.8	20.0	23.8
Oman	716	32.6	32.1	66.4	32.1	66.4	1.0	0.5	41.3	24.1
Palestinian Nat'l Auth.	567	13.5	13.3	85.2	13.3	85.2	0.8	0.7	18.1	9.5
Portugal	796	28.4	28.2	71.1	28.2	71.1	0.4	0.3	28.2	28.6
Qatar	632	40.6	40.1	58.6	40.1	58.6	0.2	1.2	43.4	37.6
Romania	541	21.5	21.0	76.8	21.0	76.8	1.4	0.9	22.4	20.6
Saudi Arabia	515	20.4	20.1	78.5	20.1	78.5	0.2	1.2	24.0	17.0
Singapore	964	50.1	50.0	49.8	50.0	49.8	0.1	0.1	49.6	50.6
Sweden	744	20.6	20.1	77.7	20.1	77.7	1.4	0.8	19.6	21.5
Turkiye	703	54.8	54.3	44.8	54.3	44.8	0.8	0.2	60.5	48.2
United Arab Emirates	4041	47.6	46.4	51.0	46.4	51.0	1.1	1.5	50.2	45.2
United States	1159	39.9	39.2	59.1	39.2	59.1	0.8	0.9	39.6	40.1
Uzbekistan	628	12.9	12.1	82.0	12.1	82.0	1.4	4.6	15.2	10.4
International Avg. (40)	36849	26.2	25.7	72.3	25.7	72.3	1.2	0.8	26.5	25.8
Abu Dhabi, UAE	1032	32.9	32.4	66.0	32.4	66.0	0.2	1.4	32.8	33.0
Dubai, UAE	1181	59.6	57.8	39.1	57.8	39.1	1.3	1.8	63.2	56.3
Sharjah, UAE	934	51.6	50.4	47.3	50.4	47.3	0.9	1.3	52.8	50.3

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Chemistry / Reasoning

B_SD2_11 SE62050: Cabbage juice pH indicators - CR - 1 Point

COUNTRY	N	DIFF %	10 %	79 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1236	21.4	20.5	75.5	20.5	75.5	3.5	0.5	25.4	18.0
Austria	668	14.9	14.4	82.2	14.4	82.2	2.7	0.6	15.9	13.9
Azerbaijan	894	4.9	4.2	81.5	4.2	81.5	12.1	2.2	5.1	4.8
Bahrain	751	19.3	18.7	78.2	18.7	78.2	1.9	1.2	27.3	11.0
Brazil	3282	7.6	6.9	84.1	6.9	84.1	6.4	2.6	8.3	6.9
Chile	644	10.5	9.1	77.2	9.1	77.2	12.7	1.0	12.2	9.1
Chinese Taipei	1110	28.0	28.0	71.9	28.0	71.9	0.1	0.0	32.0	24.3
Cyprus	616	17.2	16.5	79.4	16.5	79.4	3.7	0.4	20.3	13.9
Czech Republic	1181	13.6	13.3	84.3	13.3	84.3	2.2	0.2	14.3	13.0
England	620	27.9	27.0	70.0	27.0	70.0	2.9	0.1	33.8	22.3
Finland	862	18.9	18.6	80.0	18.6	80.0	1.0	0.4	22.9	15.5
France	649	15.5	15.0	81.3	15.0	81.3	3.7	0.0	18.0	13.0
Georgia	711	8.6	8.1	85.8	8.1	85.8	4.8	1.3	11.3	6.3
Hong Kong SAR	650	30.3	29.9	68.8	29.9	68.8	0.8	0.5	34.6	26.8
Hungary	798	17.3	17.2	82.1	17.2	82.1	0.7	0.0	19.3	15.1
Ireland	733	34.5	33.3	63.3	33.3	63.3	3.3	0.1	38.0	31.4
Israel	754	20.8	19.8	75.6	19.8	75.6	3.0	1.6	23.3	18.3
Italy	672	15.7	14.9	79.8	14.9	79.8	5.1	0.2	18.9	12.3
Japan	770	34.9	33.2	61.9	33.2	61.9	4.9	0.0	35.0	34.8
Jordan	610	9.9	9.8	89.0	9.8	89.0	0.3	0.9	13.4	6.7
Kazakhstan	931	6.8	6.3	86.4	6.3	86.4	4.3	2.9	7.9	5.7
Korea, Rep. of	860	40.9	40.2	58.1	40.2	58.1	1.7	0.0	46.0	36.3
Lithuania	785	21.8	21.5	77.1	21.5	77.1	1.4	0.0	26.7	16.6
Malaysia	1255	9.1	9.0	89.4	9.0	89.4	0.7	0.9	10.9	7.3
Malta	580	24.5	23.8	73.4	23.8	73.4	2.5	0.3	27.6	21.5
Morocco	749	2.0	1.9	92.1	1.9	92.1	3.0	3.0	2.1	1.9
New Zealand	569	24.7	23.7	72.0	23.7	72.0	3.0	1.2	25.3	24.3
Norway (9)	903	13.8	12.9	80.5	12.9	80.5	5.8	0.8	17.9	10.5
Oman	716	16.8	16.3	80.6	16.3	80.6	2.6	0.5	20.5	13.2
Palestinian Nat'l Auth.	567	10.8	10.5	87.1	10.5	87.1	1.2	1.2	15.3	6.8
Portugal	796	22.2	21.6	75.6	21.6	75.6	2.3	0.4	27.0	17.6
Qatar	632	27.1	26.5	71.2	26.5	71.2	1.0	1.3	30.5	23.5
Romania	541	8.6	8.3	88.1	8.3	88.1	2.7	0.9	9.5	7.8
Saudi Arabia	515	8.7	8.6	89.9	8.6	89.9	0.3	1.2	11.9	5.7
Singapore	964	46.8	46.5	53.0	46.5	53.0	0.4	0.1	53.4	40.7
Sweden	744	19.6	18.5	75.9	18.5	75.9	4.7	0.8	24.3	14.9
Turkiye	703	26.4	25.2	70.2	25.2	70.2	4.5	0.2	27.6	25.0
United Arab Emirates	4041	25.0	23.9	72.0	23.9	72.0	2.2	1.9	27.9	22.2
United States	1159	24.9	24.1	72.7	24.1	72.7	1.9	1.3	28.0	22.1
Uzbekistan	628	1.7	1.5	89.9	1.5	89.9	3.9	4.7	1.9	1.4
International Avg. (40)	36849	18.8	18.2	77.7	18.2	77.7	3.2	0.9	21.8	16.1
Abu Dhabi, UAE	1032	16.1	15.5	80.6	15.5	80.6	2.5	1.4	15.6	16.7
Dubai, UAE	1181	36.4	35.0	61.0	35.0	61.0	1.6	2.4	41.3	31.9
Sharjah, UAE	934	24.9	24.0	72.5	24.0	72.5	2.1	1.4	28.4	21.5

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Knowing

B_SD2_12 SE62205: Gases in Earth's atmosphere - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1236	21.3	21.1	49.2	5.7	23.2	0.3	0.5	14.7	26.6
Austria	669	40.7	40.4	40.5	3.8	14.5	0.0	0.7	44.2	37.1
Azerbaijan	894	30.2	29.3	49.8	4.6	13.4	0.6	2.4	28.5	31.7
Bahrain	751	37.1	36.5	32.7	9.2	19.9	0.3	1.3	39.8	34.3
Brazil	3283	22.3	21.6	59.8	7.0	8.3	0.1	3.2	21.9	22.8
Chile	644	13.4	13.2	56.1	4.0	24.9	0.9	1.0	13.2	13.7
Chinese Taipei	1110	67.8	67.7	21.0	2.1	9.1	0.2	0.0	66.0	69.5
Cyprus	616	15.3	15.2	58.7	3.0	22.3	0.3	0.5	11.6	19.2
Czech Republic	1181	53.4	53.3	29.6	1.2	15.7	0.0	0.2	48.8	57.9
England	620	35.0	34.8	39.2	4.9	20.7	0.3	0.1	30.8	38.9
Finland	862	33.7	33.5	36.4	1.8	27.7	0.3	0.4	29.8	36.9
France	649	22.3	22.1	56.3	4.3	16.5	0.2	0.6	18.8	26.0
Georgia	712	36.1	35.3	42.1	6.3	14.2	0.8	1.4	34.7	37.3
Hong Kong SAR	651	54.5	54.1	21.1	6.3	17.8	0.2	0.5	49.4	58.5
Hungary	798	46.5	46.5	35.3	2.7	15.4	0.0	0.0	42.3	51.1
Ireland	733	26.4	26.4	45.6	3.1	24.8	0.0	0.1	19.0	32.7
Israel	755	29.8	29.2	41.6	3.4	23.6	0.5	1.7	21.4	38.0
Italy	672	30.7	30.6	49.4	2.7	17.0	0.1	0.2	26.5	35.1
Japan	770	78.0	78.0	12.1	3.1	6.7	0.1	0.0	74.2	81.7
Jordan	610	10.7	10.6	47.9	13.2	27.2	0.3	0.9	10.8	10.6
Kazakhstan	931	32.4	31.2	38.0	3.2	23.9	0.3	3.4	30.2	34.4
Korea, Rep. of	860	48.8	48.7	37.4	3.3	10.4	0.2	0.0	43.8	53.5
Lithuania	785	39.0	38.9	40.3	3.0	17.7	0.1	0.0	36.7	41.4
Malaysia	1255	22.9	22.4	42.3	9.6	23.8	0.7	1.2	21.1	24.7
Malta	580	37.5	37.4	40.4	4.8	17.1	0.0	0.3	36.5	38.5
Morocco	749	31.3	30.0	30.4	11.8	23.6	0.5	3.7	33.8	29.0
New Zealand	569	22.0	21.7	50.1	4.1	22.9	0.0	1.2	17.3	26.0
Norway (9)	903	24.2	23.8	43.1	5.6	25.7	0.8	1.1	18.7	28.7
Oman	716	22.4	22.2	48.2	9.5	19.0	0.2	0.9	23.1	21.8
Palestinian Nat'l Auth.	567	22.2	21.7	40.5	12.1	23.7	0.2	1.9	26.2	18.6
Portugal	796	35.3	35.0	40.7	4.5	18.8	0.4	0.4	32.0	38.6
Qatar	632	47.3	46.4	31.7	2.9	17.1	0.5	1.3	42.4	52.5
Romania	541	11.1	11.0	69.3	4.9	13.7	0.1	1.0	11.9	10.3
Saudi Arabia	515	35.7	35.3	38.9	8.4	16.1	0.1	1.2	37.2	34.4
Singapore	964	66.1	66.1	18.5	4.4	10.9	0.0	0.1	61.2	70.6
Sweden	744	38.1	37.5	28.4	3.2	29.4	0.4	1.1	33.1	43.2
Turkiye	703	48.2	48.0	40.1	1.8	9.6	0.3	0.2	44.8	52.3
United Arab Emirates	4041	46.6	45.4	32.1	4.3	15.6	0.4	2.2	42.4	50.5
United States	1159	23.5	23.0	45.7	4.1	25.1	0.4	1.8	19.6	27.0
Uzbekistan	628	30.5	28.7	43.7	5.8	15.8	0.5	5.5	26.8	34.5
International Avg. (40)	36854	34.8	34.3	40.6	5.1	18.6	0.3	1.1	32.1	37.3
Abu Dhabi, UAE	1032	36.9	36.3	39.0	7.2	15.6	0.0	1.8	33.6	40.2
Dubai, UAE	1181	55.9	54.0	26.1	1.8	14.8	0.7	2.6	50.7	60.8
Sharjah, UAE	934	49.7	48.7	30.9	4.0	14.3	0.3	1.8	47.2	52.2

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Knowing

B_SD2_13 SE62190: Disadvantage of solar energy - MC - Key: D

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1236	78.2	4.8	10.2	6.6	77.4	0.5	0.6	75.4	80.6
Austria	669	72.8	9.4	9.7	7.9	72.2	0.1	0.7	67.6	78.1
Azerbaijan	894	38.5	14.3	25.8	19.0	37.1	1.3	2.6	35.0	41.7
Bahrain	751	46.0	12.8	20.9	19.2	45.1	0.5	1.4	47.2	44.7
Brazil	3283	50.5	14.2	18.1	15.2	48.5	0.7	3.2	45.0	55.9
Chile	644	54.0	9.8	22.1	12.9	52.7	1.2	1.3	50.1	57.5
Chinese Taipei	1110	80.8	1.8	14.9	2.4	80.8	0.1	0.0	79.1	82.5
Cyprus	616	55.4	13.8	15.5	14.6	54.6	1.1	0.5	49.8	61.4
Czech Republic	1181	60.5	9.1	21.0	9.1	60.2	0.4	0.2	54.5	66.2
England	620	69.6	3.9	18.6	7.7	69.1	0.6	0.1	63.8	75.2
Finland	862	77.0	8.2	9.6	5.1	76.5	0.3	0.4	71.8	81.3
France	649	54.8	14.0	20.6	10.0	54.1	0.7	0.6	51.6	58.2
Georgia	712	45.7	15.2	21.0	17.0	44.7	0.3	1.8	39.4	51.0
Hong Kong SAR	651	75.5	2.9	13.6	7.8	74.8	0.3	0.5	70.6	79.5
Hungary	798	70.6	8.2	12.4	8.7	70.4	0.3	0.0	67.7	73.8
Ireland	733	72.0	4.5	17.6	5.9	71.9	0.0	0.1	67.5	75.8
Israel	755	41.2	12.7	29.9	14.7	40.1	0.7	1.9	40.0	42.3
Italy	672	57.9	7.5	19.8	14.3	57.4	0.7	0.2	54.0	62.1
Japan	770	85.3	2.8	9.0	3.0	85.3	0.0	0.0	83.0	87.4
Jordan	610	44.9	16.4	20.5	17.5	44.3	0.3	1.2	42.8	46.9
Kazakhstan	931	42.1	17.8	20.7	16.8	40.2	1.1	3.5	39.5	44.3
Korea, Rep. of	860	56.6	5.4	28.4	9.5	56.4	0.2	0.0	50.6	62.1
Lithuania	785	62.6	9.2	12.0	16.3	62.6	0.0	0.0	61.3	63.9
Malaysia	1255	40.3	16.4	24.6	17.5	39.5	0.0	1.9	35.7	45.1
Malta	580	62.2	8.9	17.5	11.0	61.7	0.6	0.3	56.2	68.0
Morocco	749	21.2	26.6	21.5	26.9	20.2	0.7	4.1	22.0	20.4
New Zealand	569	71.1	8.0	12.3	8.2	70.3	0.0	1.2	68.5	73.4
Norway (9)	903	65.2	11.0	12.2	11.1	64.3	0.3	1.1	64.5	65.8
Oman	716	38.0	18.6	27.3	15.4	37.5	0.3	1.1	38.1	37.8
Palestinian Nat'l Auth.	567	26.6	17.6	36.9	17.4	26.0	0.1	2.0	25.4	27.7
Portugal	796	61.7	7.0	17.8	13.2	61.2	0.1	0.6	55.2	68.1
Qatar	632	58.4	11.0	19.5	10.4	57.3	0.0	1.8	57.5	59.3
Romania	541	66.8	7.3	11.3	14.2	65.8	0.5	1.0	66.8	66.7
Saudi Arabia	515	41.5	16.0	25.3	16.4	41.0	0.2	1.2	41.7	41.3
Singapore	964	83.5	2.0	10.0	4.5	83.2	0.2	0.1	80.8	85.9
Sweden	744	72.1	7.4	8.6	11.4	70.6	0.7	1.3	72.0	72.1
Turkiye	703	32.4	16.5	35.9	14.9	32.3	0.1	0.4	30.3	34.9
United Arab Emirates	4041	59.9	6.3	18.5	13.9	58.0	0.7	2.6	57.4	62.4
United States	1159	69.4	4.3	14.5	11.0	67.6	0.4	2.2	63.2	75.0
Uzbekistan	628	35.1	18.3	21.2	20.5	32.5	1.7	5.8	35.7	34.6
International Avg. (40)	36854	57.4	10.5	18.7	12.5	56.6	0.5	1.2	54.5	60.3
Abu Dhabi, UAE	1032	48.0	9.2	16.9	24.5	46.7	0.9	1.8	41.5	54.2
Dubai, UAE	1181	70.9	3.5	18.3	6.2	68.3	0.4	3.3	68.5	73.2
Sharjah, UAE	934	62.0	5.5	20.4	11.0	60.1	0.9	2.1	61.7	62.3

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Knowing

B_SD2_14A SE62024A: Forming layered rock - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1236	73.0	71.9	6.8	8.0	11.7	0.9	0.6	74.2	72.2
Austria	669	52.5	51.6	18.4	10.7	17.5	1.0	0.8	54.5	50.5
Azerbaijan	0	.	.	.	.	.	.	.	.	.
Bahrain	751	55.9	54.1	11.0	12.6	19.1	1.7	1.6	65.2	46.3
Brazil	3283	31.6	29.5	25.4	12.6	26.0	2.9	3.7	30.4	32.7
Chile	644	26.8	23.5	30.4	8.6	25.2	10.4	1.9	26.4	27.2
Chinese Taipei	1110	68.7	68.4	12.9	3.8	14.5	0.4	0.0	74.0	63.7
Cyprus	616	28.4	27.9	19.0	26.8	24.3	1.5	0.5	27.2	29.7
Czech Republic	1181	59.9	59.4	14.6	9.1	16.1	0.5	0.2	62.1	57.8
England	620	68.0	67.1	7.8	6.2	17.5	1.2	0.1	67.3	68.7
Finland	862	35.2	34.8	25.0	9.4	29.7	0.7	0.4	29.8	39.7
France	649	37.8	36.9	19.9	6.3	34.4	1.6	0.9	32.7	43.3
Georgia	712	27.2	25.9	22.8	17.3	29.1	3.0	1.8	24.6	29.5
Hong Kong SAR	651	40.9	40.0	24.8	10.3	22.9	1.5	0.5	42.5	39.6
Hungary	798	59.8	59.1	19.7	3.3	16.7	1.2	0.0	62.2	57.2
Ireland	733	69.8	68.8	13.0	4.0	12.7	1.3	0.1	68.2	71.2
Israel	755	26.9	25.9	30.3	13.2	26.7	1.9	2.0	26.0	27.8
Italy	672	49.5	48.0	15.3	14.1	19.6	2.5	0.5	52.3	46.5
Japan	770	54.2	53.7	17.9	12.2	15.2	1.0	0.0	54.7	53.8
Jordan	610	46.9	46.0	13.3	11.6	27.3	0.5	1.4	46.2	47.5
Kazakhstan	931	27.8	25.7	23.8	15.0	27.9	3.7	3.9	26.3	29.1
Korea, Rep. of	860	82.1	81.8	10.2	2.0	5.6	0.4	0.0	81.7	82.5
Lithuania	785	53.8	53.5	11.7	6.9	27.3	0.6	0.0	60.3	47.0
Malaysia	1255	33.9	33.0	17.4	16.3	30.6	0.8	1.9	34.0	33.8
Malta	580	55.4	54.4	9.3	14.8	19.7	1.1	0.7	55.2	55.6
Morocco	749	27.8	26.3	20.9	19.8	27.6	1.1	4.4	31.4	24.4
New Zealand	569	44.8	43.1	23.2	12.2	17.6	2.6	1.2	37.9	50.6
Norway (9)	903	31.3	30.2	24.0	12.7	29.5	2.4	1.1	29.0	33.2
Oman	716	54.6	53.7	13.3	9.8	21.5	0.5	1.1	59.8	49.6
Palestinian Nat'l Auth.	567	35.8	34.7	15.3	16.6	30.4	0.9	2.1	35.2	36.3
Portugal	796	70.0	68.8	11.3	6.1	12.1	1.1	0.6	67.7	72.2
Qatar	632	55.5	53.9	13.1	10.0	20.1	1.1	1.8	55.5	55.5
Romania	541	54.4	53.4	18.3	7.8	18.6	0.7	1.2	57.8	51.2
Saudi Arabia	515	43.5	42.6	16.8	11.1	27.4	0.8	1.4	46.3	41.0
Singapore	964	48.1	47.8	14.9	9.0	27.7	0.5	0.1	46.8	49.2
Sweden	744	48.6	46.9	22.6	13.7	13.2	2.1	1.4	46.1	51.2
Turkiye	703	45.9	44.1	24.2	11.5	16.3	3.6	0.4	46.7	44.9
United Arab Emirates	4041	57.5	54.9	12.5	10.0	18.0	1.4	3.2	57.4	57.6
United States	1159	62.8	60.6	10.9	8.7	16.3	1.2	2.4	62.9	62.8
Uzbekistan	0	.	.	.	.	.	.	.	.	.
International Avg. (38)	35332	48.6	47.4	17.4	10.9	21.4	1.6	1.2	48.9	48.2
Abu Dhabi, UAE	1032	51.8	49.4	15.5	13.9	16.6	2.2	2.4	51.6	52.0
Dubai, UAE	1181	68.0	64.6	8.9	6.2	15.3	1.2	3.7	69.4	66.6
Sharjah, UAE	934	53.5	51.5	14.3	10.0	20.4	0.8	2.9	49.8	57.2

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Applying

B_SD2_14B SE62024B: Shaping rock formations - CR - 1 Point

COUNTRY	N	DIFF %	10 %	79 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1236	31.5	26.2	57.2	26.2	57.2	15.6	1.0	32.0	30.6
Austria	668	14.1	9.8	59.6	9.8	59.6	29.9	0.7	10.0	18.3
Azerbaijan	894	7.4	2.7	33.1	2.7	33.1	58.7	5.5	9.6	5.3
Bahrain	751	10.3	7.3	63.2	7.3	63.2	27.1	2.4	11.8	8.6
Brazil	3282	12.6	7.3	51.0	7.3	51.0	37.0	4.7	9.5	15.4
Chile	644	7.6	4.4	53.5	4.4	53.5	35.9	6.2	6.5	8.5
Chinese Taipei	1110	28.2	25.4	64.7	25.4	64.7	9.9	0.0	27.4	29.0
Cyprus	616	13.5	8.0	50.9	8.0	50.9	40.3	0.8	14.2	12.7
Czech Republic	1181	12.7	8.2	56.2	8.2	56.2	35.1	0.4	11.4	13.9
England	620	33.9	24.8	48.4	24.8	48.4	26.4	0.4	30.3	37.7
Finland	862	15.9	12.1	63.7	12.1	63.7	23.8	0.4	15.0	16.6
France	649	16.3	9.6	49.4	9.6	49.4	39.5	1.5	11.9	20.8
Georgia	712	4.7	2.0	39.9	2.0	39.9	54.5	3.6	4.1	5.2
Hong Kong SAR	651	15.7	10.7	57.4	10.7	57.4	30.8	1.0	14.0	17.2
Hungary	798	36.2	25.2	44.3	25.2	44.3	30.5	0.0	37.8	34.6
Ireland	733	37.5	28.8	47.8	28.8	47.8	23.2	0.1	38.0	37.1
Israel	754	7.7	5.0	60.1	5.0	60.1	32.3	2.6	5.7	9.6
Italy	672	19.8	11.8	47.9	11.8	47.9	39.0	1.2	17.5	21.9
Japan	770	27.0	22.4	60.6	22.4	60.6	16.5	0.5	22.6	31.3
Jordan	610	5.4	3.4	60.3	3.4	60.3	34.6	1.7	4.1	6.8
Kazakhstan	931	12.4	6.8	48.2	6.8	48.2	39.7	5.3	10.4	14.2
Korea, Rep. of	860	42.0	37.3	51.5	37.3	51.5	11.2	0.0	43.1	41.0
Lithuania	785	24.2	15.1	47.2	15.1	47.2	37.4	0.3	28.9	18.7
Malaysia	1255	18.9	16.1	69.2	16.1	69.2	12.7	2.0	17.4	20.4
Malta	580	32.7	24.8	51.1	24.8	51.1	23.0	1.0	32.2	33.3
Morocco	749	10.2	3.8	33.7	3.8	33.7	57.2	5.3	10.6	9.8
New Zealand	569	19.6	15.2	62.5	15.2	62.5	20.4	1.9	13.1	25.1
Norway (9)	903	14.5	9.4	55.6	9.4	55.6	33.1	1.8	15.1	14.0
Oman	716	6.2	4.7	72.2	4.7	72.2	21.8	1.3	5.6	6.8
Palestinian Nat'l Auth.	567	2.2	1.3	60.6	1.3	60.6	35.8	2.3	3.1	1.1
Portugal	796	29.3	20.8	50.0	20.8	50.0	28.3	0.9	25.6	32.8
Qatar	632	16.8	12.4	61.3	12.4	61.3	23.7	2.6	18.6	14.5
Romania	541	17.5	8.2	38.6	8.2	38.6	51.7	1.5	17.8	17.3
Saudi Arabia	515	6.1	4.2	64.0	4.2	64.0	29.9	1.9	8.2	4.1
Singapore	964	14.6	13.7	80.1	13.7	80.1	6.0	0.2	12.9	16.2
Sweden	744	29.8	19.8	46.5	19.8	46.5	31.6	2.1	29.3	30.2
Turkiye	703	15.4	9.7	53.2	9.7	53.2	35.0	2.1	14.5	16.6
United Arab Emirates	4041	12.9	9.4	63.9	9.4	63.9	22.7	3.9	12.9	12.8
United States	1159	24.3	21.9	68.5	21.9	68.5	7.0	2.6	18.6	29.7
Uzbekistan	628	8.6	3.5	37.9	3.5	37.9	50.7	7.8	5.6	12.1
International Avg. (40)	36851	17.9	12.8	54.6	12.8	54.6	30.5	2.0	16.9	18.8
Abu Dhabi, UAE	1032	9.4	6.6	63.6	6.6	63.6	26.5	3.4	8.2	10.6
Dubai, UAE	1181	18.0	14.3	65.2	14.3	65.2	16.1	4.4	19.7	16.3
Sharjah, UAE	934	11.9	8.8	64.9	8.8	64.9	22.9	3.5	10.0	13.8

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Reasoning

B_SD3_01 SE82902: Increase green space as carbon dioxide increases - CR - 1 Point

COUNTRY	N	DIFF %	1 %	0 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1220	55.9	51.7	40.9	51.7	40.9	7.2	0.2	53.4	57.8
Austria	669	41.4	34.8	49.1	34.8	49.1	15.8	0.3	39.4	43.3
Azerbaijan	899	43.2	26.7	35.1	26.7	35.1	37.3	0.9	44.4	42.2
Bahrain	746	40.9	35.8	51.6	35.8	51.6	12.4	0.2	44.7	37.2
Brazil	3278	27.1	21.3	57.5	21.3	57.5	20.7	0.5	21.0	32.9
Chile	645	45.0	37.2	45.5	37.2	45.5	16.9	0.4	42.0	47.8
Chinese Taipei	1111	41.4	40.0	56.6	40.0	56.6	3.3	0.0	43.8	39.2
Cyprus	618	46.7	37.6	42.8	37.6	42.8	19.2	0.4	42.7	50.6
Czech Republic	1176	52.0	46.1	42.5	46.1	42.5	11.3	0.0	50.3	53.6
England	602	62.7	56.0	33.3	56.0	33.3	9.4	1.3	60.1	65.5
Finland	868	62.4	57.7	34.8	57.7	34.8	7.3	0.1	63.7	61.1
France	649	53.9	45.8	39.2	45.8	39.2	15.0	0.0	51.5	56.2
Georgia	710	35.5	26.5	48.1	26.5	48.1	25.5	0.0	36.6	34.6
Hong Kong SAR	644	68.7	62.8	28.7	62.8	28.7	7.7	0.8	74.4	63.8
Hungary	793	40.8	36.2	52.5	36.2	52.5	11.3	0.0	37.8	43.6
Ireland	745	62.6	57.6	34.4	57.6	34.4	8.1	0.0	59.4	65.4
Israel	756	48.0	41.2	44.5	41.2	44.5	13.9	0.4	45.3	50.6
Italy	673	59.6	49.7	33.7	49.7	33.7	16.6	0.0	61.0	58.0
Japan	789	58.4	54.1	38.5	54.1	38.5	7.4	0.0	57.5	59.3
Jordan	608	38.7	35.0	55.4	35.0	55.4	9.5	0.1	46.6	31.6
Kazakhstan	927	53.7	47.8	41.3	47.8	41.3	10.6	0.3	59.3	48.2
Korea, Rep. of	857	61.3	57.4	36.3	57.4	36.3	6.3	0.0	60.8	61.7
Lithuania	788	51.7	44.8	41.8	44.8	41.8	13.2	0.1	50.8	52.7
Malaysia	1256	23.1	22.2	73.9	22.2	73.9	3.9	0.0	24.7	21.3
Malta	568	56.4	51.3	39.6	51.3	39.6	9.2	0.0	57.0	55.8
Morocco	0	.	.	.	.	.	.	.	.	.
New Zealand	577	54.8	49.6	40.9	49.6	40.9	8.9	0.7	52.6	56.7
Norway (9)	902	54.2	45.4	38.4	45.4	38.4	15.1	1.1	59.8	49.9
Oman	713	39.5	37.2	57.1	37.2	57.1	5.7	0.0	46.9	32.1
Palestinian Nat'l Auth.	553	27.6	24.7	64.9	24.7	64.9	10.2	0.2	34.1	21.2
Portugal	791	48.0	42.8	46.4	42.8	46.4	10.8	0.0	48.9	47.2
Qatar	625	47.3	44.9	49.9	44.9	49.9	5.2	0.0	46.4	48.3
Romania	526	39.9	32.4	48.9	32.4	48.9	18.5	0.3	43.1	36.3
Saudi Arabia	515	29.8	28.2	66.5	28.2	66.5	5.3	0.0	36.1	23.7
Singapore	970	86.3	85.6	13.5	85.6	13.5	0.9	0.0	86.6	86.1
Sweden	738	72.0	64.7	25.2	64.7	25.2	9.6	0.4	74.4	69.6
Turkiye	704	60.7	53.3	34.5	53.3	34.5	12.2	0.0	59.1	62.4
United Arab Emirates	4028	49.8	46.8	47.2	46.8	47.2	5.5	0.4	51.2	48.3
United States	1139	57.7	55.8	40.8	55.8	40.8	2.1	1.2	55.3	60.1
Uzbekistan	628	43.6	37.1	47.9	37.1	47.9	14.8	0.3	43.4	43.8
International Avg. (39)	36004	49.8	44.3	44.1	44.3	44.1	11.4	0.3	50.4	49.2
Abu Dhabi, UAE	1037	40.5	37.7	55.4	37.7	55.4	6.4	0.5	39.9	41.0
Dubai, UAE	1168	64.5	61.1	33.6	61.1	33.6	4.7	0.5	65.7	63.4
Sharjah, UAE	936	51.5	48.9	46.1	48.9	46.1	4.8	0.3	52.9	50.1

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Biology / Knowing

B_SD3_02 SE82025: Statements about photosynthesis (DERIVED) - CR - 1 Point

COUNTRY	N	DIFF %	1 %	7 %	0 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1220	32.4	32.1	27.9	39.2	32.1	67.1	0.6	0.2	32.4	32.2
Austria	670	50.3	49.9	17.4	31.8	49.9	49.2	0.5	0.3	49.9	50.8
Azerbaijan	899	33.3	32.0	11.7	52.5	32.0	64.1	3.0	0.9	33.4	33.2
Bahrain	746	42.0	41.9	17.1	40.7	41.9	57.7	0.3	0.2	45.9	38.2
Brazil	3278	29.4	29.0	14.0	55.8	29.0	69.8	0.6	0.6	28.0	30.8
Chile	645	22.5	22.0	30.9	45.1	22.0	76.0	1.5	0.4	18.3	26.9
Chinese Taipei	1111	39.2	39.2	27.0	33.7	39.2	60.7	0.1	0.0	33.3	44.6
Cyprus	618	27.7	27.3	26.6	44.8	27.3	71.4	0.7	0.6	25.6	29.6
Czech Republic	1176	52.2	52.2	24.5	23.3	52.2	47.8	0.0	0.0	47.6	56.5
England	602	37.4	36.6	22.8	38.5	36.6	61.3	0.5	1.6	35.4	39.4
Finland	868	48.8	48.5	25.3	25.6	48.5	50.9	0.5	0.1	49.2	48.4
France	649	23.0	22.8	16.5	59.8	22.8	76.4	0.8	0.0	21.6	24.4
Georgia	710	37.8	37.3	20.9	40.4	37.3	61.3	1.3	0.1	37.2	38.3
Hong Kong SAR	644	46.1	45.7	26.2	27.3	45.7	53.5	0.0	0.8	45.9	46.2
Hungary	793	36.5	36.5	24.7	38.8	36.5	63.5	0.0	0.0	30.7	42.0
Ireland	745	28.4	28.4	30.4	41.0	28.4	71.5	0.1	0.1	25.8	30.7
Israel	757	38.6	38.1	18.2	42.3	38.1	60.5	1.0	0.4	36.7	40.5
Italy	673	25.1	25.0	28.8	46.0	25.0	74.8	0.2	0.0	22.5	27.8
Japan	789	51.9	51.9	22.5	25.6	51.9	48.1	0.0	0.0	47.7	56.2
Jordan	608	33.6	33.5	13.1	53.1	33.5	66.2	0.1	0.1	36.3	31.2
Kazakhstan	927	36.5	36.3	17.6	45.6	36.3	63.1	0.2	0.3	35.4	37.5
Korea, Rep. of	857	38.1	38.1	21.8	40.0	38.1	61.8	0.1	0.0	38.0	38.2
Lithuania	788	56.2	56.0	17.6	26.0	56.0	43.7	0.1	0.1	52.3	60.3
Malaysia	1256	34.7	34.6	18.3	47.0	34.6	65.3	0.1	0.0	34.8	34.5
Malta	568	33.0	32.7	19.2	47.3	32.7	66.5	0.8	0.0	34.5	31.5
Morocco	750	18.7	18.6	8.6	72.0	18.6	80.6	0.3	0.6	19.0	18.5
New Zealand	577	30.3	29.9	29.0	40.0	29.9	68.9	0.4	0.8	26.9	33.3
Norway (9)	902	40.6	39.9	27.3	30.9	39.9	58.2	0.6	1.3	39.7	41.4
Oman	713	29.3	29.3	28.2	42.5	29.3	70.6	0.0	0.0	32.6	26.2
Palestinian Nat'l Auth.	554	27.9	27.8	15.1	56.8	27.8	71.8	0.1	0.2	25.2	30.5
Portugal	791	53.9	53.8	19.5	26.5	53.8	46.0	0.1	0.0	49.8	57.5
Qatar	625	37.7	37.6	20.6	41.7	37.6	62.3	0.1	0.0	34.0	41.1
Romania	526	31.6	31.5	20.1	48.1	31.5	68.2	0.1	0.3	30.2	33.0
Saudi Arabia	515	34.9	34.9	19.6	45.6	34.9	65.1	0.0	0.0	30.9	38.7
Singapore	970	66.9	66.9	17.2	16.0	66.9	33.1	0.0	0.0	64.9	68.7
Sweden	738	36.0	35.7	35.0	28.6	35.7	63.6	0.3	0.4	32.9	39.0
Turkiye	704	38.2	38.1	28.9	32.9	38.1	61.8	0.1	0.0	33.2	43.5
United Arab Emirates	4028	43.6	43.2	24.2	31.7	43.2	55.9	0.4	0.4	43.2	43.9
United States	1139	33.2	32.7	32.2	33.8	32.7	65.9	0.0	1.3	29.7	36.6
Uzbekistan	628	27.2	27.1	11.8	60.7	27.1	72.5	0.1	0.3	26.9	27.6
International Avg. (40)	36757	37.1	36.9	22.0	40.5	36.9	62.4	0.4	0.3	35.4	38.7
Abu Dhabi, UAE	1037	38.4	38.1	23.9	37.3	38.1	61.1	0.3	0.5	38.0	38.8
Dubai, UAE	1168	50.7	50.2	25.1	23.7	50.2	48.9	0.5	0.5	48.3	52.9
Sharjah, UAE	936	43.5	43.1	24.9	31.1	43.1	56.0	0.6	0.3	45.6	41.5

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Biology / Knowing

B_SD3_02A SE82025A: Statements about photosynthesis - chlorophyll - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1220	43.7	54.9	42.5	2.3	0.2	42.1	44.8
Austria	670	63.9	35.5	62.7	1.5	0.3	64.8	62.9
Azerbaijan	899	56.3	39.2	50.4	9.4	1.0	56.3	56.3
Bahrain	746	54.9	44.6	54.4	0.8	0.2	55.8	54.1
Brazil	3278	46.6	50.6	44.1	4.7	0.6	44.6	48.6
Chile	645	38.1	59.0	36.3	4.4	0.4	36.7	39.5
Chinese Taipei	1111	44.5	55.1	44.2	0.7	0.0	37.1	51.2
Cyprus	618	36.1	62.7	35.4	1.3	0.6	34.4	37.6
Czech Republic	1176	59.8	40.0	59.6	0.4	0.0	56.2	63.3
England	602	45.0	53.2	43.6	1.6	1.6	44.4	45.6
Finland	868	55.3	44.0	54.4	1.4	0.1	55.7	54.9
France	649	44.0	53.9	42.4	3.7	0.0	48.0	40.2
Georgia	710	51.8	45.8	49.2	4.9	0.1	50.3	53.2
Hong Kong SAR	644	52.9	46.4	52.0	0.8	0.8	51.0	54.4
Hungary	793	45.8	54.1	45.8	0.1	0.0	41.5	50.0
Ireland	745	37.9	59.5	36.2	4.2	0.1	31.4	43.5
Israel	757	54.1	44.7	52.7	2.2	0.4	53.5	54.7
Italy	673	33.0	66.3	32.6	1.1	0.0	31.1	35.0
Japan	789	58.9	40.8	58.4	0.8	0.0	55.7	62.0
Jordan	608	56.1	42.6	54.5	2.8	0.1	62.8	50.0
Kazakhstan	927	51.1	48.1	50.3	1.3	0.3	47.8	54.3
Korea, Rep. of	857	44.6	54.1	43.6	2.3	0.0	44.2	45.0
Lithuania	788	65.2	34.5	64.5	0.8	0.1	60.5	70.0
Malaysia	1256	47.1	52.6	46.8	0.5	0.0	45.9	48.4
Malta	568	48.1	50.5	46.9	2.6	0.0	49.8	46.5
Morocco	750	47.4	51.2	46.1	2.1	0.6	46.7	47.9
New Zealand	577	43.8	54.7	42.6	2.0	0.8	44.9	42.7
Norway (9)	902	49.3	48.5	47.2	3.0	1.3	48.1	50.3
Oman	713	37.0	62.2	36.5	1.3	0.0	38.1	36.0
Palestinian Nat'l Auth.	554	45.6	52.3	43.9	3.6	0.2	40.1	51.1
Portugal	791	61.6	38.1	61.3	0.6	0.0	57.0	65.7
Qatar	625	47.9	51.8	47.6	0.6	0.0	43.0	52.5
Romania	526	43.2	55.3	42.0	2.4	0.3	42.2	44.3
Saudi Arabia	515	48.1	50.6	46.9	2.5	0.0	41.1	55.0
Singapore	970	72.8	27.1	72.7	0.3	0.0	71.4	74.1
Sweden	738	43.8	54.8	42.7	2.0	0.4	40.3	47.3
Turkiye	704	52.0	47.6	51.6	0.7	0.0	48.1	56.2
United Arab Emirates	4028	51.8	47.1	50.7	1.8	0.4	50.9	52.7
United States	1139	39.6	59.4	39.0	0.3	1.3	36.2	43.0
Uzbekistan	628	51.1	43.9	45.9	9.9	0.3	51.2	51.0
International Avg. (40)	36757	49.2	49.4	48.0	2.2	0.3	47.5	50.9
Abu Dhabi, UAE	1037	47.8	51.2	46.9	1.4	0.5	48.1	47.6
Dubai, UAE	1168	55.7	43.5	54.6	1.4	0.5	52.5	58.7
Sharjah, UAE	936	53.0	45.9	51.8	2.0	0.3	54.2	51.9

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Biology / Knowing

B_SD3_02B SE82025B: Statements about photosynthesis - oxygen - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1220	84.1	82.5	15.6	1.7	0.2	85.6	82.8
Austria	670	89.4	87.9	10.4	1.3	0.3	89.9	88.9
Azerbaijan	899	78.5	70.7	19.3	8.9	1.0	78.8	78.3
Bahrain	746	75.1	73.8	24.5	1.5	0.2	80.0	70.0
Brazil	3278	84.1	80.5	15.2	3.6	0.6	85.4	82.8
Chile	645	86.8	83.7	12.7	3.2	0.4	88.5	85.0
Chinese Taipei	1111	87.8	86.9	12.0	1.0	0.0	89.5	86.3
Cyprus	618	79.2	77.9	20.4	1.1	0.6	79.9	78.6
Czech Republic	1176	89.9	89.7	10.1	0.2	0.0	89.7	90.0
England	602	80.8	78.8	18.7	0.9	1.6	84.0	77.6
Finland	868	90.4	89.3	9.5	1.0	0.1	91.7	89.0
France	649	67.3	65.6	31.9	2.5	0.0	68.7	65.9
Georgia	710	81.2	77.3	17.9	4.6	0.1	84.7	78.2
Hong Kong SAR	644	89.1	87.0	10.7	1.5	0.8	90.4	88.1
Hungary	793	86.0	85.7	13.9	0.4	0.0	83.7	88.3
Ireland	745	82.2	81.0	17.6	1.3	0.1	81.1	83.1
Israel	757	79.1	77.2	20.4	2.0	0.4	79.7	78.5
Italy	673	77.2	76.5	22.6	0.9	0.0	77.7	76.6
Japan	789	88.4	88.0	11.5	0.5	0.0	87.3	89.6
Jordan	608	74.9	72.2	24.2	3.4	0.1	77.0	72.9
Kazakhstan	927	76.9	75.2	22.6	1.9	0.3	76.5	77.3
Korea, Rep. of	857	80.4	79.5	19.3	1.1	0.0	80.6	80.3
Lithuania	788	86.8	86.2	13.1	0.6	0.1	87.0	86.7
Malaysia	1256	75.5	75.1	24.4	0.4	0.0	77.7	73.1
Malta	568	79.1	77.2	20.4	2.4	0.0	82.4	76.1
Morocco	750	57.4	55.4	41.1	2.9	0.6	60.2	55.1
New Zealand	577	83.2	81.5	16.5	1.3	0.8	86.1	80.6
Norway (9)	902	87.2	84.6	12.4	1.7	1.3	87.9	86.6
Oman	713	79.7	78.5	20.0	1.4	0.0	83.7	75.8
Palestinian Nat'l Auth.	554	71.7	68.5	27.1	4.2	0.2	70.0	73.3
Portugal	791	90.6	90.2	9.4	0.4	0.0	87.4	93.3
Qatar	625	79.9	79.0	19.9	1.0	0.0	83.3	76.7
Romania	526	76.6	74.3	22.8	2.6	0.3	77.5	75.6
Saudi Arabia	515	80.3	79.4	19.5	1.1	0.0	80.3	80.3
Singapore	970	91.8	91.5	8.1	0.4	0.0	90.0	93.5
Sweden	738	87.9	86.8	12.0	0.8	0.4	88.5	87.3
Turkiye	704	89.6	89.6	10.4	0.1	0.0	89.7	89.5
United Arab Emirates	4028	82.6	80.9	17.1	1.6	0.4	84.5	80.7
United States	1139	82.4	80.3	17.1	1.2	1.3	82.3	82.5
Uzbekistan	628	80.0	72.2	18.1	9.5	0.3	80.1	79.8
International Avg. (40)	36757	81.8	80.0	17.8	2.0	0.3	82.7	80.9
Abu Dhabi, UAE	1037	79.4	77.6	20.1	1.9	0.5	81.7	77.3
Dubai, UAE	1168	87.5	86.2	12.3	1.0	0.5	87.9	87.2
Sharjah, UAE	936	82.3	80.7	17.3	1.7	0.3	86.1	78.6

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Biology / Knowing

B_SD3_02C SE82025C: Statements about photosynthesis - darkness - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1220	85.9	13.8	84.1	1.9	0.2	88.0	84.2
Austria	670	92.2	7.7	90.4	1.6	0.3	92.0	92.4
Azerbaijan	899	72.2	25.2	65.5	8.3	1.0	73.4	71.2
Bahrain	746	84.2	15.5	82.8	1.5	0.2	92.0	76.4
Brazil	3278	80.7	18.2	75.9	5.3	0.6	80.9	80.4
Chile	645	83.0	16.2	79.1	4.3	0.4	81.9	84.1
Chinese Taipei	1111	95.5	4.5	94.6	0.9	0.0	96.9	94.3
Cyprus	618	87.7	12.0	86.0	1.4	0.6	88.0	87.5
Czech Republic	1176	93.7	6.3	93.2	0.5	0.0	92.8	94.4
England	602	90.0	9.6	86.7	2.1	1.6	89.6	90.4
Finland	868	93.3	6.6	91.9	1.4	0.1	96.8	89.9
France	649	74.0	25.4	72.0	2.6	0.0	70.5	77.4
Georgia	710	89.1	10.3	84.1	5.6	0.1	89.4	88.8
Hong Kong SAR	644	91.5	8.3	90.3	0.5	0.8	91.9	91.2
Hungary	793	91.4	8.5	91.1	0.4	0.0	91.3	91.6
Ireland	745	89.9	9.7	86.2	3.9	0.1	92.7	87.4
Israel	757	81.7	17.9	79.7	2.1	0.4	81.7	81.7
Italy	673	87.2	12.7	86.1	1.2	0.0	87.6	86.8
Japan	789	92.0	7.9	91.6	0.5	0.0	91.1	93.0
Jordan	608	79.8	19.4	76.6	3.9	0.1	80.5	79.1
Kazakhstan	927	79.8	19.8	78.4	1.4	0.3	80.7	78.9
Korea, Rep. of	857	94.2	5.8	93.3	0.9	0.0	96.8	91.7
Lithuania	788	92.2	7.7	91.7	0.5	0.1	92.8	91.7
Malaysia	1256	81.4	18.6	81.1	0.3	0.0	83.3	79.3
Malta	568	83.2	16.3	80.9	2.8	0.0	84.3	82.2
Morocco	750	55.9	42.5	53.8	3.2	0.6	58.3	53.8
New Zealand	577	81.9	17.6	79.4	2.3	0.8	77.1	86.1
Norway (9)	902	89.3	10.3	86.5	1.9	1.3	92.6	86.7
Oman	713	88.0	11.8	86.7	1.5	0.0	92.8	83.4
Palestinian Nat'l Auth.	554	72.2	26.4	68.5	4.9	0.2	74.5	69.9
Portugal	791	94.2	5.7	93.0	1.3	0.0	92.2	96.0
Qatar	625	86.6	13.3	85.6	1.1	0.0	91.0	82.4
Romania	526	87.9	11.7	84.7	3.4	0.3	89.1	86.6
Saudi Arabia	515	82.5	17.0	80.2	2.8	0.0	84.5	80.5
Singapore	970	97.1	2.8	96.7	0.5	0.0	97.6	96.8
Sweden	738	88.1	11.5	85.5	2.5	0.4	89.6	86.6
Turkiye	704	82.1	17.9	81.9	0.2	0.0	78.4	86.0
United Arab Emirates	4028	88.0	11.8	86.1	1.7	0.4	90.7	85.3
United States	1139	91.9	7.9	89.7	1.2	1.3	91.8	92.1
Uzbekistan	628	73.4	23.3	64.4	12.1	0.3	73.0	73.9
International Avg. (40)	36757	85.6	13.9	83.4	2.4	0.3	86.5	84.8
Abu Dhabi, UAE	1037	81.5	18.1	79.6	1.9	0.5	83.4	79.7
Dubai, UAE	1168	94.8	5.1	93.1	1.4	0.5	96.0	93.7
Sharjah, UAE	936	88.3	11.5	86.6	1.6	0.3	91.5	85.2

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Biology / Knowing

B_SD3_02D SE82025D: Statements about photosynthesis - carbon dioxide - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1220	76.8	75.1	22.6	2.1	0.2	76.3	77.3
Austria	670	78.4	76.9	21.2	1.6	0.3	78.2	78.5
Azerbaijan	899	68.3	60.9	28.2	9.9	1.0	70.1	66.8
Bahrain	746	81.6	80.4	18.1	1.4	0.2	85.3	78.0
Brazil	3278	60.5	57.0	37.3	5.1	0.6	58.0	63.2
Chile	645	72.4	68.7	26.1	4.8	0.4	70.4	74.7
Chinese Taipei	1111	75.7	75.1	24.1	0.8	0.0	73.7	77.5
Cyprus	618	72.6	71.1	26.9	1.5	0.6	72.6	72.5
Czech Republic	1176	88.4	88.1	11.5	0.4	0.0	86.7	90.1
England	602	80.1	77.1	19.1	2.2	1.6	76.7	83.6
Finland	868	84.1	82.8	15.6	1.5	0.1	84.2	84.1
France	649	72.3	69.9	26.8	3.3	0.0	69.3	75.2
Georgia	710	80.1	74.3	18.5	7.1	0.1	81.2	79.1
Hong Kong SAR	644	82.2	81.0	17.5	0.7	0.8	82.8	81.7
Hungary	793	76.1	75.9	23.8	0.3	0.0	73.0	79.0
Ireland	745	79.6	76.8	19.7	3.3	0.1	80.0	79.2
Israel	757	77.9	76.1	21.5	1.9	0.4	76.4	79.5
Italy	673	75.6	74.7	24.1	1.1	0.0	73.7	77.6
Japan	789	87.1	86.5	12.9	0.6	0.0	85.3	88.8
Jordan	608	70.3	67.4	28.4	4.1	0.1	70.4	70.2
Kazakhstan	927	76.1	74.0	23.3	2.4	0.3	73.8	78.3
Korea, Rep. of	857	77.3	76.0	22.3	1.7	0.0	77.4	77.3
Lithuania	788	87.1	86.3	12.8	0.8	0.1	86.6	87.7
Malaysia	1256	75.1	74.6	24.7	0.7	0.0	76.1	74.1
Malta	568	74.2	72.3	25.1	2.6	0.0	76.7	72.0
Morocco	750	60.3	58.3	38.4	2.8	0.6	64.4	56.7
New Zealand	577	77.7	75.6	21.7	1.9	0.8	77.6	77.7
Norway (9)	902	81.9	78.7	17.4	2.6	1.3	82.5	81.4
Oman	713	76.0	74.8	23.7	1.5	0.0	78.7	73.3
Palestinian Nat'l Auth.	554	70.0	66.0	28.2	5.6	0.2	69.5	70.5
Portugal	791	83.0	82.8	17.0	0.2	0.0	80.6	85.1
Qatar	625	76.8	76.2	23.1	0.8	0.0	75.8	77.6
Romania	526	71.4	69.0	27.7	3.0	0.3	67.7	75.4
Saudi Arabia	515	75.2	73.5	24.2	2.3	0.0	77.6	72.8
Singapore	970	91.7	91.3	8.2	0.5	0.0	91.2	92.2
Sweden	738	87.8	86.1	11.9	1.5	0.4	88.8	86.9
Turkiye	704	81.6	81.1	18.2	0.7	0.0	80.0	83.5
United Arab Emirates	4028	84.2	82.3	15.5	1.8	0.4	86.0	82.4
United States	1139	82.1	80.2	17.4	1.0	1.3	80.8	83.5
Uzbekistan	628	67.1	59.8	29.2	10.7	0.3	66.9	67.4
International Avg. (40)	36757	77.4	75.4	21.9	2.5	0.3	77.1	77.8
Abu Dhabi, UAE	1037	79.9	77.9	19.6	2.0	0.5	81.1	78.8
Dubai, UAE	1168	88.5	86.6	11.2	1.6	0.5	89.4	87.6
Sharjah, UAE	936	84.1	82.6	15.6	1.5	0.3	87.9	80.5

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Reasoning

B_SD3_03A SE82273A: Flooding leads to shortage of drinking water - CR - 1 Point

COUNTRY	N	DIFF %	1 %	0 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1220	42.5	39.1	53.1	39.1	53.1	7.6	0.2	40.9	43.7
Austria	670	43.6	34.3	44.4	34.3	44.4	20.9	0.4	46.1	41.1
Azerbaijan	899	26.9	16.1	43.8	16.1	43.8	39.1	1.0	24.8	28.7
Bahrain	746	32.0	26.9	57.2	26.9	57.2	15.8	0.2	39.4	24.3
Brazil	3278	28.0	20.8	53.5	20.8	53.5	25.0	0.7	27.0	28.9
Chile	645	37.5	28.4	47.4	28.4	47.4	23.8	0.4	36.7	38.2
Chinese Taipei	1111	26.5	24.4	67.8	24.4	67.8	7.8	0.0	24.6	28.2
Cyprus	618	27.6	18.3	48.0	18.3	48.0	33.1	0.6	25.8	29.3
Czech Republic	1176	22.1	17.2	60.8	17.2	60.8	22.0	0.0	23.6	20.7
England	602	33.4	27.6	55.1	27.6	55.1	15.7	1.6	32.7	34.1
Finland	868	36.8	32.6	56.0	32.6	56.0	11.1	0.3	40.0	33.7
France	649	33.1	23.6	47.6	23.6	47.6	28.6	0.1	32.2	34.1
Georgia	710	33.6	22.9	45.3	22.9	45.3	31.8	0.1	33.9	33.3
Hong Kong SAR	644	42.3	35.3	48.2	35.3	48.2	15.7	0.8	41.7	42.9
Hungary	793	25.5	20.2	59.0	20.2	59.0	20.8	0.0	22.5	28.2
Ireland	745	27.8	23.9	62.1	23.9	62.1	13.8	0.1	25.0	30.1
Israel	756	34.6	26.4	49.9	26.4	49.9	23.2	0.5	35.4	33.8
Italy	673	19.5	13.7	56.5	13.7	56.5	29.8	0.0	19.2	19.9
Japan	789	20.6	17.4	67.3	17.4	67.3	15.3	0.0	15.9	25.6
Jordan	608	31.2	27.6	60.9	27.6	60.9	11.4	0.1	38.5	24.4
Kazakhstan	927	17.9	14.5	66.4	14.5	66.4	18.7	0.5	17.6	18.2
Korea, Rep. of	857	45.3	39.6	47.8	39.6	47.8	12.6	0.0	46.1	44.6
Lithuania	788	58.2	46.6	33.4	46.6	33.4	19.8	0.1	57.6	58.9
Malaysia	1256	39.4	37.6	57.8	37.6	57.8	4.5	0.1	41.8	36.9
Malta	568	39.2	33.0	51.3	33.0	51.3	15.7	0.0	35.5	42.6
Morocco	750	9.5	4.9	46.8	4.9	46.8	47.5	0.7	14.5	5.8
New Zealand	576	54.8	50.5	41.7	50.5	41.7	7.0	0.8	51.8	57.4
Norway (9)	902	28.4	23.5	59.2	23.5	59.2	16.1	1.3	33.1	24.5
Oman	713	37.0	32.6	55.7	32.6	55.7	11.7	0.0	40.5	33.3
Palestinian Nat'l Auth.	553	16.5	13.9	70.3	13.9	70.3	15.6	0.2	22.6	10.6
Portugal	791	28.1	22.2	56.6	22.2	56.6	21.3	0.0	22.5	32.9
Qatar	625	38.0	33.5	54.6	33.5	54.6	11.8	0.0	41.0	35.2
Romania	525	33.4	25.6	51.0	25.6	51.0	23.1	0.3	33.9	32.9
Saudi Arabia	515	15.4	14.0	77.0	14.0	77.0	8.9	0.0	17.8	13.1
Singapore	970	56.8	55.4	42.1	55.4	42.1	2.5	0.0	53.1	60.1
Sweden	738	62.1	51.6	31.5	51.6	31.5	16.4	0.4	62.3	61.9
Turkiye	704	51.1	43.5	41.7	43.5	41.7	14.9	0.0	54.6	47.2
United Arab Emirates	4026	22.2	19.8	69.4	19.8	69.4	10.4	0.4	20.9	23.4
United States	1138	48.5	45.9	48.6	45.9	48.6	4.2	1.3	46.0	51.0
Uzbekistan	628	7.6	5.7	69.0	5.7	69.0	24.7	0.6	9.1	6.2
International Avg. (40)	36750	33.4	27.8	53.9	27.8	53.9	18.0	0.4	33.7	33.0
Abu Dhabi, UAE	1037	16.8	14.7	72.8	14.7	72.8	12.0	0.5	13.9	19.5
Dubai, UAE	1167	34.3	30.9	59.1	30.9	59.1	9.4	0.5	32.3	36.2
Sharjah, UAE	936	17.8	16.2	74.4	16.2	74.4	9.1	0.4	17.6	18.1

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Reasoning

B_SD3_03B SE82273B: Flooding leads to spread of disease - CR - 1 Point

COUNTRY	N	DIFF %	1 %	0 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1220	47.7	44.5	48.8	44.5	48.8	6.5	0.2	50.2	45.8
Austria	670	21.7	16.8	60.4	16.8	60.4	22.4	0.4	24.7	18.8
Azerbaijan	899	18.8	10.5	45.2	10.5	45.2	42.9	1.4	19.3	18.3
Bahrain	746	31.6	26.7	57.8	26.7	57.8	15.4	0.2	41.2	21.5
Brazil	3278	31.8	23.8	50.9	23.8	50.9	24.4	0.9	34.8	28.9
Chile	645	28.5	21.8	54.6	21.8	54.6	23.1	0.5	31.3	26.0
Chinese Taipei	1111	43.1	39.5	52.3	39.5	52.3	8.2	0.0	46.4	39.9
Cyprus	618	29.4	19.9	47.9	19.9	47.9	31.6	0.6	35.1	23.9
Czech Republic	1176	30.0	22.8	53.1	22.8	53.1	24.1	0.0	33.2	27.1
England	602	23.8	20.2	64.7	20.2	64.7	13.5	1.6	25.4	22.0
Finland	868	65.6	59.6	31.2	59.6	31.2	8.8	0.3	73.8	57.8
France	649	34.0	25.6	49.7	25.6	49.7	24.3	0.3	39.2	28.4
Georgia	710	30.3	19.9	45.7	19.9	45.7	34.1	0.3	35.3	25.9
Hong Kong SAR	644	33.7	27.8	54.6	27.8	54.6	16.7	0.9	36.0	31.7
Hungary	793	44.8	35.3	43.5	35.3	43.5	21.1	0.0	49.9	39.9
Ireland	745	45.3	37.7	45.5	37.7	45.5	16.7	0.1	45.2	45.4
Israel	756	39.0	30.0	47.0	30.0	47.0	22.5	0.5	43.2	35.1
Italy	673	22.2	15.9	55.7	15.9	55.7	28.4	0.0	22.6	21.7
Japan	789	25.8	20.9	60.0	20.9	60.0	19.1	0.0	24.3	27.5
Jordan	608	37.8	32.8	54.1	32.8	54.1	13.0	0.1	37.7	37.9
Kazakhstan	927	29.7	23.1	54.7	23.1	54.7	21.4	0.7	33.0	26.6
Korea, Rep. of	857	36.2	31.4	55.3	31.4	55.3	13.2	0.1	40.1	32.6
Lithuania	788	58.9	47.2	33.0	47.2	33.0	19.7	0.1	64.8	52.6
Malaysia	1256	41.6	39.5	55.5	39.5	55.5	4.9	0.1	44.9	37.8
Malta	568	50.3	42.7	42.3	42.7	42.3	15.0	0.0	55.9	45.0
Morocco	750	10.7	4.8	40.2	4.8	40.2	54.0	1.0	10.3	11.0
New Zealand	576	41.0	37.1	53.3	37.1	53.3	8.8	0.8	41.8	40.3
Norway (9)	902	51.1	41.7	39.9	41.7	39.9	16.8	1.6	53.9	48.7
Oman	713	22.5	19.7	67.6	19.7	67.6	12.1	0.5	28.0	16.3
Palestinian Nat'l Auth.	553	10.7	8.8	73.8	8.8	73.8	17.2	0.2	13.4	7.9
Portugal	791	48.5	36.9	39.3	36.9	39.3	23.8	0.0	49.9	47.3
Qatar	625	25.0	22.2	66.7	22.2	66.7	11.0	0.1	28.3	21.6
Romania	526	25.9	18.6	53.2	18.6	53.2	27.9	0.3	26.6	25.3
Saudi Arabia	515	13.1	11.5	76.6	11.5	76.6	11.9	0.0	15.1	11.2
Singapore	970	71.5	70.2	27.9	70.2	27.9	1.8	0.1	73.4	69.9
Sweden	738	64.5	53.8	29.6	53.8	29.6	16.0	0.7	70.8	58.6
Turkiye	704	60.2	49.8	32.8	49.8	32.8	17.4	0.0	63.7	56.3
United Arab Emirates	4026	38.3	33.9	54.7	33.9	54.7	10.8	0.6	42.3	34.4
United States	1138	48.7	46.0	48.4	46.0	48.4	4.2	1.4	53.3	44.2
Uzbekistan	628	14.4	10.1	60.4	10.1	60.4	28.4	1.0	15.1	13.5
International Avg. (40)	36751	36.2	30.0	50.7	30.0	50.7	18.8	0.4	39.3	33.1
Abu Dhabi, UAE	1037	30.4	26.1	59.8	26.1	59.8	13.6	0.5	33.2	27.8
Dubai, UAE	1167	53.3	48.4	42.4	48.4	42.4	8.4	0.8	59.0	47.7
Sharjah, UAE	936	36.7	32.8	56.7	32.8	56.7	10.0	0.4	39.3	34.2

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Chemistry / Applying

B_SD3_04 SE82131: pH of lemon and soap - CR - 1 Point

COUNTRY	N	DIFF %	1 %	7 %	0 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1220	12.4	12.3	3.9	82.6	12.3	86.4	1.0	0.2	11.6	13.1
Austria	670	27.6	27.3	3.1	68.4	27.3	71.5	0.8	0.4	29.5	25.8
Azerbaijan	899	2.9	2.6	1.4	85.5	2.6	86.9	9.0	1.4	3.6	2.3
Bahrain	746	18.0	18.0	10.9	70.7	18.0	81.6	0.3	0.2	23.9	12.2
Brazil	3278	1.8	1.7	1.5	91.8	1.7	93.4	4.0	0.9	1.6	2.0
Chile	645	6.0	5.6	1.3	86.3	5.6	87.6	6.3	0.5	4.2	7.9
Chinese Taipei	1111	52.0	51.9	5.4	42.4	51.9	47.9	0.2	0.0	56.0	48.4
Cyprus	618	10.9	10.6	4.8	81.9	10.6	86.7	2.1	0.6	13.0	9.0
Czech Republic	1176	13.4	13.3	0.8	85.2	13.3	86.0	0.6	0.0	14.4	12.5
England	602	34.9	34.2	1.2	62.4	34.2	63.6	0.6	1.6	34.8	35.1
Finland	868	45.3	44.9	1.3	52.9	44.9	54.2	0.5	0.3	49.0	41.8
France	649	13.4	13.3	4.5	81.1	13.3	85.7	0.7	0.3	15.1	11.7
Georgia	710	4.4	4.0	1.1	86.7	4.0	87.9	7.8	0.3	6.2	2.7
Hong Kong SAR	644	40.1	39.1	11.2	47.3	39.1	58.5	1.5	0.9	43.2	37.6
Hungary	793	21.5	21.4	2.6	75.5	21.4	78.1	0.5	0.0	19.7	23.3
Ireland	745	39.2	38.5	1.8	57.9	38.5	59.7	1.7	0.1	42.0	36.7
Israel	756	13.9	13.6	1.8	82.4	13.6	84.3	1.7	0.5	11.6	16.1
Italy	673	18.4	18.2	2.7	77.9	18.2	80.6	1.3	0.0	18.5	18.3
Japan	789	27.7	27.6	4.7	67.4	27.6	72.2	0.2	0.0	26.5	28.8
Jordan	608	24.1	24.0	5.7	69.9	24.0	75.6	0.1	0.3	30.9	18.0
Kazakhstan	927	6.5	6.3	4.6	85.8	6.3	90.4	2.5	0.7	6.0	7.0
Korea, Rep. of	857	12.3	12.0	0.0	85.9	12.0	85.9	1.9	0.1	10.1	14.4
Lithuania	788	8.5	8.5	2.2	89.0	8.5	91.2	0.2	0.1	9.9	7.1
Malaysia	1256	14.7	14.6	5.7	79.0	14.6	84.8	0.4	0.2	16.9	12.3
Malta	568	37.3	37.0	3.5	58.6	37.0	62.1	0.8	0.0	41.1	33.8
Morocco	750	2.5	2.4	4.5	89.0	2.4	93.5	3.0	1.1	3.4	1.7
New Zealand	576	15.8	15.6	2.2	80.6	15.6	82.9	0.8	0.8	11.2	19.9
Norway (9)	902	20.8	20.1	0.7	75.9	20.1	76.6	1.7	1.6	22.5	19.4
Oman	713	21.0	20.6	7.5	70.0	20.6	77.5	1.4	0.5	24.9	17.2
Palestinian Nat'l Auth.	553	2.2	2.2	9.0	88.0	2.2	97.1	0.6	0.2	2.0	2.3
Portugal	791	53.1	52.9	2.8	44.0	52.9	46.8	0.3	0.0	53.7	52.5
Qatar	625	34.4	34.4	3.3	62.2	34.4	65.4	0.1	0.1	43.0	26.4
Romania	526	6.7	6.5	2.8	88.0	6.5	90.8	2.5	0.3	7.9	5.3
Saudi Arabia	515	18.8	18.6	4.7	75.7	18.6	80.4	0.9	0.0	24.0	13.9
Singapore	970	69.1	68.9	6.6	24.2	68.9	30.9	0.1	0.1	70.7	67.6
Sweden	738	48.8	48.1	1.6	49.0	48.1	50.5	0.6	0.7	53.1	44.5
Turkiye	704	54.5	54.4	2.3	43.2	54.4	45.5	0.2	0.0	58.1	50.6
United Arab Emirates	4028	31.1	30.5	4.4	63.4	30.5	67.8	1.1	0.6	30.8	31.3
United States	1138	12.1	11.9	7.2	78.8	11.9	86.0	0.5	1.6	12.3	11.9
Uzbekistan	628	1.2	1.1	1.9	90.8	1.1	92.7	4.9	1.2	1.1	1.3
International Avg. (40)	36753	22.5	22.2	3.7	71.9	22.2	75.7	1.6	0.5	24.0	21.1
Abu Dhabi, UAE	1037	20.4	20.0	3.0	75.4	20.0	78.4	1.0	0.5	18.9	21.7
Dubai, UAE	1168	46.1	44.9	3.5	48.9	44.9	52.4	1.9	0.8	45.4	46.7
Sharjah, UAE	936	31.1	30.8	5.6	62.6	30.8	68.2	0.6	0.4	30.2	31.9

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Chemistry / Reasoning

B_SD3_05 SE82171: Why did the weight of the charcoal decrease? - CR - 1 Point

COUNTRY	N	DIFF %	1 %	0 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1220	12.5	11.9	83.2	11.9	83.2	4.6	0.3	9.3	15.1
Austria	670	11.4	10.9	84.6	10.9	84.6	4.1	0.4	9.9	12.8
Azerbaijan	899	6.9	5.4	72.7	5.4	72.7	20.4	1.5	6.6	7.1
Bahrain	745	8.9	8.4	86.6	8.4	86.6	4.9	0.2	8.2	9.5
Brazil	3278	7.9	7.1	83.0	7.1	83.0	8.8	1.1	7.3	8.6
Chile	645	1.7	1.5	85.2	1.5	85.2	12.2	1.2	1.9	1.5
Chinese Taipei	1111	32.0	31.4	66.6	31.4	66.6	2.0	0.0	29.7	34.2
Cyprus	618	5.1	4.7	86.0	4.7	86.0	8.7	0.6	3.3	6.8
Czech Republic	1176	8.5	8.2	87.9	8.2	87.9	3.9	0.0	7.4	9.6
England	600	12.5	11.5	80.1	11.5	80.1	6.7	1.7	12.6	12.4
Finland	868	11.2	10.5	83.8	10.5	83.8	5.3	0.3	11.2	11.1
France	649	8.9	8.4	86.2	8.4	86.2	5.0	0.3	7.9	10.0
Georgia	0	.	.	.	.	.	.	.	.	.
Hong Kong SAR	644	8.5	7.7	82.9	7.7	82.9	8.5	0.9	8.0	8.9
Hungary	793	9.9	9.6	87.3	9.6	87.3	3.1	0.0	7.4	12.2
Ireland	745	7.2	6.8	87.9	6.8	87.9	5.2	0.1	8.5	6.1
Israel	756	8.6	7.8	82.7	7.8	82.7	9.0	0.5	9.4	7.9
Italy	673	7.2	6.8	87.9	6.8	87.9	5.2	0.1	5.6	8.9
Japan	789	22.3	21.9	76.3	21.9	76.3	1.8	0.0	18.8	25.7
Jordan	608	3.5	3.3	92.0	3.3	92.0	4.4	0.3	2.1	4.7
Kazakhstan	927	4.0	3.7	90.0	3.7	90.0	5.4	0.9	3.9	4.0
Korea, Rep. of	857	2.6	2.4	92.4	2.4	92.4	5.1	0.1	3.3	1.9
Lithuania	788	7.2	6.9	88.6	6.9	88.6	4.4	0.1	6.6	7.8
Malaysia	1256	1.6	1.6	95.6	1.6	95.6	2.4	0.4	2.1	1.1
Malta	568	11.9	11.3	83.6	11.3	83.6	5.1	0.0	11.2	12.7
Morocco	750	1.2	0.9	78.4	0.9	78.4	19.5	1.2	1.6	0.8
New Zealand	577	6.3	5.8	87.5	5.8	87.5	5.8	0.8	6.7	5.9
Norway (9)	902	8.1	7.2	81.6	7.2	81.6	9.3	1.8	7.2	8.8
Oman	713	5.6	5.4	91.5	5.4	91.5	2.2	0.9	7.9	3.3
Palestinian Nat'l Auth.	553	1.9	1.8	93.1	1.8	93.1	4.8	0.2	1.0	2.9
Portugal	791	6.7	6.1	85.5	6.1	85.5	8.4	0.0	5.7	7.5
Qatar	625	7.0	6.7	88.5	6.7	88.5	4.7	0.1	6.6	7.5
Romania	526	9.5	8.6	81.8	8.6	81.8	9.4	0.3	7.3	11.8
Saudi Arabia	515	3.3	3.2	94.7	3.2	94.7	2.1	0.0	3.8	2.8
Singapore	970	22.6	22.4	76.6	22.4	76.6	0.9	0.1	21.6	23.5
Sweden	738	17.1	15.8	76.5	15.8	76.5	6.9	0.9	15.5	18.6
Turkiye	704	23.9	22.7	72.2	22.7	72.2	5.1	0.0	20.6	27.7
United Arab Emirates	4028	11.2	10.6	84.0	10.6	84.0	4.6	0.8	11.3	11.2
United States	1137	14.5	14.1	83.1	14.1	83.1	1.1	1.8	14.1	14.8
Uzbekistan	628	2.3	2.1	87.7	2.1	87.7	8.4	1.7	2.2	2.5
International Avg. (39)	36040	9.3	8.8	84.5	8.8	84.5	6.1	0.6	8.6	10.0
Abu Dhabi, UAE	1037	6.9	6.5	86.5	6.5	86.5	6.3	0.7	6.3	7.5
Dubai, UAE	1168	16.0	15.3	80.1	15.3	80.1	3.4	1.1	15.0	17.1
Sharjah, UAE	936	11.0	10.5	84.9	10.5	84.9	4.2	0.5	13.7	8.4

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Applying

B_SD3_06 SE82250: Dolphins detect prey - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1220	57.2	12.6	56.8	4.2	25.7	0.3	0.4	51.7	61.6
Austria	670	58.0	14.6	57.7	4.5	22.6	0.1	0.4	52.5	63.6
Azerbaijan	899	39.5	18.5	37.6	15.6	23.5	2.6	2.2	38.0	40.7
Bahrain	746	46.3	21.3	45.7	7.9	23.7	1.0	0.3	47.8	44.8
Brazil	3278	27.4	18.3	26.7	10.3	42.1	0.8	1.8	25.0	30.0
Chile	645	31.8	16.5	30.7	9.5	39.9	2.1	1.4	28.6	35.1
Chinese Taipei	1111	81.6	6.8	81.4	0.9	10.7	0.2	0.0	78.5	84.3
Cyprus	618	33.5	15.3	32.8	11.9	37.9	1.4	0.6	27.4	39.0
Czech Republic	1176	63.5	6.1	63.5	2.9	27.4	0.0	0.0	58.0	68.8
England	602	55.5	13.2	54.0	2.9	27.2	0.9	1.8	55.4	55.6
Finland	868	60.0	9.8	59.7	3.5	26.5	0.1	0.3	55.8	64.2
France	649	32.7	14.9	32.3	6.9	44.7	0.6	0.5	25.9	39.5
Georgia	710	26.1	17.3	25.6	11.1	43.9	1.3	0.9	23.9	28.0
Hong Kong SAR	644	64.3	16.4	63.5	3.0	15.7	0.1	1.2	58.5	69.1
Hungary	793	64.5	9.7	64.3	3.2	22.6	0.1	0.2	58.4	70.3
Ireland	745	49.4	12.8	48.7	5.9	31.1	1.3	0.1	40.2	57.5
Israel	757	36.1	12.1	35.7	6.3	44.7	0.5	0.6	30.3	41.8
Italy	673	38.9	8.5	38.7	10.0	42.5	0.3	0.1	33.6	44.5
Japan	789	68.0	10.7	68.0	4.3	17.0	0.0	0.0	61.0	74.9
Jordan	608	31.0	14.2	30.3	11.5	41.9	0.6	1.4	24.1	37.0
Kazakhstan	927	32.8	14.3	31.8	12.5	38.4	1.3	1.8	33.1	32.5
Korea, Rep. of	857	54.4	12.1	54.2	7.4	25.8	0.3	0.1	47.7	60.8
Lithuania	788	57.6	8.6	57.4	7.1	26.5	0.2	0.1	50.9	64.6
Malaysia	1256	35.0	13.9	34.6	8.3	41.9	0.7	0.6	36.1	33.8
Malta	568	45.7	15.5	45.7	6.3	32.3	0.2	0.0	45.1	46.4
Morocco	0	.	.	.	.	.	.	.	.	.
New Zealand	577	53.1	14.1	51.8	2.7	28.8	1.6	1.0	45.1	60.3
Norway (9)	901	55.4	14.8	54.0	4.1	24.5	0.6	2.0	53.2	57.3
Oman	713	32.9	16.1	32.0	8.4	40.8	1.6	1.0	30.7	35.1
Palestinian Nat'l Auth.	554	28.8	17.4	28.4	16.2	36.7	0.8	0.5	25.1	32.4
Portugal	790	45.7	11.6	45.7	4.9	37.8	0.0	0.0	40.4	50.3
Qatar	625	44.9	16.9	44.4	6.3	31.2	0.5	0.6	44.7	45.2
Romania	525	34.8	14.9	34.6	8.1	41.8	0.4	0.3	33.3	36.4
Saudi Arabia	515	32.6	20.8	32.5	9.1	37.2	0.3	0.1	30.0	35.1
Singapore	970	65.0	7.9	64.8	2.9	24.1	0.2	0.1	57.6	71.6
Sweden	738	61.5	10.4	60.6	3.9	23.6	0.6	0.9	57.5	65.6
Turkiye	704	43.4	13.8	43.3	16.5	26.1	0.3	0.0	39.3	47.9
United Arab Emirates	4028	53.1	15.2	51.9	5.0	25.7	0.7	1.5	48.2	57.7
United States	1139	59.5	12.5	58.1	3.7	23.3	0.2	2.1	56.0	62.9
Uzbekistan	628	35.3	22.3	33.5	19.8	19.2	2.1	3.0	32.1	38.6
International Avg. (39)	36004	47.1	13.9	46.5	7.4	30.7	0.7	0.8	43.1	50.9
Abu Dhabi, UAE	1037	48.0	21.1	47.1	8.2	21.7	0.4	1.5	42.7	53.2
Dubai, UAE	1168	63.9	10.1	62.2	3.2	21.8	1.1	1.6	57.3	70.1
Sharjah, UAE	936	49.6	13.7	48.6	3.9	31.8	0.7	1.4	47.0	52.1

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Applying

B_SD3_07 SE82275: Compare a ball thrown on Earth and on the Moon (DERIVED) - CR - 1 Point

COUNTRY	N	DIFF %	1 %	0 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1220	26.2	25.8	72.6	25.8	72.6	1.2	0.4	22.0	29.4
Austria	670	21.1	20.8	78.1	20.8	78.1	0.7	0.4	16.3	25.8
Azerbaijan	899	8.6	7.5	79.5	7.5	79.5	10.1	2.9	8.5	8.6
Bahrain	746	15.7	15.4	82.6	15.4	82.6	1.3	0.6	17.0	14.4
Brazil	3278	12.2	11.6	83.2	11.6	83.2	3.0	2.2	9.7	14.8
Chile	645	13.9	12.9	80.1	12.9	80.1	5.6	1.4	9.9	18.0
Chinese Taipei	1111	37.9	37.8	62.0	37.8	62.0	0.2	0.0	33.9	41.4
Cyprus	618	18.6	18.2	79.5	18.2	79.5	1.4	0.9	18.6	18.6
Czech Republic	1176	20.3	20.2	79.4	20.2	79.4	0.3	0.0	15.9	24.4
England	602	25.6	24.6	71.6	24.6	71.6	2.0	1.8	23.7	27.5
Finland	868	30.9	30.8	68.7	30.8	68.7	0.2	0.3	28.0	33.8
France	649	16.9	16.6	81.5	16.6	81.5	1.2	0.8	15.6	18.2
Georgia	710	14.7	13.6	79.0	13.6	79.0	5.5	1.9	13.1	16.0
Hong Kong SAR	644	42.5	41.3	55.8	41.3	55.8	1.6	1.3	38.6	45.8
Hungary	793	24.5	24.4	75.1	24.4	75.1	0.4	0.2	18.8	30.0
Ireland	745	23.9	23.7	75.2	23.7	75.2	1.0	0.2	20.0	27.3
Israel	757	21.1	20.7	77.3	20.7	77.3	1.3	0.7	20.0	22.2
Italy	673	24.7	24.4	74.5	24.4	74.5	0.8	0.4	22.0	27.6
Japan	789	42.3	41.9	57.2	41.9	57.2	0.8	0.0	35.6	48.9
Jordan	608	7.6	7.4	90.4	7.4	90.4	0.5	1.7	7.5	7.7
Kazakhstan	927	12.6	12.0	83.2	12.0	83.2	2.6	2.2	11.7	13.6
Korea, Rep. of	857	28.8	28.4	70.4	28.4	70.4	1.0	0.1	23.9	33.5
Lithuania	788	26.3	26.2	73.4	26.2	73.4	0.3	0.1	24.3	28.4
Malaysia	1256	12.6	12.4	86.3	12.4	86.3	0.4	0.9	12.9	12.3
Malta	568	28.8	28.4	70.1	28.4	70.1	1.4	0.2	23.2	34.1
Morocco	0	.	.	.	.	.	.	.	.	.
New Zealand	577	22.1	21.2	75.0	21.2	75.0	2.3	1.5	18.7	25.1
Norway (9)	902	30.2	29.0	67.0	29.0	67.0	1.9	2.1	28.2	31.8
Oman	713	8.5	8.2	88.3	8.2	88.3	1.8	1.7	10.4	6.7
Palestinian Nat'l Auth.	554	11.5	11.2	86.3	11.2	86.3	1.4	1.1	11.6	11.5
Portugal	791	26.6	26.3	72.7	26.3	72.7	1.0	0.0	21.6	30.9
Qatar	625	18.0	17.7	80.9	17.7	80.9	0.4	1.0	15.3	20.5
Romania	526	17.8	17.3	80.0	17.3	80.0	2.5	0.3	14.2	21.7
Saudi Arabia	515	12.9	12.8	85.9	12.8	85.9	0.9	0.4	13.8	12.1
Singapore	970	49.9	49.8	50.0	49.8	50.0	0.1	0.1	42.7	56.3
Sweden	738	33.2	32.5	65.3	32.5	65.3	1.2	1.0	28.2	38.3
Turkiye	704	24.8	24.6	74.3	24.6	74.3	1.1	0.0	20.8	29.1
United Arab Emirates	4028	23.2	22.5	74.6	22.5	74.6	1.0	1.9	21.5	24.8
United States	1139	24.7	24.0	73.3	24.0	73.3	0.5	2.3	19.3	29.9
Uzbekistan	628	5.5	5.0	87.0	5.0	87.0	3.8	4.2	5.9	5.1
International Avg. (39)	36007	22.2	21.8	75.6	21.8	75.6	1.7	1.0	19.6	24.8
Abu Dhabi, UAE	1037	18.4	17.8	79.1	17.8	79.1	1.2	1.8	17.9	18.9
Dubai, UAE	1168	32.8	31.8	65.1	31.8	65.1	1.0	2.2	30.7	34.8
Sharjah, UAE	936	21.4	20.8	76.3	20.8	76.3	1.3	1.6	17.1	25.5

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Physics / Applying

B_SD3_07A SE82275A: Compare a ball thrown on Earth and on the Moon - mass - MC - Key: C

COUNTRY	N	DIFF %	A %	B %	C %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1220	35.1	37.8	25.7	34.4	1.6	0.4	33.0	36.7
Austria	670	28.1	50.2	20.7	27.7	0.9	0.4	25.4	30.8
Azerbaijan	899	17.0	39.3	31.0	14.4	12.4	2.9	15.9	17.8
Bahrain	746	29.4	40.2	28.3	28.5	2.4	0.6	29.6	29.1
Brazil	3278	25.9	39.0	30.5	24.2	4.1	2.2	24.5	27.3
Chile	645	27.9	36.3	30.1	25.6	6.6	1.4	25.1	30.7
Chinese Taipei	1111	51.6	30.9	17.2	51.2	0.7	0.0	50.3	52.7
Cyprus	618	34.3	37.8	25.7	33.1	2.4	0.9	39.1	29.9
Czech Republic	1176	31.2	52.5	15.5	30.9	1.1	0.0	29.5	32.9
England	602	36.3	37.5	23.3	34.8	2.6	1.8	36.0	36.7
Finland	868	41.6	43.7	14.1	41.2	0.6	0.3	41.0	42.2
France	649	27.3	47.4	23.6	26.6	1.7	0.8	27.8	26.8
Georgia	710	25.6	46.9	20.6	23.3	7.3	1.9	26.9	24.5
Hong Kong SAR	644	59.2	22.4	17.0	57.2	2.1	1.3	57.4	60.8
Hungary	793	35.1	52.3	12.1	34.8	0.6	0.2	29.5	40.4
Ireland	745	36.5	33.8	28.4	35.7	1.9	0.2	35.3	37.5
Israel	757	33.7	38.4	26.3	32.8	1.7	0.7	34.5	32.8
Italy	673	36.4	43.8	18.8	35.8	1.2	0.4	35.1	37.8
Japan	789	54.6	32.1	12.9	54.0	1.1	0.0	49.3	59.8
Jordan	608	20.8	43.8	32.7	20.1	1.7	1.7	21.3	20.4
Kazakhstan	927	22.4	45.1	28.0	21.1	3.6	2.2	23.1	21.6
Korea, Rep. of	857	35.8	41.3	22.0	35.3	1.2	0.1	31.6	39.9
Lithuania	788	34.2	48.3	16.9	33.9	0.8	0.1	32.3	36.2
Malaysia	1256	27.1	35.1	36.6	26.7	0.7	0.9	28.4	25.7
Malta	568	40.4	38.1	20.3	39.5	1.9	0.2	35.8	44.6
Morocco	0	.	.	.	.	.	.	.	.
New Zealand	577	34.3	40.2	22.8	32.9	2.6	1.5	33.2	35.3
Norway (9)	902	44.1	32.6	20.3	41.7	3.3	2.1	43.6	44.5
Oman	713	24.6	41.3	30.3	23.4	3.2	1.7	29.4	19.8
Palestinian Nat'l Auth.	554	26.2	48.7	22.3	25.2	2.7	1.1	28.9	23.6
Portugal	791	41.5	37.6	19.9	40.8	1.7	0.0	39.6	43.2
Qatar	625	27.0	47.1	24.5	26.5	0.9	1.0	25.2	28.8
Romania	526	30.6	45.3	22.2	29.7	2.6	0.3	28.3	33.1
Saudi Arabia	515	28.0	43.2	27.3	27.5	1.6	0.4	31.2	25.1
Singapore	970	69.3	18.6	11.9	68.9	0.5	0.1	65.5	72.7
Sweden	738	46.7	35.9	16.1	45.5	1.6	1.0	43.5	49.9
Turkiye	704	36.6	39.5	23.0	36.1	1.3	0.0	35.7	37.6
United Arab Emirates	4028	35.7	36.8	25.1	34.5	1.7	1.9	33.5	37.9
United States	1139	32.6	43.2	22.4	31.7	0.5	2.3	27.0	38.1
Uzbekistan	628	19.2	36.8	32.3	16.4	10.3	4.2	20.4	17.9
International Avg. (39)	36007	34.5	40.0	23.1	33.4	2.5	1.0	33.4	35.5
Abu Dhabi, UAE	1037	30.2	38.5	28.8	29.2	1.6	1.8	30.1	30.4
Dubai, UAE	1168	47.1	33.3	17.7	45.4	1.4	2.2	43.1	50.9
Sharjah, UAE	936	33.0	38.5	26.1	31.8	2.0	1.6	29.5	36.3

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Applying

B_SD3_07B SE82275B: Compare a ball thrown on Earth and on the Moon - gravity - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	C %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1220	71.9	70.3	21.4	6.1	1.8	0.4	71.2	72.4
Austria	670	67.1	65.6	27.0	5.2	1.7	0.4	63.4	70.7
Azerbaijan	899	52.1	43.4	24.6	15.2	13.8	2.9	54.0	50.6
Bahrain	746	57.0	55.1	30.1	11.5	2.7	0.6	60.6	53.4
Brazil	3278	52.9	48.8	34.5	9.1	5.4	2.2	46.4	59.5
Chile	645	53.5	48.9	34.5	8.0	7.2	1.4	47.7	59.4
Chinese Taipei	1111	75.7	75.3	18.7	5.5	0.5	0.0	72.7	78.4
Cyprus	618	54.7	52.9	27.2	16.5	2.4	0.9	48.9	60.0
Czech Republic	1176	71.6	70.7	25.4	2.7	1.1	0.0	68.3	74.7
England	602	68.4	65.3	25.9	4.3	2.8	1.8	64.2	72.8
Finland	868	71.6	70.9	22.3	5.8	0.7	0.3	68.8	74.4
France	649	54.1	52.4	34.7	9.7	2.3	0.8	51.6	56.6
Georgia	710	73.4	66.1	19.4	4.5	8.1	1.9	78.3	69.2
Hong Kong SAR	644	68.5	66.2	24.5	6.0	2.1	1.3	66.2	70.4
Hungary	793	65.3	64.8	30.4	4.0	0.7	0.2	59.8	70.7
Ireland	745	64.7	62.9	29.4	5.0	2.5	0.2	60.2	68.6
Israel	757	59.6	57.8	30.8	8.4	2.2	0.7	55.6	63.4
Italy	673	59.0	57.9	33.2	7.1	1.5	0.4	55.1	63.0
Japan	789	74.0	73.1	22.9	2.9	1.1	0.0	70.9	77.0
Jordan	608	48.2	46.3	38.3	11.6	2.1	1.7	51.5	45.3
Kazakhstan	927	47.6	44.6	38.2	10.8	4.3	2.2	47.4	47.9
Korea, Rep. of	857	76.3	75.1	19.5	3.8	1.4	0.1	73.2	79.2
Lithuania	788	70.9	70.6	23.5	5.4	0.3	0.1	68.0	74.1
Malaysia	1256	46.3	45.6	35.9	16.9	0.8	0.9	46.3	46.3
Malta	568	63.5	62.1	27.9	7.8	2.0	0.2	58.5	68.1
Morocco	0	.	.	.	.	.	.	.	.
New Zealand	577	63.7	60.5	25.5	9.0	3.5	1.5	60.1	66.9
Norway (9)	902	65.4	62.1	27.0	5.9	2.9	2.1	63.9	66.6
Oman	713	48.4	45.3	34.3	14.0	4.7	1.7	53.4	43.3
Palestinian Nat'l Auth.	554	48.2	46.1	32.0	17.7	3.2	1.1	55.3	41.1
Portugal	791	63.1	62.4	32.2	4.3	1.2	0.0	61.6	64.4
Qatar	625	64.6	63.2	26.3	8.4	1.1	1.0	65.5	63.7
Romania	526	57.4	55.4	35.4	5.8	3.1	0.3	53.3	61.8
Saudi Arabia	515	45.6	44.5	39.0	14.1	2.0	0.4	50.7	40.6
Singapore	970	74.4	73.8	21.6	3.9	0.6	0.1	70.4	77.9
Sweden	738	67.4	65.3	25.3	6.3	2.2	1.0	66.1	68.6
Turkiye	704	65.4	64.2	24.1	9.9	1.8	0.0	62.9	67.9
United Arab Emirates	4028	65.0	62.7	25.0	8.7	1.7	1.9	64.0	66.0
United States	1139	67.2	64.9	24.9	6.8	1.1	2.3	63.7	70.7
Uzbekistan	628	42.9	36.1	32.4	15.6	11.6	4.2	40.1	45.7
International Avg. (39)	36007	61.7	59.5	28.3	8.3	2.9	1.0	60.0	63.4
Abu Dhabi, UAE	1037	56.8	54.7	27.8	13.8	1.9	1.8	55.3	58.3
Dubai, UAE	1168	74.0	71.2	20.4	4.7	1.6	2.2	72.3	75.6
Sharjah, UAE	936	67.4	64.8	22.9	8.5	2.2	1.6	64.4	70.2

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Applying

B_SD3_07C SE82275C: Compare a ball thrown on Earth and on the Moon - height - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	C %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1220	67.5	15.6	66.1	16.3	1.6	0.4	60.2	73.2
Austria	670	70.0	15.6	69.1	14.1	0.8	0.4	63.5	76.4
Azerbaijan	899	45.7	22.4	37.8	22.5	14.4	2.9	41.1	49.1
Bahrain	746	47.7	27.1	45.9	23.3	3.1	0.6	48.2	47.2
Brazil	3278	44.5	27.6	41.0	23.4	5.8	2.2	40.3	48.9
Chile	645	56.2	24.6	51.4	15.5	7.2	1.4	49.6	62.9
Chinese Taipei	1111	68.3	21.6	68.1	10.0	0.3	0.0	63.9	72.2
Cyprus	618	54.1	24.4	52.3	20.1	2.3	0.9	47.9	59.6
Czech Republic	1176	65.8	19.0	65.0	14.7	1.3	0.0	54.5	76.4
England	602	67.0	15.5	63.7	15.8	3.2	1.8	60.9	73.3
Finland	868	62.4	17.4	61.6	19.7	1.0	0.3	54.8	69.6
France	649	55.8	22.7	54.2	20.2	2.2	0.8	50.9	60.7
Georgia	710	58.5	28.5	52.7	8.8	8.1	1.9	53.5	62.7
Hong Kong SAR	644	62.2	20.7	60.3	15.9	1.8	1.3	57.7	65.9
Hungary	793	73.1	16.8	72.5	9.9	0.6	0.2	67.6	78.5
Ireland	745	67.9	17.2	66.3	14.1	2.2	0.2	61.5	73.6
Israel	757	57.4	24.9	55.5	16.4	2.5	0.7	49.9	64.7
Italy	673	59.0	20.9	57.3	18.9	2.5	0.4	50.5	68.0
Japan	789	80.3	10.7	79.4	8.8	1.1	0.0	73.9	86.6
Jordan	608	44.2	31.8	42.4	21.6	2.5	1.7	41.1	46.9
Kazakhstan	927	51.5	26.9	48.1	18.5	4.3	2.2	46.5	56.3
Korea, Rep. of	857	68.6	20.9	67.8	10.0	1.1	0.1	61.8	75.3
Lithuania	788	72.2	15.0	71.3	12.4	1.1	0.1	64.0	80.7
Malaysia	1256	45.6	27.8	44.9	25.7	0.7	0.9	44.2	47.1
Malta	568	59.7	19.4	58.3	19.9	2.2	0.2	50.3	68.6
Morocco	0	.	.	.	.	.	.	.	.
New Zealand	577	63.2	20.5	60.0	14.4	3.5	1.5	52.7	72.9
Norway (9)	902	66.1	19.1	62.4	12.9	3.4	2.1	60.7	70.5
Oman	713	42.0	36.0	39.7	18.8	3.9	1.7	41.7	42.3
Palestinian Nat'l Auth.	554	44.1	24.3	42.0	28.9	3.7	1.1	44.2	44.0
Portugal	791	59.0	25.5	58.1	14.9	1.6	0.0	48.7	67.9
Qatar	625	59.9	18.4	58.2	20.7	1.8	1.0	60.3	59.4
Romania	526	52.5	21.1	50.8	24.8	3.1	0.3	44.8	61.0
Saudi Arabia	515	44.4	26.2	43.3	28.1	2.1	0.4	41.9	46.8
Singapore	970	72.9	17.6	72.6	9.3	0.3	0.1	67.3	77.9
Sweden	738	68.3	20.5	66.4	10.4	1.7	1.0	59.7	76.7
Turkiye	704	58.3	21.9	57.5	19.2	1.4	0.0	52.4	64.6
United Arab Emirates	4028	57.4	22.7	55.2	18.2	2.0	1.9	53.7	61.1
United States	1139	63.7	16.6	61.8	18.6	0.8	2.3	57.4	69.9
Uzbekistan	628	40.2	29.3	34.2	21.4	10.9	4.2	36.1	44.2
International Avg. (39)	36007	58.9	21.9	56.8	17.4	2.9	1.0	53.3	64.2
Abu Dhabi, UAE	1037	51.3	25.6	49.4	21.2	2.0	1.8	45.0	57.5
Dubai, UAE	1168	65.4	20.1	62.8	13.1	1.9	2.2	63.5	67.3
Sharjah, UAE	936	58.7	22.3	56.6	17.6	1.9	1.6	52.6	64.4

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Knowing

B_SD3_08 SE82343: Renewable and nonrenewable energy sources (DERIVED) - CR - 1 Point

COUNTRY	N	DIFF %	1 %	0 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1220	58.5	57.4	40.7	57.4	40.7	1.4	0.5	56.8	59.8
Austria	670	54.3	53.9	45.5	53.9	45.5	0.2	0.4	52.4	56.1
Azerbaijan	899	20.2	18.8	74.0	18.8	74.0	3.5	3.7	20.1	20.3
Bahrain	746	18.8	18.6	80.0	18.6	80.0	0.4	1.0	18.2	19.5
Brazil	3278	37.1	35.6	60.3	35.6	60.3	1.4	2.8	36.0	38.2
Chile	645	49.7	47.8	48.4	47.8	48.4	2.0	1.7	50.6	48.7
Chinese Taipei	1111	72.8	71.5	26.8	71.5	26.8	1.7	0.0	68.4	76.7
Cyprus	618	45.1	44.1	53.7	44.1	53.7	1.2	1.1	44.7	45.4
Czech Republic	1176	46.8	46.3	52.7	46.3	52.7	0.9	0.0	39.9	53.3
England	602	54.9	53.1	43.6	53.1	43.6	1.5	1.9	52.1	57.8
Finland	868	55.2	55.0	44.6	55.0	44.6	0.1	0.3	53.7	56.6
France	649	61.0	60.1	38.5	60.1	38.5	0.5	1.0	59.5	62.4
Georgia	710	21.4	20.5	75.1	20.5	75.1	2.1	2.3	18.1	24.3
Hong Kong SAR	644	60.0	57.3	38.1	57.3	38.1	3.1	1.4	58.9	60.9
Hungary	793	54.7	54.6	45.2	54.6	45.2	0.1	0.2	49.8	59.4
Ireland	745	64.4	64.3	35.6	64.3	35.6	0.0	0.2	68.8	60.6
Israel	757	25.6	25.1	73.2	25.1	73.2	0.6	1.1	21.5	29.5
Italy	673	52.6	51.9	46.9	51.9	46.9	0.6	0.6	52.1	53.0
Japan	788	54.8	53.0	43.7	53.0	43.7	3.1	0.1	47.1	62.4
Jordan	608	25.1	24.6	73.3	24.6	73.3	0.5	1.7	27.6	23.0
Kazakhstan	927	22.1	21.0	74.0	21.0	74.0	2.4	2.7	19.1	25.1
Korea, Rep. of	857	45.0	44.8	54.7	44.8	54.7	0.4	0.1	39.9	50.0
Lithuania	788	38.1	37.8	61.5	37.8	61.5	0.5	0.1	36.0	40.3
Malaysia	1256	30.0	29.6	69.0	29.6	69.0	0.3	1.1	28.7	31.5
Malta	568	50.0	49.2	49.2	49.2	49.2	1.4	0.2	45.6	54.1
Morocco	750	19.6	18.7	76.6	18.7	76.6	1.7	3.0	16.9	21.9
New Zealand	577	51.8	50.3	46.9	50.3	46.9	1.3	1.6	50.2	53.2
Norway (9)	902	59.8	58.0	39.0	58.0	39.0	0.8	2.2	56.0	62.8
Oman	713	24.6	24.0	73.6	24.0	73.6	0.8	1.7	21.9	27.2
Palestinian Nat'l Auth.	554	19.6	19.2	78.6	19.2	78.6	0.9	1.3	19.4	19.8
Portugal	791	62.3	61.5	37.2	61.5	37.2	1.1	0.2	59.4	64.7
Qatar	625	37.4	36.9	61.8	36.9	61.8	0.2	1.0	34.4	40.2
Romania	525	41.4	39.9	56.5	39.9	56.5	3.4	0.3	41.3	41.6
Saudi Arabia	515	23.3	23.1	76.2	23.1	76.2	0.3	0.4	19.2	27.2
Singapore	970	49.1	49.0	50.8	49.0	50.8	0.1	0.1	48.3	49.7
Sweden	738	57.5	56.7	41.9	56.7	41.9	0.4	1.0	52.8	62.2
Turkiye	704	47.7	47.6	52.2	47.6	52.2	0.3	0.0	49.3	46.0
United Arab Emirates	4028	39.2	38.1	59.0	38.1	59.0	0.7	2.2	36.7	41.6
United States	1139	48.9	47.4	49.5	47.4	49.5	0.4	2.7	44.3	53.5
Uzbekistan	628	17.0	15.6	76.3	15.6	76.3	2.6	5.4	17.1	16.9
International Avg. (40)	36755	42.9	42.0	55.6	42.0	55.6	1.1	1.2	40.8	44.9
Abu Dhabi, UAE	1037	33.2	32.3	64.9	32.3	64.9	0.8	2.0	29.9	36.4
Dubai, UAE	1168	50.8	49.0	47.5	49.0	47.5	1.0	2.4	47.3	54.1
Sharjah, UAE	936	37.3	36.4	61.0	36.4	61.0	0.4	2.2	36.6	38.1

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Knowing

B_SD3_08A SE82343A: Renewable and nonrenewable energy sources - hydroelectric - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1220	87.7	85.9	12.1	1.6	0.5	85.4	89.5
Austria	670	88.7	88.2	11.2	0.2	0.4	83.9	93.5
Azerbaijan	899	68.9	61.8	27.9	6.6	3.7	69.2	68.7
Bahrain	746	68.9	66.8	30.2	2.0	1.0	69.1	68.7
Brazil	3278	83.0	78.5	16.1	2.6	2.8	81.4	84.7
Chile	645	82.6	79.0	16.7	2.6	1.7	82.1	83.0
Chinese Taipei	1111	96.3	94.5	3.6	1.9	0.0	95.5	97.1
Cyprus	618	86.4	84.2	13.2	1.5	1.1	83.7	88.9
Czech Republic	1176	81.3	80.1	18.4	1.5	0.0	77.1	85.2
England	602	87.7	84.0	11.8	2.3	1.9	82.5	93.1
Finland	868	89.3	88.9	10.6	0.2	0.3	87.4	91.1
France	649	92.4	90.7	7.5	0.8	1.0	92.4	92.4
Georgia	710	67.0	62.3	30.7	4.7	2.3	62.9	70.6
Hong Kong SAR	644	93.5	88.9	6.2	3.5	1.4	94.0	93.1
Hungary	793	86.9	86.6	13.1	0.2	0.2	84.2	89.4
Ireland	745	91.7	91.1	8.2	0.5	0.2	91.2	92.1
Israel	757	68.8	66.5	30.2	2.1	1.1	62.1	75.2
Italy	673	94.6	92.9	5.3	1.2	0.6	94.4	94.9
Japan	788	92.2	89.2	7.5	3.1	0.1	90.2	94.3
Jordan	608	74.9	71.8	24.0	2.4	1.7	77.4	72.8
Kazakhstan	927	60.7	56.7	36.7	3.9	2.7	59.1	62.3
Korea, Rep. of	857	89.0	88.4	11.0	0.5	0.1	89.9	88.1
Lithuania	788	73.0	72.0	26.6	1.3	0.1	71.7	74.4
Malaysia	1256	71.8	70.5	27.8	0.6	1.1	69.8	73.9
Malta	568	84.1	82.4	15.6	1.8	0.2	79.2	88.7
Morocco	750	68.5	62.0	28.6	6.4	3.0	71.0	66.3
New Zealand	577	87.8	84.7	11.7	2.0	1.6	87.1	88.5
Norway (9)	902	96.9	93.9	3.0	0.9	2.2	96.4	97.3
Oman	713	74.0	71.0	24.9	2.4	1.7	73.9	74.1
Palestinian Nat'l Auth.	554	69.7	65.8	28.6	4.3	1.3	68.9	70.6
Portugal	791	91.6	90.3	8.3	1.2	0.2	90.5	92.6
Qatar	625	81.4	79.9	18.3	0.8	1.0	82.4	80.3
Romania	525	83.3	80.0	16.0	3.7	0.3	82.5	84.2
Saudi Arabia	515	77.7	75.3	21.7	2.6	0.4	78.4	77.0
Singapore	970	91.9	91.5	8.1	0.3	0.1	91.7	92.0
Sweden	738	90.6	89.3	9.3	0.4	1.0	89.8	91.3
Turkiye	704	82.8	81.8	17.0	1.1	0.0	79.8	86.0
United Arab Emirates	4028	81.6	78.3	17.7	1.8	2.2	80.7	82.5
United States	1139	85.1	82.2	14.4	0.8	2.7	83.1	87.1
Uzbekistan	628	64.2	53.5	29.8	11.3	5.4	57.5	70.9
International Avg. (40)	36755	82.2	79.5	17.0	2.2	1.2	80.7	83.7
Abu Dhabi, UAE	1037	77.3	73.9	21.7	2.4	2.0	74.7	79.9
Dubai, UAE	1168	88.8	85.0	10.8	1.8	2.4	87.0	90.4
Sharjah, UAE	936	78.0	75.1	21.2	1.5	2.2	78.4	77.6

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Knowing

B_SD3_08B SE82343B: Renewable and nonrenewable energy sources - gas - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1220	79.5	19.9	77.3	2.4	0.5	77.3	81.3
Austria	670	77.5	22.3	77.0	0.3	0.4	73.8	81.3
Azerbaijan	899	49.8	44.6	44.2	7.5	3.7	46.9	52.3
Bahrain	746	49.5	48.5	47.6	2.8	1.0	47.6	51.5
Brazil	3278	63.4	34.5	59.6	3.1	2.8	63.2	63.5
Chile	645	69.6	28.9	66.1	3.3	1.7	71.5	67.5
Chinese Taipei	1111	86.0	13.7	84.1	2.2	0.0	82.6	89.0
Cyprus	618	63.6	34.5	60.3	4.2	1.1	61.9	65.2
Czech Republic	1176	67.1	32.2	65.7	2.1	0.0	59.4	74.4
England	602	82.3	17.0	78.9	2.3	1.9	79.1	85.7
Finland	868	72.4	27.0	71.0	1.6	0.3	70.5	74.3
France	649	78.4	21.0	76.3	1.7	1.0	78.3	78.5
Georgia	710	48.0	48.2	44.5	5.0	2.3	42.9	52.5
Hong Kong SAR	644	83.5	15.7	79.4	3.5	1.4	83.0	83.9
Hungary	793	80.2	19.6	79.6	0.7	0.2	76.1	84.1
Ireland	745	88.4	11.5	87.8	0.5	0.2	91.6	85.7
Israel	757	53.7	45.0	52.1	1.8	1.1	46.7	60.4
Italy	673	80.6	18.8	78.3	2.3	0.6	78.2	83.2
Japan	788	86.5	13.0	83.3	3.6	0.1	82.2	90.8
Jordan	608	55.7	42.6	53.5	2.2	1.7	51.8	59.1
Kazakhstan	927	45.6	50.9	42.6	3.8	2.7	43.1	48.1
Korea, Rep. of	857	79.9	19.9	79.2	0.7	0.1	81.4	78.5
Lithuania	788	55.2	44.3	54.5	1.0	0.1	51.3	59.2
Malaysia	1256	52.0	47.1	50.9	0.9	1.1	53.4	50.4
Malta	568	77.0	22.2	74.5	3.1	0.2	73.3	80.4
Morocco	750	51.5	43.7	46.4	6.8	3.0	48.9	53.7
New Zealand	577	73.9	25.2	71.4	1.8	1.6	71.0	76.5
Norway (9)	902	90.7	8.9	86.9	2.0	2.2	91.9	89.8
Oman	713	52.6	44.9	49.9	3.5	1.7	53.8	51.5
Palestinian Nat'l Auth.	554	45.6	52.0	43.7	3.0	1.3	48.2	43.1
Portugal	791	77.7	21.9	76.0	2.0	0.2	76.1	79.0
Qatar	625	64.1	35.3	63.0	0.7	1.0	60.9	67.2
Romania	525	61.5	36.4	58.2	5.1	0.3	59.0	64.3
Saudi Arabia	515	53.7	44.6	51.7	3.2	0.4	55.4	52.0
Singapore	970	79.8	19.9	78.8	1.2	0.1	78.8	80.7
Sweden	738	83.5	16.2	81.8	1.1	1.0	81.7	85.2
Turkiye	704	65.6	34.1	64.9	1.0	0.0	65.0	66.2
United Arab Emirates	4028	68.0	30.7	65.1	2.0	2.2	66.9	69.0
United States	1139	73.5	25.5	70.9	0.9	2.7	68.5	78.4
Uzbekistan	628	55.2	38.3	47.3	8.9	5.4	50.6	59.7
International Avg. (40)	36755	68.1	30.5	65.6	2.6	1.2	66.1	69.9
Abu Dhabi, UAE	1037	64.7	33.8	62.0	2.2	2.0	64.1	65.3
Dubai, UAE	1168	78.1	21.0	74.8	1.7	2.4	75.4	80.6
Sharjah, UAE	936	65.6	33.0	62.8	1.9	2.2	66.5	64.7

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Knowing

B_SD3_08C SE82343C: Renewable and nonrenewable energy sources - nuclear - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1220	74.1	25.2	72.0	2.3	0.5	71.9	75.8
Austria	670	68.4	31.3	67.8	0.5	0.4	66.4	70.4
Azerbaijan	899	48.8	45.3	43.2	7.8	3.7	50.4	47.5
Bahrain	746	49.1	49.4	47.5	2.1	1.0	50.4	47.7
Brazil	3278	63.7	33.6	59.1	4.5	2.8	61.9	65.7
Chile	645	71.7	26.9	67.9	3.5	1.7	69.5	74.0
Chinese Taipei	1111	83.2	16.4	81.4	2.1	0.0	80.2	86.0
Cyprus	618	75.2	23.6	71.5	3.8	1.1	73.6	76.7
Czech Republic	1176	69.3	30.2	68.2	1.5	0.0	65.5	72.9
England	602	64.8	33.6	61.8	2.7	1.9	64.0	65.5
Finland	868	76.0	23.6	75.0	1.0	0.3	75.5	76.5
France	649	79.5	19.9	77.2	2.0	1.0	77.8	81.3
Georgia	710	46.7	48.7	42.7	6.3	2.3	44.1	49.0
Hong Kong SAR	644	73.7	25.0	70.1	3.4	1.4	73.3	74.1
Hungary	793	65.9	33.8	65.3	0.8	0.2	62.2	69.5
Ireland	745	72.7	27.2	72.2	0.5	0.2	74.4	71.2
Israel	757	52.8	45.6	51.0	2.3	1.1	51.3	54.4
Italy	673	72.4	26.7	69.9	2.8	0.6	72.5	72.2
Japan	788	64.8	34.0	62.4	3.5	0.1	58.7	70.8
Jordan	608	51.0	46.9	48.8	2.6	1.7	57.2	45.5
Kazakhstan	927	52.6	44.1	49.1	4.2	2.7	53.1	52.2
Korea, Rep. of	857	56.6	43.1	56.2	0.5	0.1	50.2	62.7
Lithuania	788	64.9	34.6	63.8	1.5	0.1	66.0	63.7
Malaysia	1256	58.9	40.3	57.7	0.9	1.1	55.3	62.8
Malta	568	63.8	35.0	61.8	3.0	0.2	58.9	68.5
Morocco	750	48.3	45.6	42.6	8.9	3.0	45.8	50.4
New Zealand	577	70.7	28.2	68.1	2.0	1.6	72.2	69.4
Norway (9)	902	68.8	29.7	65.6	2.4	2.2	63.5	73.2
Oman	713	56.6	41.4	54.0	2.9	1.7	52.4	60.8
Palestinian Nat'l Auth.	554	53.5	44.7	51.5	2.4	1.3	52.2	54.7
Portugal	791	80.0	19.6	78.1	2.1	0.2	77.2	82.3
Qatar	625	58.2	41.0	57.2	0.8	1.0	58.4	58.1
Romania	525	70.4	28.1	66.7	5.0	0.3	72.2	68.4
Saudi Arabia	515	53.5	44.7	51.5	3.4	0.4	50.4	56.5
Singapore	970	65.7	33.8	64.6	1.5	0.1	64.3	66.9
Sweden	738	70.2	28.9	68.0	2.1	1.0	65.6	74.7
Turkiye	704	73.0	26.7	72.2	1.1	0.0	75.6	70.3
United Arab Emirates	4028	58.1	40.2	55.7	1.9	2.2	55.7	60.3
United States	1139	65.2	33.5	62.8	1.0	2.7	62.4	67.9
Uzbekistan	628	44.4	45.8	36.6	12.2	5.4	42.9	45.9
International Avg. (40)	36755	63.9	34.4	61.5	2.9	1.2	62.4	65.4
Abu Dhabi, UAE	1037	53.8	43.9	51.1	2.9	2.0	49.3	58.1
Dubai, UAE	1168	65.9	32.6	63.0	2.0	2.4	63.4	68.2
Sharjah, UAE	936	56.1	42.4	54.2	1.2	2.2	55.0	57.2

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Reasoning

B_SD3_09 SE82347: Area that would most benefit from desalination plant - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1220	38.4	37.9	29.7	13.5	17.6	0.7	0.7	34.3	41.8
Austria	670	47.1	46.9	23.2	8.5	21.0	0.0	0.4	44.2	50.0
Azerbaijan	899	36.6	33.8	21.7	14.9	21.8	3.4	4.3	34.5	38.4
Bahrain	746	24.6	24.2	26.3	20.8	27.0	0.7	1.0	23.9	25.3
Brazil	3278	25.9	24.8	30.0	17.6	23.4	1.2	3.2	25.9	25.9
Chile	645	28.7	27.2	37.8	14.2	15.4	3.5	1.9	27.1	30.4
Chinese Taipei	1111	68.6	68.5	12.9	5.2	13.2	0.1	0.0	69.7	67.6
Cyprus	618	26.9	26.4	31.5	14.2	26.0	0.9	1.2	23.9	29.6
Czech Republic	1176	29.2	29.0	26.0	12.3	32.1	0.4	0.2	26.8	31.5
England	602	39.9	38.8	32.4	14.3	11.6	1.0	1.9	39.6	40.2
Finland	868	66.8	66.4	13.9	9.2	9.8	0.3	0.3	67.6	66.2
France	649	50.4	49.0	15.7	10.7	21.9	1.7	1.0	43.1	57.5
Georgia	710	40.1	38.2	18.5	19.2	19.3	2.2	2.6	36.7	43.1
Hong Kong SAR	644	31.5	31.0	32.3	12.1	23.0	0.1	1.4	32.3	30.8
Hungary	793	51.0	50.9	15.3	12.9	20.7	0.0	0.2	47.5	54.4
Ireland	745	42.1	41.6	28.0	14.7	14.5	1.0	0.2	39.8	44.1
Israel	757	17.5	17.2	19.7	18.2	43.3	0.4	1.2	14.6	20.3
Italy	673	29.8	29.3	24.8	19.6	24.6	1.1	0.6	25.3	34.6
Japan	789	49.5	49.4	21.6	7.5	21.4	0.0	0.1	46.6	52.3
Jordan	608	24.9	24.3	30.9	16.4	26.1	0.3	2.0	25.3	24.5
Kazakhstan	927	29.5	27.8	22.2	14.7	29.5	2.3	3.4	29.1	29.8
Korea, Rep. of	857	32.5	32.3	38.5	17.1	11.4	0.5	0.1	33.7	31.3
Lithuania	788	43.4	43.2	27.1	12.9	16.3	0.3	0.1	44.6	42.2
Malaysia	1256	24.0	23.6	27.0	17.5	30.6	0.1	1.2	25.2	22.6
Malta	568	26.4	26.3	36.0	14.1	23.2	0.3	0.2	26.5	26.3
Morocco	750	19.7	18.5	25.6	28.0	22.0	2.1	3.8	20.0	19.3
New Zealand	577	28.8	28.1	40.2	17.4	11.8	0.8	1.6	30.4	27.4
Norway (9)	902	46.7	45.0	21.8	10.8	18.9	0.9	2.5	43.0	49.6
Oman	713	26.4	25.6	23.6	21.9	26.0	1.0	2.0	27.3	25.6
Palestinian Nat'l Auth.	554	20.8	20.5	26.1	20.9	31.0	0.0	1.5	23.6	18.2
Portugal	791	23.7	23.3	31.5	13.0	30.4	1.5	0.3	22.4	24.9
Qatar	625	35.8	35.3	24.5	14.2	24.6	0.4	1.0	35.2	36.3
Romania	526	33.5	33.0	25.7	18.4	21.5	0.1	1.2	36.8	29.9
Saudi Arabia	515	26.5	26.3	25.8	14.3	33.0	0.2	0.4	29.5	23.6
Singapore	970	41.4	41.3	33.5	5.8	19.1	0.2	0.2	38.9	43.6
Sweden	738	57.3	56.3	19.8	9.3	12.9	0.7	1.1	56.1	58.4
Turkiye	704	34.5	34.3	20.8	11.1	33.2	0.6	0.0	29.7	39.7
United Arab Emirates	4028	36.1	34.8	27.9	13.9	19.8	0.9	2.7	36.8	35.4
United States	1139	29.3	28.3	35.8	15.4	17.4	0.2	2.9	29.7	28.8
Uzbekistan	628	33.6	31.3	24.6	12.7	24.5	1.1	5.8	26.2	40.8
International Avg. (40)	36757	35.5	34.7	26.3	14.5	22.3	0.8	1.4	34.3	36.6
Abu Dhabi, UAE	1037	27.9	27.0	33.2	16.4	20.3	0.5	2.6	29.2	26.6
Dubai, UAE	1168	45.5	43.8	26.3	9.2	17.1	0.8	2.9	46.1	45.0
Sharjah, UAE	936	36.4	34.8	26.0	14.5	20.1	1.8	2.7	38.4	34.6

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Earth Science / Knowing

B_SD3_11 SQ82T01: Two things the Sun provides to planets (DERIVED) - CR - 1 Point

COUNTRY	N	DIFF %	1 %	0 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1220	81.7	80.6	18.1	80.6	18.1	0.4	0.9	84.4	79.6
Austria	670	78.4	78.1	21.5	78.1	21.5	0.0	0.4	74.0	82.7
Azerbaijan	899	51.6	48.9	45.8	48.9	45.8	0.7	4.7	52.5	51.0
Bahrain	746	62.2	61.3	37.3	61.3	37.3	0.2	1.2	68.3	56.2
Brazil	3278	60.0	57.6	38.3	57.6	38.3	0.7	3.4	58.7	61.4
Chile	645	63.9	62.3	35.2	62.3	35.2	0.5	1.9	64.4	63.3
Chinese Taipei	1111	82.7	82.6	17.3	82.6	17.3	0.1	0.0	77.7	87.1
Cyprus	618	76.2	75.2	23.4	75.2	23.4	0.0	1.4	77.6	75.0
Czech Republic	1176	80.9	80.7	19.1	80.7	19.1	0.0	0.2	78.4	83.2
England	602	79.6	78.1	20.0	78.1	20.0	0.1	1.9	78.6	80.7
Finland	868	78.6	78.2	21.3	78.2	21.3	0.1	0.3	74.9	82.2
France	649	82.2	80.9	17.5	80.9	17.5	0.5	1.1	78.4	86.2
Georgia	710	57.7	55.8	40.9	55.8	40.9	0.3	3.1	56.6	58.7
Hong Kong SAR	644	80.5	79.3	19.2	79.3	19.2	0.1	1.4	79.0	81.8
Hungary	793	78.8	78.7	21.2	78.7	21.2	0.0	0.2	74.2	83.2
Ireland	745	78.2	77.3	21.6	77.3	21.6	0.9	0.2	75.1	80.9
Israel	757	67.8	66.7	31.6	66.7	31.6	0.3	1.4	65.4	70.2
Italy	673	80.3	79.8	19.5	79.8	19.5	0.0	0.7	75.9	85.2
Japan	789	89.1	89.0	10.8	89.0	10.8	0.0	0.1	86.0	92.2
Jordan	608	48.9	47.8	49.9	47.8	49.9	0.1	2.2	45.5	51.9
Kazakhstan	927	65.2	61.8	33.0	61.8	33.0	0.9	4.3	64.8	65.6
Korea, Rep. of	857	73.8	73.7	26.1	73.7	26.1	0.0	0.1	72.7	75.0
Lithuania	788	81.3	81.2	18.6	81.2	18.6	0.0	0.1	79.3	83.5
Malaysia	1256	49.7	48.9	49.5	48.9	49.5	0.4	1.2	49.4	49.9
Malta	568	77.7	77.4	22.2	77.4	22.2	0.2	0.2	76.4	78.9
Morocco	750	32.1	30.5	64.4	30.5	64.4	1.1	4.0	35.9	28.9
New Zealand	577	83.0	81.4	16.6	81.4	16.6	0.3	1.6	80.1	85.7
Norway (9)	902	71.6	69.6	27.6	69.6	27.6	0.2	2.6	67.8	74.8
Oman	713	46.3	45.1	52.3	45.1	52.3	0.3	2.3	51.4	41.3
Palestinian Nat'l Auth.	554	37.4	36.9	61.6	36.9	61.6	0.0	1.5	42.7	32.4
Portugal	791	81.4	81.1	18.5	81.1	18.5	0.1	0.4	79.0	83.6
Qatar	625	68.1	67.1	31.5	67.1	31.5	0.1	1.2	66.6	69.4
Romania	526	67.7	66.8	31.9	66.8	31.9	0.0	1.2	63.3	72.4
Saudi Arabia	515	59.3	58.9	40.4	58.9	40.4	0.2	0.6	58.4	60.2
Singapore	970	89.3	89.0	10.7	89.0	10.7	0.1	0.2	87.7	90.7
Sweden	738	74.6	73.3	24.9	73.3	24.9	0.7	1.1	71.8	77.4
Turkiye	704	72.2	72.2	27.8	72.2	27.8	0.0	0.0	73.4	71.0
United Arab Emirates	4028	74.7	72.1	24.4	72.1	24.4	0.5	3.1	74.7	74.7
United States	1139	78.9	76.5	20.4	76.5	20.4	0.0	3.1	75.0	82.8
Uzbekistan	628	60.6	55.9	36.4	55.9	36.4	1.3	6.4	61.0	60.2
International Avg. (40)	36757	70.1	69.0	29.2	69.0	29.2	0.3	1.5	68.9	71.3
Abu Dhabi, UAE	1037	62.7	60.7	36.1	60.7	36.1	0.3	2.9	63.7	61.8
Dubai, UAE	1168	85.5	82.4	14.0	82.4	14.0	0.5	3.0	83.4	87.4
Sharjah, UAE	936	78.2	74.8	20.9	74.8	20.9	0.6	3.7	78.3	78.0

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Earth Science / Knowing

B_SD3_11A SQ82T01A: Two things the Sun provides to planets - atmosphere - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1220	90.9	9.0	89.8	0.4	0.9	91.3	90.5
Austria	670	86.3	13.7	85.9	0.0	0.4	81.6	90.9
Azerbaijan	899	68.5	29.8	64.6	1.0	4.7	67.6	69.2
Bahrain	746	81.5	18.2	80.4	0.2	1.2	81.3	81.7
Brazil	3278	88.1	11.4	84.3	0.8	3.4	88.8	87.3
Chile	645	80.3	19.1	77.9	1.2	1.9	77.4	83.4
Chinese Taipei	1111	90.4	9.6	90.1	0.2	0.0	86.6	93.7
Cyprus	618	91.4	8.5	90.1	0.0	1.4	92.9	90.0
Czech Republic	1176	87.6	12.4	87.3	0.1	0.2	85.4	89.6
England	602	87.6	12.1	85.9	0.1	1.9	86.5	88.8
Finland	868	87.0	13.0	86.5	0.1	0.3	84.2	89.6
France	649	90.7	9.2	89.2	0.5	1.1	88.5	92.8
Georgia	710	78.5	20.8	75.8	0.4	3.1	76.4	80.3
Hong Kong SAR	644	85.7	14.1	84.4	0.1	1.4	83.2	87.8
Hungary	793	88.5	11.4	88.4	0.0	0.2	84.9	92.0
Ireland	745	85.9	13.9	85.0	0.9	0.2	81.6	89.6
Israel	757	83.9	15.8	82.4	0.3	1.4	81.7	86.0
Italy	673	93.9	6.1	93.2	0.0	0.7	92.9	95.0
Japan	789	94.2	5.8	94.1	0.0	0.1	91.9	96.5
Jordan	608	75.9	23.5	74.2	0.1	2.2	71.5	79.8
Kazakhstan	927	79.6	19.3	75.5	0.9	4.3	80.6	78.6
Korea, Rep. of	857	80.6	19.4	80.4	0.1	0.1	77.9	83.1
Lithuania	788	86.7	13.3	86.6	0.0	0.1	84.4	89.1
Malaysia	1256	67.4	32.1	66.3	0.4	1.2	64.9	70.2
Malta	568	85.5	14.4	85.2	0.2	0.2	83.8	87.1
Morocco	750	67.1	31.2	63.7	1.1	4.0	68.8	65.7
New Zealand	577	89.8	10.0	88.1	0.3	1.6	87.7	91.7
Norway (9)	902	80.9	18.6	78.6	0.2	2.6	77.9	83.3
Oman	713	72.1	27.2	70.2	0.3	2.3	73.3	70.8
Palestinian Nat'l Auth.	554	67.5	32.0	66.5	0.0	1.5	71.2	64.0
Portugal	791	89.5	10.5	89.0	0.1	0.4	89.0	89.8
Qatar	625	85.2	14.6	84.1	0.1	1.2	84.3	86.0
Romania	526	84.9	14.9	83.9	0.0	1.2	84.1	85.8
Saudi Arabia	515	75.6	24.2	75.0	0.2	0.6	74.2	76.9
Singapore	970	92.0	7.9	91.8	0.1	0.2	90.9	93.1
Sweden	738	82.4	17.3	80.9	0.7	1.1	81.4	83.3
Turkiye	704	77.8	22.2	77.7	0.1	0.0	79.5	76.0
United Arab Emirates	4028	84.1	15.3	81.1	0.5	3.1	82.5	85.6
United States	1139	86.7	12.9	84.0	0.0	3.1	83.4	90.0
Uzbekistan	628	81.3	17.3	75.0	1.3	6.4	78.3	84.1
International Avg. (40)	36757	83.3	16.3	81.8	0.3	1.5	81.9	84.7
Abu Dhabi, UAE	1037	79.2	20.1	76.7	0.3	2.9	76.6	81.7
Dubai, UAE	1168	89.7	9.9	86.5	0.5	3.0	87.3	92.0
Sharjah, UAE	936	86.4	13.0	82.5	0.6	3.8	85.8	86.9

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Earth Science / Knowing

B_SD3_11B SQ82T01B: Two things the Sun provides to planets - heat - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1220	87.9	86.8	12.0	0.4	0.9	89.1	87.1
Austria	670	84.5	84.1	15.4	0.0	0.4	81.8	87.2
Azerbaijan	899	70.3	66.3	28.1	1.0	4.7	72.7	68.3
Bahrain	746	75.7	74.6	24.0	0.2	1.2	79.4	72.0
Brazil	3278	77.3	74.0	21.7	0.8	3.4	77.8	76.7
Chile	645	78.5	76.1	20.9	1.2	1.9	79.0	77.9
Chinese Taipei	1111	87.1	86.9	12.8	0.2	0.0	83.2	90.7
Cyprus	618	85.5	84.3	14.3	0.0	1.4	86.1	85.0
Czech Republic	1176	84.1	83.8	15.9	0.1	0.2	81.4	86.6
England	602	86.7	85.0	13.0	0.1	1.9	86.5	86.9
Finland	868	84.6	84.2	15.3	0.1	0.3	79.4	89.6
France	649	87.2	85.8	12.6	0.5	1.1	84.0	90.5
Georgia	710	72.1	69.6	27.0	0.4	3.1	70.9	73.1
Hong Kong SAR	644	88.9	87.6	10.9	0.1	1.4	89.3	88.6
Hungary	793	82.5	82.3	17.5	0.0	0.2	78.1	86.7
Ireland	745	85.4	84.4	14.5	0.9	0.2	81.5	88.7
Israel	757	82.0	80.5	17.7	0.3	1.4	81.7	82.2
Italy	673	87.3	86.7	12.6	0.0	0.7	83.9	90.9
Japan	789	94.4	94.3	5.6	0.0	0.1	93.7	95.1
Jordan	608	68.4	66.8	30.9	0.1	2.2	61.4	74.5
Kazakhstan	927	71.1	67.4	27.4	0.9	4.3	70.9	71.2
Korea, Rep. of	857	84.9	84.7	15.1	0.1	0.1	85.1	84.7
Lithuania	788	85.2	85.1	14.8	0.0	0.1	83.5	86.9
Malaysia	1256	59.4	58.5	40.0	0.4	1.2	58.6	60.2
Malta	568	84.1	83.7	15.8	0.2	0.2	82.6	85.4
Morocco	750	49.0	46.5	48.4	1.1	4.0	53.3	45.3
New Zealand	577	87.6	85.9	12.1	0.3	1.6	85.8	89.3
Norway (9)	902	78.8	76.6	20.6	0.2	2.6	76.1	81.0
Oman	713	65.2	63.5	33.9	0.3	2.3	68.9	61.7
Palestinian Nat'l Auth.	554	59.8	58.9	39.6	0.0	1.5	60.8	58.9
Portugal	791	87.0	86.6	12.9	0.1	0.4	83.8	89.7
Qatar	625	80.2	79.1	19.5	0.1	1.2	77.3	82.9
Romania	526	77.0	76.0	22.7	0.0	1.2	72.0	82.3
Saudi Arabia	515	74.0	73.4	25.8	0.2	0.6	73.4	74.6
Singapore	970	93.9	93.6	6.1	0.1	0.2	93.3	94.4
Sweden	738	83.1	81.7	16.6	0.7	1.1	80.8	85.5
Turkiye	704	80.8	80.8	19.2	0.1	0.0	81.8	79.8
United Arab Emirates	4028	83.1	80.2	16.3	0.5	3.1	82.6	83.6
United States	1139	86.9	84.2	12.7	0.0	3.1	84.5	89.3
Uzbekistan	628	72.4	66.8	25.5	1.3	6.4	71.5	73.2
International Avg. (40)	36757	79.8	78.4	19.7	0.3	1.5	78.7	81.0
Abu Dhabi, UAE	1037	74.8	72.4	24.4	0.3	2.9	73.3	76.2
Dubai, UAE	1168	90.2	87.0	9.5	0.5	3.0	89.1	91.2
Sharjah, UAE	936	85.9	82.1	13.5	0.6	3.8	85.9	86.0

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Knowing

B_SD3_11C SQ82T01C: Two things the Sun provides to planets - oxygen - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1220	95.6	4.3	94.4	0.4	0.9	96.3	95.0
Austria	670	97.3	2.7	96.9	0.0	0.4	95.7	98.9
Azerbaijan	899	88.1	11.2	83.1	1.0	4.7	88.4	87.8
Bahrain	746	93.5	6.4	92.2	0.2	1.2	92.1	94.9
Brazil	3278	92.3	7.4	88.4	0.8	3.4	91.5	93.1
Chile	645	93.1	6.6	90.3	1.2	1.9	93.1	93.2
Chinese Taipei	1111	94.7	5.3	94.5	0.2	0.0	92.8	96.3
Cyprus	618	97.0	3.0	95.6	0.0	1.4	97.3	96.6
Czech Republic	1176	98.3	1.7	98.0	0.1	0.2	97.7	98.9
England	602	96.0	3.9	94.0	0.1	1.9	94.9	97.1
Finland	868	96.0	4.0	95.5	0.1	0.3	94.1	97.8
France	649	96.2	3.7	94.7	0.5	1.1	95.5	97.0
Georgia	710	94.3	5.5	91.0	0.4	3.1	95.5	93.1
Hong Kong SAR	644	94.6	5.3	93.2	0.1	1.4	94.9	94.3
Hungary	793	96.1	3.9	96.0	0.0	0.2	94.8	97.4
Ireland	745	95.7	4.3	94.6	0.9	0.2	95.3	96.1
Israel	757	91.9	8.0	90.3	0.3	1.4	90.0	93.7
Italy	673	96.2	3.7	95.6	0.0	0.7	94.3	98.3
Japan	789	95.2	4.8	95.1	0.0	0.1	94.7	95.7
Jordan	608	90.6	9.1	88.5	0.1	2.2	91.8	89.7
Kazakhstan	927	92.9	6.7	88.1	0.9	4.3	92.6	93.2
Korea, Rep. of	857	96.2	3.8	95.9	0.1	0.1	96.8	95.6
Lithuania	788	97.1	2.9	97.0	0.0	0.1	97.5	96.6
Malaysia	1256	86.1	13.7	84.7	0.4	1.2	85.1	87.1
Malta	568	93.0	7.0	92.6	0.2	0.2	91.4	94.5
Morocco	750	80.6	18.4	76.5	1.1	4.0	83.2	78.4
New Zealand	577	96.5	3.5	94.6	0.3	1.6	96.1	96.8
Norway (9)	902	94.0	5.8	91.4	0.2	2.6	93.8	94.2
Oman	713	91.2	8.6	88.8	0.3	2.3	92.4	90.0
Palestinian Nat'l Auth.	554	89.3	10.5	88.0	0.0	1.5	94.1	84.9
Portugal	791	96.6	3.4	96.2	0.1	0.4	94.5	98.4
Qatar	625	95.0	4.9	93.7	0.1	1.2	94.2	95.8
Romania	526	95.3	4.7	94.1	0.0	1.2	94.7	95.8
Saudi Arabia	515	90.6	9.3	89.9	0.2	0.6	89.3	91.9
Singapore	970	98.0	2.0	97.7	0.1	0.2	97.8	98.2
Sweden	738	94.9	5.0	93.2	0.7	1.1	93.8	96.0
Turkiye	704	91.0	9.0	90.9	0.1	0.0	90.4	91.6
United Arab Emirates	4028	91.3	8.4	88.1	0.5	3.1	91.8	90.9
United States	1139	91.9	7.9	89.0	0.0	3.1	90.9	92.8
Uzbekistan	628	91.0	8.3	84.0	1.3	6.4	90.0	92.0
International Avg. (40)	36757	93.6	6.2	91.9	0.3	1.5	93.3	94.0
Abu Dhabi, UAE	1037	83.9	15.6	81.2	0.3	2.9	84.6	83.3
Dubai, UAE	1168	96.7	3.1	93.3	0.5	3.0	97.2	96.3
Sharjah, UAE	936	93.4	6.3	89.3	0.6	3.8	93.9	93.0

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Knowing

B_SD3_11D SQ82T01D: Two things the Sun provides to planets - light - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1220	90.1	89.0	9.8	0.4	0.9	93.1	87.6
Austria	670	90.3	89.9	9.6	0.0	0.4	87.9	92.7
Azerbaijan	899	61.9	58.4	35.9	1.0	4.7	62.1	61.8
Bahrain	746	74.1	73.0	25.6	0.2	1.2	77.7	70.5
Brazil	3278	74.3	71.1	24.7	0.8	3.4	73.1	75.5
Chile	645	76.7	74.4	22.6	1.2	1.9	76.7	76.8
Chinese Taipei	1111	92.4	92.1	7.6	0.2	0.0	91.0	93.6
Cyprus	618	87.0	85.8	12.8	0.0	1.4	88.8	85.4
Czech Republic	1176	94.1	93.8	5.9	0.1	0.2	94.7	93.6
England	602	89.6	87.8	10.2	0.1	1.9	87.4	91.9
Finland	868	90.2	89.7	9.8	0.1	0.3	90.9	89.4
France	649	92.9	91.4	7.0	0.5	1.1	92.0	93.7
Georgia	710	72.4	69.9	26.6	0.4	3.1	72.1	72.6
Hong Kong SAR	644	86.4	85.1	13.4	0.1	1.4	85.4	87.3
Hungary	793	91.4	91.3	8.6	0.0	0.2	89.1	93.6
Ireland	745	89.5	88.5	10.4	0.9	0.2	90.3	88.8
Israel	757	76.6	75.2	23.0	0.3	1.4	74.4	78.6
Italy	673	89.7	89.1	10.2	0.0	0.7	86.7	93.0
Japan	789	93.2	93.1	6.8	0.0	0.1	90.3	96.0
Jordan	608	62.9	61.5	36.2	0.1	2.2	64.6	61.5
Kazakhstan	927	82.2	77.9	16.9	0.9	4.3	81.0	83.4
Korea, Rep. of	857	83.1	82.9	16.9	0.1	0.1	82.2	84.0
Lithuania	788	93.3	93.2	6.7	0.0	0.1	94.2	92.4
Malaysia	1256	74.8	73.6	24.8	0.4	1.2	77.3	72.0
Malta	568	86.5	86.1	13.5	0.2	0.2	87.0	86.0
Morocco	750	51.2	48.6	46.3	1.1	4.0	53.5	49.2
New Zealand	577	92.0	90.2	7.9	0.3	1.6	89.6	94.1
Norway (9)	902	88.3	85.8	11.4	0.2	2.6	87.4	89.0
Oman	713	59.5	58.0	39.4	0.3	2.3	63.5	55.6
Palestinian Nat'l Auth.	554	54.0	53.2	45.3	0.0	1.5	62.7	45.9
Portugal	791	92.1	91.6	7.9	0.1	0.4	91.5	92.5
Qatar	625	77.7	76.7	22.0	0.1	1.2	79.1	76.5
Romania	526	81.6	80.6	18.1	0.0	1.2	82.2	81.0
Saudi Arabia	515	71.8	71.2	28.0	0.2	0.6	70.4	73.1
Singapore	970	94.0	93.7	6.0	0.1	0.2	93.3	94.6
Sweden	738	86.5	85.0	13.3	0.7	1.1	85.8	87.1
Turkiye	704	82.7	82.6	17.3	0.1	0.0	83.5	81.7
United Arab Emirates	4028	83.8	80.8	15.6	0.5	3.1	84.7	83.0
United States	1139	86.9	84.2	12.7	0.0	3.1	84.9	88.9
Uzbekistan	628	73.7	68.0	24.3	1.3	6.4	75.3	72.1
International Avg. (40)	36757	81.8	80.4	17.8	0.3	1.5	81.9	81.7
Abu Dhabi, UAE	1037	75.6	73.1	23.7	0.3	2.9	78.2	73.1
Dubai, UAE	1168	92.5	89.2	7.3	0.5	3.0	90.9	93.9
Sharjah, UAE	936	85.3	81.5	14.1	0.6	3.8	87.0	83.7

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Earth Science / Knowing

B_SD3_11E SQ82T01E: Two things the Sun provides to planets - water - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1220	99.0	1.0	97.7	0.4	0.9	99.6	98.5
Austria	670	99.8	0.2	99.4	0.0	0.4	99.7	100.0
Azerbaijan	899	98.3	1.6	92.8	1.0	4.7	98.1	98.5
Bahrain	746	98.4	1.5	97.0	0.2	1.2	98.6	98.3
Brazil	3278	97.9	2.0	93.8	0.8	3.4	97.6	98.1
Chile	645	99.2	0.8	96.2	1.2	1.9	99.6	98.8
Chinese Taipei	1111	97.8	2.2	97.6	0.2	0.0	97.4	98.3
Cyprus	618	98.9	1.1	97.5	0.0	1.4	99.0	98.7
Czech Republic	1176	99.4	0.6	99.1	0.1	0.2	99.8	99.1
England	602	99.8	0.2	97.8	0.1	1.9	100.0	99.5
Finland	868	98.6	1.4	98.2	0.1	0.3	98.8	98.5
France	649	99.5	0.5	97.9	0.5	1.1	99.5	99.4
Georgia	710	98.8	1.2	95.3	0.4	3.1	98.2	99.2
Hong Kong SAR	644	98.3	1.7	96.8	0.1	1.4	98.8	97.9
Hungary	793	98.5	1.5	98.3	0.0	0.2	98.3	98.6
Ireland	745	98.1	1.8	97.1	0.9	0.2	98.6	97.8
Israel	757	98.8	1.2	97.1	0.3	1.4	99.5	98.1
Italy	673	99.3	0.7	98.6	0.0	0.7	99.0	99.7
Japan	789	98.9	1.1	98.8	0.0	0.1	98.2	99.5
Jordan	608	98.3	1.6	96.1	0.1	2.2	99.1	97.7
Kazakhstan	927	98.3	1.6	93.2	0.9	4.3	98.0	98.7
Korea, Rep. of	857	98.7	1.3	98.5	0.1	0.1	99.2	98.3
Lithuania	788	98.9	1.1	98.8	0.0	0.1	99.5	98.3
Malaysia	1256	97.6	2.4	96.0	0.4	1.2	98.7	96.3
Malta	568	98.2	1.8	97.8	0.2	0.2	98.5	97.9
Morocco	750	93.4	6.3	88.6	1.1	4.0	93.8	93.0
New Zealand	577	99.5	0.5	97.6	0.3	1.6	99.2	99.8
Norway (9)	902	98.5	1.4	95.7	0.2	2.6	98.1	98.9
Oman	713	98.7	1.2	96.2	0.3	2.3	99.6	97.9
Palestinian Nat'l Auth.	554	95.6	4.4	94.2	0.0	1.5	96.2	95.0
Portugal	791	99.1	0.9	98.7	0.1	0.4	98.9	99.3
Qatar	625	99.7	0.3	98.3	0.1	1.2	100.0	99.3
Romania	526	99.4	0.6	98.2	0.0	1.2	99.1	99.8
Saudi Arabia	515	99.1	0.9	98.3	0.2	0.6	99.6	98.6
Singapore	970	99.6	0.4	99.3	0.1	0.2	99.7	99.6
Sweden	738	98.1	1.8	96.4	0.7	1.1	99.2	97.1
Turkiye	704	99.1	0.9	99.0	0.1	0.0	99.2	99.0
United Arab Emirates	4028	97.7	2.2	94.2	0.5	3.1	97.9	97.6
United States	1139	98.2	1.7	95.2	0.0	3.1	98.5	98.0
Uzbekistan	628	99.0	0.9	91.4	1.3	6.4	99.1	98.9
International Avg. (40)	36757	98.6	1.4	96.7	0.3	1.5	98.7	98.4
Abu Dhabi, UAE	1037	94.4	5.5	91.3	0.3	2.9	95.3	93.5
Dubai, UAE	1168	99.3	0.7	95.7	0.5	3.0	99.3	99.3
Sharjah, UAE	936	98.6	1.4	94.2	0.6	3.8	98.8	98.4

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Applying

B_SD3_12A SQ82T02A: How Earth's motion results in day and night (DERIVED) - CR - 2 Points

COUNTRY	N	DIFF %	2 %	1 %	0 %	2pt %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1220	44.0	17.7	44.3	28.7	17.7	44.3	28.7	8.1	1.2	45.5	42.9
Austria	670	42.5	13.8	50.3	27.5	13.8	50.3	27.5	8.0	0.4	42.4	42.6
Azerbaijan	899	28.5	2.1	27.9	26.3	2.1	27.9	26.3	38.2	5.5	28.9	28.2
Bahrain	746	31.2	7.4	38.5	39.4	7.4	38.5	39.4	13.3	1.4	34.5	27.9
Brazil	3278	36.5	8.7	38.5	29.4	8.7	38.5	29.4	19.2	4.2	37.5	35.6
Chile	645	35.6	10.6	35.6	33.6	10.6	35.6	33.6	17.9	2.3	34.9	36.3
Chinese Taipei	1111	57.1	33.2	41.3	19.8	33.2	41.3	19.8	5.7	0.0	55.5	58.6
Cyprus	108	45.1	25.7	29.8	34.4	25.7	29.8	34.4	10.0	0.0	44.0	46.0
Czech Republic	1176	45.9	18.3	48.0	25.8	18.3	48.0	25.8	7.7	0.2	44.4	47.4
England	602	41.3	15.5	40.4	30.4	15.5	40.4	30.4	11.8	1.9	40.5	42.2
Finland	868	53.2	29.0	41.5	23.0	29.0	41.5	23.0	5.9	0.5	56.3	50.2
France	649	24.9	5.3	26.4	42.7	5.3	26.4	42.7	24.0	1.6	21.4	28.2
Georgia	709	35.3	9.4	32.2	30.6	9.4	32.2	30.6	24.6	3.2	38.7	32.3
Hong Kong SAR	644	44.4	17.8	35.5	26.8	17.8	35.5	26.8	18.4	1.5	41.3	46.8
Hungary	793	38.9	9.4	47.7	28.3	9.4	47.7	28.3	14.4	0.2	39.5	38.4
Ireland	745	42.8	20.4	35.0	33.3	20.4	35.0	33.3	11.0	0.2	39.9	45.4
Israel	756	36.5	13.7	35.0	36.9	13.7	35.0	36.9	12.7	1.7	34.2	38.6
Italy	673	41.2	15.4	39.1	30.4	15.4	39.1	30.4	14.4	0.7	43.5	38.8
Japan	789	43.3	12.9	35.7	22.4	12.9	35.7	22.4	28.8	0.1	39.2	47.4
Jordan	608	26.5	5.1	32.4	42.9	5.1	32.4	42.9	17.2	2.3	25.8	27.2
Kazakhstan	927	20.7	4.7	21.3	48.2	4.7	21.3	48.2	21.2	4.7	20.1	21.2
Korea, Rep. of	857	67.3	42.9	43.1	9.8	42.9	43.1	9.8	3.9	0.1	67.9	66.7
Lithuania	788	49.8	23.0	45.6	23.3	23.0	45.6	23.3	7.9	0.1	53.0	46.5
Malaysia	1256	32.3	5.9	47.1	38.2	5.9	47.1	38.2	7.3	1.6	33.6	30.9
Malta	568	39.6	16.6	33.8	34.2	16.6	33.8	34.2	14.9	0.4	39.2	39.9
Morocco	749	16.9	0.3	15.7	32.2	0.3	15.7	32.2	46.7	5.0	19.3	14.7
New Zealand	577	41.5	20.2	32.3	35.1	20.2	32.3	35.1	10.4	1.9	38.0	44.5
Norway (9)	902	47.6	24.4	33.8	28.5	24.4	33.8	28.5	10.5	2.8	51.1	44.6
Oman	713	21.7	6.1	25.5	55.2	6.1	25.5	55.2	10.7	2.6	26.0	17.2
Palestinian Nat'l Auth.	553	26.9	5.0	35.1	43.7	5.0	35.1	43.7	14.7	1.5	28.9	24.8
Portugal	791	39.5	13.4	41.6	31.4	13.4	41.6	31.4	13.3	0.4	39.0	40.0
Qatar	625	36.8	15.9	31.4	38.5	15.9	31.4	38.5	12.9	1.3	39.6	34.0
Romania	526	24.1	6.7	23.9	46.7	6.7	23.9	46.7	21.5	1.2	30.3	17.4
Saudi Arabia	515	30.8	3.2	50.1	38.4	3.2	50.1	38.4	7.7	0.6	33.8	27.8
Singapore	970	35.4	14.3	40.2	42.7	14.3	40.2	42.7	2.5	0.3	31.4	38.8
Sweden	738	58.1	36.9	29.9	22.5	36.9	29.9	22.5	9.2	1.5	64.1	52.1
Turkiye	704	53.5	24.1	47.8	17.8	24.1	47.8	17.8	10.3	0.1	54.2	52.7
United Arab Emirates	4028	37.0	14.0	35.6	36.3	14.0	35.6	36.3	10.7	3.4	38.0	36.1
United States	1138	35.6	15.8	34.5	42.5	15.8	34.5	42.5	4.1	3.1	35.8	35.3
Uzbekistan	628	17.8	1.4	21.7	45.6	1.4	21.7	45.6	23.7	7.6	17.5	18.2
International Avg. (40)	36242	38.2	14.7	36.1	33.1	14.7	36.1	33.1	14.4	1.7	38.7	37.6
Abu Dhabi, UAE	1037	29.1	10.0	28.0	44.4	10.0	28.0	44.4	14.6	3.1	30.7	27.6
Dubai, UAE	1168	49.5	22.6	43.2	23.5	22.6	43.2	23.5	7.3	3.3	49.2	49.8
Sharjah, UAE	936	36.2	12.4	37.1	36.0	12.4	37.1	36.0	10.3	4.0	38.0	34.5

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Applying

B_SD3_12AA SQ82T02AA: A1 - What is the motion? - CR - 1 Point

COUNTRY	N	DIFF %	1 %	0 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1220	66.1	60.0	30.7	60.0	30.7	8.1	1.2	66.6	65.8
Austria	670	66.1	60.5	31.1	60.5	31.1	8.0	0.4	60.6	71.7
Azerbaijan	899	49.4	27.8	28.5	27.8	28.5	38.2	5.5	52.0	47.4
Bahrain	746	52.6	44.9	40.5	44.9	40.5	13.3	1.4	56.8	48.3
Brazil	3278	58.4	44.8	31.9	44.8	31.9	19.2	4.2	61.3	55.5
Chile	645	55.3	44.2	35.7	44.2	35.7	17.9	2.3	54.0	56.6
Chinese Taipei	1111	75.5	71.2	23.1	71.2	23.1	5.7	0.0	72.2	78.6
Cyprus	618	49.4	41.7	42.6	41.7	42.6	14.3	1.4	48.8	50.0
Czech Republic	1176	65.4	60.2	31.8	60.2	31.8	7.7	0.2	61.3	69.3
England	602	58.7	50.7	35.6	50.7	35.6	11.8	1.9	53.8	64.1
Finland	868	68.8	64.4	29.2	64.4	29.2	5.9	0.5	69.0	68.6
France	649	37.1	27.6	46.8	27.6	46.8	24.0	1.6	30.5	43.4
Georgia	709	52.8	38.2	34.0	38.2	34.0	24.6	3.2	55.9	50.2
Hong Kong SAR	644	62.7	50.2	29.8	50.2	29.8	18.4	1.5	59.4	65.3
Hungary	793	65.1	55.6	29.9	55.6	29.9	14.4	0.2	63.5	66.5
Ireland	745	53.7	47.6	41.1	47.6	41.1	11.0	0.2	48.9	58.0
Israel	756	51.7	44.3	41.3	44.3	41.3	12.7	1.7	46.9	56.3
Italy	673	56.8	48.2	36.7	48.2	36.7	14.4	0.7	58.2	55.3
Japan	789	65.2	46.4	24.7	46.4	24.7	28.8	0.1	58.2	72.3
Jordan	608	42.9	34.5	46.0	34.5	46.0	17.2	2.3	39.5	46.3
Kazakhstan	927	31.7	23.5	50.6	23.5	50.6	21.2	4.7	32.0	31.5
Korea, Rep. of	857	87.3	83.8	12.2	83.8	12.2	3.9	0.1	88.7	86.0
Lithuania	788	70.3	64.7	27.3	64.7	27.3	7.9	0.1	73.5	67.1
Malaysia	1256	53.7	48.9	42.2	48.9	42.2	7.3	1.6	55.1	52.1
Malta	568	48.5	41.1	43.6	41.1	43.6	14.9	0.4	45.0	51.7
Morocco	750	28.7	13.8	34.5	13.8	34.5	46.7	5.0	30.7	26.8
New Zealand	577	53.7	47.1	40.6	47.1	40.6	10.4	1.9	47.5	59.1
Norway (9)	902	59.6	51.7	35.1	51.7	35.1	10.5	2.8	60.8	58.5
Oman	713	33.9	29.4	57.3	29.4	57.3	10.7	2.6	38.7	28.9
Palestinian Nat'l Auth.	553	47.5	39.8	44.0	39.8	44.0	14.7	1.5	50.9	43.9
Portugal	791	59.2	51.1	35.3	51.1	35.3	13.3	0.4	58.7	59.5
Qatar	625	48.7	41.7	44.0	41.7	44.0	12.9	1.3	52.9	44.4
Romania	526	33.7	26.0	51.2	26.0	51.2	21.5	1.2	42.4	24.3
Saudi Arabia	515	57.4	52.6	39.1	52.6	39.1	7.7	0.6	63.4	51.4
Singapore	970	42.9	41.7	55.5	41.7	55.5	2.5	0.3	37.9	47.3
Sweden	738	70.0	62.5	26.8	62.5	26.8	9.2	1.5	76.3	63.8
Turkiye	704	79.1	70.9	18.8	70.9	18.8	10.3	0.1	80.1	77.9
United Arab Emirates	4028	53.0	45.5	40.4	45.5	40.4	10.7	3.4	53.4	52.6
United States	1138	49.6	46.1	46.7	46.1	46.7	4.1	3.1	48.2	51.0
Uzbekistan	628	30.9	21.2	47.5	21.2	47.5	23.7	7.6	30.3	31.4
International Avg. (40)	36753	54.8	46.6	37.1	46.6	37.1	14.5	1.8	54.6	55.0
Abu Dhabi, UAE	1037	40.9	33.7	48.7	33.7	48.7	14.6	3.1	40.9	40.9
Dubai, UAE	1168	66.9	59.8	29.6	59.8	29.6	7.3	3.3	66.0	67.7
Sharjah, UAE	936	55.0	47.1	38.5	47.1	38.5	10.3	4.0	57.2	53.0

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Applying

B_SD3_12AB SQ82T02AB: A2 - Explain how this motion results in day and night - CR - 1 Point

COUNTRY	N	DIFF %	1 %	0 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1220	21.8	19.8	70.9	19.8	70.9	8.1	1.2	24.3	19.9
Austria	670	18.9	17.3	74.3	17.3	74.3	8.0	0.4	24.2	13.4
Azerbaijan	899	7.6	4.3	52.0	4.3	52.0	38.2	5.5	5.7	9.0
Bahrain	746	9.8	8.4	76.9	8.4	76.9	13.3	1.4	12.1	7.5
Brazil	3278	14.6	11.2	65.4	11.2	65.4	19.2	4.2	13.7	15.6
Chile	645	15.9	12.7	67.2	12.7	67.2	17.9	2.3	15.7	16.0
Chinese Taipei	1111	38.7	36.5	57.8	36.5	57.8	5.7	0.0	38.7	38.7
Cyprus	108	33.1	29.8	60.2	29.8	60.2	10.0	0.0	36.5	30.5
Czech Republic	1176	26.5	24.4	67.7	24.4	67.7	7.7	0.2	27.6	25.4
England	602	23.9	20.6	65.6	20.6	65.6	11.8	1.9	27.1	20.4
Finland	868	37.6	35.2	58.4	35.2	58.4	5.9	0.5	43.6	31.9
France	649	12.6	9.4	65.0	9.4	65.0	24.0	1.6	12.3	12.9
Georgia	709	17.7	12.8	59.4	12.8	59.4	24.6	3.2	21.4	14.4
Hong Kong SAR	644	26.1	20.9	59.2	20.9	59.2	18.4	1.5	23.2	28.4
Hungary	793	12.7	10.9	74.6	10.9	74.6	14.4	0.2	15.5	10.3
Ireland	745	31.8	28.2	60.5	28.2	60.5	11.0	0.2	30.9	32.7
Israel	756	21.2	18.1	67.5	18.1	67.5	12.7	1.7	21.5	20.8
Italy	673	25.6	21.7	63.2	21.7	63.2	14.4	0.7	28.7	22.3
Japan	789	21.3	15.2	55.9	15.2	55.9	28.8	0.1	20.3	22.4
Jordan	608	10.2	8.2	72.3	8.2	72.3	17.2	2.3	12.2	8.1
Kazakhstan	927	9.6	7.1	67.0	7.1	67.0	21.2	4.7	8.3	10.9
Korea, Rep. of	857	47.2	45.3	50.7	45.3	50.7	3.9	0.1	47.0	47.3
Lithuania	788	29.3	27.0	65.0	27.0	65.0	7.9	0.1	32.6	26.0
Malaysia	1256	10.9	10.0	81.2	10.0	81.2	7.3	1.6	12.1	9.7
Malta	568	30.7	26.0	58.6	26.0	58.6	14.9	0.4	33.5	28.2
Morocco	749	5.1	2.5	45.8	2.5	45.8	46.7	5.0	7.8	2.6
New Zealand	577	29.2	25.6	62.0	25.6	62.0	10.4	1.9	28.5	29.9
Norway (9)	902	35.7	30.9	55.8	30.9	55.8	10.5	2.8	41.3	30.7
Oman	713	9.5	8.2	78.5	8.2	78.5	10.7	2.6	13.3	5.4
Palestinian Nat'l Auth.	553	6.3	5.3	78.5	5.3	78.5	14.7	1.5	6.9	5.7
Portugal	791	19.9	17.2	69.2	17.2	69.2	13.3	0.4	19.3	20.5
Qatar	625	25.0	21.4	64.3	21.4	64.3	12.9	1.3	26.4	23.6
Romania	526	14.4	11.1	66.1	11.1	66.1	21.5	1.2	18.1	10.4
Saudi Arabia	515	4.3	3.9	87.8	3.9	87.8	7.7	0.6	4.3	4.2
Singapore	970	27.9	27.1	70.1	27.1	70.1	2.5	0.3	25.0	30.4
Sweden	738	46.1	41.2	48.1	41.2	48.1	9.2	1.5	51.8	40.5
Turkiye	704	27.9	25.0	64.6	25.0	64.6	10.3	0.1	28.3	27.5
United Arab Emirates	4028	21.1	18.1	67.8	18.1	67.8	10.7	3.4	22.7	19.6
United States	1138	21.5	20.0	72.8	20.0	72.8	4.1	3.1	23.5	19.6
Uzbekistan	628	4.8	3.3	65.4	3.3	65.4	23.7	7.6	4.7	4.9
International Avg. (40)	36242	21.4	18.5	65.3	18.5	65.3	14.4	1.7	22.8	20.0
Abu Dhabi, UAE	1037	17.4	14.3	68.1	14.3	68.1	14.6	3.1	20.6	14.2
Dubai, UAE	1168	32.1	28.7	60.7	28.7	60.7	7.3	3.3	32.3	32.0
Sharjah, UAE	936	17.5	14.9	70.7	14.9	70.7	10.3	4.0	18.9	16.1

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Applying

B_SD3_12B SQ82T02B: Diagram of motion resulting in day and night - CR - 1 Point

COUNTRY	N	DIFF %	1 %	7 %	0 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1220	17.9	15.4	14.7	56.2	15.4	70.9	11.5	2.2	15.5	19.8
Austria	670	14.0	13.1	14.3	65.7	13.1	80.0	5.6	1.3	12.3	15.8
Azerbaijan	899	13.1	6.2	7.1	34.2	6.2	41.3	38.3	14.1	13.7	12.7
Bahrain	746	13.2	10.1	12.5	53.7	10.1	66.3	21.7	1.9	12.5	14.2
Brazil	3278	7.3	4.8	12.5	48.0	4.8	60.5	26.1	8.6	5.9	8.8
Chile	645	21.7	15.8	6.5	50.4	15.8	56.9	21.2	6.1	25.3	17.8
Chinese Taipei	1109	42.8	39.7	18.6	34.5	39.7	53.1	7.2	0.1	42.0	43.5
Cyprus	618	8.9	7.5	9.5	67.0	7.5	76.5	12.3	3.6	7.4	10.4
Czech Republic	1176	24.3	22.5	21.8	48.2	22.5	69.9	7.0	0.6	21.2	27.2
England	602	17.7	14.7	12.5	55.9	14.7	68.4	14.0	3.0	17.5	17.8
Finland	868	17.3	15.6	15.0	59.3	15.6	74.3	8.4	1.7	14.3	20.4
France	649	17.3	14.5	12.1	57.3	14.5	69.4	13.3	2.8	14.4	20.1
Georgia	710	12.1	7.9	8.3	49.3	7.9	57.6	25.8	8.8	10.8	13.3
Hong Kong SAR	644	15.6	13.7	18.3	55.9	13.7	74.2	8.9	3.3	12.3	18.4
Hungary	793	19.3	17.2	14.1	58.0	17.2	72.1	9.4	1.3	18.2	20.3
Ireland	745	14.7	13.3	12.5	64.7	13.3	77.2	8.6	0.8	12.6	16.5
Israel	756	12.1	9.4	9.6	59.1	9.4	68.7	18.0	3.8	12.7	11.4
Italy	673	18.8	15.1	18.6	46.9	15.1	65.5	17.7	1.6	17.2	20.5
Japan	789	33.2	29.4	19.0	40.1	29.4	59.1	10.6	0.9	27.2	39.2
Jordan	607	9.6	6.8	9.8	54.8	6.8	64.6	25.2	3.4	10.0	9.2
Kazakhstan	927	11.9	8.2	7.5	52.7	8.2	60.2	22.6	9.0	11.6	12.3
Korea, Rep. of	857	40.1	36.8	15.5	39.5	36.8	55.0	7.0	1.2	40.1	40.1
Lithuania	788	24.7	22.0	15.2	51.8	22.0	67.1	10.4	0.5	24.6	24.8
Malaysia	1256	12.0	10.7	7.3	70.5	10.7	77.9	9.4	2.1	9.8	14.6
Malta	568	17.4	15.8	15.4	59.6	15.8	75.0	7.3	1.9	14.4	20.5
Morocco	750	2.3	1.4	4.9	53.4	1.4	58.3	32.2	8.1	2.9	1.8
New Zealand	577	18.0	14.2	9.7	54.9	14.2	64.6	17.1	4.1	12.9	22.7
Norway (9)	902	10.8	8.7	3.3	68.3	8.7	71.6	14.7	5.0	8.7	12.8
Oman	713	8.6	6.8	8.8	63.4	6.8	72.2	16.5	4.5	10.9	6.0
Palestinian Nat'l Auth.	553	6.0	3.7	4.8	52.3	3.7	57.2	37.1	2.0	4.2	8.2
Portugal	791	14.8	12.9	13.0	61.5	12.9	74.5	11.5	1.1	11.7	17.3
Qatar	625	17.8	15.0	12.7	56.3	15.0	69.0	14.0	2.0	17.8	17.8
Romania	526	10.6	8.0	13.2	54.5	8.0	67.7	20.1	4.2	11.7	9.3
Saudi Arabia	515	6.5	4.7	8.0	59.1	4.7	67.1	27.3	0.9	7.5	5.5
Singapore	970	23.7	22.3	9.8	62.3	22.3	72.0	5.0	0.6	20.0	26.9
Sweden	738	14.7	12.4	14.7	57.1	12.4	71.7	11.8	4.1	13.6	16.0
Turkiye	704	34.5	30.5	23.1	34.8	30.5	57.9	10.7	0.9	39.2	29.5
United Arab Emirates	4028	15.6	12.0	12.2	52.6	12.0	64.8	18.5	4.7	13.8	17.6
United States	1139	11.3	9.2	13.2	58.7	9.2	71.9	15.2	3.7	11.0	11.7
Uzbekistan	628	6.3	3.3	3.3	45.4	3.3	48.7	36.6	11.4	5.0	7.6
International Avg. (40)	36752	16.5	13.8	12.1	54.2	13.8	66.3	16.4	3.5	15.4	17.5
Abu Dhabi, UAE	1037	12.4	9.2	8.3	57.0	9.2	65.3	20.8	4.7	10.6	14.4
Dubai, UAE	1168	20.3	17.1	15.9	51.1	17.1	67.1	11.4	4.4	17.7	22.9
Sharjah, UAE	936	16.0	12.2	14.4	49.6	12.2	64.0	18.5	5.3	14.8	17.4

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Applying

B_SD3_14A SQ82T03A: Difference between Sun rays in hemispheres - CR - 1 Point

COUNTRY	N	DIFF %	1 %	0 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1220	39.7	33.8	51.3	33.8	51.3	12.4	2.5	40.7	38.9
Austria	670	34.0	25.3	49.1	25.3	49.1	24.1	1.5	36.3	31.7
Azerbaijan	899	42.5	14.1	19.1	14.1	19.1	49.6	17.2	43.1	41.9
Bahrain	746	20.9	15.0	56.7	15.0	56.7	26.1	2.2	27.9	13.7
Brazil	3278	25.1	14.3	42.7	14.3	42.7	32.5	10.4	28.7	21.7
Chile	645	32.8	18.9	38.6	18.9	38.6	34.9	7.6	39.1	27.7
Chinese Taipei	1111	30.7	27.1	61.3	27.1	61.3	11.5	0.1	31.4	30.0
Cyprus	618	28.3	18.6	47.1	18.6	47.1	29.2	5.0	31.1	25.7
Czech Republic	1176	38.8	26.1	41.3	26.1	41.3	31.8	0.8	42.4	35.2
England	602	24.5	18.0	55.5	18.0	55.5	23.0	3.5	27.6	21.3
Finland	868	40.0	33.1	49.6	33.1	49.6	14.8	2.4	43.7	36.6
France	649	30.1	19.6	45.4	19.6	45.4	31.7	3.4	32.1	28.0
Georgia	710	27.9	12.7	32.8	12.7	32.8	43.3	11.2	31.1	25.2
Hong Kong SAR	644	31.8	22.9	49.2	22.9	49.2	24.6	3.3	29.8	33.4
Hungary	792	29.8	22.5	53.0	22.5	53.0	23.0	1.5	34.6	25.6
Ireland	745	36.8	30.6	52.4	30.6	52.4	16.1	0.9	34.8	38.8
Israel	756	30.0	19.9	46.7	19.9	46.7	28.5	4.9	31.8	28.2
Italy	673	32.4	21.0	43.8	21.0	43.8	32.6	2.5	35.3	29.4
Japan	789	25.2	19.3	57.5	19.3	57.5	21.8	1.4	22.1	28.6
Jordan	608	21.5	14.9	54.6	14.9	54.6	26.9	3.6	26.4	16.6
Kazakhstan	927	27.6	15.4	40.3	15.4	40.3	34.1	10.2	32.0	23.4
Korea, Rep. of	857	26.8	22.0	59.9	22.0	59.9	16.5	1.6	29.1	24.7
Lithuania	788	37.5	27.3	45.5	27.3	45.5	26.5	0.7	42.2	32.5
Malaysia	1256	12.2	10.6	75.8	10.6	75.8	11.1	2.5	14.4	9.8
Malta	568	38.2	29.9	48.3	29.9	48.3	19.3	2.6	38.4	38.1
Morocco	750	9.1	3.6	36.1	3.6	36.1	51.4	8.9	12.9	5.3
New Zealand	577	32.2	25.5	53.7	25.5	53.7	15.7	5.1	31.0	33.2
Norway (9)	902	23.2	16.8	55.5	16.8	55.5	22.2	5.5	27.2	19.9
Oman	713	23.1	18.1	60.2	18.1	60.2	16.2	5.5	25.3	20.7
Palestinian Nat'l Auth.	552	24.8	16.6	50.5	16.6	50.5	30.0	2.9	34.3	15.3
Portugal	791	28.3	19.2	48.7	19.2	48.7	30.2	1.8	30.8	26.1
Qatar	625	21.3	16.9	62.4	16.9	62.4	18.4	2.2	21.8	20.8
Romania	526	19.2	10.7	45.0	10.7	45.0	39.1	5.3	23.6	14.1
Saudi Arabia	515	17.2	12.8	61.9	12.8	61.9	23.3	1.9	23.2	11.5
Singapore	970	59.4	56.5	38.7	56.5	38.7	4.2	0.6	64.7	54.6
Sweden	738	27.2	19.9	53.2	19.9	53.2	21.6	5.2	27.0	27.5
Turkiye	704	66.7	54.8	27.3	54.8	27.3	17.0	1.0	72.7	59.9
United Arab Emirates	4027	27.4	21.1	56.1	21.1	56.1	17.2	5.6	29.8	25.1
United States	1139	33.3	29.8	59.7	29.8	59.7	6.3	4.2	32.6	33.9
Uzbekistan	628	13.2	5.3	35.2	5.3	35.2	45.0	14.4	14.1	12.2
International Avg. (40)	36752	29.8	21.5	49.0	21.5	49.0	25.1	4.3	32.4	27.2
Abu Dhabi, UAE	1037	21.1	15.7	58.8	15.7	58.8	19.9	5.6	21.5	20.8
Dubai, UAE	1168	39.3	32.6	50.4	32.6	50.4	11.8	5.2	43.0	35.9
Sharjah, UAE	935	22.5	17.2	59.2	17.2	59.2	17.5	6.1	25.5	19.7

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Applying

B_SD3_14B SQ82T03B: Season in Northern Hemisphere in diagram - CR - 1 Point

COUNTRY	N	DIFF %	1 %	0 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1220	33.9	31.0	60.4	31.0	60.4	5.5	3.2	32.3	35.1
Austria	670	20.5	18.4	71.1	18.4	71.1	8.2	2.3	23.4	17.8
Azerbaijan	899	9.6	5.8	55.1	5.8	55.1	19.2	19.9	12.2	7.6
Bahrain	746	14.3	12.6	75.8	12.6	75.8	8.1	3.5	19.4	9.3
Brazil	3278	26.0	19.5	55.6	19.5	55.6	12.1	12.9	26.3	25.6
Chile	645	19.7	14.2	57.9	14.2	57.9	17.5	10.4	22.4	17.0
Chinese Taipei	1111	37.6	36.8	61.0	36.8	61.0	1.8	0.3	36.7	38.5
Cyprus	618	17.3	14.6	69.6	14.6	69.6	8.4	7.5	16.2	18.4
Czech Republic	1176	24.3	22.3	69.5	22.3	69.5	7.0	1.2	24.8	23.8
England	602	28.7	25.3	62.7	25.3	62.7	7.2	4.8	31.6	25.7
Finland	868	35.1	32.7	60.5	32.7	60.5	3.6	3.2	36.5	33.7
France	649	21.1	17.7	65.8	17.7	65.8	11.4	5.1	20.9	21.4
Georgia	710	12.4	8.7	61.1	8.7	61.1	15.1	15.2	15.9	9.5
Hong Kong SAR	644	11.5	10.4	80.0	10.4	80.0	5.5	4.2	12.3	10.8
Hungary	793	18.7	17.7	76.7	17.7	76.7	3.6	1.9	19.4	18.1
Ireland	744	38.9	36.4	57.1	36.4	57.1	4.9	1.6	39.1	38.7
Israel	756	20.4	17.3	67.5	17.3	67.5	9.2	6.1	18.0	22.9
Italy	673	18.3	15.9	71.0	15.9	71.0	9.9	3.3	19.9	16.5
Japan	789	34.2	31.3	60.1	31.3	60.1	6.2	2.4	35.4	33.1
Jordan	608	10.9	9.4	77.2	9.4	77.2	8.0	5.4	12.4	9.5
Kazakhstan	927	14.3	10.8	64.4	10.8	64.4	12.4	12.3	15.9	12.7
Korea, Rep. of	857	17.8	16.5	76.1	16.5	76.1	5.2	2.1	16.5	19.1
Lithuania	788	20.2	18.6	73.5	18.6	73.5	6.2	1.6	18.7	21.8
Malaysia	1256	11.0	10.4	83.9	10.4	83.9	2.4	3.3	12.2	9.7
Malta	568	30.1	27.0	62.6	27.0	62.6	7.0	3.5	31.6	28.8
Morocco	749	3.5	2.4	66.5	2.4	66.5	20.2	10.8	5.9	1.3
New Zealand	576	33.7	29.3	57.5	29.3	57.5	6.8	6.4	32.4	34.9
Norway (9)	902	18.0	14.6	66.4	14.6	66.4	9.3	9.7	20.6	16.0
Oman	713	26.0	22.8	64.7	22.8	64.7	5.7	6.8	30.5	21.3
Palestinian Nat'l Auth.	553	19.8	16.1	65.2	16.1	65.2	14.5	4.2	24.7	14.9
Portugal	791	26.5	23.4	64.8	23.4	64.8	8.8	3.0	26.3	26.7
Qatar	625	19.9	18.0	72.7	18.0	72.7	5.9	3.4	23.1	16.7
Romania	526	6.3	5.2	77.3	5.2	77.3	10.3	7.2	5.7	7.0
Saudi Arabia	515	9.8	9.0	81.9	9.0	81.9	6.1	3.0	10.2	9.5
Singapore	970	29.2	28.5	69.2	28.5	69.2	1.6	0.8	31.8	26.9
Sweden	738	28.3	24.3	61.6	24.3	61.6	6.7	7.4	30.4	26.2
Turkiye	704	57.1	54.0	40.5	54.0	40.5	4.0	1.4	62.7	51.0
United Arab Emirates	4028	19.0	16.1	68.5	16.1	68.5	8.0	7.4	20.3	17.8
United States	1139	40.2	37.1	55.0	37.1	55.0	3.0	4.9	40.1	40.4
Uzbekistan	628	5.7	4.1	67.1	4.1	67.1	12.0	16.8	6.0	5.4
International Avg. (40)	36752	22.3	19.6	66.4	19.6	66.4	8.2	5.8	23.5	21.0
Abu Dhabi, UAE	1037	15.8	13.2	70.3	13.2	70.3	8.1	8.5	19.5	12.5
Dubai, UAE	1168	25.9	22.4	64.0	22.4	64.0	7.2	6.4	24.9	26.8
Sharjah, UAE	936	17.7	14.9	69.4	14.9	69.4	8.3	7.5	19.6	15.8

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Reasoning

B_SD3_15 SQ82T04: Model of Earth's motions over a year - CR - 1 Point

COUNTRY	N	DIFF %	1 %	0 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1220	20.3	19.0	74.4	19.0	74.4	3.4	3.2	17.4	22.6
Austria	670	29.7	28.3	67.1	28.3	67.1	1.9	2.7	29.0	30.3
Azerbaijan	899	6.2	4.3	65.1	4.3	65.1	10.4	20.1	6.2	6.2
Bahrain	746	10.9	10.1	82.9	10.1	82.9	3.4	3.6	13.3	8.4
Brazil	3278	23.2	18.9	62.8	18.9	62.8	5.1	13.2	22.4	23.9
Chile	645	20.9	18.0	68.3	18.0	68.3	3.2	10.5	16.2	25.6
Chinese Taipei	1110	26.0	25.5	72.8	25.5	72.8	1.3	0.3	24.3	27.5
Cyprus	618	14.5	12.7	75.2	12.7	75.2	4.6	7.5	16.5	12.7
Czech Republic	1176	27.9	26.9	69.6	26.9	69.6	2.1	1.4	22.9	32.6
England	602	18.1	16.8	76.1	16.8	76.1	2.2	4.8	16.9	19.3
Finland	868	23.8	22.0	70.2	22.0	70.2	4.6	3.2	24.2	23.5
France	649	18.3	16.7	74.7	16.7	74.7	3.3	5.3	16.7	19.9
Georgia	709	6.8	5.4	73.8	5.4	73.8	5.1	15.7	7.8	5.9
Hong Kong SAR	643	13.1	11.9	78.4	11.9	78.4	5.4	4.4	11.8	14.2
Hungary	793	36.0	34.3	61.1	34.3	61.1	2.7	1.9	35.8	36.1
Ireland	744	16.6	16.0	79.9	16.0	79.9	2.6	1.6	16.4	16.9
Israel	756	19.1	17.3	72.9	17.3	72.9	3.6	6.2	19.2	19.1
Italy	673	16.7	15.1	74.8	15.1	74.8	6.8	3.3	15.2	18.5
Japan	789	26.9	25.0	67.9	25.0	67.9	4.2	2.9	24.9	28.8
Jordan	608	13.1	12.1	80.4	12.1	80.4	1.9	5.6	15.1	11.3
Kazakhstan	925	11.6	9.2	70.5	9.2	70.5	7.1	13.3	10.0	13.1
Korea, Rep. of	857	33.8	32.4	63.4	32.4	63.4	1.9	2.3	33.0	34.6
Lithuania	788	23.9	22.0	70.1	22.0	70.1	6.3	1.6	23.0	24.8
Malaysia	1256	16.3	15.3	78.9	15.3	78.9	2.3	3.4	15.2	17.4
Malta	568	25.6	24.0	69.8	24.0	69.8	2.7	3.5	25.2	25.9
Morocco	750	3.3	2.7	80.1	2.7	80.1	5.5	11.7	3.4	3.2
New Zealand	575	16.4	14.5	73.8	14.5	73.8	5.1	6.6	15.1	17.6
Norway (9)	902	16.4	14.1	71.7	14.1	71.7	4.1	10.1	16.6	16.2
Oman	711	9.5	8.4	80.8	8.4	80.8	3.6	7.2	12.3	6.7
Palestinian Nat'l Auth.	553	2.1	2.0	90.6	2.0	90.6	3.0	4.4	2.4	1.8
Portugal	791	14.1	13.0	79.2	13.0	79.2	4.7	3.1	13.7	14.5
Qatar	625	22.1	20.7	72.7	20.7	72.7	3.3	3.4	23.6	20.7
Romania	526	8.5	7.3	78.7	7.3	78.7	6.4	7.6	7.9	9.2
Saudi Arabia	515	5.6	5.3	89.0	5.3	89.0	2.5	3.2	7.2	4.2
Singapore	970	20.3	19.9	78.3	19.9	78.3	1.1	0.8	18.3	22.0
Sweden	738	24.0	20.9	66.1	20.9	66.1	5.3	7.7	25.6	22.5
Turkiye	704	34.8	33.4	62.5	33.4	62.5	2.5	1.6	37.8	31.6
United Arab Emirates	4027	16.8	14.9	73.7	14.9	73.7	3.4	8.0	16.4	17.2
United States	1139	20.7	19.2	73.6	19.2	73.6	2.2	4.9	18.3	23.1
Uzbekistan	628	5.3	4.0	70.4	4.0	70.4	8.7	17.0	5.1	5.6
International Avg. (40)	36744	18.0	16.5	73.6	16.5	73.6	4.0	6.0	17.6	18.4
Abu Dhabi, UAE	1036	12.7	11.2	76.7	11.2	76.7	3.3	8.7	11.5	13.8
Dubai, UAE	1168	26.4	23.9	66.8	23.9	66.8	2.3	7.0	26.4	26.3
Sharjah, UAE	936	14.6	12.7	74.2	12.7	74.2	4.6	8.5	13.5	15.7

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Chemistry / Reasoning

B_SD4_02 SQ72S01: What happened to coins under water - CR - 1 Point

COUNTRY	N	DIFF %	10 %	79 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1220	78.9	77.5	20.8	77.5	20.8	1.5	0.2	81.9	76.0
Austria	669	72.5	70.9	26.9	70.9	26.9	2.1	0.0	74.9	70.2
Azerbaijan	886	50.3	41.0	40.5	41.0	40.5	17.8	0.6	48.7	51.8
Bahrain	748	56.8	53.5	40.7	53.5	40.7	5.7	0.1	61.0	52.5
Brazil	3309	68.7	65.0	29.6	65.0	29.6	5.3	0.2	68.0	69.3
Chile	627	84.4	79.4	14.6	79.4	14.6	5.7	0.3	84.8	84.1
Chinese Taipei	1111	78.1	77.2	21.6	77.2	21.6	1.2	0.0	76.8	79.5
Cyprus	611	51.4	47.6	44.9	47.6	44.9	7.1	0.3	53.8	49.1
Czech Republic	1195	81.8	79.2	17.6	79.2	17.6	3.1	0.0	82.9	80.8
England	620	78.6	75.8	20.6	75.8	20.6	3.4	0.2	79.0	78.3
Finland	854	79.4	77.0	20.0	77.0	20.0	2.9	0.2	81.6	77.2
France	654	85.9	82.4	13.5	82.4	13.5	4.1	0.0	86.8	85.0
Georgia	713	71.4	65.8	26.4	65.8	26.4	7.8	0.0	72.2	70.5
Hong Kong SAR	647	61.6	58.5	36.5	58.5	36.5	4.7	0.3	57.9	65.0
Hungary	787	86.2	83.7	13.4	83.7	13.4	2.8	0.0	86.1	86.2
Ireland	718	70.3	69.7	29.5	69.7	29.5	0.8	0.0	72.8	68.1
Israel	743	72.3	67.6	25.9	67.6	25.9	6.4	0.1	71.3	73.4
Italy	669	74.4	71.0	24.4	71.0	24.4	4.6	0.0	73.7	75.1
Japan	797	77.5	75.8	22.0	75.8	22.0	2.2	0.0	76.3	78.8
Jordan	588	55.6	53.7	42.9	53.7	42.9	3.3	0.0	60.4	51.2
Kazakhstan	926	67.6	64.9	31.2	64.9	31.2	3.9	0.1	67.7	67.4
Korea, Rep. of	849	74.5	71.6	24.5	71.6	24.5	3.9	0.0	72.3	76.9
Lithuania	796	79.0	76.8	20.4	76.8	20.4	2.8	0.0	84.3	73.3
Malaysia	1291	53.6	52.9	45.8	52.9	45.8	1.3	0.0	53.7	53.5
Malta	567	77.3	74.9	22.0	74.9	22.0	3.0	0.0	80.4	73.9
Morocco	757	10.9	8.1	66.2	8.1	66.2	25.5	0.3	10.6	11.2
New Zealand	585	77.0	75.9	22.6	75.9	22.6	1.1	0.4	76.2	77.7
Norway (9)	919	61.1	58.8	37.5	58.8	37.5	3.1	0.6	59.1	62.9
Oman	703	66.1	64.0	32.8	64.0	32.8	3.0	0.2	71.0	61.4
Palestinian Nat'l Auth.	554	40.8	39.3	57.0	39.3	57.0	3.8	0.0	43.9	37.9
Portugal	783	70.3	67.1	28.3	67.1	28.3	4.6	0.0	70.5	70.1
Qatar	624	56.9	55.0	41.6	55.0	41.6	2.8	0.6	61.7	52.7
Romania	534	66.7	62.9	31.5	62.9	31.5	5.3	0.3	70.3	63.5
Saudi Arabia	516	50.0	49.1	49.2	49.1	49.2	1.7	0.0	57.2	43.6
Singapore	964	87.3	86.8	12.7	86.8	12.7	0.5	0.0	88.2	86.3
Sweden	731	76.0	72.9	23.0	72.9	23.0	4.1	0.0	77.6	74.5
Turkiye	709	91.1	88.3	8.6	88.3	8.6	3.1	0.0	92.9	89.2
United Arab Emirates	4016	61.7	60.5	37.5	60.5	37.5	2.0	0.1	63.8	59.7
United States	1106	77.2	75.8	22.4	75.8	22.4	1.4	0.4	77.6	76.8
Uzbekistan	634	43.0	40.9	54.2	40.9	54.2	4.9	0.0	42.9	43.1
International Avg. (40)	36730	68.1	65.5	30.0	65.5	30.0	4.4	0.1	69.3	66.9
Abu Dhabi, UAE	1046	50.7	49.3	47.8	49.3	47.8	2.8	0.0	53.4	48.0
Dubai, UAE	1171	72.7	71.4	26.8	71.4	26.8	1.7	0.1	74.7	70.9
Sharjah, UAE	919	64.1	63.1	35.3	63.1	35.3	1.6	0.0	64.1	64.2

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Chemistry / Applying

B_SD4_03 SQ72S02: Mass of sample coin (pre-clue) - CR - 1 Point

COUNTRY	N	DIFF %	10 %	79 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1220	83.6	80.8	15.8	80.8	15.8	3.2	0.2	83.0	84.3
Austria	669	88.7	85.0	10.8	85.0	10.8	4.2	0.0	89.7	87.7
Azerbaijan	886	65.6	43.5	22.8	43.5	22.8	33.0	0.7	65.1	66.1
Bahrain	748	71.7	66.0	26.0	66.0	26.0	7.9	0.1	77.6	66.0
Brazil	3309	68.4	64.4	29.8	64.4	29.8	5.7	0.2	66.7	69.9
Chile	627	79.3	70.7	18.4	70.7	18.4	10.3	0.7	79.5	79.2
Chinese Taipei	1111	89.0	87.6	10.8	87.6	10.8	1.6	0.0	91.3	86.8
Cyprus	612	74.6	71.3	24.3	71.3	24.3	4.1	0.3	78.8	70.3
Czech Republic	1195	91.2	87.7	8.5	87.7	8.5	3.8	0.0	90.9	91.4
England	620	86.0	83.2	13.5	83.2	13.5	2.9	0.4	84.9	87.1
Finland	854	85.2	81.8	14.2	81.8	14.2	3.6	0.4	88.6	81.9
France	654	87.2	85.1	12.5	85.1	12.5	2.3	0.0	87.7	86.6
Georgia	713	80.0	67.5	16.9	67.5	16.9	15.4	0.2	78.1	81.7
Hong Kong SAR	647	83.3	79.2	15.9	79.2	15.9	4.5	0.3	84.5	82.1
Hungary	787	88.9	87.1	10.9	87.1	10.9	2.0	0.0	90.1	87.6
Ireland	718	88.2	84.7	11.3	84.7	11.3	3.8	0.1	89.1	87.4
Israel	743	80.7	75.9	18.1	75.9	18.1	5.9	0.1	82.6	78.9
Italy	669	88.0	83.2	11.3	83.2	11.3	5.4	0.0	89.0	87.0
Japan	797	87.2	83.1	12.2	83.1	12.2	4.6	0.0	87.0	87.3
Jordan	588	62.7	58.7	34.9	58.7	34.9	6.3	0.0	62.8	62.6
Kazakhstan	926	82.5	73.6	15.6	73.6	15.6	10.7	0.1	80.5	84.4
Korea, Rep. of	849	85.8	81.2	13.4	81.2	13.4	5.2	0.2	87.4	84.1
Lithuania	796	91.1	88.6	8.7	88.6	8.7	2.7	0.0	92.5	89.6
Malaysia	1290	73.7	72.0	25.7	72.0	25.7	2.1	0.2	73.0	74.4
Malta	567	83.6	80.0	15.7	80.0	15.7	4.3	0.0	83.9	83.3
Morocco	757	53.9	40.8	34.9	40.8	34.9	23.8	0.5	49.8	57.7
New Zealand	585	76.8	74.3	22.5	74.3	22.5	2.8	0.4	75.7	77.6
Norway (9)	919	80.5	75.7	18.4	75.7	18.4	5.2	0.8	82.6	78.5
Oman	703	58.5	52.2	37.0	52.2	37.0	10.5	0.2	59.1	57.9
Palestinian Nat'l Auth.	554	55.7	50.9	40.6	50.9	40.6	8.5	0.0	56.8	54.6
Portugal	783	87.9	83.4	11.5	83.4	11.5	5.1	0.0	86.9	88.8
Qatar	624	75.0	71.3	23.8	71.3	23.8	4.3	0.6	80.0	70.5
Romania	534	77.2	72.7	21.4	72.7	21.4	5.6	0.3	73.9	80.1
Saudi Arabia	516	59.8	56.6	38.0	56.6	38.0	5.4	0.0	62.6	57.5
Singapore	964	87.4	85.2	12.3	85.2	12.3	2.4	0.0	89.8	84.9
Sweden	731	83.9	80.6	15.5	80.6	15.5	3.7	0.2	85.6	82.3
Turkiye	709	78.2	72.8	20.3	72.8	20.3	6.9	0.0	74.7	82.0
United Arab Emirates	4016	79.0	72.5	19.2	72.5	19.2	8.2	0.2	81.7	76.4
United States	1106	83.7	81.8	15.9	81.8	15.9	1.7	0.6	84.7	82.7
Uzbekistan	634	71.3	64.2	25.9	64.2	25.9	10.0	0.0	70.9	71.6
International Avg. (40)	36730	78.9	73.9	19.4	73.9	19.4	6.5	0.2	79.5	78.3
Abu Dhabi, UAE	1046	72.3	65.9	25.3	65.9	25.3	8.6	0.1	76.2	68.3
Dubai, UAE	1171	86.5	80.6	12.6	80.6	12.6	6.4	0.3	87.2	85.8
Sharjah, UAE	919	82.2	75.6	16.4	75.6	16.4	8.0	0.0	83.4	81.1

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Chemistry / Applying

B_SD4_04 SQ72S03: Volume of sample coin (pre-clue) - CR - 1 Point

COUNTRY	N	DIFF %	10 %	70 %	79 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1220	31.0	29.6	36.7	29.2	29.6	65.9	4.3	0.2	30.4	31.5
Austria	669	37.2	35.3	37.2	22.3	35.3	59.5	5.1	0.1	34.3	40.1
Azerbaijan	886	15.6	9.9	24.8	28.6	9.9	53.3	35.6	1.2	17.1	14.5
Bahrain	747	15.1	13.8	36.1	41.0	13.8	77.1	9.1	0.1	13.8	16.5
Brazil	3309	10.7	10.0	26.7	56.2	10.0	82.9	6.9	0.2	7.3	13.8
Chile	627	19.6	17.1	34.7	35.7	17.1	70.4	11.8	0.7	19.2	19.9
Chinese Taipei	1111	62.8	61.3	16.8	19.5	61.3	36.3	2.4	0.0	63.7	61.8
Cyprus	612	33.9	31.7	31.1	30.8	31.7	61.8	6.2	0.3	33.3	34.4
Czech Republic	1195	42.4	39.8	38.2	15.9	39.8	54.1	6.1	0.0	37.7	46.9
England	620	24.1	23.0	45.2	27.0	23.0	72.2	4.4	0.4	20.7	27.7
Finland	854	42.9	40.9	27.5	27.0	40.9	54.5	4.2	0.4	36.9	48.6
France	654	29.7	28.4	39.8	27.5	28.4	67.2	4.3	0.0	28.5	31.1
Georgia	713	23.2	19.9	30.6	35.1	19.9	65.7	13.9	0.6	22.0	24.5
Hong Kong SAR	647	51.0	48.1	21.6	24.7	48.1	46.3	5.2	0.3	54.2	48.0
Hungary	787	34.6	33.4	38.6	24.7	33.4	63.3	3.3	0.0	32.4	36.6
Ireland	718	35.3	33.8	36.3	25.5	33.8	61.8	4.3	0.1	30.1	40.0
Israel	743	34.0	31.8	30.6	31.1	31.8	61.7	6.2	0.3	28.6	39.7
Italy	669	27.7	25.5	36.2	30.4	25.5	66.6	7.7	0.2	23.3	32.0
Japan	797	64.9	61.5	16.4	16.8	61.5	33.3	5.2	0.0	62.0	67.9
Jordan	588	14.9	13.9	28.8	50.6	13.9	79.4	6.7	0.0	12.2	17.4
Kazakhstan	926	17.8	15.5	38.8	32.9	15.5	71.7	12.6	0.2	17.6	18.0
Korea, Rep. of	849	54.9	51.5	19.7	22.6	51.5	42.3	5.8	0.4	54.6	55.2
Lithuania	796	39.8	38.2	41.5	16.2	38.2	57.7	4.0	0.1	36.4	43.5
Malaysia	1290	13.6	13.2	54.9	28.9	13.2	83.8	2.8	0.2	12.7	14.6
Malta	567	34.5	32.6	38.9	23.1	32.6	62.0	5.2	0.2	28.7	40.5
Morocco	757	11.0	8.7	17.9	52.0	8.7	69.9	20.8	0.7	10.3	11.7
New Zealand	585	29.2	27.6	37.2	29.7	27.6	66.9	5.1	0.4	22.8	34.2
Norway (9)	919	31.7	28.9	28.9	33.4	28.9	62.3	8.0	0.9	26.4	36.4
Oman	703	7.0	6.3	36.7	46.9	6.3	83.7	9.7	0.4	5.4	8.5
Palestinian Nat'l Auth.	554	12.0	10.8	20.9	58.0	10.8	78.8	10.4	0.0	9.4	14.5
Portugal	783	24.7	23.5	41.8	29.6	23.5	71.4	5.1	0.0	23.1	26.3
Qatar	624	19.0	18.2	43.7	33.9	18.2	77.6	3.6	0.6	14.0	23.3
Romania	534	20.0	18.7	39.1	35.6	18.7	74.7	6.2	0.3	14.3	25.0
Saudi Arabia	516	14.6	13.8	31.3	50.0	13.8	81.3	4.9	0.0	11.4	17.3
Singapore	964	51.9	50.3	28.8	17.9	50.3	46.7	2.9	0.0	50.2	53.5
Sweden	731	43.5	41.3	29.2	24.4	41.3	53.6	4.8	0.3	41.8	45.2
Turkiye	709	39.2	36.5	24.4	32.3	36.5	56.6	6.8	0.0	38.3	40.2
United Arab Emirates	4015	24.8	22.3	36.5	31.3	22.3	67.7	9.7	0.2	20.2	29.3
United States	1106	25.5	24.5	41.6	29.8	24.5	71.4	3.2	1.0	22.3	28.7
Uzbekistan	634	12.9	11.3	27.0	49.2	11.3	76.2	12.5	0.0	12.2	13.6
International Avg. (40)	36728	29.5	27.6	32.8	31.9	27.6	64.7	7.4	0.3	27.0	31.8
Abu Dhabi, UAE	1046	21.7	19.4	34.9	35.1	19.4	70.0	10.3	0.2	18.3	25.1
Dubai, UAE	1171	33.0	30.2	36.7	24.6	30.2	61.4	8.1	0.4	25.3	40.1
Sharjah, UAE	919	23.0	21.0	40.4	29.6	21.0	70.0	8.9	0.1	20.1	26.0

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Chemistry / Applying

B_SD4_05 SQ72S04: Identify primary metal in coin (DERIVED) (pre-clue) - CR - 1 Point

COUNTRY	N	DIFF %	10 %	11 %	12 %	13 %	14 %	15 %	79 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1220	55.0	24.2	26.9	0.0	0.5	0.0	1.0	43.0	52.6	43.0	4.1	0.2	54.9	55.1
Austria	669	62.3	27.6	29.9	0.0	1.1	0.0	0.3	35.6	58.8	35.6	5.5	0.1	56.6	68.0
Azerbaijan	886	28.9	5.8	11.4	0.2	0.5	0.0	2.5	50.3	20.5	50.3	28.0	1.2	31.7	26.7
Bahrain	748	35.5	7.7	23.5	0.2	0.5	0.0	0.9	59.7	32.9	59.7	7.4	0.1	37.0	34.0
Brazil	3309	29.1	6.3	19.1	0.1	0.4	0.0	0.7	65.2	26.7	65.2	7.8	0.3	25.9	31.8
Chile	627	44.0	11.5	26.2	0.4	0.5	0.0	0.5	49.7	39.1	49.7	10.1	1.1	46.6	41.5
Chinese Taipei	1111	66.9	50.4	14.6	0.0	0.5	0.0	0.1	32.4	65.7	32.4	1.9	0.0	67.3	66.6
Cyprus	612	52.4	23.4	24.3	0.1	0.1	0.0	1.6	45.1	49.5	45.1	4.9	0.5	49.5	55.3
Czech Republic	1195	68.8	34.9	29.0	0.1	0.7	0.0	0.5	29.5	65.1	29.5	5.5	0.0	64.5	73.0
England	620	60.0	19.1	34.8	0.5	0.3	0.0	0.3	36.6	55.0	36.6	8.0	0.4	56.4	63.6
Finland	854	62.6	33.3	24.1	0.0	0.3	0.0	0.4	34.8	58.2	34.8	6.7	0.4	62.4	62.8
France	654	55.1	21.0	29.5	0.0	0.0	0.0	1.0	41.9	51.5	41.9	6.7	0.0	50.8	59.6
Georgia	713	35.3	13.2	16.3	0.1	0.4	0.0	0.9	56.6	31.0	56.6	11.8	0.6	32.9	37.7
Hong Kong SAR	647	62.8	40.4	18.9	0.0	0.5	0.0	0.5	35.7	60.3	35.7	3.7	0.3	62.8	62.8
Hungary	787	55.5	26.1	26.5	0.0	0.4	0.0	0.2	42.8	53.3	42.8	3.9	0.0	53.4	57.6
Ireland	718	56.3	25.7	26.1	0.3	0.1	0.0	0.8	41.2	53.0	41.2	5.6	0.1	51.0	61.0
Israel	743	46.9	23.8	17.1	0.0	0.9	0.0	0.9	48.4	42.7	48.4	8.7	0.3	44.6	49.3
Italy	669	56.6	21.9	28.5	0.2	0.5	0.0	1.0	40.0	52.2	40.0	7.6	0.2	52.1	61.1
Japan	797	66.4	53.0	9.6	0.0	0.6	0.0	0.3	32.1	63.4	32.1	4.5	0.0	66.5	66.2
Jordan	588	26.4	8.2	15.2	0.2	0.2	0.0	1.1	69.4	24.9	69.4	5.7	0.0	23.5	29.1
Kazakhstan	926	41.8	12.5	22.0	0.5	0.7	0.0	1.8	52.2	37.5	52.2	10.2	0.2	43.6	40.1
Korea, Rep. of	849	65.9	45.7	16.6	0.4	0.3	0.0	0.6	33.0	63.6	33.0	2.9	0.5	64.9	66.9
Lithuania	796	67.8	33.5	30.4	0.0	0.7	0.0	0.6	31.0	65.2	31.0	3.6	0.1	68.3	67.2
Malaysia	1290	24.7	9.4	13.6	0.2	0.3	0.1	0.3	72.6	23.9	72.6	3.4	0.2	24.2	25.4
Malta	567	62.6	26.9	31.0	0.4	0.0	0.0	0.6	35.2	58.9	35.2	5.7	0.2	59.0	66.6
Morocco	757	26.3	4.5	13.8	0.0	1.1	0.0	2.5	61.4	21.9	61.4	16.0	0.7	28.4	24.3
New Zealand	585	49.8	20.1	25.3	0.1	0.1	0.0	0.8	46.8	46.4	46.8	6.4	0.5	46.8	52.1
Norway (9)	919	40.4	20.8	14.0	0.2	0.4	0.0	0.1	52.3	35.5	52.3	11.3	1.0	33.3	47.1
Oman	703	22.5	3.1	15.8	0.6	0.2	0.2	0.6	70.6	20.5	70.6	8.5	0.4	23.2	21.8
Palestinian Nat'l Auth.	554	26.5	7.1	14.3	0.0	0.6	0.0	1.7	66.1	23.8	66.1	10.2	0.0	24.0	28.8
Portugal	783	52.6	21.6	26.9	0.2	0.0	0.0	1.6	45.4	50.3	45.4	4.3	0.0	49.1	55.7
Qatar	624	43.9	12.3	29.1	0.2	0.1	0.0	0.2	53.5	41.8	53.5	4.1	0.6	43.0	44.6
Romania	534	52.9	16.3	32.0	0.0	0.9	0.0	0.7	44.4	49.9	44.4	5.4	0.3	49.7	55.5
Saudi Arabia	516	23.9	8.0	13.0	0.3	0.3	0.0	0.8	71.5	22.4	71.5	6.1	0.0	22.9	24.7
Singapore	964	72.1	44.6	24.5	0.3	0.4	0.0	0.5	27.3	70.3	27.3	2.5	0.0	74.6	69.6
Sweden	731	57.9	32.4	21.2	0.0	1.1	0.0	0.2	39.9	54.9	39.9	4.8	0.3	53.4	62.3
Turkiye	709	48.4	24.3	19.4	0.0	0.3	0.0	1.1	48.2	45.2	48.2	6.6	0.0	44.7	52.3
United Arab Emirates	4016	48.0	17.9	23.5	0.3	0.4	0.0	1.0	46.7	43.1	46.7	9.9	0.3	44.7	51.1
United States	1106	53.1	20.6	28.9	0.0	0.5	0.0	0.6	44.7	50.7	44.7	3.5	1.1	48.7	57.6
Uzbekistan	634	22.5	4.9	14.0	0.0	0.1	0.0	0.5	67.2	19.5	67.2	13.3	0.0	18.0	27.2
International Avg. (40)	36730	48.3	21.6	22.0	0.2	0.4	0.0	0.8	47.5	45.0	47.5	7.2	0.3	46.4	50.1
Abu Dhabi, UAE	1046	43.3	15.0	22.0	0.1	0.4	0.0	1.4	50.9	38.9	50.9	10.0	0.2	41.1	45.5
Dubai, UAE	1171	60.4	25.7	27.4	0.5	0.5	0.0	1.1	36.2	55.2	36.2	8.2	0.4	55.0	65.4
Sharjah, UAE	919	47.3	17.2	24.0	0.1	0.4	0.0	0.9	47.5	42.7	47.5	9.6	0.2	44.2	50.2

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Chemistry / Reasoning

B_SD4_06 SQ72S05: Choose acid amount for reaction (pre-clue) - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1220	66.6	8.5	64.5	8.4	15.4	3.0	0.2	66.7	66.4
Austria	669	65.1	9.7	63.0	9.4	14.7	3.1	0.1	65.5	64.7
Azerbaijan	886	54.6	10.6	39.1	9.4	12.6	27.0	1.2	56.6	53.0
Bahrain	748	58.4	9.5	54.0	12.8	16.0	7.5	0.1	62.6	54.2
Brazil	3309	48.4	13.8	45.4	15.0	19.5	5.7	0.5	51.4	45.7
Chile	627	55.9	11.4	50.0	9.8	18.1	9.6	1.1	53.9	57.9
Chinese Taipei	1111	70.2	8.2	67.9	7.5	13.1	3.3	0.0	75.8	64.8
Cyprus	612	63.2	10.4	59.2	11.5	12.6	5.7	0.5	61.8	64.5
Czech Republic	1195	72.8	7.7	67.9	8.3	9.3	6.8	0.0	76.2	69.7
England	620	67.4	7.7	65.0	7.4	16.4	3.2	0.4	67.8	66.9
Finland	854	70.5	10.0	67.5	7.8	10.3	4.0	0.4	76.8	64.5
France	654	68.5	8.1	66.5	9.4	13.1	2.8	0.0	69.6	67.3
Georgia	713	57.2	15.2	49.9	9.0	13.1	12.2	0.6	56.4	58.1
Hong Kong SAR	647	61.7	11.6	59.5	10.8	14.5	3.3	0.3	62.9	60.5
Hungary	787	68.6	9.6	66.3	9.8	10.9	3.4	0.0	71.1	66.2
Ireland	718	70.9	8.1	69.3	7.0	13.3	2.1	0.3	70.4	71.4
Israel	743	61.7	11.2	56.0	9.8	13.7	9.1	0.3	62.9	60.5
Italy	669	72.4	5.0	67.6	8.1	12.6	6.5	0.2	75.6	69.5
Japan	797	73.6	7.8	71.8	6.3	11.6	2.4	0.0	76.1	71.0
Jordan	588	53.1	13.8	50.0	8.9	21.6	5.7	0.0	58.8	47.8
Kazakhstan	926	62.1	10.4	55.2	9.4	13.9	11.0	0.2	66.0	58.5
Korea, Rep. of	849	74.6	9.2	71.0	5.8	9.2	4.2	0.5	76.2	72.8
Lithuania	796	73.5	9.0	70.4	8.0	8.4	4.1	0.1	75.3	71.6
Malaysia	1290	56.6	12.2	54.5	10.9	18.7	3.5	0.2	58.3	54.7
Malta	567	63.3	8.0	61.0	11.0	16.3	3.3	0.3	65.0	61.6
Morocco	757	47.2	12.6	36.9	11.9	16.9	21.0	0.7	45.9	48.4
New Zealand	585	62.7	9.8	60.2	12.2	13.7	3.5	0.6	64.1	61.7
Norway (9)	919	68.4	7.6	63.8	10.0	11.8	5.7	1.0	70.3	66.7
Oman	703	59.3	11.2	54.6	12.9	13.4	7.5	0.4	63.6	55.1
Palestinian Nat'l Auth.	554	47.4	14.6	42.6	11.6	21.1	10.0	0.0	51.9	43.1
Portugal	783	68.6	9.0	66.3	8.1	13.3	3.4	0.0	68.4	68.8
Qatar	624	61.1	12.3	58.4	11.4	13.5	3.8	0.6	57.7	64.0
Romania	534	66.9	12.6	63.3	9.0	9.7	5.1	0.3	70.3	64.1
Saudi Arabia	516	55.3	11.0	53.2	12.9	19.0	3.9	0.0	58.0	53.0
Singapore	964	67.2	8.6	65.6	6.8	16.7	2.2	0.0	66.5	67.8
Sweden	731	69.0	9.0	66.3	9.0	11.8	3.6	0.3	72.3	65.8
Turkiye	709	52.1	12.6	48.8	11.9	20.3	6.5	0.0	52.3	52.0
United Arab Emirates	4016	66.8	9.2	61.1	7.7	13.5	8.2	0.4	68.1	65.5
United States	1106	60.4	8.5	58.2	11.0	18.7	2.3	1.3	59.2	61.6
Uzbekistan	634	53.1	15.7	46.1	13.9	11.1	13.2	0.0	55.3	51.0
International Avg. (40)	36730	62.9	10.3	58.9	9.8	14.3	6.3	0.3	64.6	61.3
Abu Dhabi, UAE	1046	61.4	9.4	56.5	9.5	16.6	7.8	0.2	64.9	57.7
Dubai, UAE	1171	72.1	8.3	67.0	4.9	12.8	6.6	0.5	70.2	73.9
Sharjah, UAE	919	68.4	9.5	61.6	7.4	11.6	9.4	0.5	69.2	67.6

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Chemistry / Reasoning

B_SD4_07 SQ72S06: Estimate the year the ship sank - CR - 1 Point

COUNTRY	N	DIFF %	10 %	79 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1220	36.5	36.2	62.9	36.2	62.9	0.7	0.3	35.8	37.2
Austria	669	39.0	38.9	60.8	38.9	60.8	0.3	0.1	38.3	39.7
Azerbaijan	886	6.2	5.7	86.2	5.7	86.2	6.5	1.6	5.4	6.9
Bahrain	748	27.2	26.8	71.8	26.8	71.8	1.3	0.1	32.5	22.0
Brazil	3309	14.2	13.9	83.6	13.9	83.6	1.9	0.6	12.4	15.9
Chile	627	8.4	8.1	87.8	8.1	87.8	2.9	1.3	7.4	9.4
Chinese Taipei	1111	47.3	47.2	52.5	47.2	52.5	0.2	0.0	52.8	42.1
Cyprus	611	27.3	27.0	71.7	27.0	71.7	0.6	0.7	29.6	25.0
Czech Republic	1195	40.7	40.5	59.0	40.5	59.0	0.4	0.1	40.8	40.7
England	620	55.9	55.1	43.5	55.1	43.5	1.0	0.4	55.6	56.2
Finland	853	45.0	44.4	54.2	44.4	54.2	1.0	0.4	44.5	45.5
France	654	40.4	40.0	59.2	40.0	59.2	0.8	0.0	39.5	41.2
Georgia	713	10.3	10.0	87.1	10.0	87.1	2.3	0.7	9.8	10.8
Hong Kong SAR	647	42.4	41.8	56.8	41.8	56.8	1.1	0.3	40.7	44.1
Hungary	787	15.8	15.8	84.1	15.8	84.1	0.2	0.0	15.1	16.5
Ireland	718	52.0	51.8	47.9	51.8	47.9	0.0	0.3	53.3	50.8
Israel	743	33.8	33.1	64.9	33.1	64.9	1.5	0.4	32.9	34.7
Italy	669	40.5	40.3	59.1	40.3	59.1	0.4	0.2	35.6	45.1
Japan	797	50.5	50.3	49.3	50.3	49.3	0.3	0.0	53.5	47.5
Jordan	588	8.5	8.5	90.8	8.5	90.8	0.5	0.3	6.0	10.9
Kazakhstan	926	13.7	13.5	84.8	13.5	84.8	1.2	0.4	13.1	14.4
Korea, Rep. of	849	30.0	29.6	69.0	29.6	69.0	0.8	0.6	31.0	28.9
Lithuania	796	39.8	39.4	59.6	39.4	59.6	1.0	0.1	40.3	39.2
Malaysia	1291	17.4	17.3	82.2	17.3	82.2	0.2	0.2	16.5	18.4
Malta	567	45.1	44.8	54.6	44.8	54.6	0.3	0.3	42.0	48.4
Morocco	757	1.4	1.4	95.3	1.4	95.3	2.4	0.9	0.7	2.1
New Zealand	584	41.0	40.4	58.1	40.4	58.1	0.9	0.6	37.4	43.8
Norway (9)	919	33.9	32.7	63.5	32.7	63.5	2.4	1.4	32.7	35.1
Oman	703	7.1	7.0	91.7	7.0	91.7	0.8	0.5	5.3	8.7
Palestinian Nat'l Auth.	554	7.8	7.8	91.7	7.8	91.7	0.5	0.0	6.9	8.7
Portugal	783	37.0	36.9	62.9	36.9	62.9	0.1	0.0	32.3	41.2
Qatar	624	29.1	28.9	70.2	28.9	70.2	0.4	0.6	28.2	30.0
Romania	534	10.4	10.2	87.8	10.2	87.8	1.7	0.4	10.8	10.0
Saudi Arabia	516	11.9	11.8	87.6	11.8	87.6	0.6	0.0	13.1	10.8
Singapore	964	53.3	53.2	46.7	53.2	46.7	0.1	0.0	56.9	49.7
Sweden	731	44.8	44.0	54.2	44.0	54.2	1.2	0.6	46.7	42.9
Turkiye	709	40.3	39.3	58.1	39.3	58.1	2.6	0.0	37.4	43.5
United Arab Emirates	4015	20.6	20.3	78.2	20.3	78.2	1.0	0.5	20.6	20.7
United States	1106	40.8	40.1	58.1	40.1	58.1	0.5	1.3	38.0	43.6
Uzbekistan	634	2.5	2.5	96.7	2.5	96.7	0.8	0.0	2.1	2.9
International Avg. (40)	36727	29.3	28.9	69.6	28.9	69.6	1.1	0.4	28.8	29.6
Abu Dhabi, UAE	1046	16.3	16.1	82.6	16.1	82.6	1.1	0.2	15.0	17.7
Dubai, UAE	1171	28.2	27.8	70.6	27.8	70.6	1.0	0.6	28.2	28.3
Sharjah, UAE	918	21.1	20.8	77.7	20.8	77.7	0.8	0.6	20.2	22.0

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Physics / Knowing

B_SD4_08A SQ72S07A: Forces acting on the ship (silver) (pre-clue) (EXCLUDED) - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1220	86.5	82.2	5.0	6.1	1.8	4.7	0.3	87.5	85.5
Austria	669	88.3	85.0	3.1	6.4	1.8	3.6	0.1	89.6	87.0
Azerbaijan	886	78.1	50.9	7.1	4.4	2.8	33.3	1.6	78.1	78.1
Bahrain	748	72.8	64.8	9.6	10.2	4.4	10.7	0.2	76.1	69.3
Brazil	3309	73.4	61.6	9.1	9.2	4.1	15.2	0.8	72.6	74.1
Chile	627	81.1	69.9	5.8	7.9	2.6	12.5	1.3	79.6	82.5
Chinese Taipei	1111	93.3	90.3	2.9	3.1	0.5	3.2	0.0	93.2	93.4
Cyprus	612	83.3	78.8	7.1	6.7	1.9	4.8	0.7	83.5	83.2
Czech Republic	1195	94.0	88.5	2.0	2.4	1.2	5.7	0.1	93.9	94.0
England	620	88.1	85.6	4.5	6.0	1.2	2.4	0.4	88.8	87.4
Finland	854	86.2	81.7	3.4	6.7	3.0	4.8	0.4	85.4	87.0
France	654	85.6	81.5	4.2	7.3	2.3	4.8	0.0	86.7	84.3
Georgia	713	77.5	65.0	8.1	8.5	2.3	15.5	0.7	73.7	81.3
Hong Kong SAR	647	86.6	81.9	5.2	5.6	1.8	5.1	0.3	85.5	87.7
Hungary	787	91.4	87.9	3.5	3.4	1.4	3.7	0.1	90.2	92.4
Ireland	718	90.8	88.4	3.9	3.6	1.5	2.4	0.3	90.0	91.4
Israel	743	78.7	72.0	4.6	7.7	7.2	8.0	0.4	76.2	81.3
Italy	669	91.6	86.8	4.2	2.0	1.7	5.0	0.2	90.2	93.0
Japan	797	94.9	93.0	1.1	2.3	1.5	2.0	0.0	95.7	94.1
Jordan	588	71.9	56.6	10.2	9.0	3.0	21.0	0.3	75.3	68.5
Kazakhstan	926	81.5	65.7	5.6	6.2	3.1	18.9	0.5	82.2	80.8
Korea, Rep. of	849	91.8	88.6	4.0	2.2	1.7	2.9	0.6	91.6	91.9
Lithuania	796	90.1	86.4	3.5	4.8	1.2	3.9	0.2	90.3	90.0
Malaysia	1290	67.9	61.9	10.3	12.7	6.2	8.6	0.2	67.9	67.9
Malta	567	85.8	80.8	5.1	6.7	1.5	5.5	0.3	84.6	87.1
Morocco	757	37.1	27.2	14.6	26.8	4.6	25.9	0.9	36.7	37.6
New Zealand	585	84.8	77.1	5.6	5.6	2.6	8.5	0.6	82.9	86.2
Norway (9)	919	84.0	75.3	5.1	6.3	2.9	8.8	1.6	85.6	82.6
Oman	703	74.5	61.6	7.7	9.8	3.6	16.9	0.5	78.3	70.8
Palestinian Nat'l Auth.	554	61.7	48.1	11.3	14.5	4.1	22.0	0.0	60.2	63.2
Portugal	783	88.9	85.5	5.2	3.0	2.5	3.8	0.0	91.1	87.0
Qatar	624	77.4	71.1	10.3	8.6	1.7	7.6	0.6	79.4	75.7
Romania	534	84.0	74.7	6.2	6.2	1.9	10.6	0.4	85.8	82.3
Saudi Arabia	516	68.5	58.0	11.4	11.3	3.9	15.3	0.0	67.8	69.2
Singapore	964	92.2	89.8	3.6	3.0	1.0	2.5	0.0	92.1	92.3
Sweden	731	87.4	82.7	4.1	5.4	2.5	4.8	0.6	85.2	89.4
Turkiye	709	88.0	80.3	4.5	4.8	1.7	8.7	0.0	88.0	87.9
United Arab Emirates	4016	77.7	68.7	8.6	8.5	2.6	11.0	0.6	77.9	77.5
United States	1106	84.8	79.6	6.2	5.2	2.9	4.7	1.5	82.8	86.8
Uzbekistan	634	77.1	52.2	5.4	6.8	3.3	32.4	0.0	79.0	75.5
International Avg. (40)	36730	82.0	74.2	6.1	6.9	2.6	9.8	0.4	82.0	81.9
Abu Dhabi, UAE	1046	67.2	59.1	12.3	13.1	3.4	11.9	0.3	66.6	67.9
Dubai, UAE	1171	86.7	79.8	5.0	5.0	2.2	7.4	0.6	86.8	86.7
Sharjah, UAE	919	79.7	69.5	8.1	7.4	2.3	12.0	0.8	82.1	77.4

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Knowing

B_SD4_08B SQ72S07B: Forces acting on the ship (empty ship) (pre-clue) (EXCLUDED) - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1220	28.7	27.0	42.8	21.8	2.6	5.4	0.4	21.4	35.5
Austria	669	19.8	19.1	44.0	30.6	2.5	3.7	0.1	15.5	24.0
Azerbaijan	886	19.8	12.4	31.0	16.3	3.1	35.5	1.7	17.7	21.6
Bahrain	748	18.8	16.7	39.6	26.7	5.6	11.0	0.4	15.0	23.0
Brazil	3309	16.4	13.0	43.6	18.3	4.4	19.8	0.9	16.4	16.4
Chile	627	14.0	11.9	34.9	34.5	3.7	13.5	1.4	11.5	16.4
Chinese Taipei	1111	36.8	35.6	43.4	16.4	1.5	3.2	0.0	33.9	39.6
Cyprus	612	41.7	39.2	34.5	17.8	2.6	4.8	1.0	41.3	42.1
Czech Republic	1195	24.7	23.3	38.3	30.8	2.1	5.4	0.1	21.0	28.2
England	620	29.6	28.4	31.1	34.0	2.6	3.5	0.4	26.1	33.0
Finland	854	28.9	27.1	37.2	27.2	2.5	5.6	0.4	26.3	31.4
France	654	23.6	22.1	34.6	35.1	2.0	6.0	0.1	23.1	24.1
Georgia	713	32.4	25.5	23.1	26.9	3.3	20.1	1.1	31.0	33.7
Hong Kong SAR	647	49.1	46.9	25.8	18.7	4.2	4.3	0.3	48.6	49.6
Hungary	787	25.2	24.0	38.8	30.4	2.0	4.7	0.1	22.2	28.0
Ireland	718	20.5	19.7	51.2	23.0	2.5	3.3	0.3	11.8	28.0
Israel	743	23.3	21.3	34.2	29.5	6.6	8.0	0.4	18.1	28.7
Italy	669	18.5	17.5	58.6	16.2	2.2	5.1	0.3	16.5	20.4
Japan	797	47.0	45.7	23.3	24.8	3.5	2.7	0.0	39.5	54.7
Jordan	588	24.5	18.4	30.9	22.8	3.1	24.4	0.5	16.7	31.9
Kazakhstan	926	21.1	16.4	33.7	25.0	2.8	21.0	1.2	21.1	21.0
Korea, Rep. of	849	32.6	31.5	43.2	20.1	1.8	2.8	0.6	30.2	35.2
Lithuania	796	25.5	24.6	46.4	23.4	2.0	3.4	0.2	21.3	29.9
Malaysia	1290	15.4	13.6	35.4	30.9	8.6	11.2	0.3	15.5	15.3
Malta	567	37.3	35.2	39.0	17.4	2.7	5.3	0.5	37.0	37.7
Morocco	757	23.2	16.7	21.1	24.4	9.8	26.5	1.4	24.2	22.3
New Zealand	585	21.9	19.9	48.8	18.8	3.4	8.3	0.8	21.2	22.4
Norway (9)	919	19.1	17.0	38.9	30.3	2.7	9.1	2.1	16.4	21.5
Oman	703	20.4	17.1	36.7	25.3	4.6	15.8	0.5	19.2	21.6
Palestinian Nat'l Auth.	554	20.9	16.1	32.2	23.7	5.2	22.4	0.4	21.6	20.1
Portugal	783	16.1	15.4	61.0	16.8	2.4	4.3	0.0	13.3	18.7
Qatar	624	26.9	24.1	41.7	20.3	3.4	10.0	0.6	28.4	25.6
Romania	534	28.2	25.3	42.9	18.9	2.6	9.9	0.4	25.0	30.9
Saudi Arabia	516	21.7	18.5	38.4	25.2	3.0	14.9	0.0	24.4	19.1
Singapore	964	57.2	55.3	26.1	12.6	2.6	3.4	0.0	51.4	62.9
Sweden	731	39.4	36.6	36.4	16.2	3.6	6.5	0.7	35.0	43.5
Turkiye	709	25.5	23.3	36.0	29.4	2.8	8.5	0.0	24.0	27.0
United Arab Emirates	4016	30.3	26.7	34.9	22.0	4.5	11.0	0.9	29.6	31.0
United States	1106	20.6	19.1	50.3	20.5	2.6	5.8	1.7	14.4	26.8
Uzbekistan	634	24.2	16.0	35.2	11.9	3.1	33.8	0.0	22.8	25.6
International Avg. (40)	36730	26.8	24.1	38.0	23.4	3.4	10.6	0.6	24.2	29.2
Abu Dhabi, UAE	1046	23.5	20.6	36.2	23.6	7.3	11.9	0.5	25.9	20.9
Dubai, UAE	1171	36.0	32.9	36.3	19.4	2.6	7.8	1.0	35.1	36.9
Sharjah, UAE	919	31.9	27.5	31.0	24.4	3.4	12.5	1.2	31.1	32.6

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Physics / Knowing

B_SD4_08C SQ72S07C: Forces acting on the ship (buoyant force) (pre-clue) - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1220	49.9	11.9	47.0	27.9	7.5	5.3	0.4	42.3	57.1
Austria	669	60.2	5.2	57.3	28.0	4.7	4.7	0.1	51.5	68.8
Azerbaijan	886	28.8	19.3	18.9	21.9	5.6	32.5	1.7	25.0	32.0
Bahrain	748	45.3	17.8	39.4	21.7	8.0	12.8	0.4	43.7	47.2
Brazil	0	.	.	.	.	.	.	.	.	.
Chile	627	56.2	8.2	47.4	23.4	5.3	14.3	1.4	48.2	63.8
Chinese Taipei	1111	84.7	6.3	82.1	6.6	1.9	3.0	0.0	83.8	85.6
Cyprus	612	52.5	13.0	49.2	23.5	8.2	5.1	1.0	54.8	50.0
Czech Republic	1195	57.3	16.2	54.0	19.2	4.8	5.7	0.1	52.5	62.1
England	620	76.8	3.1	73.9	15.1	4.1	3.4	0.4	74.1	79.6
Finland	854	76.8	6.8	71.4	12.1	2.7	6.7	0.4	76.4	77.2
France	654	59.3	12.4	55.9	22.2	3.9	5.6	0.1	58.2	60.4
Georgia	713	70.8	9.3	53.0	9.1	3.5	23.9	1.2	67.0	74.3
Hong Kong SAR	647	71.5	8.8	68.3	13.9	4.6	4.0	0.4	69.9	73.0
Hungary	787	60.0	6.1	57.2	29.3	2.7	4.7	0.1	58.6	61.4
Ireland	718	39.9	14.5	38.5	34.9	8.5	3.3	0.3	34.7	44.5
Israel	743	58.0	9.8	52.5	19.4	8.7	9.2	0.4	57.7	58.4
Italy	669	21.4	8.6	20.0	55.3	9.7	6.1	0.3	17.6	25.0
Japan	797	84.3	6.0	82.0	7.8	1.5	2.8	0.0	84.4	84.2
Jordan	588	39.3	23.2	29.0	17.3	4.4	25.6	0.5	35.1	43.4
Kazakhstan	926	34.7	10.5	27.9	19.1	23.1	18.2	1.2	34.7	34.6
Korea, Rep. of	849	71.8	14.3	68.9	11.0	1.8	3.4	0.6	68.3	75.5
Lithuania	796	51.0	8.2	48.7	34.4	4.2	4.3	0.2	48.1	54.1
Malaysia	1290	44.0	17.4	39.6	24.7	8.5	9.5	0.3	44.4	43.5
Malta	567	36.9	14.6	34.5	35.9	8.5	6.0	0.5	28.7	45.6
Morocco	757	18.2	18.2	12.5	24.9	13.0	29.9	1.4	18.1	18.3
New Zealand	585	41.9	12.5	37.8	33.7	6.3	8.9	0.8	28.4	51.9
Norway (9)	919	46.6	6.0	41.0	33.6	7.3	9.9	2.1	48.7	44.9
Oman	703	45.5	16.7	36.7	21.5	5.7	18.9	0.5	44.8	46.1
Palestinian Nat'l Auth.	554	36.8	21.8	27.3	18.3	6.9	25.4	0.4	34.4	39.3
Portugal	0	.	.	.	.	.	.	.	.	.
Qatar	624	41.1	18.6	37.6	27.2	8.1	8.0	0.6	38.6	43.3
Romania	534	42.2	10.1	37.7	34.8	6.6	10.4	0.4	38.5	45.4
Saudi Arabia	516	41.8	20.4	34.1	21.7	5.2	18.5	0.0	39.4	44.1
Singapore	964	56.3	11.7	54.6	22.2	8.6	3.0	0.0	50.3	62.1
Sweden	731	50.7	7.5	47.6	34.6	4.3	5.3	0.8	51.2	50.3
Turkiye	709	78.9	7.8	72.4	9.0	2.7	8.2	0.0	77.7	80.2
United Arab Emirates	4016	44.8	16.4	38.7	24.5	6.8	12.7	0.9	43.8	45.8
United States	1106	31.9	15.9	29.5	37.0	9.9	6.1	1.7	25.2	38.6
Uzbekistan	0	.	.	.	.	.	.	.	.	.
International Avg. (37)	32004	51.6	12.3	46.6	23.7	6.4	10.4	0.6	48.6	54.4
Abu Dhabi, UAE	1046	29.3	20.4	24.9	29.0	10.8	14.4	0.5	28.6	30.0
Dubai, UAE	1171	52.3	13.3	47.2	24.0	5.7	8.8	1.0	51.3	53.3
Sharjah, UAE	919	49.7	15.4	41.8	21.5	5.4	14.7	1.2	47.0	52.4

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Physics / Applying

B_SD4_09 SQ72S08: Relationship among forces (pre-clue) - CR - 1 Point

COUNTRY	N	DIFF %	10 %	79 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1220	58.5	57.1	40.4	57.1	40.4	2.1	0.4	58.6	58.5
Austria	669	52.5	51.7	46.8	51.7	46.8	1.3	0.1	48.9	55.9
Azerbaijan	886	51.8	40.9	38.0	40.9	38.0	18.9	2.2	57.9	46.5
Bahrain	748	49.4	46.4	47.5	46.4	47.5	5.7	0.4	56.9	41.9
Brazil	3309	50.3	48.3	47.7	48.3	47.7	2.9	1.1	48.1	52.3
Chile	627	46.4	43.4	50.1	43.4	50.1	5.1	1.4	47.9	44.8
Chinese Taipei	1111	74.0	72.9	25.6	72.9	25.6	1.5	0.0	68.9	79.1
Cyprus	612	56.2	54.0	42.1	54.0	42.1	2.9	1.0	53.7	58.8
Czech Republic	1195	59.0	55.5	38.5	55.5	38.5	5.9	0.1	55.4	62.4
England	620	56.9	54.7	41.5	54.7	41.5	3.5	0.4	55.2	58.6
Finland	854	60.0	57.9	38.7	57.9	38.7	3.1	0.4	58.9	61.0
France	654	57.0	55.5	41.8	55.5	41.8	2.7	0.1	57.0	57.0
Georgia	713	52.4	49.6	45.1	49.6	45.1	4.2	1.2	56.5	48.2
Hong Kong SAR	647	70.9	69.7	28.7	69.7	28.7	1.3	0.4	67.6	73.9
Hungary	787	58.7	57.5	40.5	57.5	40.5	1.9	0.1	57.0	60.3
Ireland	718	58.7	57.3	40.3	57.3	40.3	2.1	0.3	56.7	60.4
Israel	743	57.2	53.4	40.0	53.4	40.0	6.3	0.4	57.2	57.1
Italy	669	53.5	50.4	43.7	50.4	43.7	5.6	0.3	50.3	56.6
Japan	797	77.2	75.3	22.2	75.3	22.2	2.5	0.0	75.8	78.7
Jordan	588	42.0	39.9	55.2	39.9	55.2	4.3	0.5	45.8	38.5
Kazakhstan	926	58.5	51.4	36.5	51.4	36.5	10.9	1.3	61.3	55.9
Korea, Rep. of	849	76.6	73.4	22.4	73.4	22.4	3.5	0.6	76.1	77.1
Lithuania	796	62.1	60.2	36.7	60.2	36.7	2.9	0.2	63.7	60.5
Malaysia	1290	54.8	53.5	44.1	53.5	44.1	2.1	0.3	57.3	52.1
Malta	567	61.3	58.9	37.2	58.9	37.2	3.4	0.5	59.7	63.0
Morocco	757	44.3	40.1	50.5	40.1	50.5	8.0	1.4	46.2	42.4
New Zealand	585	54.5	52.9	44.1	52.9	44.1	2.1	0.8	50.9	57.3
Norway (9)	919	47.9	44.2	48.0	44.2	48.0	5.6	2.1	49.3	46.7
Oman	703	49.0	45.3	47.1	45.3	47.1	7.1	0.5	54.1	44.2
Palestinian Nat'l Auth.	554	47.0	42.6	48.0	42.6	48.0	8.8	0.7	49.8	44.5
Portugal	783	59.5	57.3	39.1	57.3	39.1	3.6	0.0	59.8	59.1
Qatar	624	55.8	54.4	43.2	54.4	43.2	1.9	0.6	56.6	55.0
Romania	534	47.9	45.6	49.5	45.6	49.5	4.5	0.4	50.9	45.4
Saudi Arabia	516	42.7	41.1	55.2	41.1	55.2	3.8	0.0	47.2	38.7
Singapore	964	73.1	71.3	26.2	71.3	26.2	2.5	0.0	72.7	73.6
Sweden	731	54.3	51.5	43.4	51.5	43.4	4.3	0.8	57.0	51.7
Turkiye	709	74.8	72.7	24.5	72.7	24.5	2.8	0.0	77.8	71.5
United Arab Emirates	4016	61.0	56.3	36.0	56.3	36.0	6.9	0.9	63.3	58.7
United States	1106	61.8	59.2	36.6	59.2	36.6	2.5	1.7	60.9	62.8
Uzbekistan	634	54.2	49.8	42.2	49.8	42.2	8.0	0.0	55.8	52.6
International Avg. (40)	36730	57.1	54.3	40.6	54.3	40.6	4.5	0.6	57.6	56.6
Abu Dhabi, UAE	1046	55.7	51.4	40.9	51.4	40.9	7.2	0.5	59.6	51.6
Dubai, UAE	1171	65.3	60.5	32.2	60.5	32.2	6.3	1.0	62.9	67.5
Sharjah, UAE	919	62.4	56.9	34.2	56.9	34.2	7.6	1.2	67.3	57.8

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Physics / Applying

B_SD4_10 SQ72S09: Computer model variables (DERIVED) (pre-clue) - CR - 1 Point

COUNTRY	N	DIFF %	10 %	70 %	71 %	72 %	79 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1220	29.9	29.3	22.9	11.6	9.9	24.4	29.3	68.8	1.4	0.5	32.5	27.4
Austria	669	24.8	24.4	19.6	15.4	10.7	28.1	24.4	73.9	1.6	0.1	25.5	24.2
Azerbaijan	886	17.5	12.7	14.2	18.0	6.6	21.3	12.7	60.1	24.5	2.6	18.2	16.9
Bahrain	748	24.7	23.6	17.6	14.5	9.7	30.2	23.6	71.8	4.2	0.4	24.2	25.3
Brazil	3309	17.4	16.1	16.5	20.0	8.3	31.7	16.1	76.6	5.9	1.5	18.1	16.7
Chile	627	19.7	17.7	28.2	11.7	7.3	24.8	17.7	72.0	9.0	1.4	21.6	18.0
Chinese Taipei	1111	41.2	40.8	33.8	7.4	3.8	13.4	40.8	58.4	0.8	0.0	46.4	36.1
Cyprus	612	18.5	17.7	33.1	12.1	7.4	25.6	17.7	78.2	2.7	1.4	20.2	16.7
Czech Republic	1195	25.0	23.7	25.1	8.1	10.6	27.3	23.7	71.2	4.9	0.2	23.7	26.3
England	620	39.6	38.3	19.3	12.1	7.0	19.9	38.3	58.2	3.0	0.5	39.9	39.4
Finland	854	26.4	25.2	23.2	14.2	7.7	25.4	25.2	70.5	3.7	0.6	27.3	25.5
France	654	24.8	23.6	23.1	11.4	7.8	29.4	23.6	71.7	4.6	0.1	21.2	28.5
Georgia	713	20.5	18.5	11.3	18.3	12.4	29.8	18.5	71.8	8.5	1.2	20.4	20.5
Hong Kong SAR	647	35.8	34.7	25.5	11.0	5.9	19.9	34.7	62.3	2.6	0.4	37.7	34.1
Hungary	787	35.2	34.8	22.2	11.4	9.2	21.3	34.8	64.0	1.1	0.1	36.4	34.1
Ireland	718	30.6	30.3	25.8	12.7	8.6	21.5	30.3	68.6	0.9	0.3	32.8	28.7
Israel	743	29.4	27.7	18.3	11.1	11.6	25.8	27.7	66.8	4.7	0.8	31.2	27.4
Italy	669	20.7	19.3	21.5	14.9	9.5	27.8	19.3	73.7	6.7	0.3	22.6	19.0
Japan	797	46.7	45.8	26.7	6.2	5.0	14.4	45.8	52.3	1.9	0.0	42.9	50.6
Jordan	588	21.4	20.0	13.1	17.2	8.1	35.0	20.0	73.4	6.1	0.5	22.6	20.4
Kazakhstan	926	25.9	23.3	16.7	14.1	11.9	24.0	23.3	66.6	8.8	1.3	24.9	26.8
Korea, Rep. of	849	29.5	28.6	33.0	5.8	6.7	22.8	28.6	68.3	2.5	0.6	33.3	25.5
Lithuania	796	18.4	18.0	35.3	8.8	7.9	27.7	18.0	79.8	2.0	0.2	17.4	19.4
Malaysia	1290	21.7	21.2	22.0	9.7	12.2	32.5	21.2	76.3	2.1	0.4	22.0	21.4
Malta	567	26.6	25.7	23.7	9.3	8.0	29.7	25.7	70.7	3.1	0.5	28.1	25.1
Morocco	757	13.6	12.0	14.5	11.8	21.1	28.8	12.0	76.3	10.2	1.4	10.8	16.2
New Zealand	585	25.3	24.0	22.7	10.7	7.7	29.6	24.0	70.7	4.3	1.0	24.4	26.0
Norway (9)	919	25.9	24.1	16.4	18.9	7.9	25.6	24.1	68.9	4.7	2.4	27.5	24.4
Oman	703	27.5	26.2	20.7	12.1	10.1	25.9	26.2	68.9	4.5	0.5	28.1	27.0
Palestinian Nat'l Auth.	554	23.5	21.2	16.1	12.6	13.3	26.8	21.2	68.7	9.4	0.7	22.7	24.3
Portugal	783	29.1	28.4	14.9	16.2	7.8	30.5	28.4	69.4	2.2	0.0	26.1	31.7
Qatar	624	29.1	27.8	20.2	14.2	10.1	23.2	27.8	67.6	3.9	0.6	34.8	24.3
Romania	534	18.5	17.4	15.4	22.2	7.0	32.1	17.4	76.7	5.3	0.6	22.0	15.6
Saudi Arabia	516	24.7	23.6	16.5	18.1	9.9	27.2	23.6	71.6	4.8	0.0	30.4	19.8
Singapore	964	55.7	54.9	17.5	9.3	4.1	12.8	54.9	43.7	1.2	0.1	58.2	53.2
Sweden	731	28.7	27.4	23.1	11.1	8.9	25.1	27.4	68.2	3.4	1.0	27.9	29.4
Turkiye	709	28.9	27.8	29.3	14.9	5.5	18.8	27.8	68.5	3.6	0.0	29.7	27.9
United Arab Emirates	4016	29.1	26.8	18.2	13.5	10.4	23.2	26.8	65.2	6.9	1.0	31.3	26.9
United States	1106	27.4	26.4	20.7	14.7	8.0	26.7	26.4	70.2	1.6	1.8	28.7	26.0
Uzbekistan	634	16.9	14.3	13.6	14.9	12.3	29.7	14.3	70.5	14.8	0.4	15.3	18.4
International Avg. (40)	36730	26.9	25.6	21.3	13.1	8.9	25.5	25.6	68.8	5.0	0.7	27.7	26.1
Abu Dhabi, UAE	1046	26.7	25.0	15.0	14.9	11.2	27.4	25.0	68.6	5.8	0.7	26.7	26.7
Dubai, UAE	1171	35.1	32.9	22.6	11.5	9.5	17.4	32.9	60.9	5.1	1.2	36.9	33.3
Sharjah, UAE	919	28.6	25.8	17.1	14.0	11.0	22.1	25.8	64.2	8.7	1.3	33.2	24.2

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Physics / Applying

B_SD4_10A SQ72S09A: Computer model variables (input) (pre-clue) - MC - Key: C

COUNTRY	N	DIFF %	A %	B %	C %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1220	53.2	22.2	23.7	52.2	1.4	0.5	56.0	50.6
Austria	669	45.0	29.3	24.5	44.0	2.0	0.1	44.5	45.3
Azerbaijan	886	37.3	28.1	17.2	27.0	25.1	2.6	37.3	37.3
Bahrain	748	43.2	30.0	24.1	41.2	4.4	0.4	43.5	43.0
Brazil	3309	35.3	35.3	24.5	32.6	6.1	1.5	35.1	35.5
Chile	627	51.2	20.7	22.9	45.8	9.1	1.4	52.3	50.3
Chinese Taipei	1111	75.2	13.4	11.2	74.6	0.8	0.0	77.4	73.0
Cyprus	612	52.9	24.0	21.1	50.8	2.7	1.4	53.7	52.2
Czech Republic	1195	51.6	25.8	20.1	48.9	5.0	0.2	54.5	48.8
England	620	59.6	20.8	18.2	57.5	3.0	0.5	59.0	60.2
Finland	854	50.7	23.3	23.7	48.5	3.8	0.6	53.8	47.8
France	654	49.1	24.2	24.4	46.8	4.6	0.1	47.8	50.4
Georgia	713	33.1	33.1	27.1	29.8	8.8	1.2	30.9	35.3
Hong Kong SAR	647	62.1	20.1	16.6	60.3	2.6	0.4	60.8	63.4
Hungary	787	57.7	23.4	18.5	57.0	1.1	0.1	60.5	54.9
Ireland	718	57.0	26.3	16.2	56.3	1.0	0.3	60.6	53.8
Israel	743	48.8	21.4	26.8	46.0	4.9	0.8	49.6	47.9
Italy	669	44.0	30.3	21.5	40.7	7.1	0.3	43.0	45.0
Japan	797	73.9	10.9	14.7	72.5	1.9	0.0	74.7	73.1
Jordan	588	35.6	33.2	26.6	33.1	6.6	0.5	39.2	32.5
Kazakhstan	926	44.5	26.1	23.7	40.0	8.9	1.3	42.4	46.5
Korea, Rep. of	849	63.6	14.0	21.2	61.6	2.5	0.6	68.3	58.6
Lithuania	796	54.6	26.3	18.0	53.3	2.1	0.2	54.1	55.0
Malaysia	1290	44.3	21.3	33.0	43.1	2.2	0.4	47.6	40.8
Malta	567	51.5	23.9	22.6	49.3	3.7	0.5	50.7	52.3
Morocco	757	30.2	26.5	34.9	26.5	10.6	1.4	27.1	33.0
New Zealand	585	49.3	24.4	23.6	46.7	4.3	1.0	48.7	49.8
Norway (9)	919	43.9	31.3	20.5	40.5	5.3	2.4	46.6	41.5
Oman	703	49.5	21.7	26.2	47.0	4.5	0.5	52.8	46.4
Palestinian Nat'l Auth.	554	41.5	25.9	26.5	37.2	9.7	0.7	38.0	44.7
Portugal	783	44.3	33.9	20.5	43.3	2.2	0.0	39.8	48.4
Qatar	624	50.6	23.4	23.5	48.0	4.5	0.6	52.5	48.8
Romania	534	35.1	35.4	25.4	32.8	5.9	0.6	36.3	34.0
Saudi Arabia	516	42.5	29.4	24.8	40.0	5.8	0.0	46.5	39.0
Singapore	964	73.4	16.2	10.1	72.4	1.2	0.1	76.3	70.5
Sweden	731	53.0	22.3	22.5	50.5	3.7	1.0	50.9	55.0
Turkiye	709	59.3	21.0	18.2	57.2	3.7	0.0	58.4	60.3
United Arab Emirates	4016	49.1	22.1	24.5	45.0	7.3	1.0	50.0	48.2
United States	1106	48.8	28.3	21.0	47.1	1.8	1.8	48.4	49.3
Uzbekistan	634	34.7	28.6	24.5	28.2	18.3	0.4	34.2	35.3
International Avg. (40)	36730	49.5	24.9	22.2	46.9	5.3	0.7	50.1	48.9
Abu Dhabi, UAE	1046	43.1	24.3	28.6	40.0	6.4	0.7	42.9	43.2
Dubai, UAE	1171	59.4	17.8	20.2	55.7	5.2	1.2	58.3	60.6
Sharjah, UAE	919	48.0	22.8	23.8	42.9	9.2	1.3	52.1	44.0

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Physics / Applying

B_SD4_10B SQ72S09B: Computer model variables (constant) (pre-clue) - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	C %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1220	41.7	36.7	40.9	20.3	1.5	0.5	42.7	40.8
Austria	669	40.9	33.5	40.2	24.5	1.6	0.1	40.8	41.1
Azerbaijan	886	42.6	25.0	31.0	16.8	24.5	2.6	43.3	42.0
Bahrain	748	39.9	32.0	38.1	25.4	4.2	0.4	37.9	41.8
Brazil	3309	39.2	32.6	36.2	23.6	6.2	1.5	40.2	38.4
Chile	627	33.3	43.8	29.8	15.9	9.1	1.4	34.2	32.4
Chinese Taipei	1111	48.6	41.2	48.2	9.8	0.8	0.0	53.5	43.8
Cyprus	612	31.0	46.8	29.8	19.4	2.7	1.4	32.0	30.1
Czech Republic	1195	33.7	34.4	31.9	28.4	5.1	0.2	28.6	38.5
England	620	52.2	30.4	50.3	15.7	3.0	0.5	56.1	48.3
Finland	854	41.2	39.3	39.4	16.9	3.8	0.6	39.9	42.5
France	654	36.7	39.7	35.0	20.7	4.6	0.1	34.3	39.2
Georgia	713	41.0	26.0	36.8	26.9	9.2	1.2	44.5	37.6
Hong Kong SAR	647	47.1	36.3	45.7	15.0	2.6	0.4	49.1	45.3
Hungary	787	46.8	31.5	46.2	21.1	1.1	0.1	47.8	45.8
Ireland	718	43.6	33.6	43.0	22.2	1.0	0.3	44.0	43.2
Israel	743	41.3	33.5	39.0	21.9	4.8	0.8	42.3	40.2
Italy	669	37.2	33.5	34.5	24.8	6.9	0.3	39.6	34.9
Japan	797	53.1	36.4	52.1	9.6	1.9	0.0	51.1	55.1
Jordan	588	40.3	31.6	37.3	23.7	6.9	0.5	35.2	44.9
Kazakhstan	926	41.7	28.5	37.4	23.7	9.2	1.3	40.2	43.2
Korea, Rep. of	849	35.6	47.5	34.4	14.8	2.6	0.6	39.1	31.8
Lithuania	796	27.5	45.4	26.8	25.4	2.1	0.2	28.1	26.8
Malaysia	1290	31.7	42.8	30.9	23.8	2.1	0.4	31.7	31.7
Malta	567	36.9	38.2	35.6	22.5	3.1	0.5	36.8	37.1
Morocco	757	27.3	28.3	24.0	35.6	10.6	1.4	24.0	30.3
New Zealand	585	36.6	38.6	34.7	21.4	4.3	1.0	36.1	37.1
Norway (9)	919	46.9	29.0	43.5	20.3	4.8	2.4	45.2	48.4
Oman	703	40.4	36.9	38.4	19.7	4.5	0.5	39.1	41.6
Palestinian Nat'l Auth.	554	37.9	29.3	33.9	26.3	9.9	0.7	36.4	39.2
Portugal	783	45.7	27.6	44.7	25.5	2.2	0.0	42.9	48.1
Qatar	624	44.6	33.6	42.6	19.2	3.9	0.6	51.7	38.6
Romania	534	42.7	33.8	40.2	20.1	5.3	0.6	47.2	39.0
Saudi Arabia	516	44.2	31.3	41.8	21.5	5.4	0.0	46.1	42.5
Singapore	964	65.2	23.4	64.3	11.0	1.2	0.1	66.9	63.5
Sweden	731	40.6	36.8	38.7	19.9	3.5	1.0	39.1	42.0
Turkiye	709	44.3	42.0	42.7	11.7	3.6	0.0	44.8	43.9
United Arab Emirates	4016	44.1	32.3	40.5	19.0	7.2	1.0	46.1	42.0
United States	1106	42.6	33.8	41.1	21.6	1.7	1.8	44.9	40.3
Uzbekistan	634	37.7	25.5	31.1	25.9	17.2	0.4	34.6	40.6
International Avg. (40)	36730	41.1	34.6	38.8	20.8	5.2	0.7	41.4	40.8
Abu Dhabi, UAE	1046	43.1	32.4	40.2	20.7	6.0	0.7	42.3	43.9
Dubai, UAE	1171	47.5	33.3	44.5	15.8	5.3	1.2	50.2	45.0
Sharjah, UAE	919	44.7	29.9	40.2	19.8	8.8	1.3	50.0	39.5

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Physics / Applying

B_SD4_10C SQ72S09C: Computer model variables (output) (pre-clue) - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	C %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1220	40.0	39.2	33.4	25.4	1.5	0.5	40.6	39.4
Austria	669	35.8	35.0	33.5	29.3	2.0	0.1	34.4	37.2
Azerbaijan	886	26.8	19.4	24.3	28.6	25.1	2.6	26.0	27.4
Bahrain	748	34.9	33.3	33.1	28.9	4.4	0.4	35.9	34.0
Brazil	3309	26.4	24.4	31.7	36.2	6.2	1.5	27.4	25.5
Chile	627	27.9	24.9	36.8	27.6	9.3	1.4	31.9	24.1
Chinese Taipei	1111	45.0	44.6	39.8	14.8	0.8	0.0	50.8	39.3
Cyprus	612	26.2	25.1	45.0	25.8	2.7	1.4	26.6	25.8
Czech Republic	1195	36.3	34.4	42.9	17.4	5.2	0.2	35.3	37.3
England	620	46.9	45.3	28.0	23.2	3.0	0.5	46.8	47.1
Finland	854	34.4	33.0	32.5	30.2	3.7	0.6	36.7	32.3
France	654	33.0	31.5	36.0	27.9	4.6	0.1	30.1	36.0
Georgia	713	34.5	30.9	25.6	33.0	9.4	1.2	37.2	31.8
Hong Kong SAR	647	41.9	40.6	34.7	21.7	2.6	0.4	46.3	37.8
Hungary	787	44.5	44.0	34.1	20.7	1.1	0.1	44.5	44.5
Ireland	718	39.5	38.9	39.3	20.3	1.2	0.3	39.4	39.5
Israel	743	41.6	39.3	28.6	26.5	4.8	0.8	42.6	40.6
Italy	669	31.1	28.9	36.8	27.2	6.7	0.3	35.9	26.7
Japan	797	51.8	50.8	31.3	16.0	1.9	0.0	48.3	55.3
Jordan	588	30.5	28.3	28.7	35.9	6.7	0.5	28.5	32.2
Kazakhstan	926	39.3	35.1	28.4	25.9	9.3	1.3	37.8	40.6
Korea, Rep. of	849	36.4	35.3	41.1	20.4	2.6	0.6	39.2	33.4
Lithuania	796	26.5	25.9	52.9	18.9	2.0	0.2	25.2	27.9
Malaysia	1290	34.2	33.3	33.6	30.5	2.1	0.4	35.1	33.3
Malta	567	35.3	33.8	38.2	23.9	3.5	0.5	37.9	32.4
Morocco	757	37.6	33.1	29.2	25.8	10.4	1.4	37.1	38.0
New Zealand	585	33.5	31.7	36.3	26.6	4.4	1.0	32.3	34.5
Norway (9)	919	34.6	32.0	28.7	31.7	5.2	2.4	38.1	31.4
Oman	703	38.3	36.3	30.3	28.2	4.7	0.5	39.6	37.1
Palestinian Nat'l Auth.	554	38.6	34.4	28.9	25.8	10.2	0.7	40.5	37.0
Portugal	783	37.0	36.2	32.6	29.0	2.2	0.0	34.7	39.1
Qatar	624	39.9	37.9	29.3	27.7	4.5	0.6	46.4	34.3
Romania	534	26.1	24.4	28.5	40.6	5.9	0.6	28.3	24.1
Saudi Arabia	516	35.4	33.6	28.0	33.3	5.1	0.0	41.9	29.8
Singapore	964	59.9	59.1	24.3	15.3	1.2	0.1	61.9	57.9
Sweden	731	38.2	36.2	34.2	24.5	4.1	1.0	40.2	36.2
Turkiye	709	34.6	33.4	35.4	27.5	3.7	0.0	34.2	35.1
United Arab Emirates	4016	40.5	37.3	26.9	27.8	7.1	1.0	43.1	38.0
United States	1106	35.8	34.5	34.2	27.7	1.9	1.8	37.3	34.3
Uzbekistan	634	32.9	26.6	26.8	27.5	18.7	0.4	32.9	32.9
International Avg. (40)	36730	36.6	34.5	33.1	26.4	5.3	0.7	37.7	35.5
Abu Dhabi, UAE	1046	38.7	36.2	24.6	32.7	5.8	0.7	39.8	37.6
Dubai, UAE	1171	45.5	42.6	28.9	22.2	5.2	1.2	47.8	43.2
Sharjah, UAE	919	41.0	36.8	26.1	26.9	8.9	1.3	44.7	37.4

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Applying

B_SD4_11 SQ72S10: Weight of ship with no silver - CR - 1 Point

COUNTRY	N	DIFF %	10 %	79 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1220	76.1	74.3	23.3	74.3	23.3	1.8	0.6	79.1	73.4
Austria	669	74.8	73.1	24.6	73.1	24.6	2.2	0.1	75.8	73.9
Azerbaijan	886	36.1	30.7	54.3	30.7	54.3	11.9	3.1	33.8	38.2
Bahrain	748	39.4	38.8	59.6	38.8	59.6	1.1	0.5	43.3	35.7
Brazil	3309	31.2	29.0	64.0	29.0	64.0	5.2	1.8	31.2	31.2
Chile	627	60.0	55.3	36.8	55.3	36.8	5.6	2.2	57.7	62.3
Chinese Taipei	1111	76.9	76.5	23.0	76.5	23.0	0.5	0.0	77.5	76.3
Cyprus	612	51.1	48.4	46.4	48.4	46.4	3.6	1.6	52.0	50.2
Czech Republic	1195	64.8	63.3	34.3	63.3	34.3	2.2	0.2	62.1	67.5
England	620	77.9	75.5	21.3	75.5	21.3	2.2	0.9	72.9	82.9
Finland	853	69.7	67.3	29.3	67.3	29.3	2.8	0.7	70.0	69.4
France	654	69.0	66.8	30.1	66.8	30.1	3.0	0.2	70.0	67.9
Georgia	713	34.0	29.4	57.0	29.4	57.0	12.2	1.4	31.7	36.3
Hong Kong SAR	647	70.0	67.8	29.0	67.8	29.0	2.5	0.6	68.8	71.2
Hungary	787	63.3	62.5	36.3	62.5	36.3	1.1	0.2	63.8	62.8
Ireland	718	80.1	78.9	19.6	78.9	19.6	1.3	0.3	82.7	77.9
Israel	743	69.8	65.9	28.5	65.9	28.5	4.6	1.1	69.3	70.4
Italy	669	59.2	56.9	39.3	56.9	39.3	3.0	0.7	56.5	61.7
Japan	797	56.9	55.4	42.0	55.4	42.0	2.6	0.0	52.3	61.5
Jordan	588	34.7	34.1	64.1	34.1	64.1	1.0	0.8	38.6	31.2
Kazakhstan	926	44.7	42.0	51.9	42.0	51.9	4.7	1.3	44.6	44.9
Korea, Rep. of	849	68.1	65.4	30.6	65.4	30.6	3.0	0.9	64.5	71.9
Lithuania	796	64.5	62.0	34.1	62.0	34.1	3.7	0.2	63.7	65.3
Malaysia	1290	38.4	38.1	61.1	38.1	61.1	0.4	0.5	39.8	36.9
Malta	567	60.3	58.8	38.7	58.8	38.7	1.9	0.7	59.2	61.5
Morocco	757	8.4	7.8	84.6	7.8	84.6	6.1	1.6	8.4	8.4
New Zealand	585	66.9	64.7	32.0	64.7	32.0	2.3	1.0	62.5	70.3
Norway (9)	919	68.0	64.1	30.1	64.1	30.1	2.9	3.0	70.9	65.4
Oman	703	42.6	42.0	56.5	42.0	56.5	1.1	0.5	47.2	38.3
Palestinian Nat'l Auth.	554	30.3	29.8	68.7	29.8	68.7	0.9	0.7	35.4	25.6
Portugal	783	65.1	62.6	33.5	62.6	33.5	3.8	0.1	64.5	65.6
Qatar	624	59.1	57.7	40.0	57.7	40.0	1.4	0.9	61.0	57.3
Romania	534	51.4	49.5	46.8	49.5	46.8	3.1	0.6	57.8	46.0
Saudi Arabia	515	33.7	33.2	65.4	33.2	65.4	1.4	0.0	35.7	31.9
Singapore	964	77.6	77.3	22.3	77.3	22.3	0.3	0.1	79.8	75.5
Sweden	731	65.4	62.5	33.1	62.5	33.1	3.3	1.2	66.5	64.3
Turkiye	709	56.8	54.4	41.4	54.4	41.4	4.2	0.0	56.6	57.0
United Arab Emirates	4016	59.2	57.6	39.7	57.6	39.7	1.5	1.2	60.6	57.9
United States	1106	73.4	71.6	25.9	71.6	25.9	0.5	2.0	72.6	74.3
Uzbekistan	634	24.9	23.9	72.2	23.9	72.2	3.5	0.4	20.8	29.0
International Avg. (40)	36728	56.4	54.4	41.8	54.4	41.8	3.0	0.8	56.5	56.2
Abu Dhabi, UAE	1046	46.9	45.8	51.9	45.8	51.9	1.5	0.9	48.9	44.8
Dubai, UAE	1171	74.4	72.0	24.8	72.0	24.8	1.8	1.5	72.9	75.8
Sharjah, UAE	919	60.7	59.2	38.3	59.2	38.3	1.2	1.3	60.3	61.1

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Applying

B_SD4_12 SQ72S11: How weight affects buoyant force - CR - 1 Point

COUNTRY	N	DIFF %	10 %	79 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1220	19.1	18.9	79.8	18.9	79.8	0.8	0.6	15.9	22.2
Austria	669	10.6	10.5	89.1	10.5	89.1	0.2	0.1	13.0	8.3
Azerbaijan	886	5.1	4.7	87.7	4.7	87.7	4.1	3.5	6.6	3.8
Bahrain	748	11.7	11.6	87.5	11.6	87.5	0.4	0.5	14.8	8.7
Brazil	3309	12.9	12.4	83.8	12.4	83.8	1.2	2.6	12.1	13.5
Chile	627	13.4	12.8	82.8	12.8	82.8	1.9	2.5	12.5	14.4
Chinese Taipei	1111	14.0	14.0	85.9	14.0	85.9	0.0	0.1	16.2	11.9
Cyprus	611	11.1	10.8	86.4	10.8	86.4	1.1	1.7	11.0	11.3
Czech Republic	1195	17.5	17.4	82.2	17.4	82.2	0.1	0.3	16.6	18.3
England	620	21.9	21.4	76.7	21.4	76.7	0.7	1.2	21.5	22.2
Finland	854	25.3	24.8	73.2	24.8	73.2	1.2	0.8	27.4	23.3
France	654	13.9	13.7	84.9	13.7	84.9	1.1	0.4	13.2	14.6
Georgia	713	9.8	9.3	85.9	9.3	85.9	2.1	2.8	9.4	10.2
Hong Kong SAR	647	18.7	18.5	80.4	18.5	80.4	0.4	0.6	19.8	17.7
Hungary	787	21.0	21.0	78.8	21.0	78.8	0.0	0.2	21.0	21.1
Ireland	718	16.1	16.0	83.1	16.0	83.1	0.5	0.4	14.2	17.8
Israel	743	11.4	11.1	86.6	11.1	86.6	1.0	1.3	12.3	10.4
Italy	669	11.3	10.9	85.7	10.9	85.7	2.3	1.1	11.4	11.2
Japan	797	13.6	13.6	86.3	13.6	86.3	0.0	0.1	15.5	11.7
Jordan	588	6.1	6.0	92.9	6.0	92.9	0.3	0.8	6.6	5.5
Kazakhstan	926	15.5	15.1	82.6	15.1	82.6	0.6	1.7	15.6	15.4
Korea, Rep. of	849	20.6	20.3	78.2	20.3	78.2	0.4	1.0	20.4	20.9
Lithuania	796	16.7	16.6	83.0	16.6	83.0	0.2	0.2	17.2	16.2
Malaysia	1291	5.0	5.0	94.3	5.0	94.3	0.1	0.7	5.9	4.0
Malta	566	23.9	23.7	75.3	23.7	75.3	0.4	0.7	23.6	24.2
Morocco	757	2.0	2.0	94.4	2.0	94.4	1.4	2.2	0.9	3.1
New Zealand	584	11.2	11.0	87.6	11.0	87.6	0.3	1.0	11.0	11.3
Norway (9)	919	6.2	5.9	89.1	5.9	89.1	1.3	3.7	4.4	7.9
Oman	703	8.8	8.8	90.5	8.8	90.5	0.3	0.5	12.6	5.3
Palestinian Nat'l Auth.	554	8.1	8.0	90.7	8.0	90.7	0.3	0.9	12.1	4.5
Portugal	783	23.8	23.7	75.7	23.7	75.7	0.5	0.2	23.0	24.6
Qatar	624	16.1	15.9	82.9	15.9	82.9	0.3	0.9	16.1	16.0
Romania	533	6.9	6.8	92.0	6.8	92.0	0.6	0.6	6.0	7.6
Saudi Arabia	516	4.9	4.9	94.5	4.9	94.5	0.0	0.6	5.1	4.7
Singapore	964	36.9	36.9	63.0	36.9	63.0	0.0	0.1	38.0	35.9
Sweden	731	14.6	14.3	83.8	14.3	83.8	0.4	1.4	12.0	17.0
Turkiye	709	29.4	29.2	70.2	29.2	70.2	0.2	0.4	33.7	24.7
United Arab Emirates	4016	21.6	21.2	76.7	21.2	76.7	0.6	1.4	21.2	22.1
United States	1105	24.0	23.4	74.1	23.4	74.1	0.6	2.0	24.1	24.0
Uzbekistan	634	3.0	2.9	95.5	2.9	95.5	0.8	0.8	2.3	3.7
International Avg. (40)	36726	14.6	14.4	83.8	14.4	83.8	0.7	1.1	14.9	14.3
Abu Dhabi, UAE	1046	17.1	16.7	81.3	16.7	81.3	0.9	1.0	17.8	16.3
Dubai, UAE	1171	34.2	33.3	63.9	33.3	63.9	1.0	1.8	32.1	36.3
Sharjah, UAE	919	16.5	16.2	82.2	16.2	82.2	0.2	1.4	16.2	16.8

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Applying

B_SD4_13 SQ72S12: Does model support theory - CR - 1 Point

COUNTRY	N	DIFF %	10 %	79 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1220	51.1	50.6	48.4	50.6	48.4	0.5	0.6	53.0	49.3
Austria	669	47.9	47.8	52.0	47.8	52.0	0.0	0.1	50.5	45.4
Azerbaijan	886	8.7	8.0	84.5	8.0	84.5	3.7	3.8	7.6	9.8
Bahrain	748	30.0	29.6	69.2	29.6	69.2	0.4	0.8	33.2	26.8
Brazil	3309	12.7	12.2	84.0	12.2	84.0	0.9	2.9	12.4	12.9
Chile	627	40.2	38.4	57.0	38.4	57.0	2.1	2.5	40.0	40.4
Chinese Taipei	1111	46.0	45.8	53.9	45.8	53.9	0.1	0.1	46.2	45.8
Cyprus	611	30.8	30.0	67.3	30.0	67.3	0.9	1.8	33.6	28.0
Czech Republic	1195	47.5	47.2	52.2	47.2	52.2	0.3	0.3	48.1	46.9
England	620	54.7	53.9	44.6	53.9	44.6	0.3	1.2	53.1	56.3
Finland	854	42.5	42.0	56.8	42.0	56.8	0.4	0.8	43.8	41.3
France	654	50.2	49.5	49.1	49.5	49.1	0.6	0.8	48.9	51.6
Georgia	713	8.2	7.8	87.2	7.8	87.2	2.1	2.9	8.0	8.4
Hong Kong SAR	647	24.5	24.2	74.7	24.2	74.7	0.4	0.6	26.4	22.7
Hungary	787	41.4	41.2	58.3	41.2	58.3	0.3	0.2	39.6	43.1
Ireland	718	46.4	46.0	53.2	46.0	53.2	0.3	0.4	47.7	45.2
Israel	743	39.8	39.0	59.0	39.0	59.0	0.8	1.3	39.7	39.9
Italy	668	38.6	37.4	59.5	37.4	59.5	1.0	2.1	34.4	42.5
Japan	797	61.6	61.5	38.3	61.5	38.3	0.1	0.1	64.2	58.9
Jordan	588	8.6	8.5	90.5	8.5	90.5	0.2	0.8	13.4	4.3
Kazakhstan	926	23.6	22.8	73.6	22.8	73.6	1.7	1.9	23.2	24.1
Korea, Rep. of	849	51.8	51.0	47.5	51.0	47.5	0.2	1.3	54.6	48.8
Lithuania	796	40.0	39.9	59.7	39.9	59.7	0.2	0.2	41.7	38.3
Malaysia	1291	13.1	12.9	86.1	12.9	86.1	0.3	0.7	12.7	13.5
Malta	567	47.2	46.7	52.2	46.7	52.2	0.4	0.7	48.2	46.2
Morocco	757	1.1	1.1	94.9	1.1	94.9	1.6	2.4	0.8	1.4
New Zealand	585	39.2	38.5	59.7	38.5	59.7	0.8	1.0	35.4	42.2
Norway (9)	919	34.6	32.9	62.3	32.9	62.3	1.0	3.9	34.7	34.4
Oman	703	18.9	18.7	80.2	18.7	80.2	0.6	0.5	21.7	16.4
Palestinian Nat'l Auth.	554	8.4	8.2	90.3	8.2	90.3	0.2	1.3	10.9	6.1
Portugal	783	42.4	42.1	57.3	42.1	57.3	0.4	0.2	39.1	45.3
Qatar	624	14.3	14.1	84.4	14.1	84.4	0.6	0.9	16.1	12.8
Romania	534	22.2	21.8	76.5	21.8	76.5	1.2	0.6	23.0	21.4
Saudi Arabia	516	19.9	19.7	79.4	19.7	79.4	0.3	0.6	22.4	17.7
Singapore	964	60.0	60.0	39.9	60.0	39.9	0.0	0.1	59.7	60.3
Sweden	731	44.3	43.3	54.5	43.3	54.5	0.7	1.4	45.9	42.8
Turkiye	709	46.9	46.5	52.7	46.5	52.7	0.5	0.4	46.0	47.9
United Arab Emirates	4016	19.5	19.1	78.6	19.1	78.6	0.6	1.7	20.0	19.1
United States	1106	51.6	50.4	47.3	50.4	47.3	0.2	2.1	49.8	53.3
Uzbekistan	634	9.7	9.5	88.7	9.5	88.7	0.9	0.9	6.8	12.7
International Avg. (40)	36729	33.5	33.0	65.1	33.0	65.1	0.7	1.2	33.9	33.1
Abu Dhabi, UAE	1046	15.2	14.9	83.2	14.9	83.2	0.4	1.5	15.4	15.0
Dubai, UAE	1171	28.1	27.4	69.9	27.4	69.9	0.5	2.2	28.5	27.7
Sharjah, UAE	919	18.7	18.3	79.6	18.3	79.6	0.6	1.5	18.6	18.8

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Physics / Applying

B_SD4_14A SQ72S13A: Greatest number of chests - MC - Key: D

COUNTRY	N	DIFF %	A %	B %	C %	D %	E %	F %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1220	64.7	1.7	4.0	14.9	58.8	8.0	3.5	8.5	0.6	63.1	66.3
Austria	669	63.1	1.7	3.9	17.8	60.5	10.7	1.3	4.1	0.1	63.6	62.7
Azerbaijan	886	40.7	6.2	10.8	16.4	29.5	4.7	4.9	22.8	4.7	37.1	44.2
Bahrain	748	45.5	8.0	9.5	20.4	39.5	4.4	5.1	12.0	1.1	43.7	47.5
Brazil	3309	31.2	8.4	12.4	21.2	25.0	5.0	8.4	16.4	3.2	27.3	34.6
Chile	627	39.7	5.7	9.9	23.7	33.2	7.3	3.9	12.8	3.4	37.3	42.0
Chinese Taipei	1111	71.6	1.7	3.5	16.8	68.8	4.4	0.9	3.8	0.1	70.2	73.0
Cyprus	612	46.0	5.3	9.3	21.0	40.7	5.2	7.0	9.3	2.3	44.1	48.0
Czech Republic	1195	62.5	1.7	3.3	20.7	60.0	7.7	2.5	3.6	0.5	60.7	64.4
England	620	62.9	2.8	4.6	13.3	55.5	10.8	1.3	10.5	1.2	60.8	64.9
Finland	854	55.4	2.0	6.7	26.9	51.1	4.1	1.5	6.8	0.8	52.3	58.6
France	654	66.7	2.6	2.9	14.3	61.2	5.8	5.1	7.4	0.8	62.8	70.9
Georgia	713	37.4	7.2	12.2	22.9	30.0	3.9	4.1	15.8	4.0	32.8	41.6
Hong Kong SAR	647	65.5	3.7	4.8	14.7	57.6	3.9	3.2	11.3	0.8	66.1	64.9
Hungary	787	55.1	4.3	9.9	25.5	52.7	2.6	0.5	4.2	0.2	51.5	58.7
Ireland	718	56.3	3.8	5.9	15.4	52.9	11.9	4.0	5.6	0.4	57.6	55.2
Israel	743	53.1	6.9	9.9	17.9	48.2	3.6	4.2	7.7	1.5	46.4	60.6
Italy	669	59.2	2.7	6.0	19.8	55.4	5.0	4.6	3.7	2.7	52.0	65.8
Japan	797	75.8	0.7	3.6	13.4	70.2	3.8	0.8	7.3	0.2	73.1	78.7
Jordan	588	37.8	10.8	9.8	18.6	31.8	3.1	10.0	15.2	0.8	36.2	39.4
Kazakhstan	926	38.5	4.9	7.7	22.1	35.1	7.8	13.6	5.8	3.0	34.3	42.6
Korea, Rep. of	849	66.8	3.1	7.2	19.0	62.0	1.2	0.3	5.9	1.3	65.3	68.5
Lithuania	796	48.4	4.6	10.7	25.5	45.8	3.7	4.5	4.9	0.4	45.1	51.9
Malaysia	1290	32.8	10.8	17.5	24.5	30.8	5.7	4.6	5.1	1.0	30.0	36.0
Malta	567	59.5	3.0	5.2	16.5	54.1	8.5	3.7	8.2	0.8	59.1	59.9
Morocco	757	18.3	14.4	9.8	21.1	13.6	6.5	9.1	22.2	3.2	13.0	23.0
New Zealand	584	59.6	3.5	4.9	16.4	51.9	7.7	2.7	11.2	1.8	57.8	60.9
Norway (9)	919	54.1	2.1	5.5	15.6	44.5	10.6	3.9	13.6	4.1	53.6	54.6
Oman	703	43.6	7.8	9.9	23.0	38.2	3.3	5.3	11.8	0.6	41.7	45.6
Palestinian Nat'l Auth.	554	34.9	9.2	11.2	16.0	26.7	2.3	11.0	22.3	1.3	30.3	40.0
Portugal	783	52.6	4.8	8.1	23.5	50.0	5.0	3.7	4.5	0.4	47.5	57.3
Qatar	624	49.3	5.0	9.9	18.5	45.0	7.0	5.8	7.7	1.2	46.2	52.3
Romania	534	45.0	3.7	9.4	25.7	39.7	2.9	6.8	11.0	0.8	43.7	46.1
Saudi Arabia	516	36.8	5.7	10.7	26.2	31.6	5.8	6.0	13.1	0.9	33.1	40.3
Singapore	964	70.9	1.3	2.4	7.2	65.6	14.3	1.8	7.3	0.1	73.2	68.4
Sweden	731	52.4	4.2	9.2	24.9	47.2	3.5	1.1	7.7	2.2	50.5	54.2
Turkiye	709	60.3	6.5	7.6	18.6	56.5	2.3	2.0	5.9	0.4	55.4	66.1
United Arab Emirates	4016	54.5	4.6	7.5	16.8	48.3	6.1	5.3	9.4	2.0	53.4	55.6
United States	1106	61.4	3.0	5.0	12.7	54.1	10.7	2.6	9.6	2.2	59.9	62.9
Uzbekistan	634	25.0	11.7	14.8	27.8	20.6	3.5	3.9	16.3	1.5	18.4	31.5
International Avg. (40)	36729	51.4	5.0	7.9	19.4	46.1	5.9	4.4	9.8	1.5	48.8	54.0
Abu Dhabi, UAE	1046	46.1	6.8	9.3	17.6	39.9	7.4	5.7	11.8	1.6	43.5	48.8
Dubai, UAE	1171	62.1	3.0	5.8	15.6	56.2	7.3	2.7	7.0	2.4	60.7	63.4
Sharjah, UAE	919	58.0	3.3	6.8	16.4	51.8	4.4	6.5	8.9	1.8	57.0	59.1

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Reasoning

B_SD4_14B SQ72S13B: Limitations of the model - CR - 2 Points

COUNTRY	N	DIFF %	20 %	10 %	79 %	2pt %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1220	25.3	11.1	22.4	54.5	11.1	22.4	54.5	10.8	1.2	24.9	25.6
Austria	669	26.1	8.2	21.1	42.5	8.2	21.1	42.5	27.4	0.8	27.1	25.2
Azerbaijan	886	4.7	0.6	1.9	30.5	0.6	1.9	30.5	54.9	12.1	2.9	5.8
Bahrain	748	18.5	4.0	18.0	48.1	4.0	18.0	48.1	27.2	2.7	21.0	16.4
Brazil	3309	19.5	5.6	14.2	45.3	5.6	14.2	45.3	26.8	8.1	19.3	19.6
Chile	627	13.8	3.1	10.9	48.2	3.1	10.9	48.2	29.4	8.4	9.9	17.4
Chinese Taipei	1111	25.7	11.8	22.3	55.5	11.8	22.3	55.5	9.3	1.1	23.2	28.2
Cyprus	611	11.9	2.4	9.3	47.5	2.4	9.3	47.5	36.0	4.8	10.7	13.2
Czech Republic	1195	26.2	8.9	17.4	40.9	8.9	17.4	40.9	31.3	1.5	25.8	26.5
England	620	28.1	9.5	26.1	44.8	9.5	26.1	44.8	14.6	5.0	27.4	28.7
Finland	854	18.7	7.7	13.8	56.8	7.7	13.8	56.8	18.8	2.9	17.0	20.2
France	654	13.2	4.4	8.1	51.6	4.4	8.1	51.6	32.4	3.6	11.0	15.2
Georgia	713	5.2	0.7	3.4	42.0	0.7	3.4	42.0	43.3	10.6	4.1	6.1
Hong Kong SAR	647	26.8	11.6	20.1	49.0	11.6	20.1	49.0	16.1	3.3	21.6	31.6
Hungary	787	20.2	6.6	14.3	47.5	6.6	14.3	47.5	30.7	0.8	18.3	21.7
Ireland	718	27.7	11.7	21.2	47.5	11.7	21.2	47.5	17.9	1.7	23.4	31.3
Israel	743	24.8	7.3	19.5	42.1	7.3	19.5	42.1	26.8	4.3	22.4	27.1
Italy	669	13.4	3.9	10.3	53.1	3.9	10.3	53.1	28.8	4.0	13.8	13.0
Japan	797	31.7	11.6	29.4	42.1	11.6	29.4	42.1	14.5	2.4	28.3	35.3
Jordan	588	18.1	2.6	17.9	43.2	2.6	17.9	43.2	34.3	2.1	21.6	14.7
Kazakhstan	926	9.0	0.9	9.2	50.5	0.9	9.2	50.5	34.2	5.3	8.6	9.5
Korea, Rep. of	849	32.1	13.7	25.9	43.3	13.7	25.9	43.3	13.6	3.5	30.4	33.9
Lithuania	796	15.0	4.3	9.8	47.0	4.3	9.8	47.0	36.6	2.3	12.6	17.4
Malaysia	1291	4.8	1.3	6.1	82.6	1.3	6.1	82.6	8.4	1.5	4.1	5.6
Malta	567	21.9	7.5	18.9	50.9	7.5	18.9	50.9	19.5	3.2	21.2	22.8
Morocco	0	.	.	.	.	.	.	.	.	.	.	.
New Zealand	585	20.1	8.9	13.3	55.0	8.9	13.3	55.0	17.8	5.0	15.2	23.6
Norway (9)	919	26.8	8.3	21.8	41.5	8.3	21.8	41.5	21.4	7.0	26.0	27.5
Oman	702	14.9	0.9	21.0	54.4	0.9	21.0	54.4	21.3	2.3	14.9	14.9
Palestinian Nat'l Auth.	554	9.1	0.2	12.6	58.3	0.2	12.6	58.3	26.3	2.6	11.3	7.0
Portugal	783	12.5	3.6	9.5	53.5	3.6	9.5	53.5	31.5	1.9	12.6	12.5
Qatar	624	9.2	1.4	10.4	60.5	1.4	10.4	60.5	25.1	2.5	9.4	9.0
Romania	534	11.9	2.9	7.2	44.3	2.9	7.2	44.3	39.6	6.0	9.3	14.2
Saudi Arabia	516	6.3	2.1	5.3	68.1	2.1	5.3	68.1	22.8	1.8	7.0	5.7
Singapore	964	36.4	17.5	34.6	43.5	17.5	34.6	43.5	3.6	0.8	35.1	37.7
Sweden	731	23.5	8.3	16.7	45.7	8.3	16.7	45.7	25.2	4.1	20.5	26.1
Turkiye	709	13.9	4.2	11.3	55.7	4.2	11.3	55.7	26.1	2.7	10.1	17.8
United Arab Emirates	4014	13.7	5.4	10.5	62.2	5.4	10.5	62.2	18.3	3.6	12.8	14.6
United States	1104	20.9	7.9	22.0	60.5	7.9	22.0	60.5	6.4	3.2	19.0	22.9
Uzbekistan	634	3.2	0.4	2.7	50.2	0.4	2.7	50.2	42.1	4.5	1.9	4.5
International Avg. (39)	35968	18.1	6.0	15.1	50.3	6.0	15.1	50.3	24.9	3.7	16.8	19.2
Abu Dhabi, UAE	1044	7.8	3.1	5.9	69.1	3.1	5.9	69.1	18.3	3.5	6.7	8.8
Dubai, UAE	1171	22.8	9.7	17.6	53.8	9.7	17.6	53.8	14.7	4.2	21.6	24.0
Sharjah, UAE	919	11.8	4.6	9.3	64.4	4.6	9.3	64.4	18.8	2.9	10.1	13.4

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Biology / Knowing

B_SD5_01 SE82092: Vaccines help keep you from getting sick - MC - Key: C

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1217	40.7	24.1	13.1	40.6	21.9	0.2	0.1	39.9	41.7
Austria	678	55.9	15.4	9.0	55.9	19.7	0.0	0.0	57.5	54.6
Azerbaijan	884	17.4	16.2	5.7	17.2	59.5	0.9	0.5	15.5	19.1
Bahrain	750	42.4	25.9	9.3	42.4	22.4	0.0	0.0	47.1	37.7
Brazil	3274	51.2	20.8	5.5	50.7	22.0	0.5	0.6	50.8	51.6
Chile	645	49.8	18.3	10.6	49.3	20.7	0.6	0.5	49.3	50.4
Chinese Taipei	1105	69.6	25.0	3.0	69.6	2.4	0.0	0.0	67.7	71.3
Cyprus	611	46.7	24.2	10.3	46.5	18.5	0.1	0.3	46.8	46.6
Czech Republic	1175	50.3	17.2	8.3	50.3	24.2	0.0	0.0	47.7	52.6
England	603	53.0	17.3	11.6	52.6	17.8	0.5	0.1	52.9	53.1
Finland	850	46.7	18.3	8.3	46.7	26.6	0.0	0.0	49.2	44.3
France	656	51.0	19.6	7.8	50.8	21.3	0.6	0.0	56.6	45.6
Georgia	701	51.6	12.0	5.0	50.7	30.6	1.5	0.2	51.8	51.5
Hong Kong SAR	640	46.3	35.3	12.2	45.9	5.8	0.9	0.0	41.9	50.3
Hungary	801	54.2	13.1	10.1	54.2	22.6	0.0	0.0	56.2	52.4
Ireland	712	41.6	23.5	10.7	41.5	24.1	0.1	0.1	39.5	43.3
Israel	749	52.3	9.8	13.8	52.1	24.0	0.2	0.1	52.9	51.7
Italy	676	74.3	9.0	6.9	74.1	9.7	0.2	0.0	73.9	74.6
Japan	780	48.3	35.9	3.6	48.1	11.9	0.3	0.1	50.0	46.6
Jordan	592	19.0	31.2	13.3	19.0	36.4	0.1	0.0	15.2	22.5
Kazakhstan	923	45.3	15.4	7.7	45.2	31.4	0.2	0.1	44.5	46.0
Korea, Rep. of	841	41.2	34.8	5.6	41.1	18.3	0.1	0.1	38.3	44.0
Lithuania	792	64.9	10.5	5.9	64.9	18.6	0.1	0.0	62.6	67.3
Malaysia	1278	33.3	34.6	8.7	33.2	23.1	0.2	0.1	30.2	36.7
Malta	584	43.7	17.2	21.2	43.3	17.5	0.4	0.3	41.9	45.4
Morocco	763	28.9	20.6	22.7	28.6	27.1	1.0	0.1	24.4	33.4
New Zealand	562	39.2	21.9	11.6	39.1	27.1	0.1	0.1	35.0	42.9
Norway (9)	897	55.4	11.9	8.8	55.0	23.4	0.5	0.3	54.2	56.5
Oman	713	24.2	25.3	16.0	24.1	34.1	0.2	0.2	24.1	24.3
Palestinian Nat'l Auth.	557	19.6	32.7	14.9	19.5	32.5	0.3	0.0	16.0	23.1
Portugal	782	59.1	12.5	7.7	59.0	20.7	0.2	0.0	61.2	57.1
Qatar	616	36.5	35.1	10.5	36.4	17.9	0.0	0.1	35.5	37.3
Romania	537	54.5	15.9	2.8	54.2	26.6	0.5	0.0	55.8	53.3
Saudi Arabia	509	32.7	32.7	11.6	32.6	22.9	0.0	0.2	34.6	30.9
Singapore	945	62.6	21.0	9.0	62.5	7.4	0.1	0.0	61.7	63.4
Sweden	722	53.2	14.4	11.4	53.0	20.8	0.0	0.3	52.0	54.3
Turkiye	708	20.4	29.7	7.6	20.4	42.3	0.0	0.0	15.4	25.8
United Arab Emirates	4028	42.8	24.7	11.3	42.6	20.8	0.4	0.2	41.6	44.0
United States	1135	39.1	28.3	10.7	38.7	21.4	0.1	0.8	34.7	43.4
Uzbekistan	632	20.0	26.1	10.1	20.0	43.7	0.0	0.1	19.5	20.4
International Avg. (40)	36623	44.5	21.9	9.8	44.3	23.5	0.3	0.1	43.6	45.3
Abu Dhabi, UAE	1043	37.6	22.4	16.0	37.4	23.5	0.3	0.3	39.1	36.1
Dubai, UAE	1172	54.1	21.4	9.0	53.7	15.1	0.5	0.3	52.5	55.7
Sharjah, UAE	925	39.4	27.8	10.3	39.1	22.0	0.5	0.2	38.4	40.4

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Applying

B_SD5_02A SE82068A: Effect of pollution in the lake - CR - 1 Point

COUNTRY	N	DIFF %	1 %	0 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1217	38.6	38.2	60.8	38.2	60.8	0.9	0.1	37.9	39.5
Austria	677	43.5	42.3	54.9	42.3	54.9	2.7	0.0	49.2	38.8
Azerbaijan	884	48.5	39.3	41.7	39.3	41.7	18.4	0.5	50.7	46.6
Bahrain	750	52.4	49.0	44.6	49.0	44.6	6.4	0.0	58.7	46.0
Brazil	3274	42.7	39.6	53.2	39.6	53.2	6.3	1.0	43.9	41.5
Chile	645	59.5	54.0	36.7	54.0	36.7	8.8	0.5	60.6	58.3
Chinese Taipei	1105	22.5	22.3	76.6	22.3	76.6	1.1	0.0	26.1	19.3
Cyprus	610	49.6	46.5	47.2	46.5	47.2	6.2	0.1	53.2	46.0
Czech Republic	1175	53.3	51.1	44.7	51.1	44.7	4.2	0.0	58.9	48.4
England	603	52.8	51.1	45.6	51.1	45.6	3.2	0.1	53.6	52.1
Finland	850	61.6	60.6	37.7	60.6	37.7	1.7	0.0	67.4	56.2
France	656	42.2	39.8	54.5	39.8	54.5	5.7	0.0	45.1	39.3
Georgia	701	53.5	48.7	42.3	48.7	42.3	8.8	0.2	54.8	52.4
Hong Kong SAR	640	59.3	56.0	38.4	56.0	38.4	5.6	0.0	62.9	56.0
Hungary	801	51.4	50.1	47.3	50.1	47.3	2.6	0.0	55.5	47.7
Ireland	712	46.8	45.9	52.2	45.9	52.2	1.7	0.1	48.2	45.7
Israel	749	61.2	57.6	36.4	57.6	36.4	5.9	0.1	65.2	57.4
Italy	676	45.6	42.4	50.7	42.4	50.7	6.8	0.0	47.3	44.2
Japan	780	51.9	49.4	45.7	49.4	45.7	4.8	0.1	53.8	50.1
Jordan	592	45.5	42.8	51.4	42.8	51.4	5.8	0.0	57.5	33.6
Kazakhstan	923	57.6	55.6	40.9	55.6	40.9	3.4	0.1	65.0	51.4
Korea, Rep. of	841	73.7	72.2	25.7	72.2	25.7	1.9	0.1	74.0	73.5
Lithuania	792	58.3	56.0	40.0	56.0	40.0	4.0	0.0	65.4	51.1
Malaysia	1279	25.6	25.1	72.9	25.1	72.9	1.7	0.2	26.9	24.2
Malta	584	45.4	43.3	52.1	43.3	52.1	4.2	0.3	47.6	43.1
Morocco	763	24.7	18.1	55.3	18.1	55.3	26.5	0.1	33.1	17.1
New Zealand	562	57.1	56.1	42.2	56.1	42.2	1.5	0.1	54.3	59.5
Norway (9)	897	42.6	39.6	53.3	39.6	53.3	6.7	0.3	47.8	38.0
Oman	713	58.4	56.3	40.2	56.3	40.2	3.3	0.2	67.1	50.1
Palestinian Nat'l Auth.	557	18.2	17.3	77.8	17.3	77.8	4.9	0.0	19.9	16.5
Portugal	782	53.3	51.8	45.4	51.8	45.4	2.8	0.0	55.3	51.4
Qatar	616	41.2	39.2	55.9	39.2	55.9	4.9	0.1	43.2	39.3
Romania	537	46.4	42.1	48.6	42.1	48.6	9.3	0.0	48.3	44.8
Saudi Arabia	509	29.2	28.3	68.5	28.3	68.5	3.0	0.2	32.8	26.0
Singapore	945	66.8	66.4	33.1	66.4	33.1	0.5	0.0	71.2	62.8
Sweden	722	69.7	66.5	28.9	66.5	28.9	4.3	0.3	77.7	61.2
Turkiye	708	58.9	57.2	39.9	57.2	39.9	2.9	0.0	61.3	56.2
United Arab Emirates	4028	48.3	46.5	49.8	46.5	49.8	3.3	0.4	51.6	45.2
United States	1135	51.2	49.8	47.5	49.8	47.5	1.9	0.8	54.6	47.8
Uzbekistan	632	46.4	42.5	49.1	42.5	49.1	8.3	0.1	43.1	49.6
International Avg. (40)	36622	48.9	46.4	48.2	46.4	48.2	5.2	0.2	52.3	45.7
Abu Dhabi, UAE	1043	41.9	40.2	55.6	40.2	55.6	3.7	0.5	45.4	38.6
Dubai, UAE	1172	58.5	56.7	40.2	56.7	40.2	2.7	0.3	61.0	56.2
Sharjah, UAE	925	45.6	43.9	52.4	43.9	52.4	3.2	0.5	48.9	42.4

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Applying

B_SD5_02B SE82068B: Effect of pollution in the air - CR - 1 Point

COUNTRY	N	DIFF %	1 %	0 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1217	41.7	41.0	57.4	41.0	57.4	1.4	0.1	47.9	35.5
Austria	677	26.8	25.2	68.9	25.2	68.9	5.9	0.0	28.1	25.7
Azerbaijan	884	31.8	23.6	50.5	23.6	50.5	25.4	0.5	34.9	29.0
Bahrain	750	38.8	35.4	56.0	35.4	56.0	8.4	0.1	46.6	30.7
Brazil	3274	41.8	37.3	52.0	37.3	52.0	9.4	1.2	43.2	40.4
Chile	645	43.9	38.3	49.0	38.3	49.0	11.8	1.0	41.8	46.2
Chinese Taipei	1105	20.7	20.4	77.9	20.4	77.9	1.7	0.0	23.8	17.9
Cyprus	610	44.3	40.4	50.9	40.4	50.9	8.6	0.1	49.9	38.6
Czech Republic	1175	46.1	42.2	49.3	42.2	49.3	8.5	0.0	50.7	42.1
England	603	25.9	24.6	70.5	24.6	70.5	4.8	0.1	28.0	23.6
Finland	850	37.7	36.2	59.7	36.2	59.7	4.0	0.1	46.7	29.4
France	656	46.8	40.9	46.5	40.9	46.5	12.5	0.1	51.3	42.6
Georgia	701	8.0	6.9	79.7	6.9	79.7	13.1	0.2	9.6	6.5
Hong Kong SAR	640	44.1	40.4	51.2	40.4	51.2	8.4	0.0	45.9	42.4
Hungary	801	40.4	36.0	53.1	36.0	53.1	10.8	0.0	48.4	33.2
Ireland	712	41.7	40.0	55.9	40.0	55.9	3.8	0.2	45.0	39.0
Israel	749	42.9	39.6	52.8	39.6	52.8	7.3	0.3	48.0	37.9
Italy	676	32.3	29.1	60.9	29.1	60.9	10.0	0.0	33.0	31.8
Japan	780	39.0	34.9	54.6	34.9	54.6	10.3	0.1	39.9	38.1
Jordan	592	41.0	36.9	53.1	36.9	53.1	10.0	0.0	46.7	35.0
Kazakhstan	923	36.4	33.6	58.7	33.6	58.7	7.6	0.1	36.7	36.1
Korea, Rep. of	841	51.5	49.3	46.4	49.3	46.4	4.2	0.1	50.3	52.7
Lithuania	792	42.4	38.8	52.7	38.8	52.7	8.4	0.1	48.7	35.9
Malaysia	1279	18.4	17.8	78.9	17.8	78.9	2.9	0.5	19.4	17.2
Malta	584	38.7	36.0	56.9	36.0	56.9	6.8	0.3	40.5	37.0
Morocco	763	21.7	12.4	45.0	12.4	45.0	42.2	0.3	31.2	12.4
New Zealand	562	43.3	42.1	55.2	42.1	55.2	2.5	0.1	45.1	41.7
Norway (9)	897	25.0	22.8	68.3	22.8	68.3	8.4	0.4	31.2	19.5
Oman	713	52.8	49.8	44.6	49.8	44.6	5.3	0.4	62.2	43.6
Palestinian Nat'l Auth.	557	25.9	23.9	68.3	23.9	68.3	7.8	0.0	34.1	17.9
Portugal	782	48.3	44.8	47.9	44.8	47.9	7.3	0.0	48.2	48.5
Qatar	616	28.6	26.8	67.0	26.8	67.0	5.8	0.4	32.9	24.6
Romania	537	35.6	32.0	57.9	32.0	57.9	10.1	0.0	39.7	31.9
Saudi Arabia	509	20.2	18.9	74.7	18.9	74.7	6.2	0.2	25.8	15.0
Singapore	945	61.4	61.0	38.3	61.0	38.3	0.7	0.0	67.5	56.1
Sweden	722	45.0	41.7	51.0	41.7	51.0	6.8	0.5	50.5	39.2
Turkiye	708	44.7	42.9	53.0	42.9	53.0	4.1	0.0	49.3	39.5
United Arab Emirates	4028	39.3	37.4	57.7	37.4	57.7	4.4	0.5	43.5	35.3
United States	1135	31.3	30.4	66.6	30.4	66.6	2.1	0.9	33.2	29.5
Uzbekistan	632	21.1	18.2	68.1	18.2	68.1	13.7	0.1	24.8	17.5
International Avg. (40)	36622	36.7	33.7	57.7	33.7	57.7	8.3	0.2	40.6	32.9
Abu Dhabi, UAE	1043	33.0	31.2	63.5	31.2	63.5	4.8	0.5	37.5	28.5
Dubai, UAE	1172	48.0	46.3	50.1	46.3	50.1	3.1	0.5	50.5	45.7
Sharjah, UAE	925	41.4	39.3	55.5	39.3	55.5	4.5	0.7	45.7	37.2

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Applying

B_SD5_03 SE82008: Respiratory, digestive, and nervous system organs (DERIVED) - CR - 1 Point

COUNTRY	N	DIFF %	1 %	0 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1217	37.1	37.0	62.7	37.0	62.7	0.2	0.1	31.4	43.0
Austria	678	87.5	87.4	12.5	87.4	12.5	0.1	0.0	86.2	88.5
Azerbaijan	884	63.0	61.4	36.0	61.4	36.0	1.9	0.6	66.9	59.6
Bahrain	750	41.3	41.1	58.3	41.1	58.3	0.4	0.2	48.0	34.6
Brazil	3274	33.3	32.6	65.2	32.6	65.2	0.9	1.3	33.3	33.3
Chile	645	51.8	51.1	47.5	51.1	47.5	0.4	1.0	49.0	55.0
Chinese Taipei	1105	88.7	88.5	11.2	88.5	11.2	0.2	0.0	88.9	88.6
Cyprus	611	29.5	29.4	70.3	29.4	70.3	0.2	0.1	24.4	34.5
Czech Republic	1175	72.9	72.9	27.1	72.9	27.1	0.0	0.0	70.6	75.1
England	603	43.3	43.1	56.3	43.1	56.3	0.4	0.1	40.7	46.1
Finland	850	81.9	80.8	17.9	80.8	17.9	1.1	0.2	83.8	80.1
France	656	41.8	41.8	58.1	41.8	58.1	0.0	0.1	38.0	45.6
Georgia	701	57.2	56.6	42.3	56.6	42.3	0.9	0.2	60.8	54.0
Hong Kong SAR	640	66.8	66.1	32.9	66.1	32.9	0.9	0.0	65.9	67.5
Hungary	801	74.2	74.2	25.8	74.2	25.8	0.0	0.0	74.4	74.0
Ireland	712	43.7	43.5	56.1	43.5	56.1	0.2	0.2	41.1	45.7
Israel	749	37.6	37.5	62.1	37.5	62.1	0.1	0.3	42.3	33.1
Italy	676	59.8	59.8	40.1	59.8	40.1	0.1	0.0	56.9	62.4
Japan	780	75.3	75.2	24.6	75.2	24.6	0.0	0.1	76.8	73.8
Jordan	592	39.7	39.7	60.3	39.7	60.3	0.0	0.0	44.8	34.9
Kazakhstan	923	42.1	41.9	57.6	41.9	57.6	0.5	0.1	43.8	40.7
Korea, Rep. of	841	75.0	74.9	24.9	74.9	24.9	0.1	0.1	73.6	76.4
Lithuania	792	67.0	66.9	33.0	66.9	33.0	0.0	0.1	68.2	65.7
Malaysia	1278	26.7	26.3	72.3	26.3	72.3	0.7	0.7	24.5	29.1
Malta	584	34.8	34.7	64.8	34.7	64.8	0.2	0.3	31.7	38.0
Morocco	763	15.8	15.4	82.2	15.4	82.2	2.1	0.3	15.7	15.8
New Zealand	562	28.5	28.1	70.6	28.1	70.6	1.1	0.1	26.5	30.1
Norway (9)	897	32.1	31.7	67.0	31.7	67.0	0.9	0.4	28.9	35.2
Oman	713	47.1	46.9	52.6	46.9	52.6	0.2	0.4	50.7	43.8
Palestinian Nat'l Auth.	557	32.4	32.3	67.3	32.3	67.3	0.3	0.0	37.5	27.6
Portugal	782	50.2	50.2	49.8	50.2	49.8	0.0	0.0	47.9	52.4
Qatar	616	58.0	57.1	41.4	57.1	41.4	1.1	0.4	61.3	55.0
Romania	537	48.3	47.7	51.0	47.7	51.0	1.3	0.0	52.7	44.5
Saudi Arabia	509	36.3	36.0	63.3	36.0	63.3	0.5	0.2	39.2	33.5
Singapore	945	83.9	83.9	16.1	83.9	16.1	0.0	0.0	82.5	85.2
Sweden	722	79.9	79.2	20.0	79.2	20.0	0.3	0.5	78.9	80.9
Turkiye	708	61.9	61.9	38.1	61.9	38.1	0.0	0.0	61.2	62.7
United Arab Emirates	4028	48.7	48.2	50.8	48.2	50.8	0.4	0.6	47.4	50.0
United States	1135	28.7	28.4	70.4	28.4	70.4	0.3	0.9	25.4	32.0
Uzbekistan	632	33.1	32.8	66.1	32.8	66.1	0.8	0.3	34.1	32.2
International Avg. (40)	36623	51.4	51.1	48.2	51.1	48.2	0.5	0.3	51.4	51.5
Abu Dhabi, UAE	1043	30.0	29.5	69.0	29.5	69.0	0.9	0.5	30.5	29.4
Dubai, UAE	1172	60.0	59.6	39.7	59.6	39.7	0.1	0.6	57.7	62.2
Sharjah, UAE	925	53.5	52.9	46.0	52.9	46.0	0.2	0.9	52.6	54.4

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Applying

B_SD5_03A SE82008A: Respiratory, digestive, and nervous system organs - lungs - MC - Key: C

COUNTRY	N	DIFF %	A %	B %	C %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1217	89.9	4.4	5.6	88.7	1.2	0.1	87.4	92.8
Austria	678	97.9	0.6	1.4	97.3	0.7	0.0	97.9	97.9
Azerbaijan	884	94.8	4.0	0.9	87.6	6.9	0.6	96.2	93.5
Bahrain	750	89.0	4.3	6.4	86.6	2.4	0.2	90.4	87.5
Brazil	3274	95.6	1.9	2.3	90.8	3.7	1.3	96.6	94.6
Chile	645	96.7	2.2	1.0	94.6	1.2	1.0	97.7	95.7
Chinese Taipei	1105	98.6	0.5	0.9	96.4	2.2	0.0	98.7	98.5
Cyprus	611	93.1	4.0	2.7	91.1	1.9	0.3	93.0	93.3
Czech Republic	1175	99.1	0.2	0.7	98.4	0.6	0.0	98.5	99.5
England	603	92.2	3.4	4.2	89.7	2.6	0.1	91.4	93.0
Finland	850	98.6	0.5	0.9	97.0	1.5	0.2	99.6	97.8
France	656	98.1	1.2	0.7	97.2	0.9	0.1	98.7	97.6
Georgia	701	98.3	1.4	0.3	94.5	3.6	0.2	99.0	97.6
Hong Kong SAR	640	93.1	3.4	3.2	89.3	4.1	0.0	93.1	93.1
Hungary	801	98.0	0.5	1.5	96.3	1.6	0.0	98.5	97.5
Ireland	712	92.6	3.0	4.3	90.6	1.8	0.2	91.4	93.5
Israel	749	96.8	1.8	1.3	94.7	1.8	0.3	96.8	96.9
Italy	676	98.6	0.3	1.1	96.9	1.7	0.0	98.8	98.4
Japan	780	98.8	1.1	0.1	96.1	2.6	0.1	99.2	98.3
Jordan	592	89.3	4.6	5.5	84.1	5.8	0.0	91.4	87.2
Kazakhstan	923	96.1	1.1	2.6	91.6	4.6	0.1	97.4	95.0
Korea, Rep. of	841	98.5	0.9	0.6	98.0	0.4	0.1	97.8	99.2
Lithuania	792	98.7	0.7	0.6	98.0	0.7	0.1	99.3	98.1
Malaysia	1278	87.7	4.8	7.2	86.4	0.9	0.7	86.8	88.8
Malta	584	78.9	10.6	9.9	76.7	2.4	0.3	76.4	81.4
Morocco	763	70.1	13.0	14.6	64.7	7.4	0.3	74.3	65.9
New Zealand	562	80.4	7.6	11.6	78.5	2.2	0.1	77.2	83.1
Norway (9)	897	79.5	6.9	12.7	76.0	4.0	0.4	79.2	79.7
Oman	713	92.7	3.6	3.4	88.3	4.3	0.4	93.6	91.7
Palestinian Nat'l Auth.	557	85.5	7.6	6.0	80.4	5.9	0.0	90.2	80.9
Portugal	782	98.5	0.5	1.0	97.1	1.5	0.0	99.1	97.9
Qatar	616	91.4	5.5	2.9	88.6	2.6	0.4	93.9	89.1
Romania	537	97.5	0.8	1.6	94.9	2.7	0.0	98.7	96.5
Saudi Arabia	509	90.5	5.3	3.7	84.9	5.9	0.2	92.2	88.8
Singapore	945	97.3	1.3	1.4	96.9	0.5	0.0	97.2	97.5
Sweden	722	97.7	1.0	1.2	96.4	0.8	0.5	98.5	96.9
Turkiye	708	94.6	2.9	2.4	92.4	2.3	0.0	94.7	94.5
United Arab Emirates	4028	85.7	6.8	7.0	83.1	2.5	0.6	84.9	86.6
United States	1135	89.3	5.4	5.1	87.3	1.3	0.9	86.0	92.4
Uzbekistan	632	93.9	3.4	1.9	81.4	13.0	0.3	96.4	91.5
International Avg. (40)	36623	92.8	3.3	3.6	90.0	2.9	0.3	93.2	92.5
Abu Dhabi, UAE	1043	68.6	16.4	13.9	66.4	2.8	0.5	66.2	71.0
Dubai, UAE	1172	92.5	2.4	4.8	89.9	2.3	0.6	91.1	93.9
Sharjah, UAE	925	90.2	4.9	4.6	87.5	2.2	0.9	90.7	89.8

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Applying

B_SD5_03B SE82008B: Respiratory, digestive, and nervous system organs - stomach - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	C %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1217	95.0	93.4	2.5	2.5	1.5	0.1	95.9	94.3
Austria	678	99.5	99.3	0.2	0.3	0.2	0.0	99.3	99.6
Azerbaijan	884	98.4	91.7	0.8	0.7	6.2	0.6	98.7	98.1
Bahrain	750	93.6	91.8	1.7	4.5	1.8	0.2	94.6	92.6
Brazil	3274	94.2	89.5	3.3	2.2	3.7	1.3	94.7	93.8
Chile	645	98.1	95.4	0.7	1.1	1.8	1.0	97.1	99.3
Chinese Taipei	1105	99.1	98.4	0.4	0.5	0.7	0.0	99.1	99.0
Cyprus	611	96.2	94.2	2.1	1.6	1.8	0.3	97.7	94.8
Czech Republic	1175	99.7	99.5	0.1	0.2	0.2	0.0	99.9	99.6
England	603	98.2	96.8	0.8	1.0	1.3	0.1	99.4	97.0
Finland	850	98.9	97.2	0.7	0.4	1.4	0.2	99.4	98.4
France	656	98.3	97.6	0.6	1.1	0.7	0.1	99.2	97.4
Georgia	701	99.2	95.4	0.4	0.4	3.7	0.2	99.8	98.8
Hong Kong SAR	640	93.8	92.8	3.3	2.8	1.1	0.0	91.2	96.2
Hungary	801	99.2	98.9	0.4	0.4	0.3	0.0	99.4	99.1
Ireland	712	96.0	94.6	2.4	1.5	1.2	0.2	97.0	95.3
Israel	749	94.8	92.2	2.1	3.0	2.4	0.3	95.7	93.8
Italy	676	98.2	97.8	0.8	1.0	0.4	0.0	98.2	98.2
Japan	780	97.8	97.6	0.2	1.9	0.1	0.1	97.9	97.8
Jordan	592	91.3	86.1	3.5	4.7	5.8	0.0	93.7	89.0
Kazakhstan	923	98.6	95.9	1.0	0.4	2.6	0.1	98.4	98.8
Korea, Rep. of	841	98.3	97.5	1.1	0.6	0.6	0.1	97.6	98.9
Lithuania	792	99.2	98.7	0.5	0.3	0.4	0.1	99.5	98.9
Malaysia	1278	83.7	81.8	11.0	4.9	1.6	0.7	84.2	83.2
Malta	584	92.7	90.5	3.1	4.0	2.1	0.3	92.8	92.7
Morocco	763	66.4	58.4	15.3	14.3	11.6	0.3	66.0	66.7
New Zealand	562	92.3	90.4	3.6	4.0	2.0	0.1	89.5	94.8
Norway (9)	897	91.7	88.8	4.3	3.8	2.8	0.4	91.7	91.7
Oman	713	92.4	88.5	2.3	5.0	3.8	0.4	93.3	91.5
Palestinian Nat'l Auth.	557	89.1	83.7	3.7	6.5	6.1	0.0	92.9	85.4
Portugal	782	99.4	99.3	0.4	0.2	0.1	0.0	99.5	99.3
Qatar	616	95.9	93.7	1.2	2.8	1.9	0.4	98.6	93.6
Romania	537	97.1	94.4	2.0	0.8	2.8	0.0	99.1	95.4
Saudi Arabia	509	91.0	87.3	2.4	6.2	3.9	0.2	90.6	91.4
Singapore	945	99.0	98.9	0.6	0.5	0.1	0.0	98.9	99.1
Sweden	722	98.6	97.0	1.1	0.2	1.2	0.5	99.3	98.0
Turkiye	708	96.5	95.7	0.6	2.9	0.8	0.0	96.5	96.5
United Arab Emirates	4028	91.8	89.9	3.7	4.3	1.6	0.6	91.5	92.2
United States	1135	95.0	93.5	2.2	2.7	0.6	0.9	94.7	95.4
Uzbekistan	632	97.0	86.2	1.4	1.3	10.8	0.3	96.2	97.7
International Avg. (40)	36623	95.1	92.8	2.2	2.4	2.3	0.3	95.5	94.8
Abu Dhabi, UAE	1043	78.7	76.2	10.4	10.2	2.7	0.5	76.2	81.1
Dubai, UAE	1172	97.3	95.8	1.0	1.7	0.9	0.6	97.2	97.4
Sharjah, UAE	925	95.9	93.9	1.8	2.2	1.2	0.9	96.3	95.4

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Applying

B_SD5_03C SE82008C: Respiratory, digestive, and nervous system organs - brain - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	C %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1217	90.3	2.1	88.9	7.4	1.4	0.1	87.7	93.3
Austria	678	98.7	0.6	98.2	0.7	0.5	0.0	99.6	98.0
Azerbaijan	884	98.5	0.4	92.8	1.0	5.1	0.6	98.7	98.3
Bahrain	750	94.0	2.5	92.2	3.3	1.8	0.2	95.5	92.5
Brazil	3274	92.5	4.7	87.6	2.5	4.0	1.3	93.2	91.8
Chile	645	96.9	1.8	94.9	1.2	1.1	1.0	97.8	95.9
Chinese Taipei	1105	99.4	0.4	99.0	0.3	0.4	0.0	99.2	99.6
Cyprus	611	94.1	3.3	93.6	2.5	0.3	0.3	94.2	94.1
Czech Republic	1175	99.1	0.3	99.0	0.6	0.1	0.0	99.1	99.2
England	603	92.7	1.2	91.0	6.0	1.7	0.1	94.1	91.2
Finland	850	97.4	1.0	96.0	1.5	1.3	0.2	97.8	97.0
France	656	98.8	0.8	98.6	0.4	0.1	0.1	99.2	98.4
Georgia	701	98.5	0.4	93.7	1.0	4.7	0.2	99.3	97.8
Hong Kong SAR	640	94.8	3.4	93.6	1.7	1.3	0.0	93.2	96.2
Hungary	801	99.2	0.3	98.9	0.5	0.3	0.0	99.8	98.6
Ireland	712	92.2	2.4	90.5	5.2	1.6	0.2	92.3	92.1
Israel	749	94.5	2.8	91.7	2.6	2.5	0.3	94.9	94.1
Italy	676	98.7	1.0	98.5	0.2	0.2	0.0	98.9	98.6
Japan	780	99.0	0.7	98.7	0.3	0.1	0.1	99.6	98.3
Jordan	592	93.5	4.3	89.4	2.0	4.4	0.0	96.1	90.9
Kazakhstan	923	97.4	0.4	95.2	2.1	2.2	0.1	99.2	95.9
Korea, Rep. of	841	98.9	0.3	98.3	0.8	0.5	0.1	99.1	98.7
Lithuania	792	98.9	0.5	98.8	0.5	0.0	0.1	99.4	98.5
Malaysia	1278	83.2	12.4	81.2	4.0	1.7	0.7	82.0	84.5
Malta	584	86.5	3.7	84.2	9.5	2.3	0.3	85.9	87.1
Morocco	763	64.1	20.3	58.5	12.5	8.4	0.3	67.8	60.5
New Zealand	562	83.1	3.1	81.8	13.5	1.4	0.1	79.1	86.5
Norway (9)	897	85.5	3.5	82.7	10.5	2.8	0.4	84.3	86.6
Oman	713	93.7	3.3	90.2	2.8	3.4	0.4	95.7	91.9
Palestinian Nat'l Auth.	557	90.2	5.2	86.2	4.1	4.5	0.0	92.2	88.3
Portugal	782	99.2	0.5	98.9	0.4	0.3	0.0	99.1	99.3
Qatar	616	94.0	1.8	92.3	4.1	1.4	0.4	95.9	92.4
Romania	537	97.9	1.3	95.9	0.7	2.1	0.0	99.7	96.4
Saudi Arabia	509	94.1	3.3	90.7	2.3	3.4	0.2	96.7	91.7
Singapore	945	97.4	0.2	97.2	2.4	0.2	0.0	97.3	97.5
Sweden	722	98.6	0.3	97.1	1.1	1.0	0.5	98.7	98.4
Turkiye	708	96.6	2.1	96.0	1.3	0.6	0.0	98.6	94.5
United Arab Emirates	4028	90.7	3.6	88.6	5.5	1.7	0.6	90.6	90.8
United States	1135	89.5	1.7	87.8	8.6	0.9	0.9	86.8	92.1
Uzbekistan	632	96.2	2.4	82.4	0.9	14.1	0.3	96.6	95.9
International Avg. (40)	36623	94.0	2.6	91.8	3.2	2.1	0.3	94.4	93.6
Abu Dhabi, UAE	1043	77.6	9.0	74.9	12.7	2.9	0.5	78.8	76.3
Dubai, UAE	1172	95.9	1.1	94.5	2.9	0.9	0.6	95.8	95.9
Sharjah, UAE	925	95.2	1.9	92.7	2.7	1.7	0.9	94.3	96.1

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Biology / Applying

B_SD5_03D SE82008D: Respiratory, digestive, and nervous system organs - esoph. - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	C %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1217	68.1	67.0	8.8	22.6	1.5	0.1	66.5	70.0
Austria	678	97.3	96.3	1.2	1.4	1.1	0.0	97.0	97.6
Azerbaijan	884	91.7	83.1	0.9	6.6	8.8	0.6	93.4	90.2
Bahrain	750	67.9	65.2	9.5	21.3	3.8	0.2	70.9	64.9
Brazil	3274	74.7	68.4	7.4	15.7	7.2	1.3	76.0	73.4
Chile	645	86.4	83.6	3.2	10.0	2.3	1.0	85.2	87.7
Chinese Taipei	1105	96.4	95.6	0.8	2.8	0.8	0.0	95.5	97.1
Cyprus	611	80.3	78.6	6.4	12.9	1.8	0.3	81.7	78.9
Czech Republic	1175	85.5	84.9	3.2	11.1	0.7	0.0	85.8	85.4
England	603	74.4	73.2	5.5	19.6	1.5	0.1	73.8	75.1
Finland	850	95.6	93.7	1.9	2.5	1.7	0.2	96.0	95.2
France	656	72.7	70.9	6.2	20.4	2.3	0.1	74.4	71.0
Georgia	701	88.4	80.5	2.5	8.1	8.7	0.2	89.8	87.0
Hong Kong SAR	640	80.3	78.7	8.1	11.2	1.9	0.0	79.1	81.4
Hungary	801	89.8	88.9	0.5	9.6	1.0	0.0	90.1	89.5
Ireland	712	73.2	69.4	4.8	20.6	5.0	0.2	74.4	72.2
Israel	749	60.8	57.4	8.2	28.8	5.2	0.3	65.4	56.3
Italy	676	80.5	79.5	2.6	16.7	1.1	0.0	79.1	81.6
Japan	780	93.6	93.5	2.7	3.7	0.0	0.1	94.9	92.2
Jordan	592	64.1	57.4	10.8	21.4	10.4	0.0	70.7	57.7
Kazakhstan	923	69.4	66.2	9.8	19.4	4.5	0.1	71.3	67.7
Korea, Rep. of	841	92.7	92.1	0.7	6.6	0.5	0.1	92.2	93.2
Lithuania	792	78.9	77.9	4.0	16.9	1.1	0.1	79.4	78.3
Malaysia	1278	57.0	55.2	19.4	22.2	2.5	0.7	56.9	57.1
Malta	584	65.1	61.6	9.4	23.6	5.1	0.3	65.1	65.2
Morocco	763	47.2	40.7	19.2	26.3	13.5	0.3	51.3	43.1
New Zealand	562	66.8	65.0	10.2	22.2	2.5	0.1	65.5	67.9
Norway (9)	897	86.5	83.0	6.3	6.6	3.6	0.4	86.7	86.3
Oman	713	72.3	67.1	4.4	21.2	6.9	0.4	75.8	68.8
Palestinian Nat'l Auth.	557	59.4	55.0	11.6	26.0	7.4	0.0	65.0	53.8
Portugal	782	81.2	80.1	3.1	15.5	1.3	0.0	81.8	80.7
Qatar	616	81.7	80.0	4.7	13.2	1.7	0.4	86.7	77.3
Romania	537	70.2	66.4	4.5	23.7	5.3	0.0	70.6	69.8
Saudi Arabia	509	66.0	60.1	8.8	22.2	8.7	0.2	68.7	63.3
Singapore	945	96.7	96.4	1.9	1.3	0.4	0.0	96.2	97.2
Sweden	722	96.5	94.4	1.4	2.0	1.6	0.5	96.5	96.4
Turkiye	708	92.3	91.3	1.9	5.7	1.1	0.0	92.8	91.8
United Arab Emirates	4028	75.7	73.1	8.3	15.2	2.8	0.6	75.9	75.4
United States	1135	62.7	61.0	9.1	27.2	1.8	0.9	59.3	66.0
Uzbekistan	632	65.4	50.1	6.7	19.8	23.0	0.3	68.3	62.6
International Avg. (40)	36623	77.6	74.6	6.0	15.1	4.1	0.3	78.6	76.7
Abu Dhabi, UAE	1043	62.1	58.8	16.5	19.4	4.8	0.5	63.2	61.0
Dubai, UAE	1172	82.0	79.9	4.6	13.0	1.9	0.6	79.7	84.1
Sharjah, UAE	925	77.9	76.0	6.9	14.6	1.6	0.9	80.7	75.2

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Biology / Applying

B_SD5_03E SE82008E: Respiratory, digestive, and nervous system organs - trachea - MC - Key: C

COUNTRY	N	DIFF %	A %	B %	C %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1217	66.5	14.7	18.2	65.3	1.6	0.1	65.6	67.3
Austria	678	98.1	1.4	0.5	97.4	0.7	0.0	97.8	98.3
Azerbaijan	884	90.2	6.9	1.9	80.9	9.7	0.6	93.0	87.8
Bahrain	750	80.2	9.5	9.8	78.5	2.0	0.2	82.9	77.5
Brazil	3274	68.6	12.4	16.6	63.2	6.6	1.3	69.7	67.4
Chile	645	75.4	14.1	9.7	72.8	2.4	1.0	74.4	76.5
Chinese Taipei	1105	98.1	0.9	1.1	97.3	0.8	0.0	98.8	97.4
Cyprus	611	51.9	21.8	25.2	50.7	2.0	0.3	45.7	58.0
Czech Republic	1175	96.6	1.8	1.5	95.6	1.0	0.0	97.1	96.2
England	603	73.0	13.9	12.6	71.5	1.8	0.1	71.6	74.4
Finland	850	95.0	2.7	2.3	93.5	1.3	0.2	95.5	94.4
France	656	73.5	19.2	7.0	72.9	0.8	0.1	72.1	75.0
Georgia	701	80.2	9.8	8.1	72.6	9.3	0.2	82.9	77.7
Hong Kong SAR	640	90.7	5.1	4.0	88.5	2.4	0.0	89.6	91.7
Hungary	801	96.9	2.2	0.9	95.9	1.0	0.0	96.8	96.9
Ireland	712	74.9	15.3	9.1	73.1	2.2	0.2	75.1	74.8
Israel	749	84.4	7.8	7.2	81.5	3.1	0.3	85.8	83.0
Italy	676	88.1	6.9	4.8	86.7	1.6	0.0	88.7	87.6
Japan	780	85.0	7.3	7.6	84.8	0.1	0.1	85.9	84.0
Jordan	592	89.9	4.7	4.6	81.8	8.9	0.0	94.2	85.6
Kazakhstan	923	72.6	13.7	12.7	69.8	3.7	0.1	77.5	68.3
Korea, Rep. of	841	84.9	6.5	8.5	84.0	1.0	0.1	84.9	84.9
Lithuania	792	89.7	4.2	6.0	89.0	0.7	0.1	91.7	87.6
Malaysia	1278	60.6	16.7	21.4	58.7	2.5	0.7	60.9	60.3
Malta	584	68.5	15.4	14.9	66.1	3.2	0.3	67.6	69.6
Morocco	763	55.7	18.8	19.5	48.2	13.2	0.3	57.2	54.2
New Zealand	562	60.7	11.6	26.7	59.2	2.4	0.1	59.0	62.2
Norway (9)	897	78.4	9.7	11.0	75.3	3.6	0.4	77.8	79.1
Oman	713	84.2	6.9	7.9	79.3	5.5	0.4	86.6	81.9
Palestinian Nat'l Auth.	557	82.7	6.3	9.9	77.3	6.6	0.0	86.7	78.6
Portugal	782	82.4	9.6	7.8	81.5	1.2	0.0	81.8	83.0
Qatar	616	86.4	7.7	5.6	84.8	1.5	0.4	86.9	86.0
Romania	537	83.6	7.6	8.0	79.7	4.7	0.0	89.4	78.6
Saudi Arabia	509	84.7	8.3	5.8	77.9	7.7	0.2	84.9	84.5
Singapore	945	95.4	2.1	2.5	95.0	0.4	0.0	95.5	95.2
Sweden	722	96.3	2.1	1.6	94.7	1.1	0.5	97.2	95.4
Turkiye	708	92.7	6.1	1.1	91.1	1.7	0.0	95.3	89.8
United Arab Emirates	4028	77.1	10.5	11.6	74.4	2.9	0.6	77.7	76.4
United States	1135	65.3	14.0	19.8	63.6	1.6	0.9	61.3	69.2
Uzbekistan	632	72.5	10.4	10.9	56.0	22.4	0.3	73.1	71.8
International Avg. (40)	36623	80.8	9.2	9.1	77.8	3.7	0.3	81.4	80.2
Abu Dhabi, UAE	1043	63.2	16.4	18.5	59.9	4.7	0.5	63.6	62.7
Dubai, UAE	1172	82.2	8.0	9.4	80.1	2.0	0.6	82.6	81.7
Sharjah, UAE	925	82.1	8.0	9.3	79.1	2.8	0.9	83.2	81.0

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Biology / Applying

B_SD5_03F SE82008F: Respiratory, digestive, and nervous system organs - eye - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	C %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1217	83.9	2.4	82.4	13.5	1.6	0.1	83.6	84.5
Austria	678	99.0	0.7	98.5	0.3	0.5	0.0	98.6	99.2
Azerbaijan	884	95.7	1.0	85.0	2.8	10.6	0.6	97.8	93.9
Bahrain	750	90.1	5.9	88.6	3.8	1.5	0.2	92.4	87.8
Brazil	3274	88.3	9.2	80.9	1.5	7.1	1.3	91.1	85.4
Chile	645	97.6	1.3	95.2	1.1	1.5	1.0	98.0	97.1
Chinese Taipei	1105	99.5	0.1	99.1	0.4	0.4	0.0	100.0	99.1
Cyprus	611	87.0	10.0	85.3	2.7	1.7	0.3	87.1	87.0
Czech Republic	1175	99.0	0.5	98.9	0.5	0.2	0.0	98.6	99.3
England	603	88.6	1.3	87.4	10.0	1.2	0.1	89.7	87.4
Finland	850	98.0	0.9	96.1	1.0	1.7	0.2	98.8	97.2
France	656	97.9	1.4	97.2	0.7	0.6	0.1	98.1	97.7
Georgia	701	99.2	0.4	90.1	0.3	8.9	0.2	99.8	98.5
Hong Kong SAR	640	93.2	3.8	91.6	2.9	1.7	0.0	91.9	94.3
Hungary	801	99.5	0.4	98.8	0.1	0.7	0.0	99.8	99.2
Ireland	712	92.1	1.7	90.1	6.1	2.0	0.2	93.6	90.8
Israel	749	93.1	4.2	89.7	2.5	3.2	0.3	92.8	93.3
Italy	676	96.8	2.3	95.5	0.8	1.4	0.0	96.4	97.2
Japan	780	99.1	0.3	98.9	0.6	0.1	0.1	99.8	98.4
Jordan	592	88.7	6.7	81.0	3.7	8.6	0.0	92.9	84.6
Kazakhstan	923	97.2	1.2	93.0	1.4	4.3	0.1	97.8	96.7
Korea, Rep. of	841	98.8	0.8	98.2	0.3	0.5	0.1	98.1	99.5
Lithuania	792	98.2	0.9	97.6	0.9	0.5	0.1	99.2	97.2
Malaysia	1278	77.7	17.4	75.6	4.3	2.0	0.7	78.9	76.4
Malta	584	84.5	4.2	81.9	10.7	2.8	0.3	85.4	83.6
Morocco	763	64.8	19.9	56.9	11.0	11.9	0.3	67.3	62.4
New Zealand	562	78.0	3.0	76.0	18.4	2.4	0.1	75.8	79.9
Norway (9)	897	70.0	3.2	66.8	25.4	4.2	0.4	70.5	69.6
Oman	713	92.6	4.7	88.1	2.3	4.6	0.4	93.1	92.2
Palestinian Nat'l Auth.	557	89.4	6.4	82.4	3.4	7.8	0.0	90.3	88.5
Portugal	782	97.4	2.2	97.0	0.4	0.4	0.0	97.5	97.3
Qatar	616	94.0	2.5	92.6	3.4	1.1	0.4	96.7	91.7
Romania	537	95.3	3.3	90.1	1.0	5.5	0.0	96.8	94.1
Saudi Arabia	509	90.3	6.6	83.8	2.4	7.0	0.2	92.9	87.7
Singapore	945	97.4	0.2	97.1	2.3	0.3	0.0	97.4	97.5
Sweden	722	98.6	0.4	97.4	1.0	0.7	0.5	99.0	98.0
Turkiye	708	95.1	2.5	94.0	2.3	1.2	0.0	94.4	95.9
United Arab Emirates	4028	88.2	4.5	85.9	6.9	2.1	0.6	88.0	88.4
United States	1135	82.3	2.2	80.5	15.1	1.3	0.9	80.2	84.3
Uzbekistan	632	97.0	0.7	72.6	1.5	24.8	0.3	97.7	96.3
International Avg. (40)	36623	91.8	3.5	88.4	4.2	3.5	0.3	92.4	91.2
Abu Dhabi, UAE	1043	73.1	12.0	69.7	13.6	4.2	0.5	73.5	72.8
Dubai, UAE	1172	93.3	1.4	91.5	5.1	1.4	0.6	92.4	94.1
Sharjah, UAE	925	93.0	2.4	91.3	4.4	1.0	0.9	93.4	92.7

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Biology / Applying

B_SD5_03G SE82008G: Respiratory, digestive, and nervous system organs - sp. crd. - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	C %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1217	79.6	2.9	78.6	17.3	1.1	0.1	76.9	82.2
Austria	678	96.2	1.2	95.9	2.6	0.3	0.0	96.0	96.3
Azerbaijan	884	95.3	1.8	86.7	2.5	8.5	0.6	96.6	94.1
Bahrain	750	76.5	8.6	74.8	14.3	2.0	0.2	78.2	74.9
Brazil	3274	72.4	12.2	66.2	13.0	7.4	1.3	69.3	75.5
Chile	645	83.5	9.1	79.7	6.7	3.6	1.0	81.1	86.0
Chinese Taipei	1105	98.6	1.2	98.2	0.3	0.4	0.0	99.2	98.0
Cyprus	611	73.1	14.7	71.2	11.5	2.3	0.3	71.3	74.9
Czech Republic	1175	90.0	8.1	89.4	1.9	0.6	0.0	86.6	92.9
England	603	76.9	3.1	75.2	19.5	2.0	0.1	72.6	81.4
Finland	850	93.4	1.4	91.8	5.2	1.5	0.2	92.3	94.4
France	656	76.6	7.8	73.8	14.7	3.6	0.1	73.5	79.6
Georgia	701	93.4	1.5	84.2	4.4	9.7	0.2	92.7	94.1
Hong Kong SAR	640	90.0	5.8	88.2	3.9	2.1	0.0	87.9	92.0
Hungary	801	90.7	5.1	89.9	4.1	0.9	0.0	88.0	93.2
Ireland	712	80.7	1.7	78.7	17.1	2.2	0.2	74.9	85.6
Israel	749	79.5	11.3	76.3	8.4	3.8	0.3	79.1	80.0
Italy	676	85.5	4.1	84.3	10.2	1.4	0.0	83.9	86.9
Japan	780	94.3	1.9	94.1	3.8	0.1	0.1	93.6	95.0
Jordan	592	81.2	7.6	73.9	9.6	8.9	0.0	81.8	80.5
Kazakhstan	923	90.0	3.9	85.9	5.6	4.5	0.1	87.4	92.4
Korea, Rep. of	841	96.8	1.4	95.8	1.8	0.9	0.1	96.0	97.6
Lithuania	792	96.5	2.2	96.1	1.3	0.3	0.1	96.2	96.7
Malaysia	1278	75.4	14.2	73.3	9.7	2.1	0.7	75.1	75.7
Malta	584	72.0	5.7	69.5	21.4	3.1	0.3	70.5	73.5
Morocco	763	53.4	25.4	45.5	14.4	14.3	0.3	53.4	53.3
New Zealand	562	71.5	4.1	70.0	23.8	2.0	0.1	68.1	74.5
Norway (9)	897	65.8	3.3	62.5	29.2	4.6	0.4	63.0	68.5
Oman	713	83.8	7.5	79.0	7.8	5.4	0.4	84.0	83.6
Palestinian Nat'l Auth.	557	72.3	14.7	66.1	10.7	8.4	0.0	73.4	71.1
Portugal	782	75.5	8.1	74.8	16.2	0.9	0.0	71.4	79.3
Qatar	616	82.0	7.1	79.9	10.5	2.1	0.4	79.6	84.1
Romania	537	88.1	5.9	84.3	5.5	4.3	0.0	88.3	87.8
Saudi Arabia	509	74.6	12.2	69.7	11.5	6.4	0.2	73.9	75.4
Singapore	945	93.9	0.8	93.6	5.2	0.4	0.0	93.3	94.5
Sweden	722	91.0	1.5	89.6	7.3	1.0	0.5	88.6	93.6
Turkiye	708	81.4	6.6	79.3	11.5	2.7	0.0	79.4	83.6
United Arab Emirates	4028	76.8	7.5	74.2	14.9	2.8	0.6	75.0	78.6
United States	1135	70.6	3.2	68.8	25.5	1.6	0.9	65.4	75.6
Uzbekistan	632	88.6	5.0	67.3	3.7	23.8	0.3	89.3	87.8
International Avg. (40)	36623	82.7	6.3	79.4	10.2	3.8	0.3	81.2	84.1
Abu Dhabi, UAE	1043	61.9	15.3	58.5	20.6	5.1	0.5	62.0	61.8
Dubai, UAE	1172	83.4	3.8	81.5	12.5	1.7	0.6	81.0	85.6
Sharjah, UAE	925	81.9	4.6	79.2	12.9	2.4	0.9	79.6	84.1

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Applying

B_SD5_03H SE82008H: Respiratory, digestive, and nervous system organs - lg. int. - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	C %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1217	88.1	86.8	4.6	7.1	1.3	0.1	86.1	90.0
Austria	678	98.2	97.6	1.2	0.6	0.6	0.0	97.4	98.8
Azerbaijan	884	91.9	82.0	2.6	4.6	10.1	0.6	93.5	90.5
Bahrain	750	89.3	86.8	6.2	4.2	2.6	0.2	90.4	88.2
Brazil	3274	86.5	80.3	8.9	3.7	5.8	1.3	87.8	85.1
Chile	645	96.4	93.9	2.9	0.6	1.6	1.0	96.5	96.3
Chinese Taipei	1105	99.2	98.6	0.6	0.2	0.6	0.0	99.8	98.7
Cyprus	611	93.3	91.5	2.7	3.9	1.6	0.3	95.4	91.3
Czech Republic	1175	98.6	98.4	1.1	0.3	0.2	0.0	98.8	98.5
England	603	92.0	90.9	2.2	5.6	1.1	0.1	92.0	92.0
Finland	850	95.8	94.2	3.1	1.1	1.4	0.2	97.6	94.1
France	656	94.7	94.2	1.7	3.6	0.4	0.1	95.7	93.6
Georgia	701	94.6	88.7	2.5	2.6	6.0	0.2	93.2	95.9
Hong Kong SAR	640	92.3	90.4	4.1	3.4	2.1	0.0	90.5	94.1
Hungary	801	98.8	98.1	1.1	0.1	0.7	0.0	99.0	98.6
Ireland	712	90.7	88.4	2.7	6.3	2.3	0.2	90.9	90.6
Israel	749	86.3	82.9	8.5	4.6	3.6	0.3	87.1	85.5
Italy	676	97.7	97.0	1.1	1.2	0.7	0.0	96.7	98.6
Japan	780	97.7	97.4	1.5	0.8	0.2	0.1	98.8	96.5
Jordan	592	88.9	81.0	6.4	3.8	8.9	0.0	91.3	86.5
Kazakhstan	923	95.6	92.4	3.1	1.1	3.3	0.1	96.7	94.7
Korea, Rep. of	841	97.9	97.3	1.1	0.9	0.5	0.1	97.1	98.7
Lithuania	792	99.1	98.8	0.7	0.2	0.2	0.1	99.8	98.4
Malaysia	1278	80.8	78.7	12.0	6.6	1.9	0.7	81.0	80.6
Malta	584	91.1	87.9	2.9	5.7	3.3	0.3	89.3	93.1
Morocco	763	66.3	57.8	17.1	12.2	12.5	0.3	66.9	65.8
New Zealand	562	85.6	83.9	5.3	8.8	1.8	0.1	86.2	85.0
Norway (9)	897	86.8	83.1	6.9	5.8	3.8	0.4	88.4	85.2
Oman	713	91.6	86.8	5.0	3.0	4.9	0.4	93.3	89.9
Palestinian Nat'l Auth.	557	82.8	75.5	10.4	5.3	8.8	0.0	85.9	79.5
Portugal	782	97.5	96.9	1.7	0.8	0.6	0.0	96.5	98.4
Qatar	616	94.0	92.1	2.1	3.8	1.6	0.4	95.0	93.1
Romania	537	96.4	93.5	2.6	1.0	3.0	0.0	96.7	96.1
Saudi Arabia	509	85.8	81.1	7.8	5.6	5.2	0.2	90.7	80.9
Singapore	945	98.3	97.9	0.7	1.0	0.4	0.0	97.7	98.9
Sweden	722	97.0	95.9	2.2	0.8	0.6	0.5	97.9	96.0
Turkiye	708	93.4	91.9	2.1	4.4	1.6	0.0	94.1	92.8
United Arab Emirates	4028	87.7	85.4	5.3	6.6	2.1	0.6	88.1	87.4
United States	1135	83.2	81.5	5.9	10.5	1.1	0.9	83.8	82.6
Uzbekistan	632	90.9	69.6	2.5	4.5	23.1	0.3	91.2	90.5
International Avg. (40)	36623	91.8	88.7	4.1	3.7	3.3	0.3	92.4	91.3
Abu Dhabi, UAE	1043	74.9	71.8	10.9	13.1	3.6	0.5	75.3	74.5
Dubai, UAE	1172	94.1	91.9	2.5	3.3	1.7	0.6	94.0	94.1
Sharjah, UAE	925	91.5	89.8	3.6	4.7	1.0	0.9	92.0	91.0

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Applying

B_SD5_04 SE82021: Label parts of a plant cell (DERIVED) - CR - 1 Point

COUNTRY	N	DIFF %	1 %	7 %	0 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1217	14.5	14.3	8.5	75.9	14.3	84.4	1.1	0.1	16.3	12.7
Austria	678	8.4	8.3	9.5	80.5	8.3	90.0	1.7	0.0	8.1	8.7
Azerbaijan	884	11.3	10.0	2.0	76.3	10.0	78.3	10.8	1.0	13.1	9.8
Bahrain	750	24.1	23.9	2.0	73.3	23.9	75.3	0.3	0.4	26.2	22.0
Brazil	3274	3.2	3.1	4.1	87.9	3.1	92.0	3.2	1.7	2.3	4.1
Chile	645	11.7	11.2	7.7	77.4	11.2	85.1	2.4	1.3	9.8	13.7
Chinese Taipei	1105	50.2	49.3	2.8	46.2	49.3	49.0	1.7	0.0	46.2	53.8
Cyprus	611	25.3	25.0	11.8	61.9	25.0	73.7	1.0	0.3	24.7	26.0
Czech Republic	1175	26.2	26.0	8.3	64.7	26.0	73.0	1.0	0.0	28.1	24.5
England	603	25.4	25.0	12.6	60.7	25.0	73.3	1.6	0.1	25.7	25.1
Finland	850	43.5	42.8	5.0	50.6	42.8	55.6	1.4	0.2	50.8	36.6
France	656	6.1	6.1	3.5	89.1	6.1	92.6	1.2	0.1	6.4	5.9
Georgia	701	19.6	18.3	6.7	68.4	18.3	75.0	5.9	0.8	22.3	17.1
Hong Kong SAR	640	25.8	25.1	1.6	70.5	25.1	72.2	2.6	0.2	20.0	31.3
Hungary	801	29.4	29.3	1.8	68.8	29.3	70.6	0.1	0.0	30.0	28.8
Ireland	712	15.8	15.7	14.7	69.0	15.7	83.7	0.4	0.2	14.5	16.8
Israel	749	11.0	10.8	2.7	84.9	10.8	87.7	1.2	0.3	11.8	10.2
Italy	676	6.9	6.8	16.2	75.7	6.8	91.8	1.4	0.0	5.1	8.5
Japan	780	46.7	45.5	1.5	50.5	45.5	52.0	2.3	0.1	49.7	43.6
Jordan	592	10.8	10.7	0.0	88.1	10.7	88.1	1.2	0.0	14.4	7.5
Kazakhstan	923	11.3	10.8	3.8	80.8	10.8	84.6	4.1	0.5	11.6	11.1
Korea, Rep. of	841	18.5	18.4	1.7	79.3	18.4	81.0	0.5	0.1	18.7	18.3
Lithuania	792	33.1	32.8	7.0	59.4	32.8	66.4	0.7	0.1	34.5	31.6
Malaysia	1278	3.5	3.4	2.4	92.7	3.4	95.1	0.3	1.3	2.7	4.3
Malta	584	21.8	21.6	5.0	72.4	21.6	77.3	0.8	0.3	24.9	18.6
Morocco	763	2.2	2.1	1.3	92.3	2.1	93.6	3.8	0.5	2.7	1.7
New Zealand	562	8.4	8.3	3.5	86.6	8.3	90.1	1.4	0.2	9.8	7.2
Norway (9)	897	12.4	12.0	5.0	79.7	12.0	84.8	2.7	0.5	13.1	11.9
Oman	713	32.0	31.7	1.6	66.0	31.7	67.6	0.3	0.4	39.4	25.1
Palestinian Nat'l Auth.	557	34.2	34.1	3.0	62.5	34.1	65.6	0.3	0.0	40.6	28.2
Portugal	782	24.5	24.2	12.1	62.8	24.2	74.9	0.9	0.0	24.3	24.6
Qatar	616	21.8	21.4	10.1	66.7	21.4	76.7	1.1	0.8	27.4	16.8
Romania	537	8.8	8.5	10.8	77.3	8.5	88.1	3.3	0.1	8.7	8.8
Saudi Arabia	509	14.5	14.4	1.9	82.9	14.4	84.8	0.6	0.2	18.3	11.0
Singapore	945	57.2	57.1	5.9	36.9	57.1	42.8	0.0	0.1	58.6	56.0
Sweden	722	7.6	7.4	9.1	80.6	7.4	89.7	2.4	0.5	8.4	6.9
Turkiye	708	20.5	20.3	8.5	70.2	20.3	78.8	0.9	0.0	20.4	20.7
United Arab Emirates	4028	29.7	29.2	7.0	62.1	29.2	69.1	1.0	0.8	30.6	28.8
United States	1135	12.3	12.1	6.0	80.1	12.1	86.1	0.5	1.3	13.4	11.3
Uzbekistan	632	9.1	8.7	1.2	85.5	8.7	86.6	3.7	1.0	9.9	8.4
International Avg. (40)	36623	20.0	19.6	5.7	72.4	19.6	78.2	1.8	0.4	21.1	18.9
Abu Dhabi, UAE	1043	19.7	19.3	4.2	74.5	19.3	78.7	1.1	1.0	22.5	17.0
Dubai, UAE	1172	37.9	37.3	10.8	50.4	37.3	61.2	0.7	0.8	37.1	38.7
Sharjah, UAE	925	34.4	33.7	5.7	58.6	33.7	64.2	1.1	1.0	37.1	31.7

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Applying

B_SD5_04A SE82021A: Label parts of a plant cell - cell wall - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	C %	D %	E %	F %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1217	85.0	10.1	83.7	0.8	1.2	1.5	1.1	1.4	0.1	85.1	84.9
Austria	678	81.3	8.5	78.7	2.9	2.2	2.0	2.5	3.2	0.0	82.9	80.0
Azerbaijan	884	69.7	9.8	59.3	5.0	4.6	3.3	3.0	14.0	1.0	69.5	69.8
Bahrain	750	74.0	17.2	72.9	4.2	1.2	1.3	1.7	1.1	0.4	74.2	73.8
Brazil	3274	62.8	13.9	57.9	6.6	5.6	3.5	4.7	6.0	1.7	59.4	66.0
Chile	645	81.9	11.4	77.6	1.4	1.5	0.7	2.0	4.0	1.3	80.7	83.3
Chinese Taipei	1105	81.1	13.8	79.7	1.3	0.7	0.9	1.8	1.7	0.0	78.4	83.6
Cyprus	611	77.4	16.3	75.3	1.5	1.9	1.1	1.3	2.2	0.5	74.6	80.2
Czech Republic	1175	79.0	17.1	77.3	1.4	0.8	0.7	0.5	2.1	0.0	78.5	79.5
England	603	75.7	19.4	74.0	1.6	0.8	1.4	0.4	2.2	0.1	74.9	76.7
Finland	850	80.4	14.2	78.8	1.3	1.3	2.0	0.4	1.8	0.2	81.5	79.3
France	656	60.3	22.6	58.2	4.1	6.4	3.6	1.5	3.4	0.1	64.2	56.4
Georgia	701	81.5	6.8	74.6	3.9	2.2	1.2	2.8	7.7	0.8	82.2	80.9
Hong Kong SAR	640	67.6	24.8	65.5	2.1	1.4	1.7	1.3	3.0	0.2	64.3	70.8
Hungary	801	66.9	27.1	66.4	2.5	1.8	0.8	0.7	0.7	0.0	65.2	68.5
Ireland	712	82.3	13.3	80.4	2.6	0.5	0.2	0.7	2.0	0.2	81.4	83.1
Israel	749	47.2	39.9	46.2	4.1	3.4	2.3	2.1	1.7	0.3	47.2	47.2
Italy	676	63.4	30.3	62.1	1.7	0.9	1.5	1.4	2.1	0.0	61.5	65.1
Japan	780	79.5	16.8	77.3	1.1	0.4	0.3	1.3	2.6	0.1	80.8	78.1
Jordan	592	46.6	32.6	44.8	9.7	4.5	1.0	3.4	3.8	0.0	55.0	38.6
Kazakhstan	923	66.9	16.8	62.9	3.9	4.1	3.1	3.1	5.5	0.5	64.3	69.2
Korea, Rep. of	841	67.4	28.0	66.6	1.6	0.6	1.5	0.6	1.1	0.1	64.3	70.4
Lithuania	792	82.2	12.3	80.7	1.3	2.3	0.4	1.2	1.7	0.1	83.5	80.8
Malaysia	1278	81.0	8.2	79.7	1.3	2.3	3.0	3.8	0.4	1.3	81.3	80.7
Malta	584	70.9	18.5	69.0	3.3	2.2	2.4	2.0	2.2	0.3	68.2	73.6
Morocco	763	19.9	27.4	18.3	13.1	18.5	6.4	8.0	7.7	0.5	18.9	20.9
New Zealand	562	80.9	9.5	78.9	1.8	2.7	2.5	2.1	2.2	0.2	79.9	81.8
Norway (9)	897	73.3	14.9	70.1	3.0	2.4	2.6	2.7	3.8	0.5	76.6	70.2
Oman	713	70.1	22.9	68.5	2.7	1.0	0.4	2.2	1.9	0.4	72.7	67.7
Palestinian Nat'l Auth.	557	63.9	22.4	62.9	8.7	1.2	1.8	1.5	1.5	0.0	67.8	60.2
Portugal	782	81.7	13.4	80.7	0.6	0.6	2.0	1.3	1.3	0.0	78.1	85.2
Qatar	616	70.9	23.4	69.2	1.5	1.1	1.3	1.2	1.6	0.8	70.1	71.6
Romania	537	59.7	24.3	57.3	3.4	5.4	2.3	3.3	4.0	0.1	63.5	56.3
Saudi Arabia	509	67.6	19.3	66.3	7.0	2.5	1.9	1.2	1.6	0.2	71.0	64.3
Singapore	945	86.8	9.9	86.5	1.1	0.3	1.1	0.7	0.2	0.1	84.1	89.1
Sweden	722	75.4	16.2	73.0	3.8	1.3	0.8	1.7	2.7	0.5	76.3	74.5
Turkiye	708	56.7	31.8	55.9	3.1	2.0	2.2	3.6	1.4	0.0	54.8	58.7
United Arab Emirates	4028	76.2	13.9	74.1	3.1	2.0	2.0	2.1	1.9	0.8	76.1	76.3
United States	1135	86.4	8.8	84.7	1.5	1.0	1.0	1.1	0.7	1.3	83.6	89.0
Uzbekistan	632	67.2	14.4	57.4	3.4	5.2	0.9	4.1	13.5	1.0	67.5	66.9
International Avg. (40)	36623	71.2	18.1	68.8	3.2	2.6	1.8	2.1	3.1	0.4	71.1	71.3
Abu Dhabi, UAE	1043	69.0	12.1	66.6	4.2	4.0	4.8	4.9	2.5	1.0	69.2	68.7
Dubai, UAE	1172	82.1	13.6	80.5	1.9	1.2	0.2	0.7	1.2	0.8	81.7	82.5
Sharjah, UAE	925	77.5	14.9	75.3	2.7	1.2	1.7	1.3	1.9	1.0	77.1	78.0

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Applying

B_SD5_04B SE82021B: Label parts of a plant cell - nucleus - MC - Key: F

COUNTRY	N	DIFF %	A %	B %	C %	D %	E %	F %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1217	64.0	11.8	1.8	6.8	4.4	10.3	62.3	2.4	0.1	61.3	67.0
Austria	678	72.8	8.6	1.1	7.7	5.3	3.7	70.8	2.8	0.0	76.2	69.9
Azerbaijan	884	56.2	9.8	3.3	7.5	11.9	4.7	47.7	14.1	1.0	59.8	53.1
Bahrain	750	70.1	6.3	2.7	1.6	9.9	8.6	68.1	2.4	0.4	73.6	66.7
Brazil	3274	57.1	11.4	3.7	8.5	9.5	6.7	53.0	5.5	1.7	50.9	63.2
Chile	645	80.2	5.7	1.4	4.6	4.1	3.2	76.6	3.1	1.3	79.2	81.2
Chinese Taipei	1105	81.2	5.3	1.4	1.0	5.5	5.2	79.1	2.5	0.0	80.2	82.0
Cyprus	611	87.0	2.1	1.2	4.0	1.7	3.5	84.1	2.9	0.5	87.3	86.8
Czech Republic	1175	90.6	2.3	0.4	1.5	1.7	3.3	88.7	2.2	0.0	90.3	91.0
England	603	84.4	4.5	1.1	2.7	3.9	3.0	82.3	2.3	0.1	82.9	86.0
Finland	850	76.6	4.5	1.5	1.8	3.1	12.0	74.8	2.1	0.2	81.4	72.1
France	656	71.5	5.5	2.6	2.6	14.9	1.9	69.1	3.3	0.1	69.9	73.0
Georgia	701	78.0	3.8	1.9	3.9	5.6	4.7	70.9	8.4	0.8	78.5	77.6
Hong Kong SAR	640	72.9	7.5	2.3	2.1	8.9	5.3	70.3	3.4	0.2	65.3	80.2
Hungary	801	77.9	3.1	0.9	0.6	8.5	8.6	76.6	1.7	0.0	77.7	78.2
Ireland	712	81.1	5.5	1.5	3.5	2.9	5.2	79.4	1.8	0.2	78.0	83.5
Israel	749	65.0	5.9	5.3	8.6	7.5	6.5	62.8	3.1	0.3	65.7	64.3
Italy	676	83.8	2.9	0.7	4.8	4.9	2.5	81.5	2.7	0.0	84.4	83.2
Japan	780	92.5	1.5	0.4	1.2	1.8	2.4	89.2	3.5	0.1	93.9	91.0
Jordan	592	52.6	9.1	4.8	5.4	18.0	8.1	50.4	4.2	0.0	59.7	46.0
Kazakhstan	923	76.9	4.2	0.7	6.7	5.0	5.0	72.2	5.6	0.5	78.0	76.0
Korea, Rep. of	841	78.2	4.2	2.1	2.2	3.8	9.3	77.4	0.9	0.1	77.7	78.8
Lithuania	792	90.4	2.3	0.4	2.1	3.2	1.5	89.2	1.2	0.1	93.7	87.0
Malaysia	1278	39.8	13.6	2.0	15.0	12.9	15.5	38.9	0.9	1.3	35.8	44.0
Malta	584	64.7	10.1	1.9	7.0	7.4	8.0	63.1	2.1	0.3	66.1	63.3
Morocco	763	50.5	8.5	8.3	8.1	14.8	6.0	46.5	7.3	0.5	57.3	44.0
New Zealand	562	48.0	19.3	2.1	9.9	9.4	9.7	46.5	2.9	0.2	46.9	49.0
Norway (9)	897	69.2	8.7	2.6	6.5	6.5	4.9	65.8	4.4	0.5	73.3	65.3
Oman	713	73.3	6.7	3.9	4.8	7.0	3.8	71.9	1.5	0.4	84.1	63.3
Palestinian Nat'l Auth.	557	73.3	6.1	3.4	2.8	7.2	6.5	70.9	3.3	0.0	81.0	65.8
Portugal	782	86.1	3.7	0.7	4.2	2.9	2.2	84.3	2.0	0.0	83.9	88.1
Qatar	616	78.2	3.0	2.0	2.2	5.5	8.4	75.3	2.9	0.8	83.3	73.7
Romania	537	69.3	6.9	1.8	8.0	10.0	2.7	66.4	4.1	0.1	70.1	68.6
Saudi Arabia	509	59.7	6.3	3.7	3.3	13.1	12.6	57.7	3.1	0.2	67.6	52.5
Singapore	945	87.6	3.5	0.9	1.1	3.4	3.3	87.0	0.6	0.1	88.4	87.0
Sweden	722	78.7	5.4	2.2	3.7	4.0	5.1	75.6	3.4	0.5	83.6	73.5
Turkiye	708	75.7	7.9	1.8	3.2	6.0	4.9	74.3	1.8	0.0	80.2	70.8
United Arab Emirates	4028	70.3	6.1	2.4	4.4	7.1	8.6	67.6	3.1	0.8	70.8	69.8
United States	1135	57.9	13.9	1.0	6.2	5.6	14.4	56.6	1.0	1.3	53.4	62.2
Uzbekistan	632	69.4	6.6	2.0	7.0	5.7	4.9	59.5	13.3	1.0	69.3	69.5
International Avg. (40)	36623	72.3	6.6	2.1	4.7	6.9	6.2	69.6	3.5	0.4	73.5	71.2
Abu Dhabi, UAE	1043	55.1	10.3	4.5	8.7	8.5	11.3	53.3	2.4	1.0	56.5	53.8
Dubai, UAE	1172	82.7	3.4	0.7	2.9	3.7	6.1	80.1	2.4	0.8	80.7	84.4
Sharjah, UAE	925	72.3	5.9	1.8	2.5	8.1	8.2	69.3	3.2	1.0	73.5	71.2

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Applying

B_SD5_04C SE82021C: Label parts of a plant cell - chloroplast - MC - Key: C

COUNTRY	N	DIFF %	A %	B %	C %	D %	E %	F %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1217	39.5	7.1	2.2	38.9	14.6	28.2	7.2	1.6	0.1	43.3	35.5
Austria	678	25.4	13.3	1.6	24.7	18.2	34.4	4.9	3.0	0.0	25.6	25.3
Azerbaijan	884	43.4	12.5	4.3	36.9	13.9	7.3	10.2	13.9	1.0	47.4	39.9
Bahrain	750	71.7	4.0	2.2	70.8	8.3	7.9	5.5	0.8	0.4	74.9	68.4
Brazil	3274	16.8	24.5	5.2	15.6	20.4	21.9	5.5	5.1	1.7	17.1	16.5
Chile	645	37.4	6.1	2.1	35.3	16.6	33.5	0.8	4.3	1.3	38.7	35.9
Chinese Taipei	1105	89.2	1.2	0.4	87.3	2.1	6.6	0.3	2.1	0.0	90.5	88.0
Cyprus	611	48.9	3.0	0.7	47.9	16.2	28.8	1.3	1.6	0.5	49.0	48.9
Czech Republic	1175	54.9	4.6	1.4	53.7	15.6	22.2	0.4	2.1	0.0	61.5	48.9
England	603	45.8	3.9	2.0	44.8	10.5	33.2	3.6	1.9	0.1	46.5	44.9
Finland	850	81.9	3.1	1.4	80.5	4.2	7.2	1.9	1.5	0.2	87.1	77.0
France	656	26.2	17.0	7.1	25.0	19.7	21.8	4.8	4.5	0.1	23.7	28.6
Georgia	701	42.2	12.9	2.3	38.0	18.4	15.6	2.9	9.1	0.8	43.2	41.3
Hong Kong SAR	640	74.3	5.9	2.0	72.1	7.4	5.5	4.2	2.8	0.2	73.2	75.3
Hungary	801	81.6	1.0	1.2	81.2	4.8	9.3	2.0	0.5	0.0	84.1	79.3
Ireland	712	38.0	6.3	1.5	37.4	14.4	32.5	6.3	1.4	0.2	37.4	38.5
Israel	749	46.7	4.0	4.3	45.5	12.8	19.2	11.7	2.3	0.3	52.4	41.3
Italy	676	19.5	5.3	1.4	19.0	14.9	55.9	1.0	2.4	0.0	17.3	21.4
Japan	780	87.9	0.6	1.0	85.7	1.6	8.1	0.5	2.4	0.1	89.5	86.3
Jordan	592	67.4	5.5	5.3	64.7	9.0	5.3	6.3	4.0	0.0	72.1	63.0
Kazakhstan	923	41.7	16.9	2.1	38.8	17.7	14.3	3.3	6.6	0.5	44.7	39.1
Korea, Rep. of	841	83.2	2.1	1.6	82.3	4.2	7.9	0.8	1.0	0.1	86.9	79.5
Lithuania	792	64.6	8.6	0.9	63.7	9.6	15.0	0.9	1.2	0.1	65.7	63.4
Malaysia	1278	28.0	11.6	3.4	27.4	18.2	18.8	18.5	0.9	1.3	27.7	28.2
Malta	584	40.9	11.2	2.6	40.3	15.2	19.7	9.4	1.3	0.3	45.3	36.5
Morocco	763	30.0	13.6	15.9	27.9	14.4	13.3	7.9	6.6	0.5	31.9	28.2
New Zealand	562	33.1	14.3	2.2	32.1	17.1	19.9	11.3	2.9	0.2	39.8	27.4
Norway (9)	897	39.9	13.9	3.2	38.2	10.3	28.1	2.0	3.8	0.5	42.9	37.2
Oman	713	65.8	4.6	1.9	64.7	16.6	6.2	4.3	1.3	0.4	72.1	59.9
Palestinian Nat'l Auth.	557	76.8	3.8	3.0	75.7	6.4	8.4	1.2	1.5	0.0	83.6	70.3
Portugal	782	48.3	8.5	1.1	47.4	14.4	24.9	1.9	1.8	0.0	49.0	47.7
Qatar	616	62.5	4.4	1.9	61.1	6.4	21.7	2.3	1.3	0.8	74.3	51.9
Romania	537	27.8	14.7	5.6	26.5	8.9	34.6	5.1	4.5	0.1	29.1	26.6
Saudi Arabia	509	73.3	4.2	2.0	71.5	7.5	8.5	3.8	2.3	0.2	79.2	67.8
Singapore	945	78.3	4.2	0.5	77.9	5.7	9.3	2.0	0.4	0.1	80.6	76.2
Sweden	722	33.4	12.3	3.5	32.3	11.1	34.4	3.1	2.8	0.5	34.6	32.1
Turkiye	708	47.4	4.6	3.3	46.3	9.5	29.9	3.9	2.4	0.0	48.3	46.4
United Arab Emirates	4028	60.0	5.5	2.7	58.2	7.6	18.4	4.6	2.2	0.8	62.0	58.0
United States	1135	37.1	10.3	1.3	36.4	17.3	23.7	9.0	0.8	1.3	40.2	34.2
Uzbekistan	632	36.1	22.3	4.8	32.0	16.2	8.0	5.6	10.2	1.0	37.1	35.1
International Avg. (40)	36623	51.2	8.3	2.8	49.6	11.9	19.2	4.5	3.1	0.4	53.7	48.7
Abu Dhabi, UAE	1043	47.7	9.6	6.1	45.9	9.0	17.5	8.3	2.7	1.0	49.6	45.8
Dubai, UAE	1172	59.2	4.2	1.2	57.6	8.3	22.8	3.2	1.9	0.8	58.9	59.5
Sharjah, UAE	925	69.0	4.2	1.0	66.8	4.9	16.0	3.9	2.2	1.0	71.7	66.3

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Biology / Applying

B_SD5_04D SE82021D: Label parts of a plant cell - cytoplasm - MC - Key: D

COUNTRY	N	DIFF %	A %	B %	C %	D %	E %	F %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1217	36.6	30.9	1.9	14.1	36.0	8.7	6.6	1.7	0.1	39.5	33.8
Austria	678	35.3	29.6	6.5	17.4	34.0	5.4	3.3	3.8	0.0	36.1	34.6
Azerbaijan	884	27.2	29.5	9.8	10.8	23.1	8.6	3.1	14.2	1.0	25.5	28.6
Bahrain	750	42.3	26.8	8.0	7.7	41.5	11.8	2.3	1.5	0.4	45.5	39.1
Brazil	3274	26.0	21.7	12.2	15.2	24.1	9.7	9.8	5.4	1.7	21.7	30.0
Chile	645	31.4	37.4	4.1	14.1	29.3	5.5	3.1	5.3	1.3	30.7	32.1
Chinese Taipei	1105	69.4	16.7	5.3	2.8	68.2	2.9	2.4	1.8	0.0	67.9	70.8
Cyprus	611	52.9	20.8	4.4	13.9	51.9	4.9	2.2	1.4	0.5	54.3	51.4
Czech Republic	1175	51.9	23.3	6.3	8.0	50.9	7.4	2.1	2.1	0.0	51.1	52.7
England	603	59.5	14.8	1.3	14.5	58.1	6.0	2.9	2.3	0.1	59.2	59.9
Finland	850	69.5	16.3	5.4	1.6	68.4	4.2	2.5	1.4	0.2	74.6	64.6
France	656	38.4	22.1	9.2	17.5	36.8	9.0	1.3	4.1	0.1	37.9	38.8
Georgia	701	40.4	22.5	5.3	13.5	36.3	8.8	3.4	9.6	0.8	43.7	37.6
Hong Kong SAR	640	50.7	18.2	9.4	10.6	49.1	6.1	3.5	3.0	0.2	47.6	53.6
Hungary	801	60.2	18.0	4.6	5.8	59.7	10.2	0.9	0.8	0.0	65.0	55.7
Ireland	712	46.1	28.7	2.0	15.1	45.7	6.2	1.4	0.7	0.2	45.1	46.9
Israel	749	36.5	23.8	12.3	8.0	35.6	13.5	4.3	2.3	0.3	39.2	33.9
Italy	676	50.5	25.4	7.9	7.2	49.2	4.3	3.4	2.6	0.0	49.8	51.1
Japan	780	62.7	15.0	2.6	6.0	60.8	11.4	1.2	2.9	0.1	64.9	60.5
Jordan	592	28.4	24.2	12.3	8.5	26.9	12.3	10.3	5.5	0.0	28.8	28.0
Kazakhstan	923	40.8	23.3	5.2	13.6	37.9	9.9	3.0	6.6	0.5	41.0	40.6
Korea, Rep. of	841	39.8	35.1	9.9	4.0	39.3	9.3	1.3	1.0	0.1	40.0	39.6
Lithuania	792	57.9	23.1	1.8	7.9	57.1	7.9	0.7	1.2	0.1	62.2	53.5
Malaysia	1278	19.6	38.7	5.4	13.4	19.1	11.3	9.9	1.0	1.3	17.9	21.4
Malta	584	47.0	17.2	5.4	17.6	45.9	6.4	5.1	2.0	0.3	51.8	42.0
Morocco	763	27.8	16.6	18.4	12.5	25.8	12.8	6.7	6.8	0.5	30.2	25.5
New Zealand	562	26.0	27.0	4.6	16.6	25.4	14.0	10.0	2.2	0.2	23.6	28.1
Norway (9)	897	33.9	25.3	4.9	13.7	32.3	11.1	8.0	4.2	0.5	36.7	31.4
Oman	713	56.5	16.6	4.3	7.8	55.2	11.2	2.8	1.8	0.4	66.2	47.5
Palestinian Nat'l Auth.	557	55.4	14.2	7.8	5.0	54.5	13.9	3.0	1.7	0.0	59.7	51.3
Portugal	782	55.5	17.2	4.9	11.0	54.6	7.9	2.8	1.6	0.0	56.2	54.8
Qatar	616	54.2	23.0	4.6	5.8	53.0	8.6	2.8	1.4	0.8	60.6	48.5
Romania	537	45.2	14.8	10.8	11.9	43.2	4.6	10.2	4.3	0.1	50.2	40.8
Saudi Arabia	509	33.9	31.1	7.1	7.5	32.6	12.9	5.1	3.5	0.2	37.2	30.7
Singapore	945	79.9	8.8	1.6	5.4	79.6	2.1	2.2	0.3	0.1	81.2	78.8
Sweden	722	39.1	30.8	4.4	13.8	37.8	7.5	2.4	2.7	0.5	42.9	35.1
Turkiye	708	50.5	13.7	18.3	9.8	49.3	5.3	1.3	2.2	0.0	52.1	48.7
United Arab Emirates	4028	53.1	20.1	4.8	9.4	51.7	7.5	3.9	1.9	0.8	54.2	52.0
United States	1135	36.2	27.6	2.3	18.0	35.3	7.9	6.5	1.1	1.3	37.4	35.0
Uzbekistan	632	36.0	19.9	5.5	12.9	30.7	11.5	4.7	13.9	1.0	33.1	38.9
International Avg. (40)	36623	45.1	22.7	6.6	10.7	43.6	8.5	4.1	3.3	0.4	46.6	43.7
Abu Dhabi, UAE	1043	41.5	23.0	6.1	12.0	40.4	10.1	5.9	1.6	1.0	45.3	37.7
Dubai, UAE	1172	64.8	16.1	2.4	7.5	63.4	5.8	2.6	1.5	0.8	64.3	65.4
Sharjah, UAE	925	57.0	19.3	4.8	9.1	55.3	6.0	2.5	2.0	1.0	59.7	54.3

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Biology / Reasoning

B_SD5_05 SE82071: Relationship of beetles and songbirds - CR - 1 Point

COUNTRY	N	DIFF %	1 %	0 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1217	46.4	45.6	52.7	45.6	52.7	1.6	0.1	42.4	50.5
Austria	678	36.6	36.4	63.0	36.4	63.0	0.6	0.0	38.2	35.3
Azerbaijan	884	16.1	14.6	75.9	14.6	75.9	8.2	1.4	17.2	15.1
Bahrain	750	23.0	22.3	74.4	22.3	74.4	2.6	0.8	27.1	19.0
Brazil	3274	21.7	20.7	74.7	20.7	74.7	2.5	2.1	19.5	23.7
Chile	645	36.8	33.2	57.1	33.2	57.1	8.1	1.6	29.8	44.4
Chinese Taipei	1105	45.2	45.1	54.6	45.1	54.6	0.3	0.0	49.2	41.6
Cyprus	610	27.6	27.2	71.2	27.2	71.2	1.4	0.3	26.6	28.6
Czech Republic	1175	43.2	42.6	56.1	42.6	56.1	1.2	0.0	39.1	46.8
England	603	50.8	49.7	48.1	49.7	48.1	1.9	0.3	52.5	49.0
Finland	850	50.9	49.8	47.9	49.8	47.9	2.1	0.2	55.2	46.9
France	656	43.9	42.7	54.6	42.7	54.6	2.6	0.1	45.3	42.6
Georgia	701	27.8	26.4	68.5	26.4	68.5	4.3	0.8	24.9	30.4
Hong Kong SAR	640	40.4	39.9	58.9	39.9	58.9	1.1	0.2	36.0	44.4
Hungary	801	42.3	42.2	57.5	42.2	57.5	0.3	0.0	41.0	43.5
Ireland	712	54.6	54.0	44.8	54.0	44.8	1.0	0.2	53.9	55.3
Israel	749	41.6	41.0	57.5	41.0	57.5	0.9	0.5	40.6	42.6
Italy	675	32.1	31.5	66.7	31.5	66.7	1.7	0.2	25.7	37.4
Japan	780	48.3	47.8	51.1	47.8	51.1	0.8	0.3	47.7	49.0
Jordan	592	15.7	15.5	83.1	15.5	83.1	1.3	0.1	15.4	16.1
Kazakhstan	923	27.4	26.3	69.6	26.3	69.6	3.3	0.8	23.9	30.4
Korea, Rep. of	841	47.0	46.6	52.5	46.6	52.5	0.8	0.1	47.8	46.2
Lithuania	792	42.9	42.2	56.1	42.2	56.1	1.6	0.1	43.4	42.4
Malaysia	1279	30.5	29.9	68.0	29.9	68.0	0.7	1.3	31.9	29.0
Malta	584	36.5	35.5	61.9	35.5	61.9	2.3	0.3	33.0	39.9
Morocco	763	4.4	4.3	93.2	4.3	93.2	1.6	0.9	3.5	5.3
New Zealand	562	45.2	44.2	53.7	44.2	53.7	1.9	0.2	38.4	50.9
Norway (9)	897	33.6	32.1	63.3	32.1	63.3	4.0	0.6	36.0	31.4
Oman	713	19.8	19.4	78.6	19.4	78.6	1.6	0.4	24.0	16.0
Palestinian Nat'l Auth.	557	12.2	12.1	87.3	12.1	87.3	0.5	0.0	13.8	10.7
Portugal	782	45.5	44.8	53.5	44.8	53.5	1.7	0.0	44.4	46.6
Qatar	616	33.4	32.8	65.3	32.8	65.3	1.1	0.8	35.0	32.0
Romania	537	25.5	24.9	72.8	24.9	72.8	1.8	0.5	29.5	22.1
Saudi Arabia	509	14.8	14.7	84.6	14.7	84.6	0.5	0.2	16.8	12.9
Singapore	945	60.7	60.6	39.2	60.6	39.2	0.1	0.1	58.1	63.1
Sweden	722	47.8	46.0	50.2	46.0	50.2	3.0	0.7	46.5	49.2
Turkiye	708	54.3	54.0	45.5	54.0	45.5	0.5	0.0	52.5	56.2
United Arab Emirates	4027	33.2	32.3	64.9	32.3	64.9	1.8	1.0	32.8	33.6
United States	1135	49.8	48.7	49.0	48.7	49.0	0.8	1.5	48.2	51.4
Uzbekistan	632	6.6	6.2	88.4	6.2	88.4	3.9	1.4	5.8	7.3
International Avg. (40)	36621	35.4	34.6	62.9	34.6	62.9	2.0	0.5	34.8	36.0
Abu Dhabi, UAE	1042	27.4	26.5	70.2	26.5	70.2	2.2	1.1	25.5	29.2
Dubai, UAE	1172	48.2	46.8	50.2	46.8	50.2	2.1	0.9	46.8	49.5
Sharjah, UAE	925	27.8	27.1	70.2	27.1	70.2	1.4	1.3	28.9	26.8

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Chemistry / Knowing

B_SD5_06 SE82175: Factors affecting chemical reaction rates (DERIVED) - CR - 1 Point

COUNTRY	N	DIFF %	1 %	0 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1217	35.3	34.9	64.0	34.9	64.0	0.3	0.7	35.0	35.8
Austria	678	26.9	26.8	73.0	26.8	73.0	0.2	0.0	30.1	24.2
Azerbaijan	884	23.7	22.7	72.9	22.7	72.9	2.8	1.6	26.1	21.7
Bahrain	750	27.2	26.9	71.8	26.9	71.8	0.5	0.8	34.1	20.3
Brazil	3274	21.8	21.1	75.7	21.1	75.7	0.9	2.2	24.8	19.0
Chile	645	26.5	25.2	69.8	25.2	69.8	3.3	1.6	28.4	24.5
Chinese Taipei	1105	43.0	43.0	56.9	43.0	56.9	0.1	0.0	38.0	47.6
Cyprus	611	20.7	20.6	78.8	20.6	78.8	0.2	0.4	24.7	16.8
Czech Republic	1175	32.5	32.3	67.1	32.3	67.1	0.6	0.0	33.1	32.0
England	603	38.9	38.5	60.3	38.5	60.3	0.7	0.5	41.6	36.1
Finland	850	50.6	49.6	48.5	49.6	48.5	1.6	0.2	54.8	46.5
France	656	28.6	28.4	70.9	28.4	70.9	0.6	0.1	30.9	26.4
Georgia	701	17.9	17.5	80.1	17.5	80.1	1.2	1.2	17.9	18.0
Hong Kong SAR	640	36.3	36.0	63.1	36.0	63.1	0.7	0.2	38.2	34.5
Hungary	801	28.0	28.0	72.0	28.0	72.0	0.0	0.0	31.6	24.7
Ireland	712	36.4	36.2	63.2	36.2	63.2	0.3	0.2	38.0	35.2
Israel	749	31.8	31.2	67.1	31.2	67.1	1.2	0.5	33.5	30.1
Italy	676	28.2	28.0	71.6	28.0	71.6	0.2	0.2	26.9	29.3
Japan	780	38.2	38.0	61.5	38.0	61.5	0.2	0.3	37.1	39.4
Jordan	592	11.6	11.6	88.0	11.6	88.0	0.2	0.3	16.0	7.6
Kazakhstan	923	21.9	21.4	76.2	21.4	76.2	1.4	1.1	21.9	21.9
Korea, Rep. of	841	18.7	18.7	81.1	18.7	81.1	0.1	0.1	15.8	21.6
Lithuania	792	43.0	43.0	56.9	43.0	56.9	0.0	0.1	42.4	43.7
Malaysia	1278	28.5	27.8	69.7	27.8	69.7	0.8	1.6	28.5	28.6
Malta	584	34.5	34.2	64.9	34.2	64.9	0.6	0.3	34.8	34.1
Morocco	763	4.9	4.7	91.9	4.7	91.9	2.4	0.9	3.1	6.6
New Zealand	562	28.7	28.6	71.0	28.6	71.0	0.1	0.2	29.6	28.0
Norway (9)	897	14.2	13.8	83.8	13.8	83.8	1.6	0.8	16.2	12.3
Oman	713	16.0	15.9	83.5	15.9	83.5	0.2	0.5	19.9	12.4
Palestinian Nat'l Auth.	557	17.8	17.7	81.9	17.7	81.9	0.3	0.0	23.6	12.2
Portugal	782	36.1	36.1	63.9	36.1	63.9	0.0	0.0	34.4	37.7
Qatar	616	27.7	27.3	71.3	27.3	71.3	0.7	0.8	28.5	26.9
Romania	537	21.7	21.4	77.3	21.4	77.3	0.8	0.5	25.1	18.6
Saudi Arabia	509	27.0	26.7	72.4	26.7	72.4	0.4	0.4	31.9	22.5
Singapore	945	52.7	52.6	47.2	52.6	47.2	0.1	0.1	51.4	53.9
Sweden	722	31.9	31.0	66.2	31.0	66.2	1.8	1.0	33.2	30.6
Turkiye	708	40.8	40.8	59.2	40.8	59.2	0.0	0.0	41.5	40.0
United Arab Emirates	4028	32.2	31.6	66.5	31.6	66.5	0.6	1.3	33.3	31.2
United States	1135	32.8	32.1	65.6	32.1	65.6	0.5	1.8	35.3	30.5
Uzbekistan	632	10.4	9.9	85.3	9.9	85.3	2.8	2.0	9.7	11.0
International Avg. (40)	36623	28.6	28.3	70.3	28.3	70.3	0.8	0.6	30.0	27.3
Abu Dhabi, UAE	1043	24.6	24.0	73.6	24.0	73.6	0.7	1.7	26.9	22.4
Dubai, UAE	1172	42.0	41.3	57.0	41.3	57.0	0.5	1.2	42.5	41.6
Sharjah, UAE	925	30.9	30.3	67.7	30.3	67.7	0.5	1.5	33.5	28.3

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Chemistry / Knowing

B_SD5_06A SE82175A: Factors affecting chemical reaction rates - temperature - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1217	71.7	71.0	28.0	0.3	0.7	73.1	70.2
Austria	678	64.3	64.2	35.6	0.2	0.0	63.7	64.9
Azerbaijan	884	68.9	65.5	29.6	3.3	1.7	74.7	63.8
Bahrain	750	71.9	71.0	27.8	0.5	0.8	74.7	69.0
Brazil	3274	58.5	56.6	40.1	1.1	2.2	62.2	54.9
Chile	645	51.1	48.5	46.5	3.3	1.6	52.6	49.4
Chinese Taipei	1105	85.2	85.1	14.8	0.1	0.0	86.2	84.3
Cyprus	611	68.7	67.9	31.0	0.6	0.6	71.8	65.6
Czech Republic	1175	69.1	68.7	30.7	0.6	0.0	70.5	67.9
England	603	72.3	71.4	27.4	0.7	0.5	73.7	70.8
Finland	850	80.8	79.3	18.9	1.6	0.2	80.1	81.4
France	656	62.8	62.1	36.9	1.0	0.1	59.1	66.4
Georgia	701	56.0	54.1	42.5	2.2	1.2	53.1	58.7
Hong Kong SAR	640	61.0	60.5	38.7	0.7	0.2	58.3	63.6
Hungary	801	61.6	61.6	38.4	0.0	0.0	66.6	57.0
Ireland	712	72.2	71.9	27.6	0.3	0.2	72.0	72.4
Israel	749	71.9	70.6	27.6	1.3	0.5	75.0	68.9
Italy	676	65.9	65.7	34.0	0.2	0.2	67.2	64.8
Japan	780	71.7	71.2	28.2	0.3	0.3	71.3	72.0
Jordan	592	53.2	52.9	46.6	0.2	0.3	52.0	54.3
Kazakhstan	923	60.8	59.1	38.1	1.7	1.1	58.9	62.5
Korea, Rep. of	841	55.8	55.6	44.1	0.1	0.1	55.1	56.4
Lithuania	792	75.8	75.5	24.2	0.2	0.1	73.7	77.8
Malaysia	1278	67.2	65.5	31.9	0.9	1.6	67.9	66.4
Malta	584	69.0	68.4	30.7	0.6	0.3	69.1	69.0
Morocco	763	45.5	43.9	52.5	2.8	0.9	46.3	44.8
New Zealand	562	69.2	68.9	30.7	0.1	0.2	71.0	67.6
Norway (9)	897	65.2	63.5	34.0	1.8	0.8	64.4	65.9
Oman	713	57.3	56.9	42.4	0.2	0.5	56.9	57.7
Palestinian Nat'l Auth.	557	55.6	55.4	44.2	0.3	0.0	59.8	51.7
Portugal	782	66.8	66.7	33.2	0.1	0.0	63.4	69.9
Qatar	616	67.5	66.5	32.1	0.7	0.8	69.5	65.7
Romania	537	51.4	50.7	48.0	0.8	0.5	53.8	49.3
Saudi Arabia	509	74.7	74.1	25.1	0.4	0.4	76.2	73.4
Singapore	945	82.3	82.1	17.7	0.1	0.1	82.0	82.6
Sweden	722	70.3	68.3	28.8	1.9	1.0	69.8	70.9
Turkiye	708	77.3	77.3	22.7	0.0	0.0	75.2	79.6
United Arab Emirates	4028	72.5	71.0	26.9	0.8	1.3	73.1	72.0
United States	1135	67.6	66.0	31.7	0.5	1.8	71.5	63.8
Uzbekistan	632	52.6	50.1	45.1	2.8	2.0	45.2	59.7
International Avg. (40)	36623	66.1	65.1	33.4	0.9	0.6	66.5	65.7
Abu Dhabi, UAE	1043	67.0	65.3	32.2	0.9	1.7	68.3	65.7
Dubai, UAE	1172	78.3	76.7	21.2	0.9	1.2	78.9	77.8
Sharjah, UAE	925	71.3	69.8	28.2	0.5	1.5	72.1	70.5

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Chemistry / Knowing

B_SD5_06B SE82175B: Factors affecting chemical reaction rates - light - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1217	88.3	11.6	87.3	0.3	0.7	86.0	90.5
Austria	678	90.6	9.3	90.5	0.2	0.0	91.6	89.9
Azerbaijan	884	84.4	14.8	80.3	3.3	1.7	87.3	82.0
Bahrain	750	81.9	17.9	80.8	0.5	0.8	86.3	77.5
Brazil	3274	82.1	17.3	79.5	1.1	2.2	84.4	79.9
Chile	645	89.1	10.4	84.7	3.3	1.6	89.8	88.3
Chinese Taipei	1105	89.9	10.1	89.8	0.1	0.0	90.6	89.3
Cyprus	611	76.9	22.9	76.0	0.6	0.6	78.0	75.8
Czech Republic	1175	94.6	5.4	94.0	0.6	0.0	95.0	94.2
England	603	88.5	11.4	87.5	0.7	0.5	89.2	87.8
Finland	850	89.1	10.7	87.4	1.6	0.2	90.8	87.4
France	656	85.1	14.8	84.2	1.0	0.1	89.4	80.8
Georgia	701	88.8	10.8	85.8	2.2	1.2	89.1	88.5
Hong Kong SAR	640	86.2	13.7	85.5	0.7	0.2	85.9	86.5
Hungary	801	88.0	12.0	88.0	0.0	0.0	90.7	85.5
Ireland	712	87.0	13.0	86.5	0.3	0.2	86.3	87.5
Israel	749	88.2	11.6	86.6	1.3	0.5	89.2	87.2
Italy	676	85.0	15.0	84.6	0.2	0.2	85.3	84.7
Japan	780	88.7	11.2	88.2	0.3	0.3	89.7	87.7
Jordan	592	83.0	16.9	82.7	0.2	0.3	85.7	80.6
Kazakhstan	923	85.2	14.4	82.9	1.7	1.1	84.7	85.7
Korea, Rep. of	841	81.6	18.4	81.4	0.1	0.1	79.4	83.7
Lithuania	792	87.3	12.6	87.1	0.2	0.1	86.7	88.0
Malaysia	1278	80.7	18.8	78.7	0.9	1.6	82.0	79.4
Malta	584	85.3	14.6	84.5	0.6	0.3	85.4	85.1
Morocco	763	73.4	25.6	70.7	2.8	0.9	77.8	69.3
New Zealand	562	90.7	9.2	90.4	0.1	0.2	90.9	90.6
Norway (9)	897	87.8	11.8	85.6	1.8	0.8	88.5	87.3
Oman	713	84.5	15.4	83.9	0.2	0.5	89.4	79.9
Palestinian Nat'l Auth.	557	78.2	21.7	78.0	0.3	0.0	83.1	73.5
Portugal	782	82.2	17.7	82.1	0.1	0.0	83.9	80.7
Qatar	616	86.5	13.3	85.2	0.7	0.8	89.3	84.0
Romania	537	87.7	12.1	86.6	0.8	0.5	90.0	85.7
Saudi Arabia	509	84.0	15.9	83.3	0.4	0.4	86.7	81.5
Singapore	945	84.0	16.0	83.8	0.1	0.1	82.2	85.6
Sweden	722	84.2	15.3	81.8	1.9	1.0	84.1	84.4
Turkiye	708	84.6	15.4	84.6	0.0	0.0	85.7	83.3
United Arab Emirates	4028	85.7	14.0	83.9	0.8	1.3	87.5	84.1
United States	1135	86.6	13.1	84.6	0.5	1.8	87.5	85.8
Uzbekistan	632	76.0	22.9	72.3	2.8	2.0	74.7	77.2
International Avg. (40)	36623	85.3	14.5	84.0	0.9	0.6	86.5	84.2
Abu Dhabi, UAE	1043	79.6	19.9	77.6	0.9	1.7	81.1	78.1
Dubai, UAE	1172	89.9	9.9	88.1	0.9	1.2	89.2	90.6
Sharjah, UAE	925	88.3	11.5	86.5	0.5	1.5	90.9	85.6

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Chemistry / Knowing

B_SD5_06C SE82175C: Factors affecting chemical reaction rates - container shape - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1217	79.9	19.9	79.0	0.3	0.7	80.9	79.1
Austria	678	83.5	16.4	83.4	0.2	0.0	85.8	81.6
Azerbaijan	884	76.2	22.6	72.4	3.3	1.7	78.2	74.4
Bahrain	750	80.9	18.8	79.9	0.5	0.8	87.6	74.2
Brazil	3274	79.2	20.1	76.6	1.1	2.2	80.8	77.7
Chile	645	78.7	20.3	74.7	3.3	1.6	81.2	75.8
Chinese Taipei	1105	93.4	6.6	93.3	0.1	0.0	94.8	92.1
Cyprus	611	77.5	22.2	76.6	0.6	0.6	82.2	73.0
Czech Republic	1175	78.1	21.7	77.7	0.6	0.0	81.1	75.5
England	603	84.5	15.3	83.5	0.7	0.5	89.3	79.5
Finland	850	84.0	15.7	82.5	1.6	0.2	87.3	80.9
France	656	73.0	26.7	72.2	1.0	0.1	75.0	71.0
Georgia	701	84.3	15.2	81.4	2.2	1.2	84.5	84.0
Hong Kong SAR	640	81.1	18.7	80.4	0.7	0.2	87.3	75.3
Hungary	801	75.9	24.1	75.9	0.0	0.0	78.9	73.1
Ireland	712	83.6	16.3	83.1	0.3	0.2	84.3	83.0
Israel	749	82.0	17.6	80.5	1.3	0.5	83.9	80.3
Italy	676	82.8	17.1	82.5	0.2	0.2	85.0	81.0
Japan	780	89.7	10.3	89.1	0.3	0.3	89.3	90.0
Jordan	592	82.4	17.6	82.0	0.2	0.3	83.9	80.9
Kazakhstan	923	81.9	17.6	79.6	1.7	1.1	85.9	78.4
Korea, Rep. of	841	95.3	4.7	95.0	0.1	0.1	95.6	94.9
Lithuania	792	83.7	16.2	83.5	0.2	0.1	84.6	82.8
Malaysia	1278	76.0	23.4	74.1	0.9	1.6	78.4	73.5
Malta	584	80.4	19.5	79.6	0.6	0.3	82.3	78.4
Morocco	763	75.8	23.4	73.0	2.8	0.9	78.0	73.6
New Zealand	562	75.3	24.6	75.1	0.1	0.2	77.8	73.1
Norway (9)	897	53.7	45.2	52.3	1.8	0.8	53.4	53.9
Oman	713	88.4	11.5	87.8	0.2	0.5	92.5	84.6
Palestinian Nat'l Auth.	557	81.3	18.7	81.0	0.3	0.0	85.1	77.6
Portugal	782	85.0	15.0	84.9	0.1	0.0	87.1	83.0
Qatar	616	85.1	14.7	83.9	0.7	0.8	88.3	82.4
Romania	537	80.9	18.8	79.9	0.8	0.5	82.2	79.8
Saudi Arabia	509	78.4	21.5	77.7	0.4	0.4	83.0	74.2
Singapore	945	88.1	11.8	88.0	0.1	0.1	90.8	85.7
Sweden	722	75.9	23.4	73.7	1.9	1.0	79.4	72.1
Turkiye	708	86.3	13.7	86.3	0.0	0.0	90.7	81.4
United Arab Emirates	4028	82.0	17.6	80.3	0.8	1.3	85.0	79.1
United States	1135	78.4	21.1	76.6	0.5	1.8	82.8	74.2
Uzbekistan	632	79.5	19.6	75.6	2.8	2.0	79.0	79.9
International Avg. (40)	36623	81.0	18.6	79.9	0.9	0.6	83.6	78.6
Abu Dhabi, UAE	1043	75.2	24.2	73.3	0.9	1.7	77.8	72.6
Dubai, UAE	1172	86.5	13.2	84.7	0.9	1.2	88.9	84.3
Sharjah, UAE	925	85.3	14.4	83.6	0.5	1.5	87.5	83.1

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Chemistry / Knowing

B_SD5_06D SE82175D: Factors affecting chemical reaction rates - stirring - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1217	62.4	61.8	37.2	0.3	0.7	65.2	59.8
Austria	678	65.4	65.3	34.5	0.2	0.0	71.9	60.0
Azerbaijan	884	51.4	48.9	46.2	3.3	1.7	54.8	48.5
Bahrain	750	51.2	50.5	48.2	0.5	0.8	54.2	48.2
Brazil	3274	57.8	55.9	40.8	1.1	2.2	61.4	54.4
Chile	645	68.4	65.0	30.0	3.3	1.6	68.5	68.3
Chinese Taipei	1105	58.0	58.0	41.9	0.1	0.0	50.1	65.3
Cyprus	611	55.2	54.6	44.3	0.6	0.6	59.5	51.0
Czech Republic	1175	65.1	64.7	34.7	0.6	0.0	62.5	67.5
England	603	63.4	62.7	36.1	0.7	0.5	64.3	62.6
Finland	850	77.2	75.7	22.4	1.6	0.2	80.1	74.3
France	656	73.1	72.4	26.6	1.0	0.1	77.4	68.9
Georgia	701	51.6	49.8	46.8	2.2	1.2	54.7	48.7
Hong Kong SAR	640	71.6	71.0	28.2	0.7	0.2	68.8	74.2
Hungary	801	68.8	68.8	31.2	0.0	0.0	68.0	69.4
Ireland	712	60.7	60.4	39.1	0.3	0.2	63.3	58.6
Israel	749	51.9	51.0	47.2	1.3	0.5	52.8	51.1
Italy	676	56.3	56.1	43.5	0.2	0.2	55.0	57.5
Japan	780	68.5	68.1	31.3	0.3	0.3	66.0	71.1
Jordan	592	39.8	39.6	60.0	0.2	0.3	43.3	36.5
Kazakhstan	923	52.0	50.6	46.7	1.7	1.1	50.8	53.0
Korea, Rep. of	841	52.7	52.6	47.2	0.1	0.1	52.7	52.7
Lithuania	792	70.1	69.9	29.8	0.2	0.1	71.3	69.0
Malaysia	1278	62.1	60.5	36.9	0.9	1.6	63.7	60.4
Malta	584	61.9	61.3	37.8	0.6	0.3	63.1	60.6
Morocco	763	32.8	31.6	64.8	2.8	0.9	24.9	40.2
New Zealand	562	59.6	59.4	40.2	0.1	0.2	56.9	62.0
Norway (9)	897	52.9	51.5	46.0	1.8	0.8	58.1	48.0
Oman	713	39.0	38.7	60.6	0.2	0.5	39.5	38.5
Palestinian Nat'l Auth.	557	35.9	35.8	63.8	0.3	0.0	36.9	35.0
Portugal	782	70.4	70.4	29.5	0.1	0.0	64.6	75.8
Qatar	616	48.3	47.5	51.0	0.7	0.8	47.5	48.9
Romania	537	50.1	49.5	49.2	0.8	0.5	51.1	49.3
Saudi Arabia	509	56.6	56.2	43.0	0.4	0.4	61.2	52.5
Singapore	945	81.2	81.1	18.7	0.1	0.1	80.5	81.9
Sweden	722	63.8	61.9	35.2	1.9	1.0	63.8	63.7
Turkiye	708	71.9	71.9	28.1	0.0	0.0	68.6	75.6
United Arab Emirates	4028	55.8	54.6	43.3	0.8	1.3	56.1	55.5
United States	1135	62.5	61.0	36.6	0.5	1.8	60.5	64.4
Uzbekistan	632	40.6	38.7	56.5	2.8	2.0	36.7	44.4
International Avg. (40)	36623	58.5	57.6	40.9	0.9	0.6	58.8	58.2
Abu Dhabi, UAE	1043	54.6	53.2	44.2	0.9	1.7	55.2	54.1
Dubai, UAE	1172	61.9	60.6	37.4	0.9	1.2	62.2	61.5
Sharjah, UAE	925	52.7	51.6	46.4	0.5	1.5	55.6	49.7

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Chemistry / Knowing

B_SD5_06E SE82175E: Factors affecting chemical reaction rates - concentration - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1217	86.1	85.2	13.8	0.3	0.7	85.1	87.0
Austria	678	79.2	79.1	20.7	0.2	0.0	77.4	80.8
Azerbaijan	884	68.8	65.4	29.6	3.3	1.7	72.9	65.3
Bahrain	750	76.4	75.4	23.3	0.5	0.8	81.4	71.3
Brazil	3274	65.7	63.5	33.2	1.1	2.2	69.4	62.1
Chile	645	76.7	72.9	22.2	3.3	1.6	79.5	73.6
Chinese Taipei	1105	93.9	93.8	6.1	0.1	0.0	96.0	92.0
Cyprus	611	68.5	67.7	31.1	0.6	0.6	70.3	66.7
Czech Republic	1175	82.6	82.1	17.3	0.6	0.0	84.3	81.1
England	603	92.1	91.0	7.8	0.7	0.5	93.8	90.2
Finland	850	88.7	87.1	11.0	1.6	0.2	93.0	84.7
France	656	79.8	79.0	20.0	1.0	0.1	83.2	76.5
Georgia	701	67.8	65.5	31.1	2.2	1.2	73.0	63.0
Hong Kong SAR	640	82.7	82.0	17.1	0.7	0.2	84.6	80.9
Hungary	801	76.6	76.6	23.4	0.0	0.0	80.8	72.8
Ireland	712	88.5	88.0	11.5	0.3	0.2	91.5	86.1
Israel	749	81.7	80.2	17.9	1.3	0.5	85.2	78.4
Italy	676	83.0	82.6	17.0	0.2	0.2	87.6	79.0
Japan	780	90.6	90.1	9.4	0.3	0.3	91.6	89.6
Jordan	592	54.1	53.9	45.7	0.2	0.3	63.0	45.8
Kazakhstan	923	75.3	73.2	24.0	1.7	1.1	81.6	69.9
Korea, Rep. of	841	85.2	85.0	14.8	0.1	0.1	85.7	84.7
Lithuania	792	89.2	89.0	10.7	0.2	0.1	91.2	87.2
Malaysia	1278	76.2	74.3	23.2	0.9	1.6	77.2	75.2
Malta	584	80.5	79.7	19.3	0.6	0.3	80.8	80.2
Morocco	763	30.2	29.1	67.3	2.8	0.9	31.8	28.6
New Zealand	562	81.5	81.2	18.4	0.1	0.2	83.2	80.0
Norway (9)	897	72.4	70.6	26.9	1.8	0.8	73.9	71.0
Oman	713	62.9	62.5	36.8	0.2	0.5	69.9	56.5
Palestinian Nat'l Auth.	557	65.7	65.5	34.2	0.3	0.0	75.5	56.3
Portugal	782	82.8	82.7	17.2	0.1	0.0	84.9	80.9
Qatar	616	82.2	81.0	17.5	0.7	0.8	83.6	81.0
Romania	537	79.5	78.5	20.2	0.8	0.5	87.3	72.8
Saudi Arabia	509	67.6	67.0	32.1	0.4	0.4	76.8	59.3
Singapore	945	90.6	90.4	9.4	0.1	0.1	91.9	89.3
Sweden	722	80.5	78.2	19.0	1.9	1.0	84.5	76.3
Turkiye	708	89.1	89.1	10.9	0.0	0.0	93.4	84.5
United Arab Emirates	4028	83.4	81.7	16.2	0.8	1.3	86.7	80.3
United States	1135	87.8	85.7	12.0	0.5	1.8	88.3	87.2
Uzbekistan	632	59.9	57.0	38.2	2.8	2.0	66.6	53.4
International Avg. (40)	36623	77.7	76.6	21.9	0.9	0.6	81.0	74.5
Abu Dhabi, UAE	1043	76.7	74.8	22.7	0.9	1.7	80.7	72.9
Dubai, UAE	1172	90.8	89.0	9.0	0.9	1.2	90.8	90.8
Sharjah, UAE	925	84.0	82.3	15.7	0.5	1.5	88.9	79.0

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Chemistry / Applying

B_SD5_07 SE82104: Classify models of matter (DERIVED) - CR - 1 Point

COUNTRY	N	DIFF %	1 %	0 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1217	35.6	35.0	63.2	35.0	63.2	1.1	0.8	33.9	37.6
Austria	678	33.6	33.3	65.7	33.3	65.7	1.0	0.0	33.3	33.9
Azerbaijan	884	24.6	23.0	70.5	23.0	70.5	4.4	2.1	27.8	21.8
Bahrain	750	22.1	21.7	76.3	21.7	76.3	1.1	1.0	25.7	18.5
Brazil	3274	11.9	11.2	83.4	11.2	83.4	2.8	2.6	13.9	9.9
Chile	645	15.5	14.4	78.6	14.4	78.6	5.2	1.8	15.0	16.1
Chinese Taipei	1105	29.1	29.1	70.8	29.1	70.8	0.1	0.0	29.5	28.8
Cyprus	611	24.8	24.3	73.8	24.3	73.8	1.1	0.8	26.9	22.7
Czech Republic	1175	27.3	27.0	71.8	27.0	71.8	1.0	0.1	29.7	25.2
England	603	40.2	39.4	58.5	39.4	58.5	1.6	0.6	38.9	41.6
Finland	850	40.7	40.0	58.4	40.0	58.4	1.3	0.3	42.6	38.9
France	656	28.0	27.8	71.3	27.8	71.3	0.8	0.1	31.2	24.8
Georgia	701	21.6	20.7	75.1	20.7	75.1	2.9	1.3	23.8	19.6
Hong Kong SAR	640	20.2	19.9	78.5	19.9	78.5	1.4	0.2	18.7	21.7
Hungary	801	31.0	30.9	68.9	30.9	68.9	0.2	0.0	29.2	32.6
Ireland	712	28.3	27.9	70.6	27.9	70.6	1.1	0.4	28.5	28.2
Israel	749	28.2	27.8	70.7	27.8	70.7	0.8	0.7	29.1	27.2
Italy	676	28.6	28.2	70.5	28.2	70.5	1.1	0.2	27.5	29.5
Japan	780	30.0	29.9	69.7	29.9	69.7	0.1	0.3	28.7	31.4
Jordan	592	21.4	21.1	77.4	21.1	77.4	1.3	0.3	25.9	17.2
Kazakhstan	923	24.9	24.1	72.9	24.1	72.9	1.3	1.6	23.2	26.3
Korea, Rep. of	841	30.3	30.1	69.1	30.1	69.1	0.6	0.2	32.3	28.4
Lithuania	792	42.6	42.4	57.2	42.4	57.2	0.3	0.1	50.2	34.7
Malaysia	1278	17.1	16.7	80.7	16.7	80.7	0.4	2.2	19.7	14.4
Malta	584	34.0	33.8	65.5	33.8	65.5	0.4	0.3	33.8	34.3
Morocco	763	8.9	8.6	88.7	8.6	88.7	1.0	1.7	11.1	6.7
New Zealand	562	29.3	28.8	69.6	28.8	69.6	1.4	0.2	25.7	32.3
Norway (9)	897	28.5	27.4	68.9	27.4	68.9	2.5	1.1	29.5	27.6
Oman	713	17.2	17.1	82.1	17.1	82.1	0.3	0.5	20.3	14.3
Palestinian Nat'l Auth.	557	20.4	20.2	78.9	20.2	78.9	0.6	0.2	22.4	18.5
Portugal	782	24.8	24.7	75.1	24.7	75.1	0.2	0.0	28.2	21.6
Qatar	616	30.0	29.4	68.5	29.4	68.5	1.0	1.2	33.3	27.2
Romania	537	28.5	27.6	69.2	27.6	69.2	2.7	0.5	30.2	27.0
Saudi Arabia	509	16.8	16.7	82.3	16.7	82.3	0.4	0.6	21.1	13.0
Singapore	945	50.1	49.9	49.8	49.9	49.8	0.1	0.2	50.4	49.8
Sweden	722	30.4	29.5	67.5	29.5	67.5	1.1	1.8	31.2	29.6
Turkiye	708	31.4	31.3	68.2	31.3	68.2	0.5	0.0	30.0	33.0
United Arab Emirates	4028	34.5	33.7	63.9	33.7	63.9	0.8	1.6	35.9	33.2
United States	1135	29.2	28.5	68.9	28.5	68.9	0.7	2.0	28.8	29.7
Uzbekistan	632	14.9	14.0	79.9	14.0	79.9	2.7	3.4	11.7	17.9
International Avg. (40)	36623	27.2	26.7	71.3	26.7	71.3	1.2	0.8	28.2	26.2
Abu Dhabi, UAE	1043	24.9	24.3	73.2	24.3	73.2	0.6	1.9	24.5	25.2
Dubai, UAE	1172	44.5	43.5	54.2	43.5	54.2	0.9	1.3	44.6	44.5
Sharjah, UAE	925	38.9	37.8	59.5	37.8	59.5	0.8	1.8	42.4	35.4

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Chemistry / Applying

B_SD5_07A SE82104A: Classify models of matter - pure compound - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	C %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1217	61.0	13.5	59.5	24.5	1.7	0.8	60.5	61.4
Austria	678	70.7	8.5	70.0	20.5	1.1	0.0	70.6	70.9
Azerbaijan	884	57.3	16.4	51.7	22.2	7.7	2.1	63.1	52.2
Bahrain	750	50.1	16.7	48.6	31.6	2.1	1.0	54.1	46.1
Brazil	3274	34.0	15.9	31.6	45.5	4.4	2.6	38.5	29.6
Chile	645	31.6	16.4	28.7	45.6	7.5	1.8	32.3	30.8
Chinese Taipei	1105	67.8	7.5	67.5	24.6	0.4	0.0	69.0	66.7
Cyprus	611	65.1	10.1	63.6	24.1	1.5	0.8	64.4	65.7
Czech Republic	1175	62.3	21.8	61.4	15.4	1.3	0.1	63.7	60.9
England	603	65.1	10.1	63.4	24.0	2.0	0.6	64.2	66.0
Finland	850	70.3	13.1	68.9	15.9	1.8	0.3	72.0	68.8
France	656	57.5	13.4	56.4	28.2	2.0	0.1	59.7	55.4
Georgia	701	49.0	15.6	45.5	31.9	5.6	1.3	58.9	39.9
Hong Kong SAR	640	39.6	11.1	38.8	48.0	1.9	0.2	41.5	37.8
Hungary	801	54.6	12.5	53.9	32.3	1.3	0.0	53.2	56.0
Ireland	712	51.9	15.7	50.6	31.3	2.1	0.4	54.8	49.5
Israel	749	57.4	9.9	55.7	31.5	2.2	0.7	59.4	55.4
Italy	676	58.3	14.0	57.1	26.9	1.9	0.2	57.7	58.8
Japan	780	67.0	3.6	66.6	29.1	0.4	0.3	68.1	65.9
Jordan	592	44.6	18.2	42.9	35.1	3.5	0.3	49.2	40.2
Kazakhstan	923	53.6	13.9	51.3	30.6	2.7	1.6	50.7	56.1
Korea, Rep. of	841	54.1	16.6	53.4	28.7	1.0	0.2	54.5	53.7
Lithuania	792	78.3	12.4	77.8	9.2	0.5	0.1	80.0	76.6
Malaysia	1278	42.3	20.9	41.0	35.0	0.9	2.2	45.1	39.2
Malta	584	56.0	18.6	55.1	24.7	1.3	0.3	57.9	54.0
Morocco	763	41.5	21.1	38.3	32.8	6.2	1.7	44.6	38.6
New Zealand	562	53.0	19.0	51.4	26.5	2.9	0.2	49.1	56.5
Norway (9)	897	72.9	12.3	69.6	13.6	3.4	1.1	71.9	73.9
Oman	713	53.5	13.4	52.1	31.9	2.1	0.5	57.6	49.7
Palestinian Nat'l Auth.	557	50.1	18.6	48.7	29.9	2.6	0.2	52.3	48.0
Portugal	782	64.4	12.4	64.0	22.9	0.7	0.0	68.7	60.5
Qatar	616	62.9	10.3	60.9	25.6	2.0	1.2	68.6	57.8
Romania	537	52.6	12.8	50.5	32.6	3.6	0.5	54.3	51.1
Saudi Arabia	509	45.0	26.9	43.4	26.2	2.9	0.6	49.3	41.0
Singapore	945	75.7	8.0	75.4	16.2	0.2	0.2	76.8	74.7
Sweden	722	55.3	21.6	53.1	21.4	2.1	1.8	56.1	54.4
Turkiye	708	62.8	10.9	62.0	25.7	1.4	0.0	60.6	65.2
United Arab Emirates	4028	60.7	13.6	58.5	24.3	2.0	1.6	61.8	59.6
United States	1135	54.5	16.0	52.8	28.2	1.0	2.0	55.5	53.5
Uzbekistan	632	40.4	26.0	35.1	25.8	9.7	3.4	39.3	41.5
International Avg. (40)	36623	56.1	14.7	54.4	27.5	2.5	0.8	57.7	54.6
Abu Dhabi, UAE	1043	52.8	17.6	50.6	27.7	2.1	1.9	53.6	51.9
Dubai, UAE	1172	67.6	8.5	65.3	22.7	2.1	1.3	67.2	68.0
Sharjah, UAE	925	64.3	13.1	62.1	21.3	1.6	1.8	67.5	61.1

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Chemistry / Applying

B_SD5_07B SE82104B: Classify models of matter - mixture 1 - MC - Key: C

COUNTRY	N	DIFF %	A %	B %	C %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1217	55.1	15.1	28.8	53.8	1.5	0.8	52.5	58.0
Austria	678	47.0	27.8	24.5	46.5	1.2	0.0	45.6	48.2
Azerbaijan	884	49.8	15.9	29.2	44.8	8.0	2.1	55.6	44.8
Bahrain	750	43.7	19.8	34.0	41.8	3.4	1.0	46.3	41.0
Brazil	3274	31.5	18.4	44.6	28.9	5.6	2.6	34.1	29.0
Chile	645	39.7	13.5	40.7	35.7	8.3	1.8	38.0	41.6
Chinese Taipei	1105	39.5	21.7	38.6	39.4	0.3	0.0	39.6	39.4
Cyprus	611	38.6	31.3	28.7	37.7	1.5	0.8	40.1	37.1
Czech Republic	1175	54.2	14.7	30.5	53.4	1.4	0.1	54.5	53.8
England	603	58.2	13.3	27.6	56.9	1.7	0.6	53.9	62.7
Finland	850	52.9	13.9	32.2	51.8	1.9	0.3	55.9	50.1
France	656	48.9	14.2	35.3	47.4	3.0	0.1	50.6	47.3
Georgia	701	42.5	16.0	37.5	39.5	5.7	1.3	45.1	40.0
Hong Kong SAR	640	34.3	18.0	46.1	33.4	2.3	0.2	33.0	35.4
Hungary	801	47.3	14.7	37.5	46.9	0.9	0.0	43.8	50.4
Ireland	712	56.3	17.4	25.0	54.7	2.5	0.4	56.8	55.9
Israel	749	44.7	14.5	39.6	43.6	1.7	0.7	44.9	44.4
Italy	676	45.1	13.7	39.6	43.9	2.6	0.2	41.1	48.5
Japan	780	40.7	32.1	26.9	40.5	0.3	0.3	38.7	42.8
Jordan	592	50.0	16.7	30.9	47.8	4.3	0.3	52.6	47.5
Kazakhstan	923	41.1	22.5	33.8	39.2	2.8	1.6	36.3	45.2
Korea, Rep. of	841	38.7	14.4	46.1	38.3	0.9	0.2	40.3	37.2
Lithuania	792	63.2	17.1	19.1	62.2	1.4	0.1	64.5	61.7
Malaysia	1278	38.1	25.6	34.5	37.0	0.8	2.2	42.1	33.8
Malta	584	55.0	17.7	26.3	53.9	1.7	0.3	53.7	56.4
Morocco	763	29.4	28.8	36.7	27.3	5.6	1.7	31.8	27.1
New Zealand	562	51.6	18.3	28.6	50.0	2.9	0.2	51.3	51.9
Norway (9)	897	51.7	25.5	20.4	49.0	3.9	1.1	52.8	50.6
Oman	713	43.8	19.6	35.1	42.6	2.2	0.5	45.3	42.4
Palestinian Nat'l Auth.	557	43.8	18.6	35.7	42.4	3.2	0.2	45.3	42.4
Portugal	782	41.6	31.4	26.6	41.3	0.6	0.0	45.6	37.9
Qatar	616	52.7	18.4	27.4	50.9	2.2	1.2	49.7	55.4
Romania	537	51.2	13.5	33.5	49.3	3.2	0.5	55.7	47.1
Saudi Arabia	509	41.8	18.8	37.1	40.2	3.3	0.6	42.7	41.0
Singapore	945	65.2	16.5	18.2	64.9	0.2	0.2	66.0	64.5
Sweden	722	49.5	19.2	29.3	47.5	2.1	1.8	51.9	47.0
Turkiye	708	43.4	27.6	28.2	42.8	1.4	0.0	40.5	46.5
United Arab Emirates	4028	52.2	16.9	29.3	50.3	2.0	1.6	52.3	52.0
United States	1135	49.2	19.6	29.7	47.7	1.1	2.0	49.4	49.0
Uzbekistan	632	39.5	19.1	31.9	33.3	12.4	3.4	38.6	40.3
International Avg. (40)	36623	46.6	19.3	32.1	45.0	2.8	0.8	47.0	46.2
Abu Dhabi, UAE	1043	42.6	20.9	34.5	41.1	1.6	1.9	39.7	45.4
Dubai, UAE	1172	60.4	13.0	25.4	58.5	1.7	1.3	62.2	58.6
Sharjah, UAE	925	58.1	13.8	26.5	55.8	2.1	1.8	58.9	57.2

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Chemistry / Applying

B_SD5_07C SE82104C: Classify models of matter - pure element - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	C %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1217	82.1	80.1	13.6	3.9	1.6	0.8	80.5	84.0
Austria	678	84.0	83.1	13.2	2.6	1.1	0.0	83.6	84.4
Azerbaijan	884	84.0	75.7	9.5	4.9	7.8	2.1	89.7	78.9
Bahrain	750	71.8	69.2	18.8	8.4	2.6	1.0	76.8	66.7
Brazil	3274	75.2	69.2	17.4	5.4	5.5	2.6	78.7	71.8
Chile	645	74.7	68.7	19.1	4.2	6.2	1.8	78.0	71.1
Chinese Taipei	1105	93.7	93.3	5.4	0.8	0.4	0.0	93.1	94.2
Cyprus	611	82.9	80.7	9.6	7.0	1.9	0.8	83.4	82.4
Czech Republic	1175	78.1	76.6	11.0	10.5	1.8	0.1	82.5	74.1
England	603	84.9	83.0	11.3	3.5	1.7	0.6	81.8	88.0
Finland	850	88.6	86.9	6.9	4.3	1.5	0.3	90.9	86.4
France	656	88.0	86.8	9.5	2.3	1.4	0.1	89.9	86.1
Georgia	701	78.0	72.5	15.6	4.8	5.7	1.3	80.8	75.3
Hong Kong SAR	640	82.9	80.5	13.1	3.5	2.7	0.2	84.3	81.5
Hungary	801	83.2	82.7	14.4	2.3	0.5	0.0	84.0	82.4
Ireland	712	74.2	72.1	21.0	4.1	2.4	0.4	73.0	75.2
Israel	749	84.0	82.1	9.4	6.2	1.7	0.7	86.0	82.1
Italy	676	80.2	78.8	10.0	9.4	1.6	0.2	81.7	79.0
Japan	780	95.7	95.2	2.6	1.6	0.3	0.3	98.0	93.5
Jordan	592	71.0	67.3	19.9	7.6	4.9	0.3	74.9	67.1
Kazakhstan	923	76.4	73.1	12.7	9.9	2.7	1.6	78.0	75.0
Korea, Rep. of	841	92.6	91.3	3.6	3.7	1.2	0.2	93.4	91.8
Lithuania	792	88.9	88.2	8.2	2.9	0.6	0.1	94.1	83.5
Malaysia	1278	66.5	64.2	26.4	5.9	1.2	2.2	69.6	63.2
Malta	584	75.1	74.1	18.8	5.8	1.0	0.3	75.9	74.2
Morocco	763	55.2	49.6	20.2	19.9	8.6	1.7	56.8	53.7
New Zealand	562	75.2	72.9	19.3	4.8	2.8	0.2	71.4	78.4
Norway (9)	897	86.5	82.2	8.1	4.6	4.0	1.1	88.9	84.3
Oman	713	72.3	70.2	18.9	8.1	2.3	0.5	79.6	65.1
Palestinian Nat'l Auth.	557	71.1	68.4	19.1	8.8	3.6	0.2	72.7	69.5
Portugal	782	81.8	81.4	14.3	3.7	0.6	0.0	85.3	78.7
Qatar	616	78.5	75.9	13.9	6.9	2.1	1.2	81.8	75.6
Romania	537	82.7	79.5	11.9	4.7	3.4	0.5	89.4	76.6
Saudi Arabia	509	62.3	60.1	21.3	15.1	2.9	0.6	63.4	61.2
Singapore	945	89.1	88.8	9.8	1.0	0.2	0.2	90.3	88.1
Sweden	722	75.2	72.5	21.3	2.7	1.7	1.8	78.2	71.9
Turkiye	708	79.5	78.6	16.8	3.5	1.1	0.0	81.5	77.3
United Arab Emirates	4028	78.2	75.3	13.6	7.3	2.1	1.6	80.4	76.1
United States	1135	78.1	75.9	16.0	5.3	0.9	2.0	78.8	77.4
Uzbekistan	632	60.1	50.6	21.9	11.6	12.6	3.4	56.0	64.3
International Avg. (40)	36623	79.1	76.4	14.2	5.8	2.7	0.8	80.9	77.3
Abu Dhabi, UAE	1043	69.2	66.2	17.9	11.6	2.4	1.9	70.9	67.6
Dubai, UAE	1172	85.9	83.4	10.2	3.4	1.7	1.3	86.5	85.4
Sharjah, UAE	925	81.4	78.5	11.8	6.1	1.8	1.8	85.0	77.8

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Chemistry / Applying

B_SD5_07D SE82104D: Classify models of matter - mixture 2 - MC - Key: C

COUNTRY	N	DIFF %	A %	B %	C %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1217	82.5	3.2	13.7	79.7	2.6	0.8	85.6	79.6
Austria	678	84.3	3.1	12.4	83.1	1.4	0.0	85.5	83.2
Azerbaijan	884	66.0	5.8	24.0	57.9	10.2	2.1	68.3	64.0
Bahrain	750	70.2	9.8	18.7	67.3	3.2	1.0	74.9	65.6
Brazil	3274	67.4	8.3	21.4	61.5	6.2	2.6	68.4	66.6
Chile	645	76.1	6.0	15.4	68.1	8.8	1.8	79.6	72.2
Chinese Taipei	1105	83.0	0.9	15.8	82.1	1.1	0.0	84.2	82.0
Cyprus	611	71.7	5.7	21.8	69.8	1.9	0.8	72.6	70.8
Czech Republic	1175	58.9	6.7	33.5	57.6	2.2	0.1	64.8	53.6
England	603	82.6	3.9	12.9	79.7	3.0	0.6	84.5	80.6
Finland	850	85.4	3.8	10.4	83.0	2.5	0.3	87.4	83.5
France	656	75.2	3.0	21.1	72.9	3.0	0.1	76.4	73.9
Georgia	701	75.5	5.3	17.0	68.8	7.5	1.3	75.7	75.3
Hong Kong SAR	640	74.7	4.7	19.8	72.5	2.9	0.2	73.8	75.6
Hungary	801	87.5	3.1	9.1	85.7	2.0	0.0	88.5	86.6
Ireland	712	80.1	5.3	13.9	77.5	2.9	0.4	79.9	80.3
Israel	749	73.2	5.4	20.6	71.1	2.2	0.7	74.0	72.3
Italy	676	76.1	6.0	17.1	73.7	3.0	0.2	77.2	75.2
Japan	780	75.8	1.3	22.6	74.8	1.1	0.3	76.4	75.2
Jordan	592	65.7	12.0	19.9	61.1	6.7	0.3	68.0	63.5
Kazakhstan	923	68.9	6.6	22.8	65.2	3.7	1.6	70.4	67.6
Korea, Rep. of	841	82.3	3.3	14.2	81.0	1.3	0.2	80.7	83.9
Lithuania	792	78.7	4.6	16.5	77.7	1.1	0.1	85.1	72.0
Malaysia	1278	66.6	9.2	23.0	64.2	1.4	2.2	70.0	63.0
Malta	584	82.0	5.3	12.2	80.1	2.0	0.3	79.5	84.6
Morocco	763	47.7	17.7	29.0	42.6	9.1	1.7	49.4	46.1
New Zealand	562	81.8	5.2	12.2	78.3	4.1	0.2	81.8	81.9
Norway (9)	897	66.9	4.6	26.5	63.1	4.7	1.1	66.6	67.3
Oman	713	66.2	9.2	23.3	63.8	3.1	0.5	71.2	61.4
Palestinian Nat'l Auth.	557	66.0	9.8	22.2	62.1	5.7	0.2	71.3	60.8
Portugal	782	73.1	5.9	20.7	72.3	1.1	0.0	75.5	70.8
Qatar	616	75.5	6.2	17.3	72.4	3.0	1.2	80.2	71.3
Romania	537	75.3	6.5	16.9	71.4	4.7	0.5	76.3	74.4
Saudi Arabia	509	61.2	14.6	21.3	56.6	6.9	0.6	64.4	58.2
Singapore	945	88.1	1.5	10.3	87.4	0.5	0.2	87.7	88.4
Sweden	722	85.2	5.2	8.9	81.6	2.5	1.8	87.0	83.3
Turkiye	708	83.9	5.7	10.2	82.6	1.5	0.0	86.0	81.6
United Arab Emirates	4028	75.8	7.0	16.2	72.7	2.5	1.6	77.9	73.7
United States	1135	81.3	5.4	12.6	78.6	1.4	2.0	79.6	83.0
Uzbekistan	632	69.2	9.5	15.6	56.2	15.4	3.4	67.5	70.9
International Avg. (40)	36623	74.7	6.2	17.8	71.4	3.8	0.8	76.3	73.1
Abu Dhabi, UAE	1043	69.5	9.5	19.4	65.6	3.6	1.9	69.1	69.9
Dubai, UAE	1172	82.2	4.4	12.8	79.6	1.9	1.3	84.0	80.6
Sharjah, UAE	925	76.9	5.7	16.4	74.0	2.0	1.8	80.7	73.1

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Chemistry / Applying

B_SD5_08 SE82172: Classify chemical and physical changes (DERIVED) - CR - 1 Point

COUNTRY	N	DIFF %	1 %	0 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1217	76.1	74.8	23.5	74.8	23.5	0.9	0.8	80.0	72.3
Austria	678	73.7	73.4	26.2	73.4	26.2	0.3	0.0	73.7	73.7
Azerbaijan	884	63.8	60.4	34.3	60.4	34.3	3.1	2.2	68.5	59.7
Bahrain	750	54.6	53.5	44.4	53.5	44.4	0.7	1.5	55.9	53.3
Brazil	3274	56.7	53.7	41.0	53.7	41.0	1.8	3.5	57.7	55.8
Chile	645	60.1	58.0	38.5	58.0	38.5	1.4	2.1	56.0	64.5
Chinese Taipei	1105	83.5	82.2	16.3	82.2	16.3	1.6	0.0	85.0	82.1
Cyprus	611	39.3	38.4	59.4	38.4	59.4	1.3	0.9	40.0	38.5
Czech Republic	1175	74.8	74.4	25.0	74.4	25.0	0.5	0.1	77.2	72.7
England	603	72.4	70.8	26.9	70.8	26.9	1.5	0.8	74.8	70.0
Finland	850	78.8	77.7	20.9	77.7	20.9	1.1	0.3	77.8	79.8
France	656	69.8	69.3	29.9	69.3	29.9	0.6	0.1	69.4	70.3
Georgia	701	66.6	64.3	32.2	64.3	32.2	0.9	2.6	67.3	66.1
Hong Kong SAR	640	72.6	70.8	26.7	70.8	26.7	2.4	0.2	74.6	70.8
Hungary	801	58.3	58.3	41.7	58.3	41.7	0.0	0.0	56.7	59.8
Ireland	712	71.0	70.7	28.9	70.7	28.9	0.1	0.4	74.4	68.2
Israel	749	70.0	68.9	29.5	68.9	29.5	0.8	0.9	71.5	68.6
Italy	676	69.3	68.6	30.4	68.6	30.4	0.7	0.3	70.3	68.5
Japan	780	77.6	75.4	21.8	75.4	21.8	2.5	0.3	75.6	79.5
Jordan	592	44.7	43.4	53.8	43.4	53.8	2.0	0.8	46.7	42.7
Kazakhstan	923	57.8	55.0	40.2	55.0	40.2	2.2	2.5	60.3	55.6
Korea, Rep. of	841	75.9	75.5	24.0	75.5	24.0	0.3	0.2	72.9	78.9
Lithuania	792	76.2	75.8	23.7	75.8	23.7	0.4	0.1	73.3	79.1
Malaysia	1278	50.7	49.2	47.8	49.2	47.8	0.4	2.6	51.7	49.7
Malta	584	65.6	65.2	34.1	65.2	34.1	0.3	0.3	63.1	68.2
Morocco	763	34.0	32.7	63.4	32.7	63.4	2.0	1.8	34.9	33.2
New Zealand	562	74.3	73.5	25.4	73.5	25.4	0.9	0.2	72.3	76.0
Norway (9)	897	68.3	66.5	30.9	66.5	30.9	1.4	1.2	68.9	67.6
Oman	713	45.8	45.0	53.1	45.0	53.1	0.9	1.1	49.1	42.8
Palestinian Nat'l Auth.	557	42.8	41.6	55.6	41.6	55.6	2.0	0.9	43.6	42.1
Portugal	782	73.3	73.0	26.6	73.0	26.6	0.4	0.0	73.8	72.8
Qatar	616	63.7	62.1	35.5	62.1	35.5	0.8	1.6	65.9	61.6
Romania	537	70.3	67.9	28.7	67.9	28.7	2.8	0.5	70.7	69.9
Saudi Arabia	509	53.0	51.2	45.4	51.2	45.4	2.4	1.0	53.3	52.7
Singapore	945	79.8	79.7	20.1	79.7	20.1	0.0	0.2	79.4	80.2
Sweden	722	78.1	75.8	21.3	75.8	21.3	0.8	2.1	75.3	81.0
Turkiye	708	82.5	82.5	17.5	82.5	17.5	0.0	0.0	84.6	80.2
United Arab Emirates	4028	71.6	69.4	27.5	69.4	27.5	1.1	2.1	71.9	71.3
United States	1135	76.7	74.7	22.8	74.7	22.8	0.2	2.4	79.9	73.6
Uzbekistan	632	46.1	41.9	49.1	41.9	49.1	4.5	4.5	51.9	40.5
International Avg. (40)	36623	65.5	64.1	33.6	64.1	33.6	1.2	1.1	66.2	64.9
Abu Dhabi, UAE	1043	64.3	61.9	34.4	61.9	34.4	1.4	2.4	67.7	61.0
Dubai, UAE	1172	79.4	77.1	20.0	77.1	20.0	1.0	1.9	76.6	82.0
Sharjah, UAE	925	71.8	69.6	27.3	69.6	27.3	0.7	2.3	71.0	72.6

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Chemistry / Applying

B_SD5_08A SE82172A: Classify chemical and physical changes - cut logs - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1217	96.4	94.7	3.5	1.0	0.8	96.3	96.8
Austria	678	89.8	89.4	10.2	0.4	0.0	87.8	91.4
Azerbaijan	884	85.9	80.5	13.2	4.1	2.2	88.6	83.7
Bahrain	750	73.9	71.0	25.1	2.4	1.5	72.3	75.5
Brazil	3274	88.0	82.7	11.2	2.6	3.5	88.1	88.0
Chile	645	92.8	89.1	6.9	1.9	2.1	93.4	92.3
Chinese Taipei	1105	95.6	93.9	4.3	1.8	0.0	95.6	95.5
Cyprus	611	75.4	73.0	23.9	2.2	0.9	77.3	73.4
Czech Republic	1175	95.2	94.6	4.7	0.6	0.1	95.9	94.6
England	603	95.6	93.2	4.3	1.7	0.8	95.0	96.2
Finland	850	93.8	92.5	6.1	1.1	0.3	92.4	95.2
France	656	95.7	94.6	4.3	1.1	0.1	97.1	94.3
Georgia	701	90.2	86.5	9.4	1.4	2.6	88.8	91.4
Hong Kong SAR	640	95.5	92.2	4.3	3.3	0.2	95.6	95.5
Hungary	801	95.0	94.8	5.0	0.2	0.0	94.9	95.1
Ireland	712	95.6	95.0	4.4	0.2	0.4	96.4	95.0
Israel	749	84.2	82.6	15.5	1.1	0.9	85.3	83.2
Italy	676	91.2	89.6	8.6	1.4	0.3	91.0	91.3
Japan	780	95.6	92.6	4.2	2.9	0.3	94.7	96.6
Jordan	592	69.6	65.7	28.6	4.9	0.8	71.3	68.0
Kazakhstan	923	88.3	83.8	11.1	2.6	2.5	89.0	87.6
Korea, Rep. of	841	94.8	94.3	5.1	0.3	0.2	92.4	97.2
Lithuania	792	91.8	91.2	8.1	0.5	0.1	89.9	93.8
Malaysia	1278	85.5	82.5	13.9	1.0	2.6	84.3	86.9
Malta	584	85.5	84.6	14.3	0.7	0.3	82.5	88.6
Morocco	763	62.2	57.7	35.1	5.4	1.8	60.4	64.1
New Zealand	562	96.1	94.9	3.8	1.1	0.2	94.8	97.2
Norway (9)	897	94.5	91.3	5.3	2.1	1.2	94.9	94.1
Oman	713	65.3	63.1	33.5	2.4	1.1	63.2	67.4
Palestinian Nat'l Auth.	557	61.2	58.5	37.1	3.6	0.9	62.6	59.8
Portugal	782	96.3	95.0	3.7	1.3	0.0	97.5	95.2
Qatar	616	76.7	74.4	22.6	1.3	1.6	77.1	76.3
Romania	537	95.5	92.2	4.3	3.0	0.5	94.5	96.4
Saudi Arabia	509	72.9	69.7	25.9	3.4	1.0	70.7	74.9
Singapore	945	97.1	96.6	2.9	0.3	0.2	96.0	98.0
Sweden	722	94.0	91.0	5.8	1.1	2.1	92.7	95.4
Turkiye	708	93.6	93.6	6.4	0.0	0.0	94.0	93.2
United Arab Emirates	4028	85.0	82.0	14.5	1.5	2.1	84.9	85.1
United States	1135	96.3	93.7	3.6	0.3	2.4	96.2	96.4
Uzbekistan	632	79.9	69.7	17.5	8.3	4.5	82.0	77.9
International Avg. (40)	36623	87.7	85.2	11.8	1.9	1.1	87.4	88.0
Abu Dhabi, UAE	1043	80.3	76.9	18.9	1.9	2.4	82.0	78.5
Dubai, UAE	1172	91.1	88.2	8.7	1.2	1.9	89.5	92.5
Sharjah, UAE	925	84.8	81.9	14.7	1.1	2.3	84.6	85.0

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Chemistry / Applying

B_SD5_08B SE82172B: Classify chemical and physical changes - burn logs - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1217	78.4	21.0	76.3	1.9	0.8	82.3	74.7
Austria	678	78.4	21.2	77.3	1.5	0.0	79.5	77.6
Azerbaijan	884	71.3	26.6	66.1	5.1	2.2	75.7	67.4
Bahrain	750	71.8	27.0	68.7	2.8	1.5	74.4	69.1
Brazil	3274	62.8	34.5	58.1	3.9	3.5	63.3	62.3
Chile	645	63.2	35.4	60.8	1.7	2.1	59.3	67.4
Chinese Taipei	1105	86.9	12.8	85.0	2.2	0.0	88.1	85.8
Cyprus	611	51.5	46.4	49.4	3.3	0.9	51.9	51.2
Czech Republic	1175	77.9	21.7	76.9	1.3	0.1	80.0	76.1
England	603	74.4	24.7	72.1	2.3	0.8	77.2	71.6
Finland	850	83.3	16.2	80.4	3.1	0.3	82.8	83.7
France	656	73.2	26.1	71.3	2.6	0.1	72.8	73.6
Georgia	701	72.2	26.3	68.3	2.8	2.6	73.9	70.8
Hong Kong SAR	640	74.5	24.8	72.3	2.8	0.2	75.8	73.3
Hungary	801	60.6	38.9	60.0	1.1	0.0	58.3	62.8
Ireland	712	74.1	25.4	72.9	1.3	0.4	76.7	72.1
Israel	749	77.8	21.5	75.4	2.2	0.9	79.2	76.5
Italy	676	74.8	24.5	72.6	2.6	0.3	75.8	73.9
Japan	780	80.4	19.0	77.9	2.8	0.3	79.3	81.4
Jordan	592	58.4	39.5	55.4	4.4	0.8	61.2	55.7
Kazakhstan	923	63.1	34.5	59.0	4.0	2.5	66.4	60.2
Korea, Rep. of	841	78.5	21.3	77.7	0.8	0.2	76.8	80.1
Lithuania	792	81.1	18.7	80.5	0.7	0.1	79.9	82.4
Malaysia	1278	56.6	41.9	54.5	1.0	2.6	57.3	55.8
Malta	584	74.6	25.0	73.3	1.4	0.3	74.5	74.7
Morocco	763	53.8	42.2	49.1	6.9	1.8	51.9	55.7
New Zealand	562	76.1	23.7	75.2	0.9	0.2	75.2	76.8
Norway (9)	897	71.2	27.6	68.3	2.8	1.2	71.4	71.1
Oman	713	65.0	33.2	61.5	4.3	1.1	69.7	60.5
Palestinian Nat'l Auth.	557	61.2	37.0	58.5	3.6	0.9	64.0	58.6
Portugal	782	75.6	24.0	74.2	1.8	0.0	76.6	74.7
Qatar	616	76.6	22.7	74.1	1.6	1.6	79.6	73.9
Romania	537	73.2	25.5	69.9	4.1	0.5	73.8	72.8
Saudi Arabia	509	68.9	29.5	65.3	4.2	1.0	68.0	69.7
Singapore	945	82.9	16.9	82.4	0.5	0.2	83.0	82.9
Sweden	722	81.5	17.8	78.5	1.6	2.1	79.8	83.3
Turkiye	708	86.0	13.9	85.0	1.1	0.0	88.5	83.2
United Arab Emirates	4028	80.8	18.4	77.4	2.1	2.1	81.3	80.2
United States	1135	78.7	20.6	76.4	0.6	2.4	82.3	75.3
Uzbekistan	632	60.1	34.6	52.2	8.8	4.5	64.2	56.2
International Avg. (40)	36623	72.3	26.6	69.8	2.6	1.1	73.3	71.4
Abu Dhabi, UAE	1043	72.8	25.7	68.8	3.1	2.4	76.2	69.4
Dubai, UAE	1172	86.1	13.4	83.2	1.6	1.9	84.3	87.8
Sharjah, UAE	925	81.8	17.5	78.7	1.5	2.3	80.9	82.7

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Chemistry / Applying

B_SD5_08C SE82172C: Classify chemical and physical changes - boil water (EXCLUDED) - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1217	32.4	31.7	66.2	1.2	0.8	34.3	30.5
Austria	678	36.0	35.7	63.5	0.5	0.2	36.6	35.5
Azerbaijan	884	39.5	37.1	56.8	3.4	2.6	37.2	41.5
Bahrain	750	59.0	57.2	39.7	1.5	1.6	65.8	52.3
Brazil	3274	26.9	25.2	68.4	2.1	4.3	31.7	22.3
Chile	645	17.5	16.7	79.0	2.2	2.1	16.3	18.8
Chinese Taipei	1105	69.7	68.3	29.7	2.0	0.0	68.4	70.8
Cyprus	611	40.5	38.9	57.3	2.6	1.2	42.1	38.9
Czech Republic	1175	36.3	36.0	63.1	0.8	0.2	36.9	35.8
England	603	23.0	22.2	74.4	2.4	1.0	22.2	23.8
Finland	850	25.2	24.6	73.1	2.1	0.3	26.6	23.8
France	656	27.1	26.6	71.7	1.2	0.5	30.9	23.2
Georgia	701	48.7	46.3	48.8	2.2	2.7	46.9	50.2
Hong Kong SAR	640	29.6	28.9	68.5	2.4	0.3	33.2	26.3
Hungary	801	25.9	25.6	73.2	1.2	0.0	24.2	27.6
Ireland	712	25.1	24.9	74.0	0.8	0.4	31.7	19.8
Israel	749	45.6	44.7	53.4	0.9	1.0	47.7	43.5
Italy	676	21.4	20.7	76.3	2.7	0.3	23.2	19.8
Japan	780	27.5	26.6	70.3	2.8	0.3	31.4	23.5
Jordan	592	48.2	46.5	50.1	2.2	1.2	46.9	49.3
Kazakhstan	923	43.3	40.6	53.3	2.7	3.4	44.0	42.6
Korea, Rep. of	841	22.1	21.9	77.0	0.9	0.2	27.5	16.8
Lithuania	792	34.5	34.2	64.8	0.9	0.1	36.6	32.5
Malaysia	1278	30.9	29.8	66.5	1.0	2.7	30.7	31.2
Malta	584	37.9	37.4	61.2	1.1	0.3	41.8	33.9
Morocco	763	53.2	49.4	43.6	4.0	3.0	51.3	55.0
New Zealand	562	29.4	28.9	69.3	1.6	0.2	27.8	30.8
Norway (9)	897	16.6	15.9	79.6	3.0	1.5	15.7	17.5
Oman	713	63.3	61.9	35.8	1.3	1.1	69.0	58.0
Palestinian Nat'l Auth.	557	59.3	57.8	39.8	1.4	1.0	56.1	62.3
Portugal	782	26.5	26.1	72.3	1.4	0.2	29.7	23.6
Qatar	616	56.5	55.0	42.3	0.9	1.8	60.7	52.7
Romania	537	28.1	27.0	69.2	3.1	0.7	25.1	30.8
Saudi Arabia	509	54.8	53.5	44.2	0.4	1.9	60.0	50.1
Singapore	945	52.4	52.0	47.2	0.6	0.2	53.1	51.8
Sweden	722	19.2	18.5	77.9	1.3	2.3	19.1	19.3
Turkiye	708	65.6	65.3	34.3	0.2	0.3	67.2	63.8
United Arab Emirates	4028	58.1	55.8	40.3	1.7	2.2	60.6	55.6
United States	1135	32.0	31.0	65.8	0.7	2.5	34.3	29.9
Uzbekistan	632	41.0	35.4	50.9	8.3	5.4	40.8	41.3
International Avg. (40)	36623	38.2	37.0	59.8	1.8	1.3	39.6	36.9
Abu Dhabi, UAE	1043	48.7	46.2	48.7	2.4	2.7	50.7	46.7
Dubai, UAE	1172	60.4	58.4	38.4	1.2	2.0	60.9	59.9
Sharjah, UAE	925	59.0	56.9	39.5	1.2	2.3	63.4	54.5

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Chemistry / Applying

B_SD5_08D SE82172D: Classify chemical and physical changes - cook meat (EXCLUDED) - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1217	59.8	39.4	58.6	1.1	0.8	56.5	63.4
Austria	678	56.8	42.9	56.2	0.7	0.2	57.3	56.3
Azerbaijan	884	60.5	36.0	55.1	6.2	2.6	60.6	60.4
Bahrain	750	59.9	38.7	57.8	1.9	1.6	63.9	55.9
Brazil	3274	49.4	46.4	45.2	4.1	4.3	48.2	50.5
Chile	645	48.2	49.6	46.2	2.1	2.1	51.0	45.2
Chinese Taipei	1105	74.9	24.7	73.8	1.6	0.0	76.3	73.7
Cyprus	611	65.1	33.6	62.6	2.6	1.2	67.9	62.3
Czech Republic	1175	59.4	40.1	58.8	0.9	0.2	60.2	58.7
England	603	51.0	47.1	49.1	2.8	1.0	49.5	52.6
Finland	850	54.0	45.1	52.9	1.8	0.3	54.9	53.1
France	656	47.1	52.4	46.6	0.5	0.5	46.8	47.4
Georgia	701	57.2	40.1	53.6	3.6	2.7	60.5	54.4
Hong Kong SAR	640	66.5	32.5	64.6	2.6	0.3	58.3	74.2
Hungary	801	57.2	42.3	56.6	1.1	0.0	57.3	57.1
Ireland	712	46.4	52.7	45.7	1.3	0.4	49.4	44.0
Israel	749	54.1	44.6	52.6	1.8	1.0	58.0	50.2
Italy	676	42.6	55.9	41.5	2.2	0.3	44.7	40.8
Japan	780	40.6	57.6	39.4	2.7	0.3	36.2	45.0
Jordan	592	54.5	42.9	51.5	4.4	1.2	55.1	54.0
Kazakhstan	923	57.5	39.9	53.9	2.8	3.4	55.6	59.2
Korea, Rep. of	841	63.6	36.1	63.0	0.7	0.2	59.2	67.9
Lithuania	792	47.4	52.3	47.1	0.5	0.1	47.3	47.5
Malaysia	1278	57.9	40.5	55.7	1.1	2.7	57.1	58.7
Malta	584	56.9	42.6	56.2	0.9	0.3	57.2	56.6
Morocco	763	51.6	44.3	47.2	5.5	3.0	48.7	54.5
New Zealand	562	49.4	50.0	48.9	0.9	0.2	50.8	48.3
Norway (9)	897	46.7	50.9	44.7	2.9	1.5	46.0	47.4
Oman	713	64.4	34.4	62.3	2.3	1.1	67.4	61.7
Palestinian Nat'l Auth.	557	56.7	41.4	54.3	3.3	1.0	57.8	55.7
Portugal	782	52.4	46.9	51.5	1.4	0.2	54.9	50.0
Qatar	616	65.8	32.7	63.0	2.4	1.8	71.0	61.2
Romania	537	52.0	46.6	50.4	2.3	0.7	51.0	52.8
Saudi Arabia	509	58.6	39.4	55.7	3.0	1.9	57.6	59.5
Singapore	945	67.8	32.0	67.4	0.4	0.2	68.0	67.6
Sweden	722	43.0	54.8	41.4	1.5	2.3	38.4	47.8
Turkiye	708	76.5	23.2	75.6	1.0	0.3	75.6	77.4
United Arab Emirates	4028	68.2	30.4	65.4	2.0	2.3	68.0	68.5
United States	1135	52.5	45.7	50.6	1.3	2.5	53.5	51.6
Uzbekistan	632	62.1	31.9	52.2	10.5	5.4	61.5	62.7
International Avg. (40)	36623	56.4	42.0	54.4	2.3	1.3	56.5	56.4
Abu Dhabi, UAE	1043	61.5	36.6	58.5	2.1	2.8	61.2	61.8
Dubai, UAE	1172	73.4	25.5	70.6	1.8	2.1	70.4	76.3
Sharjah, UAE	925	68.9	29.8	66.0	1.9	2.3	71.0	66.8

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Applying

B_SD5_09 SE82280: How the levers in a nutcracker work together - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1217	46.8	16.6	46.2	26.6	9.1	0.5	0.9	41.6	52.4
Austria	678	63.3	11.4	63.1	9.4	15.7	0.1	0.2	55.6	69.8
Azerbaijan	884	42.3	14.2	40.4	17.4	23.5	1.9	2.6	42.9	41.7
Bahrain	750	44.8	18.4	43.8	22.3	13.3	0.7	1.6	43.2	46.4
Brazil	3274	40.7	13.4	38.4	32.5	10.1	1.2	4.4	38.6	42.8
Chile	645	39.7	20.6	38.5	26.0	11.8	1.0	2.1	35.1	44.8
Chinese Taipei	1105	62.7	17.4	62.7	9.9	10.0	0.0	0.0	61.4	63.8
Cyprus	611	43.7	14.9	43.2	22.7	17.9	0.1	1.2	42.0	45.4
Czech Republic	1175	62.5	10.7	62.3	9.8	16.9	0.1	0.2	57.6	66.9
England	603	43.4	13.6	42.4	28.9	12.8	1.4	1.0	38.8	48.3
Finland	850	54.2	16.0	53.5	21.1	8.1	1.0	0.3	51.3	57.0
France	656	30.1	12.0	29.8	31.1	25.9	0.7	0.5	23.0	37.3
Georgia	701	38.6	17.5	36.9	16.9	24.3	1.0	3.3	40.5	36.9
Hong Kong SAR	640	54.3	12.1	53.7	22.8	10.3	0.9	0.3	49.3	59.0
Hungary	801	64.4	12.5	64.4	14.8	8.4	0.0	0.0	58.4	69.8
Ireland	712	39.7	16.7	39.5	27.0	16.3	0.2	0.4	33.9	44.3
Israel	749	51.5	12.2	51.0	22.9	12.8	0.0	1.0	49.7	53.2
Italy	676	48.2	8.9	47.6	22.8	19.3	1.1	0.3	42.5	53.1
Japan	780	54.7	13.7	54.4	10.3	21.1	0.2	0.3	51.7	57.7
Jordan	592	42.7	19.6	42.1	24.8	12.2	0.1	1.2	45.2	40.3
Kazakhstan	923	47.6	18.2	45.6	18.6	13.4	0.8	3.5	44.9	50.0
Korea, Rep. of	841	71.1	4.2	70.8	17.1	7.5	0.1	0.2	67.6	74.6
Lithuania	792	52.7	8.0	52.6	24.8	14.4	0.1	0.1	47.0	58.5
Malaysia	1278	27.9	20.6	27.2	31.4	17.9	0.1	2.7	24.8	31.3
Malta	584	42.4	15.5	42.2	26.0	15.8	0.2	0.3	40.1	44.7
Morocco	763	34.8	14.8	33.6	32.6	15.5	0.4	3.1	31.0	38.5
New Zealand	562	43.0	14.8	42.3	28.0	13.4	1.3	0.2	39.8	45.7
Norway (9)	897	39.1	13.1	37.8	32.7	13.1	1.7	1.6	33.3	44.4
Oman	713	34.9	15.3	34.3	25.9	23.0	0.5	1.1	34.6	35.1
Palestinian Nat'l Auth.	557	33.8	15.3	33.2	33.5	16.2	0.9	1.0	32.3	35.3
Portugal	782	45.0	9.8	44.8	28.4	16.6	0.2	0.2	42.7	47.1
Qatar	616	42.4	14.4	41.0	24.8	16.5	1.4	1.8	36.3	47.9
Romania	537	43.0	16.0	42.5	25.0	15.1	0.7	0.7	38.0	47.5
Saudi Arabia	509	45.4	16.8	44.5	25.6	11.1	0.0	1.9	47.4	43.5
Singapore	945	52.8	16.1	52.7	18.5	12.5	0.0	0.2	46.4	58.6
Sweden	722	51.5	10.6	49.5	23.7	12.3	1.6	2.3	48.1	55.2
Turkiye	708	55.1	8.5	54.4	13.7	22.1	1.1	0.3	49.4	61.2
United Arab Emirates	4028	42.5	17.1	41.2	23.3	15.3	0.8	2.3	38.1	46.8
United States	1135	45.6	15.5	44.4	26.9	10.6	0.2	2.5	40.5	50.5
Uzbekistan	632	37.9	14.5	35.4	20.9	22.7	1.1	5.4	32.8	42.7
International Avg. (40)	36623	46.4	14.3	45.6	23.0	15.1	0.6	1.3	42.9	49.7
Abu Dhabi, UAE	1043	39.0	16.4	37.7	27.5	15.2	0.5	2.8	32.1	45.6
Dubai, UAE	1172	47.6	15.1	46.1	21.3	14.2	1.1	2.1	41.8	52.9
Sharjah, UAE	925	41.9	19.9	40.8	20.0	16.6	0.4	2.4	41.7	42.1

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Knowing

B_SD5_10 SE82205: A gas is heated in a sealed container (DERIVED) - CR - 1 Point

COUNTRY	N	DIFF %	1 %	0 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1217	40.9	40.1	57.9	40.1	57.9	1.1	0.9	36.6	45.0
Austria	678	21.9	21.7	77.4	21.7	77.4	0.8	0.2	22.7	21.1
Azerbaijan	884	21.3	20.2	74.8	20.2	74.8	1.9	3.0	24.3	18.7
Bahrain	750	26.1	25.4	71.7	25.4	71.7	1.2	1.7	29.9	22.4
Brazil	3274	12.6	11.8	81.6	11.8	81.6	1.5	5.2	13.7	11.6
Chile	645	17.9	16.9	77.4	16.9	77.4	3.5	2.1	15.7	20.4
Chinese Taipei	1105	28.8	28.8	71.1	28.8	71.1	0.1	0.0	30.7	27.1
Cyprus	611	23.6	23.2	75.1	23.2	75.1	0.4	1.2	25.6	21.7
Czech Republic	1175	30.3	29.9	69.0	29.9	69.0	1.0	0.2	31.2	29.4
England	603	43.2	42.3	55.7	42.3	55.7	0.9	1.0	37.8	48.7
Finland	850	23.3	22.9	75.5	22.9	75.5	1.2	0.4	25.0	21.6
France	656	31.0	30.5	67.9	30.5	67.9	1.0	0.6	30.3	31.6
Georgia	701	26.7	25.4	69.8	25.4	69.8	1.1	3.7	28.7	24.9
Hong Kong SAR	640	30.4	30.2	69.0	30.2	69.0	0.5	0.3	27.3	33.4
Hungary	801	23.7	23.7	76.2	23.7	76.2	0.1	0.0	25.3	22.3
Ireland	712	33.2	32.8	65.8	32.8	65.8	1.0	0.5	34.6	32.1
Israel	749	41.8	41.0	57.1	41.0	57.1	0.8	1.0	40.0	43.5
Italy	676	34.7	34.1	64.2	34.1	64.2	0.6	1.1	32.9	36.2
Japan	780	18.0	17.9	81.6	17.9	81.6	0.0	0.5	17.3	18.7
Jordan	592	21.2	20.8	77.3	20.8	77.3	0.5	1.3	19.1	23.2
Kazakhstan	923	21.0	20.0	75.4	20.0	75.4	0.8	3.8	21.2	20.9
Korea, Rep. of	841	23.8	23.6	75.9	23.6	75.9	0.2	0.2	22.6	25.0
Lithuania	792	25.9	25.8	73.9	25.8	73.9	0.1	0.1	25.9	25.9
Malaysia	1278	22.0	21.4	75.8	21.4	75.8	0.1	2.7	22.6	21.4
Malta	584	29.2	29.1	70.4	29.1	70.4	0.2	0.3	28.0	30.5
Morocco	763	17.7	16.9	78.8	16.9	78.8	1.0	3.3	14.5	20.7
New Zealand	562	31.8	31.3	67.0	31.3	67.0	1.5	0.2	26.4	36.5
Norway (9)	897	21.9	20.9	74.7	20.9	74.7	2.4	2.0	21.4	22.3
Oman	713	27.2	26.8	71.7	26.8	71.7	0.1	1.4	30.2	24.4
Palestinian Nat'l Auth.	557	18.5	18.2	79.9	18.2	79.9	0.2	1.7	25.5	12.0
Portugal	782	39.8	39.7	60.1	39.7	60.1	0.0	0.2	40.6	39.1
Qatar	616	31.9	30.9	66.1	30.9	66.1	0.4	2.6	29.5	34.0
Romania	537	22.9	22.4	75.5	22.4	75.5	1.4	0.7	21.2	24.4
Saudi Arabia	509	26.1	25.6	72.4	25.6	72.4	0.0	1.9	35.0	18.2
Singapore	945	32.1	32.0	67.7	32.0	67.7	0.1	0.2	29.3	34.7
Sweden	722	26.7	25.6	70.3	25.6	70.3	1.1	3.0	25.6	27.8
Turkiye	708	20.1	20.0	79.3	20.0	79.3	0.5	0.3	19.2	21.0
United Arab Emirates	4028	32.4	31.3	65.4	31.3	65.4	0.8	2.5	31.3	33.5
United States	1135	36.4	35.4	61.9	35.4	61.9	0.2	2.5	30.0	42.5
Uzbekistan	632	16.2	14.7	76.0	14.7	76.0	2.9	6.4	15.6	16.7
International Avg. (40)	36623	26.9	26.3	71.4	26.3	71.4	0.8	1.5	26.6	27.1
Abu Dhabi, UAE	1043	26.0	25.0	71.2	25.0	71.2	1.0	2.8	23.2	28.7
Dubai, UAE	1172	43.3	42.0	55.0	42.0	55.0	0.7	2.3	42.1	44.4
Sharjah, UAE	925	30.0	29.0	67.5	29.0	67.5	1.1	2.5	28.5	31.6

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Knowing

B_SD5_10A SE82205A: A gas is heated in a sealed container - volume - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1217	66.1	32.3	62.9	3.9	0.9	63.2	68.8
Austria	678	53.7	45.8	53.1	0.9	0.2	54.2	53.3
Azerbaijan	884	49.3	46.7	45.3	5.0	3.0	50.7	48.0
Bahrain	750	53.7	44.6	51.7	2.0	1.7	62.6	44.8
Brazil	3274	42.2	50.0	36.4	8.4	5.2	44.7	39.7
Chile	645	55.3	41.4	51.2	5.2	2.1	53.7	57.1
Chinese Taipei	1105	56.2	43.3	55.7	1.0	0.0	62.4	50.6
Cyprus	611	55.0	43.9	53.7	1.1	1.2	57.5	52.6
Czech Republic	1175	59.9	39.5	59.0	1.4	0.2	63.0	57.2
England	603	64.0	34.9	62.0	2.1	1.0	62.6	65.4
Finland	850	46.7	52.3	45.8	1.6	0.4	48.4	45.1
France	656	61.0	38.0	59.5	1.9	0.6	62.9	59.1
Georgia	701	54.0	42.2	49.5	4.5	3.7	57.1	51.2
Hong Kong SAR	640	61.1	38.4	60.2	1.1	0.3	61.4	60.7
Hungary	801	49.3	50.3	48.9	0.8	0.0	52.5	46.5
Ireland	712	65.0	34.1	63.4	2.0	0.5	66.7	63.6
Israel	749	62.1	37.0	60.5	1.4	1.0	63.7	60.5
Italy	676	57.2	42.0	56.2	0.7	1.1	58.0	56.6
Japan	780	38.2	61.0	37.6	0.8	0.5	38.0	38.3
Jordan	592	51.0	46.4	48.2	4.0	1.3	49.9	52.0
Kazakhstan	923	51.3	45.5	47.9	2.8	3.8	49.9	52.6
Korea, Rep. of	841	39.8	58.1	38.5	3.2	0.2	42.0	37.6
Lithuania	792	49.6	49.9	49.1	0.8	0.1	52.3	46.8
Malaysia	1278	49.3	49.2	47.7	0.4	2.7	51.4	47.0
Malta	584	51.6	47.7	50.9	1.1	0.3	50.0	53.3
Morocco	763	44.3	51.2	40.7	4.7	3.3	43.8	44.8
New Zealand	562	57.0	41.6	55.1	3.1	0.2	53.7	59.8
Norway (9)	897	43.4	52.2	40.0	5.8	2.0	43.6	43.2
Oman	713	59.3	39.4	57.4	1.8	1.4	66.9	52.1
Palestinian Nat'l Auth.	557	42.5	54.5	40.3	3.6	1.7	48.2	36.9
Portugal	782	61.8	37.7	60.9	1.3	0.2	62.0	61.6
Qatar	616	58.3	40.2	56.2	1.0	2.6	65.4	51.9
Romania	537	44.3	54.1	43.0	2.3	0.7	43.7	44.8
Saudi Arabia	509	58.9	39.7	56.8	1.6	1.9	69.8	49.0
Singapore	945	52.3	47.5	52.1	0.2	0.2	50.8	53.7
Sweden	722	50.8	46.5	48.1	2.4	3.0	52.5	49.1
Turkiye	708	46.2	53.1	45.6	1.0	0.3	44.7	47.9
United Arab Emirates	4028	55.8	42.3	53.4	1.8	2.5	55.9	55.8
United States	1135	62.0	36.6	59.8	1.2	2.5	56.0	67.8
Uzbekistan	632	45.4	44.9	37.3	11.3	6.4	43.9	46.8
International Avg. (40)	36623	53.1	44.9	51.0	2.5	1.5	54.5	51.8
Abu Dhabi, UAE	1043	50.6	46.7	47.8	2.8	2.8	47.9	53.4
Dubai, UAE	1172	61.3	37.4	59.2	1.1	2.3	61.2	61.4
Sharjah, UAE	925	54.1	44.0	51.8	1.8	2.5	53.4	54.7

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Knowing

B_SD5_10B SE82205B: A gas is heated in a sealed container - pressure - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1217	77.6	75.3	21.7	2.2	0.9	76.7	78.5
Austria	678	73.0	72.1	26.6	1.1	0.2	73.5	72.6
Azerbaijan	884	73.0	64.9	24.0	8.2	3.0	73.6	72.5
Bahrain	750	68.8	65.7	29.8	2.8	1.7	73.5	64.1
Brazil	3274	64.9	55.6	30.1	9.0	5.2	71.1	58.8
Chile	645	77.5	71.2	20.7	5.9	2.1	78.8	76.0
Chinese Taipei	1105	77.6	77.1	22.3	0.5	0.0	79.6	75.7
Cyprus	611	67.4	65.1	31.4	2.2	1.2	67.8	67.1
Czech Republic	1175	78.1	76.9	21.6	1.4	0.2	79.2	77.1
England	603	76.9	74.4	22.3	2.2	1.0	76.1	77.8
Finland	850	73.8	72.6	25.8	1.2	0.4	73.2	74.4
France	656	72.5	70.7	26.8	2.0	0.6	72.1	72.9
Georgia	701	77.4	69.7	20.4	6.2	3.7	79.7	75.3
Hong Kong SAR	640	80.7	79.5	19.0	1.3	0.3	82.5	79.1
Hungary	801	79.4	78.7	20.4	0.9	0.0	80.9	78.0
Ireland	712	80.5	77.7	18.8	3.0	0.5	77.0	83.4
Israel	749	80.9	78.4	18.6	2.0	1.0	82.8	79.0
Italy	676	73.4	72.0	26.1	0.7	1.1	73.2	73.5
Japan	780	72.9	72.3	26.9	0.3	0.5	74.6	71.2
Jordan	592	70.0	66.0	28.3	4.4	1.3	70.9	69.1
Kazakhstan	923	71.3	66.2	26.7	3.4	3.8	72.1	70.5
Korea, Rep. of	841	76.7	74.8	22.7	2.2	0.2	75.4	78.0
Lithuania	792	67.3	66.6	32.4	0.9	0.1	67.3	67.3
Malaysia	1278	63.3	60.8	35.3	1.1	2.7	65.0	61.5
Malta	584	68.3	66.7	31.0	2.0	0.3	68.8	67.8
Morocco	763	59.2	53.8	37.1	5.9	3.3	57.0	61.3
New Zealand	562	78.1	75.6	21.2	3.0	0.2	77.9	78.3
Norway (9)	897	79.1	73.3	19.4	5.3	2.0	81.1	77.2
Oman	713	70.3	68.4	29.0	1.2	1.4	74.3	66.5
Palestinian Nat'l Auth.	557	60.1	57.0	37.9	3.4	1.7	60.4	59.8
Portugal	782	80.8	80.0	19.0	0.8	0.2	81.5	80.3
Qatar	616	75.1	72.1	23.9	1.3	2.6	71.7	78.2
Romania	537	66.9	64.2	31.8	3.4	0.7	65.1	68.4
Saudi Arabia	509	69.4	65.9	29.0	3.1	1.9	75.7	63.6
Singapore	945	76.5	76.2	23.4	0.3	0.2	72.7	80.0
Sweden	722	80.1	76.5	19.0	1.5	3.0	80.9	79.2
Turkiye	708	70.0	68.9	29.6	1.3	0.3	72.6	67.1
United Arab Emirates	4028	75.0	71.4	23.8	2.3	2.5	74.9	75.1
United States	1135	77.6	74.7	21.6	1.3	2.5	75.0	80.0
Uzbekistan	632	70.4	56.7	23.8	13.1	6.4	66.6	74.1
International Avg. (40)	36623	73.3	70.1	25.5	2.9	1.5	73.8	72.8
Abu Dhabi, UAE	1043	69.9	66.1	28.4	2.7	2.8	68.3	71.5
Dubai, UAE	1172	80.2	77.1	19.0	1.5	2.3	78.4	81.9
Sharjah, UAE	925	76.0	72.2	22.8	2.6	2.5	78.2	73.8

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Physics / Knowing

B_SD5_10C SE82205C: A gas is heated in a sealed container - molecules - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1217	66.0	32.9	63.8	2.3	0.9	62.1	69.7
Austria	678	54.9	44.4	53.9	1.5	0.2	54.2	55.4
Azerbaijan	884	51.0	43.3	45.1	8.6	3.0	52.9	49.2
Bahrain	750	55.0	43.1	52.6	2.7	1.7	54.4	55.5
Brazil	3274	48.1	43.1	39.9	11.8	5.2	49.9	46.3
Chile	645	47.8	47.6	43.6	6.7	2.1	49.0	46.5
Chinese Taipei	1105	74.9	24.9	74.3	0.8	0.0	68.5	80.8
Cyprus	611	57.2	41.5	55.5	1.9	1.2	56.5	58.0
Czech Republic	1175	61.8	37.5	60.8	1.5	0.2	59.2	64.1
England	603	65.4	33.6	63.5	1.9	1.0	59.9	71.1
Finland	850	64.7	34.6	63.4	1.6	0.4	66.6	62.9
France	656	59.8	39.2	58.3	1.9	0.6	59.1	60.6
Georgia	701	63.9	32.1	56.7	7.6	3.7	64.3	63.5
Hong Kong SAR	640	57.7	41.6	56.7	1.5	0.3	54.2	60.9
Hungary	801	61.7	38.0	61.1	0.9	0.0	59.5	63.6
Ireland	712	58.0	40.8	56.4	2.4	0.5	57.8	58.3
Israel	749	70.3	28.7	68.1	2.1	1.0	69.3	71.2
Italy	676	63.3	36.0	62.1	0.8	1.1	61.2	65.1
Japan	780	67.2	32.6	66.8	0.1	0.5	67.3	67.1
Jordan	592	53.0	43.6	49.1	6.0	1.3	51.7	54.3
Kazakhstan	923	52.7	43.8	48.7	3.6	3.8	52.5	52.8
Korea, Rep. of	841	74.3	24.9	72.0	2.8	0.2	70.5	78.1
Lithuania	792	58.7	41.0	58.2	0.7	0.1	53.4	64.1
Malaysia	1278	52.5	45.4	50.2	1.6	2.7	51.5	53.5
Malta	584	63.3	35.8	61.8	2.1	0.3	65.8	60.8
Morocco	763	55.6	40.3	50.5	5.9	3.3	50.6	60.6
New Zealand	562	60.3	38.2	57.9	3.7	0.2	57.2	63.0
Norway (9)	897	59.6	37.5	55.3	5.2	2.0	58.5	60.6
Oman	713	53.9	44.3	51.9	2.4	1.4	53.8	54.1
Palestinian Nat'l Auth.	557	49.3	46.5	45.3	6.5	1.7	50.5	48.1
Portugal	782	67.8	31.7	66.9	1.3	0.2	67.5	68.2
Qatar	616	59.1	39.3	56.7	1.3	2.6	52.7	64.9
Romania	537	56.7	41.7	54.6	3.0	0.7	57.2	56.2
Saudi Arabia	509	54.3	43.4	51.6	3.1	1.9	60.7	48.4
Singapore	945	77.0	22.9	76.4	0.5	0.2	74.0	79.7
Sweden	722	61.7	36.0	57.9	3.1	3.0	59.5	63.9
Turkiye	708	58.9	40.3	57.9	1.6	0.3	57.1	60.9
United Arab Emirates	4028	62.2	35.9	59.1	2.5	2.5	60.7	63.7
United States	1135	60.3	38.2	58.0	1.3	2.5	55.9	64.6
Uzbekistan	632	52.8	36.2	40.5	17.0	6.4	51.5	54.1
International Avg. (40)	36623	59.8	38.1	57.1	3.3	1.5	58.5	61.1
Abu Dhabi, UAE	1043	59.5	37.9	55.7	3.6	2.8	57.7	61.4
Dubai, UAE	1172	71.5	27.4	68.7	1.5	2.3	69.4	73.4
Sharjah, UAE	925	58.4	39.5	55.6	2.4	2.5	56.6	60.2

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Knowing

B_SD5_10D SE82205D: A gas is heated in a sealed container - speed - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1217	77.7	73.9	21.2	4.0	0.9	76.9	78.3
Austria	678	61.1	60.3	38.3	1.1	0.2	61.1	61.1
Azerbaijan	884	59.9	51.7	34.7	10.6	3.0	61.3	58.6
Bahrain	750	67.7	64.4	30.7	3.2	1.7	71.2	64.2
Brazil	3274	62.0	50.4	30.9	13.5	5.2	61.6	62.5
Chile	645	72.0	64.8	25.2	7.8	2.1	70.7	73.4
Chinese Taipei	1105	76.3	75.5	23.4	1.0	0.0	76.4	76.3
Cyprus	611	61.8	59.7	36.9	2.2	1.2	64.9	58.8
Czech Republic	1175	71.7	70.5	27.8	1.6	0.2	71.5	71.9
England	603	77.3	74.6	21.9	2.4	1.0	75.4	79.3
Finland	850	67.3	65.7	32.0	1.9	0.4	68.8	65.8
France	656	65.3	63.4	33.7	2.3	0.6	64.5	66.0
Georgia	701	75.3	66.5	21.8	8.0	3.7	78.1	72.8
Hong Kong SAR	640	77.8	76.6	21.9	1.3	0.3	76.6	78.9
Hungary	801	65.6	65.2	34.1	0.7	0.0	64.8	66.4
Ireland	712	73.8	70.8	25.2	3.5	0.5	74.7	73.0
Israel	749	78.8	76.1	20.5	2.3	1.0	80.6	76.9
Italy	676	67.9	66.5	31.4	1.0	1.1	65.4	70.0
Japan	780	61.8	61.2	37.8	0.5	0.5	58.6	65.1
Jordan	592	63.8	58.1	33.0	7.6	1.3	62.7	64.9
Kazakhstan	923	66.4	60.8	30.7	4.8	3.8	66.7	66.2
Korea, Rep. of	841	79.9	76.6	19.2	3.9	0.2	79.0	80.9
Lithuania	792	69.3	68.5	30.4	1.0	0.1	70.3	68.2
Malaysia	1278	63.4	60.8	35.1	1.4	2.7	65.2	61.4
Malta	584	75.4	73.7	24.0	2.0	0.3	77.6	73.2
Morocco	763	56.9	49.8	37.8	9.1	3.3	51.1	62.5
New Zealand	562	75.6	72.3	23.3	4.1	0.2	76.1	75.1
Norway (9)	897	71.8	66.0	26.0	6.1	2.0	69.3	74.1
Oman	713	68.8	65.7	29.8	3.1	1.4	70.6	67.0
Palestinian Nat'l Auth.	557	57.4	53.7	39.8	4.8	1.7	61.8	53.0
Portugal	782	77.0	75.6	22.6	1.6	0.2	78.1	75.9
Qatar	616	75.2	71.9	23.7	1.8	2.6	78.0	72.6
Romania	537	65.9	62.4	32.3	4.6	0.7	63.7	67.8
Saudi Arabia	509	73.5	69.9	25.3	2.9	1.9	79.4	68.0
Singapore	945	86.1	85.6	13.8	0.3	0.2	87.4	84.9
Sweden	722	73.2	69.7	25.5	1.9	3.0	71.9	74.7
Turkiye	708	80.5	79.4	19.2	1.2	0.3	81.1	79.9
United Arab Emirates	4028	78.2	73.9	20.6	3.0	2.5	79.5	76.9
United States	1135	73.5	70.4	25.4	1.8	2.5	72.2	74.8
Uzbekistan	632	64.8	50.2	27.2	16.2	6.4	59.6	70.1
International Avg. (40)	36623	70.4	66.8	27.9	3.8	1.5	70.6	70.3
Abu Dhabi, UAE	1043	69.8	64.9	28.1	4.2	2.8	68.5	71.0
Dubai, UAE	1172	84.2	80.8	15.2	1.7	2.3	85.6	82.9
Sharjah, UAE	925	79.8	75.1	19.0	3.5	2.5	83.7	76.0

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Physics / Reasoning

B_SD5_11 SE82262: Increase the wire turns on an electromagnet - CR - 1 Point

COUNTRY	N	DIFF %	1 %	0 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1217	59.1	53.6	37.1	53.6	37.1	8.1	1.2	60.5	57.8
Austria	678	52.6	44.3	40.0	44.3	40.0	15.5	0.2	54.2	51.3
Azerbaijan	884	27.8	12.4	32.3	12.4	32.3	51.4	3.8	30.6	25.3
Bahrain	750	39.0	32.3	50.5	32.3	50.5	15.0	2.2	48.9	29.1
Brazil	3274	33.9	24.2	47.3	24.2	47.3	22.4	6.1	37.8	30.6
Chile	645	43.5	31.0	40.3	31.0	40.3	26.2	2.5	42.9	44.0
Chinese Taipei	1105	54.4	52.3	43.9	52.3	43.9	3.7	0.1	56.6	52.3
Cyprus	611	45.5	34.1	40.9	34.1	40.9	23.8	1.2	47.7	43.2
Czech Republic	1175	54.4	45.0	37.7	45.0	37.7	17.0	0.3	54.1	54.6
England	603	65.0	57.5	31.0	57.5	31.0	10.5	1.0	62.7	67.2
Finland	850	42.7	37.5	50.2	37.5	50.2	11.1	1.2	48.0	38.1
France	656	41.2	30.8	44.0	30.8	44.0	24.2	1.0	45.7	37.2
Georgia	0	.	.	.	.	.	.	.	.	.
Hong Kong SAR	640	40.8	35.6	51.6	35.6	51.6	12.5	0.3	39.1	42.3
Hungary	801	56.9	50.3	38.1	50.3	38.1	11.5	0.1	59.3	54.8
Ireland	712	66.9	61.8	30.6	61.8	30.6	7.2	0.5	71.9	62.9
Israel	749	39.9	31.3	47.2	31.3	47.2	20.1	1.4	41.2	38.6
Italy	676	52.2	39.5	36.1	39.5	36.1	23.1	1.3	50.0	54.0
Japan	780	65.8	60.6	31.5	60.6	31.5	7.4	0.5	65.5	66.0
Jordan	592	33.2	29.3	59.0	29.3	59.0	9.9	1.8	40.6	26.1
Kazakhstan	923	29.4	21.3	51.2	21.3	51.2	23.1	4.4	33.5	25.8
Korea, Rep. of	841	61.8	58.2	35.9	58.2	35.9	5.7	0.2	67.6	56.1
Lithuania	792	53.8	43.6	37.4	43.6	37.4	18.6	0.4	56.1	51.5
Malaysia	1279	28.5	26.5	66.5	26.5	66.5	4.2	2.9	28.1	28.9
Malta	584	48.6	41.0	43.3	41.0	43.3	15.2	0.5	46.0	51.5
Morocco	763	3.2	2.0	59.0	2.0	59.0	34.4	4.7	3.2	3.3
New Zealand	562	49.1	44.0	45.7	44.0	45.7	10.0	0.2	49.8	48.5
Norway (9)	897	31.4	23.7	51.8	23.7	51.8	22.2	2.3	34.1	29.0
Oman	712	38.7	34.1	54.1	34.1	54.1	10.4	1.4	47.3	30.1
Palestinian Nat'l Auth.	557	23.9	21.6	68.8	21.6	68.8	7.9	1.7	29.4	18.5
Portugal	782	55.8	43.2	34.2	43.2	34.2	22.4	0.3	53.1	58.3
Qatar	616	50.9	43.2	41.7	43.2	41.7	12.2	2.8	55.3	46.7
Romania	537	35.4	27.0	49.4	27.0	49.4	22.0	1.6	38.4	32.6
Saudi Arabia	509	24.7	23.4	71.3	23.4	71.3	3.4	1.9	32.2	17.7
Singapore	945	82.7	81.8	17.1	81.8	17.1	0.9	0.2	82.5	82.9
Sweden	722	39.4	31.5	48.5	31.5	48.5	17.0	3.0	37.0	41.9
Turkiye	708	69.7	61.3	26.6	61.3	26.6	11.8	0.3	76.1	62.6
United Arab Emirates	4026	50.4	45.2	44.4	45.2	44.4	7.3	3.1	54.0	47.1
United States	1134	55.0	51.5	42.1	51.5	42.1	3.8	2.6	58.6	51.7
Uzbekistan	631	16.2	10.5	54.2	10.5	54.2	25.7	9.7	15.7	16.5
International Avg. (39)	35918	45.2	38.4	44.4	38.4	44.4	15.4	1.8	47.6	43.0
Abu Dhabi, UAE	1043	38.2	34.5	55.8	34.5	55.8	6.0	3.6	42.1	34.5
Dubai, UAE	1171	64.8	58.5	31.8	58.5	31.8	6.9	2.9	66.1	63.7
Sharjah, UAE	925	53.6	47.2	40.9	47.2	40.9	8.7	3.3	58.9	48.7

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Applying

B_SD5_12 SE82341: Advantages and disadvantages of energy sources (DERIVED) - CR - 1 Point

COUNTRY	N	DIFF %	1 %	0 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1217	17.1	16.7	80.9	16.7	80.9	1.0	1.4	9.9	24.6
Austria	678	43.5	43.3	56.2	43.3	56.2	0.3	0.3	34.1	51.4
Azerbaijan	884	11.5	9.7	74.9	9.7	74.9	10.5	4.9	10.6	12.3
Bahrain	750	14.7	14.2	82.8	14.2	82.8	0.4	2.5	16.1	13.3
Brazil	3274	5.2	4.6	84.6	4.6	84.6	4.0	6.7	2.6	7.6
Chile	645	5.8	5.4	87.4	5.4	87.4	3.8	3.3	2.6	9.4
Chinese Taipei	1105	52.1	52.0	47.8	52.0	47.8	0.1	0.1	43.5	59.9
Cyprus	611	13.1	12.7	84.4	12.7	84.4	1.4	1.6	9.5	16.6
Czech Republic	1175	23.3	22.9	75.6	22.9	75.6	0.7	0.8	19.2	26.9
England	603	25.1	24.4	73.0	24.4	73.0	1.4	1.1	20.2	30.2
Finland	850	34.5	33.5	63.6	33.5	63.6	1.6	1.3	26.7	41.9
France	656	16.8	16.4	81.0	16.4	81.0	1.2	1.4	11.7	21.9
Georgia	701	8.5	7.6	82.1	7.6	82.1	5.1	5.2	9.3	7.9
Hong Kong SAR	640	33.4	32.6	65.1	32.6	65.1	2.1	0.3	21.8	44.2
Hungary	801	46.2	46.2	53.7	46.2	53.7	0.0	0.1	41.7	50.3
Ireland	712	25.9	25.6	73.2	25.6	73.2	0.8	0.5	18.3	32.1
Israel	749	8.8	8.6	88.3	8.6	88.3	1.4	1.7	8.8	8.8
Italy	676	33.6	32.7	64.6	32.7	64.6	0.6	2.1	26.6	39.5
Japan	780	45.8	45.2	53.5	45.2	53.5	0.7	0.6	43.6	48.0
Jordan	592	15.0	14.6	82.4	14.6	82.4	1.0	2.0	16.9	13.3
Kazakhstan	923	10.4	9.6	83.1	9.6	83.1	1.5	5.8	8.8	11.7
Korea, Rep. of	841	24.4	24.3	75.2	24.3	75.2	0.3	0.2	16.7	32.1
Lithuania	792	18.2	18.0	80.5	18.0	80.5	0.8	0.8	12.9	23.7
Malaysia	1278	9.6	9.2	87.2	9.2	87.2	0.1	3.5	8.3	11.0
Malta	584	15.5	15.2	82.7	15.2	82.7	0.9	1.2	12.6	18.5
Morocco	763	3.1	2.9	90.8	2.9	90.8	1.1	5.2	1.9	4.1
New Zealand	562	16.5	16.2	82.4	16.2	82.4	0.7	0.7	12.1	20.3
Norway (9)	897	19.3	18.3	76.4	18.3	76.4	2.2	3.0	14.6	23.8
Oman	713	5.2	5.0	91.7	5.0	91.7	1.2	2.1	4.5	5.9
Palestinian Nat'l Auth.	557	7.1	6.9	90.4	6.9	90.4	0.6	2.1	6.5	7.6
Portugal	782	13.5	13.4	85.6	13.4	85.6	0.6	0.4	10.2	16.6
Qatar	616	18.4	17.7	78.7	17.7	78.7	0.5	3.1	18.3	18.5
Romania	537	6.9	6.5	87.8	6.5	87.8	4.1	1.6	3.5	10.0
Saudi Arabia	509	12.2	11.9	85.7	11.9	85.7	0.3	2.1	15.8	8.9
Singapore	945	28.6	28.5	71.1	28.5	71.1	0.2	0.2	21.4	35.0
Sweden	722	27.0	25.5	68.9	25.5	68.9	2.3	3.3	21.0	33.3
Turkiye	708	23.7	23.7	76.1	23.7	76.1	0.0	0.3	23.5	24.0
United Arab Emirates	3961	17.9	17.1	78.5	17.1	78.5	0.9	3.5	14.7	21.0
United States	1135	20.4	19.7	76.8	19.7	76.8	0.7	2.8	16.0	24.5
Uzbekistan	632	10.8	9.3	77.0	9.3	77.0	3.4	10.3	9.5	12.0
International Avg. (40)	36556	19.7	19.2	77.0	19.2	77.0	1.5	2.3	16.2	23.1
Abu Dhabi, UAE	1043	13.3	12.7	82.7	12.7	82.7	0.8	3.8	13.3	13.3
Dubai, UAE	976	27.5	26.7	70.2	26.7	70.2	0.7	2.4	21.9	32.7
Sharjah, UAE	925	16.8	16.0	78.9	16.0	78.9	1.0	4.2	11.9	21.7

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Earth Science / Applying

B_SD5_12A SE82341A: Advantages and disadvantages of energy sources - wind - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	C %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1217	87.8	82.3	7.6	3.8	4.9	1.4	88.2	87.4
Austria	678	90.1	86.7	8.1	1.4	3.5	0.3	88.8	91.2
Azerbaijan	884	78.2	60.5	12.2	4.6	17.5	5.1	80.0	76.6
Bahrain	750	78.1	72.5	15.4	5.0	4.7	2.5	83.1	73.1
Brazil	3274	61.7	50.1	21.5	9.5	12.1	6.7	57.0	66.1
Chile	645	70.5	58.9	19.4	5.2	13.1	3.3	65.5	75.6
Chinese Taipei	1105	94.2	93.2	4.0	1.8	0.9	0.1	95.1	93.3
Cyprus	611	58.7	52.0	26.3	10.3	9.8	1.6	56.1	61.4
Czech Republic	1175	91.4	88.5	4.5	3.8	2.3	0.8	91.4	91.4
England	603	89.9	84.0	7.3	2.1	5.2	1.4	90.7	89.1
Finland	850	90.0	86.5	6.5	3.1	2.6	1.3	92.4	87.8
France	656	84.6	80.3	10.8	3.9	3.7	1.4	83.0	86.2
Georgia	701	83.7	70.2	9.6	4.0	10.9	5.3	85.1	82.6
Hong Kong SAR	640	90.4	86.2	5.1	4.1	4.2	0.3	88.1	92.5
Hungary	801	91.7	89.6	6.1	1.9	2.2	0.1	91.9	91.6
Ireland	712	93.7	88.7	5.0	1.0	4.8	0.5	94.9	92.7
Israel	749	87.7	80.4	7.4	3.9	6.4	1.9	86.8	88.6
Italy	676	86.3	81.4	10.0	2.8	3.6	2.1	84.8	87.6
Japan	780	90.5	88.5	8.4	0.9	1.6	0.6	91.4	89.6
Jordan	592	82.2	73.4	11.2	4.7	8.7	2.0	85.6	78.9
Kazakhstan	923	79.6	70.3	15.2	2.8	5.9	5.8	81.2	78.2
Korea, Rep. of	841	96.3	92.7	2.3	1.3	3.4	0.2	95.4	97.1
Lithuania	792	91.2	88.8	6.5	2.0	1.9	0.8	92.4	90.0
Malaysia	1278	70.9	58.5	18.1	5.9	14.0	3.5	72.1	69.7
Malta	584	82.8	76.3	10.9	5.0	6.6	1.2	82.5	83.0
Morocco	763	50.2	41.2	22.7	18.2	12.6	5.3	51.2	49.3
New Zealand	562	87.8	83.3	8.9	2.7	4.4	0.7	88.0	87.6
Norway (9)	897	89.8	82.2	6.7	2.6	5.5	3.0	88.2	91.4
Oman	713	76.9	68.0	15.3	5.1	9.5	2.1	82.3	71.9
Palestinian Nat'l Auth.	557	72.3	61.7	17.5	6.2	12.4	2.1	75.9	68.7
Portugal	782	89.4	83.8	6.3	3.7	5.8	0.4	90.7	88.2
Qatar	616	89.2	80.5	6.9	2.8	6.6	3.1	91.0	87.6
Romania	537	75.6	66.5	17.3	4.2	10.3	1.9	70.7	80.0
Saudi Arabia	509	83.2	72.7	11.4	3.3	10.5	2.1	88.0	78.5
Singapore	945	92.2	88.5	5.9	1.6	3.8	0.2	90.9	93.4
Sweden	722	88.6	81.0	6.6	3.8	5.2	3.3	87.7	89.6
Turkiye	708	89.8	86.8	8.4	1.4	3.1	0.3	89.1	90.5
United Arab Emirates	3961	81.4	73.7	11.3	5.5	6.0	3.5	80.7	82.2
United States	1135	84.7	79.6	9.9	4.6	3.1	2.8	86.1	83.3
Uzbekistan	632	77.4	57.5	12.0	4.8	15.4	10.3	76.9	77.8
International Avg. (40)	36556	83.3	76.2	10.7	4.1	6.7	2.3	83.5	83.0
Abu Dhabi, UAE	1043	71.8	65.3	14.5	11.2	5.2	3.8	71.2	72.3
Dubai, UAE	976	91.8	85.5	5.5	2.2	4.4	2.4	89.7	93.7
Sharjah, UAE	925	84.6	74.7	10.0	3.7	7.5	4.2	85.5	83.6

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Earth Science / Applying

B_SD5_12B SE82341B: Advantages and disadvantages of energy sources - nuclear - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	C %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1217	41.5	5.6	38.8	49.1	5.1	1.4	32.7	50.6
Austria	678	63.6	4.4	60.8	30.4	4.1	0.3	57.1	68.8
Azerbaijan	884	43.5	12.1	30.4	27.5	24.9	5.1	41.4	45.1
Bahrain	750	40.0	13.5	35.3	39.6	9.2	2.5	40.7	39.2
Brazil	3274	33.1	17.0	24.9	33.4	17.9	6.7	33.8	32.4
Chile	645	27.3	21.2	23.6	41.6	10.3	3.3	27.4	27.3
Chinese Taipei	1105	70.1	3.4	69.4	26.2	0.9	0.1	63.6	75.9
Cyprus	611	38.4	15.6	34.1	39.2	9.6	1.6	35.7	41.0
Czech Republic	1175	54.2	9.6	49.9	32.5	7.3	0.8	48.9	58.9
England	603	49.5	3.4	46.0	43.7	5.6	1.4	44.4	54.7
Finland	850	55.6	6.3	52.9	36.0	3.4	1.3	49.6	61.2
France	656	41.3	7.4	38.9	47.9	4.4	1.4	36.6	46.0
Georgia	701	48.5	8.5	34.2	27.7	24.3	5.3	48.0	48.9
Hong Kong SAR	640	59.3	4.5	56.5	34.3	4.5	0.3	51.3	66.7
Hungary	801	70.7	5.2	68.3	23.1	3.3	0.1	67.2	73.9
Ireland	712	52.6	2.7	48.2	40.8	7.8	0.5	43.7	59.7
Israel	749	39.8	6.7	33.9	44.6	12.9	1.9	44.0	36.1
Italy	676	60.0	7.0	56.2	30.5	4.2	2.1	55.4	63.9
Japan	780	64.7	6.4	62.5	27.6	2.8	0.6	64.7	64.8
Jordan	592	51.5	9.4	39.7	28.0	20.9	2.0	56.6	46.7
Kazakhstan	923	36.9	10.4	30.0	40.9	12.8	5.8	36.6	37.1
Korea, Rep. of	841	52.2	6.2	50.2	39.7	3.7	0.2	43.1	61.1
Lithuania	792	43.7	13.4	42.0	40.7	3.2	0.8	44.7	42.7
Malaysia	1278	43.2	10.1	35.2	36.2	15.0	3.5	44.2	42.1
Malta	584	42.4	6.9	38.1	44.8	9.0	1.2	46.7	38.2
Morocco	763	40.8	22.0	31.7	24.0	17.0	5.3	40.8	40.7
New Zealand	562	42.0	5.3	39.3	49.1	5.6	0.7	41.9	42.0
Norway (9)	897	57.6	8.9	51.9	29.2	7.0	3.0	54.4	60.7
Oman	713	37.6	6.8	26.6	37.3	27.3	2.1	33.7	41.2
Palestinian Nat'l Auth.	557	47.8	10.4	33.0	25.6	28.9	2.1	49.8	46.0
Portugal	782	35.2	5.7	32.3	53.8	7.8	0.4	31.7	38.2
Qatar	616	48.8	10.1	39.4	31.3	16.0	3.1	52.8	45.2
Romania	537	34.3	8.8	27.4	43.7	18.3	1.9	29.4	38.5
Saudi Arabia	509	54.3	8.5	41.9	26.8	20.7	2.1	54.6	53.9
Singapore	945	53.0	3.4	49.9	40.9	5.6	0.2	46.3	58.9
Sweden	722	54.4	5.8	49.8	36.0	5.2	3.3	48.2	61.1
Turkiye	708	41.2	6.8	38.0	47.4	7.6	0.3	39.9	42.7
United Arab Emirates	3961	45.6	8.5	39.4	38.3	10.2	3.5	43.6	47.6
United States	1135	45.5	9.3	42.4	41.5	4.0	2.8	45.7	45.3
Uzbekistan	632	43.6	12.3	28.8	24.9	23.6	10.3	44.0	43.3
International Avg. (40)	36556	47.6	8.7	41.8	36.4	10.8	2.3	45.4	49.7
Abu Dhabi, UAE	1043	46.6	11.9	40.8	34.9	8.6	3.8	43.7	49.4
Dubai, UAE	976	50.1	3.4	45.4	41.8	7.1	2.4	47.6	52.5
Sharjah, UAE	925	44.3	8.1	36.7	38.1	12.9	4.2	42.5	46.0

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Applying

B_SD5_12C SE82341C: Advantages and disadvantages of energy sources - sunlight - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	C %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1217	85.1	81.1	7.6	6.6	3.3	1.4	85.2	85.0
Austria	678	89.7	88.2	5.5	4.6	1.4	0.3	89.0	90.3
Azerbaijan	884	61.0	48.7	13.7	17.4	15.0	5.1	61.7	60.5
Bahrain	750	69.1	62.1	13.8	14.0	7.5	2.5	74.6	63.6
Brazil	3274	68.0	57.3	17.0	10.0	9.0	6.7	66.9	69.0
Chile	645	74.0	66.1	16.5	6.7	7.3	3.3	69.5	78.8
Chinese Taipei	1105	91.2	90.0	4.1	4.6	1.1	0.1	90.3	92.0
Cyprus	611	63.1	58.3	19.0	15.1	6.1	1.6	64.4	62.0
Czech Republic	1175	64.8	60.4	8.0	24.8	5.9	0.8	61.7	67.6
England	603	89.8	85.6	5.2	4.5	3.3	1.4	88.8	90.9
Finland	850	85.7	81.8	5.1	8.5	3.3	1.3	86.4	85.0
France	656	85.0	81.5	10.3	4.1	2.8	1.4	88.0	82.1
Georgia	701	60.4	49.9	13.2	19.5	12.0	5.3	62.9	58.3
Hong Kong SAR	640	88.5	85.4	5.3	5.8	3.2	0.3	86.7	90.1
Hungary	801	88.4	86.4	5.5	5.9	2.2	0.1	89.4	87.5
Ireland	712	93.4	89.3	2.4	3.9	4.0	0.5	93.2	93.6
Israel	749	81.8	74.5	7.7	8.9	7.0	1.9	85.2	78.7
Italy	676	85.3	81.3	9.0	5.0	2.6	2.1	83.0	87.2
Japan	780	92.6	90.7	5.5	1.7	1.5	0.6	92.9	92.3
Jordan	592	78.5	67.6	10.1	8.5	11.9	2.0	84.0	73.5
Kazakhstan	923	71.8	64.0	15.4	9.7	5.1	5.8	72.4	71.3
Korea, Rep. of	841	98.0	96.4	1.2	0.7	1.4	0.2	97.8	98.2
Lithuania	792	79.0	77.0	11.6	8.8	1.8	0.8	81.2	76.9
Malaysia	1278	76.2	69.3	8.6	13.1	5.6	3.5	77.6	74.7
Malta	584	82.8	78.1	10.7	5.5	4.5	1.2	83.3	82.3
Morocco	763	56.3	46.8	20.5	15.9	11.6	5.3	52.0	60.1
New Zealand	562	86.2	83.7	6.3	7.0	2.3	0.7	84.6	87.7
Norway (9)	897	89.0	82.0	6.1	4.0	4.8	3.0	90.4	87.6
Oman	713	68.7	60.1	11.3	16.1	10.4	2.1	71.1	66.6
Palestinian Nat'l Auth.	557	75.5	66.3	9.0	12.4	10.2	2.1	80.5	70.9
Portugal	782	85.5	82.7	7.5	6.5	2.8	0.4	85.7	85.2
Qatar	616	73.8	65.4	11.0	12.3	8.2	3.1	73.5	74.1
Romania	537	71.8	64.7	15.3	10.1	8.0	1.9	69.8	73.6
Saudi Arabia	509	81.8	70.6	6.9	8.8	11.6	2.1	82.6	81.2
Singapore	945	91.3	86.8	4.6	3.6	4.7	0.2	92.3	90.3
Sweden	722	87.3	80.6	4.1	7.6	4.4	3.3	89.3	85.2
Turkiye	708	80.4	76.7	14.7	4.0	4.4	0.3	77.7	83.5
United Arab Emirates	3961	75.9	67.6	11.8	9.7	7.4	3.5	76.0	75.8
United States	1135	81.9	76.7	8.6	8.3	3.6	2.8	81.5	82.3
Uzbekistan	632	64.1	51.2	14.1	14.5	9.7	10.3	61.5	66.6
International Avg. (40)	36556	79.3	73.3	9.6	9.0	5.8	2.3	79.6	79.1
Abu Dhabi, UAE	1043	67.8	60.8	15.3	13.6	6.5	3.8	67.0	68.5
Dubai, UAE	976	88.0	80.6	6.8	4.3	6.0	2.4	90.4	85.7
Sharjah, UAE	925	76.2	66.0	9.9	10.6	9.2	4.2	74.5	78.0

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Applying

B_SD5_12D SE82341D: Advantages and disadvantages of energy sources - oil - MC - Key: C

COUNTRY	N	DIFF %	A %	B %	C %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1217	66.4	4.3	26.9	61.9	5.4	1.4	66.1	66.8
Austria	678	62.1	2.8	33.4	59.3	4.2	0.3	55.5	67.6
Azerbaijan	884	44.3	8.0	32.7	32.3	21.9	5.1	48.6	40.6
Bahrain	750	54.0	8.9	32.8	48.9	6.8	2.5	56.8	51.1
Brazil	3274	46.6	13.0	28.0	35.8	16.5	6.7	44.7	48.4
Chile	645	66.2	6.5	22.2	56.3	11.6	3.3	63.3	69.3
Chinese Taipei	1105	75.0	1.9	22.6	73.6	1.7	0.1	70.6	79.0
Cyprus	611	59.8	19.1	17.6	54.7	7.0	1.6	58.2	61.3
Czech Republic	1175	50.7	4.2	43.1	48.7	3.2	0.8	43.5	57.1
England	603	69.1	3.3	25.4	64.3	5.7	1.4	66.5	72.0
Finland	850	65.6	5.5	27.0	62.0	4.2	1.3	61.6	69.5
France	656	72.8	5.6	20.0	68.6	4.3	1.4	72.7	72.9
Georgia	701	53.8	6.9	30.3	43.3	14.2	5.3	58.6	49.9
Hong Kong SAR	640	66.9	3.3	28.2	63.4	4.8	0.3	61.9	71.4
Hungary	801	65.4	4.8	29.2	64.4	1.6	0.1	61.8	68.8
Ireland	712	79.0	0.7	19.1	74.5	5.2	0.5	79.4	78.7
Israel	749	68.8	4.9	23.2	62.1	7.9	1.9	74.3	63.7
Italy	676	76.9	4.1	16.9	70.1	6.8	2.1	78.2	75.9
Japan	780	84.0	1.8	13.7	81.7	2.2	0.6	84.3	83.7
Jordan	592	50.9	6.4	35.3	43.1	13.2	2.0	50.9	50.8
Kazakhstan	923	60.4	8.1	25.3	50.8	10.1	5.8	62.0	58.9
Korea, Rep. of	841	76.5	1.8	21.3	75.1	1.6	0.2	73.3	79.8
Lithuania	792	68.7	3.2	26.7	65.7	3.7	0.8	67.1	70.3
Malaysia	1278	35.6	7.9	43.7	28.6	16.3	3.5	35.2	36.1
Malta	584	67.9	6.2	23.1	61.9	7.6	1.2	68.3	67.5
Morocco	763	36.9	20.4	31.1	30.2	13.0	5.3	37.5	36.4
New Zealand	562	69.5	4.8	24.3	66.3	3.9	0.7	65.5	72.9
Norway (9)	897	74.7	4.3	18.4	67.0	7.3	3.0	73.8	75.6
Oman	713	42.6	6.0	34.6	30.2	27.1	2.1	44.4	41.0
Palestinian Nat'l Auth.	557	34.7	9.4	42.7	27.7	18.1	2.1	31.4	37.9
Portugal	782	67.4	5.9	24.3	62.5	6.9	0.4	64.2	70.3
Qatar	616	51.3	4.9	38.5	45.6	7.9	3.1	55.8	47.0
Romania	537	40.1	5.7	38.5	29.6	24.3	1.9	39.0	41.1
Saudi Arabia	509	46.2	6.2	38.1	38.1	15.6	2.1	50.7	42.1
Singapore	945	70.5	2.3	25.7	66.8	5.0	0.2	67.5	73.2
Sweden	722	64.0	5.2	27.6	58.3	5.6	3.3	59.6	68.8
Turkiye	708	68.9	2.9	26.4	64.8	5.6	0.3	69.6	68.1
United Arab Emirates	3961	59.9	7.7	27.1	52.0	9.6	3.5	58.5	61.3
United States	1135	63.7	4.5	29.1	59.0	4.6	2.8	63.2	64.2
Uzbekistan	632	42.2	10.8	30.5	30.1	18.3	10.3	44.1	40.3
International Avg. (40)	36556	60.5	6.1	28.1	54.5	9.0	2.3	59.7	61.3
Abu Dhabi, UAE	1043	50.1	13.1	30.8	44.1	8.2	3.8	52.6	47.9
Dubai, UAE	976	71.7	1.8	23.5	64.2	8.1	2.4	66.3	76.8
Sharjah, UAE	925	58.5	7.5	27.2	48.9	12.3	4.2	55.4	61.5

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Applying

B_SD5_12E SE82341E: Advantages and disadvantages of energy sources - natural gas - MC - Key: C

COUNTRY	N	DIFF %	A %	B %	C %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1217	41.2	8.1	47.6	39.0	3.9	1.4	33.4	49.5
Austria	678	74.8	3.8	20.5	72.2	3.2	0.3	71.9	77.2
Azerbaijan	884	53.1	10.1	25.2	40.0	19.5	5.1	52.0	54.1
Bahrain	750	45.7	15.9	34.7	42.5	4.4	2.5	46.5	44.8
Brazil	3274	43.7	12.8	33.5	35.8	11.2	6.7	45.4	42.0
Chile	645	34.7	15.5	41.4	30.2	9.5	3.3	34.7	34.6
Chinese Taipei	1105	67.9	10.0	22.0	67.5	0.4	0.1	62.8	72.5
Cyprus	611	38.3	19.5	37.3	35.2	6.4	1.6	38.5	38.1
Czech Republic	1175	55.3	5.4	37.2	52.7	3.9	0.8	50.4	59.7
England	603	51.1	6.0	40.8	48.9	2.9	1.4	45.0	57.4
Finland	850	59.4	7.8	31.1	57.0	2.8	1.3	54.7	64.0
France	656	38.2	14.0	44.5	36.1	4.0	1.4	32.6	43.7
Georgia	701	37.4	17.3	32.9	29.9	14.6	5.3	39.7	35.4
Hong Kong SAR	640	52.9	15.7	29.6	50.8	3.6	0.3	44.5	60.6
Hungary	801	73.1	5.0	21.4	71.7	1.8	0.1	70.9	75.1
Ireland	712	45.5	4.2	47.7	43.3	4.3	0.5	31.3	57.4
Israel	749	27.7	13.1	53.7	25.6	5.7	1.9	28.5	26.9
Italy	676	53.7	10.2	32.7	49.8	5.1	2.1	47.4	59.1
Japan	780	63.5	4.1	31.6	62.2	1.5	0.6	63.5	63.6
Jordan	592	59.3	8.0	28.0	52.5	9.5	2.0	61.3	57.3
Kazakhstan	923	45.3	9.2	39.3	40.1	5.6	5.8	44.1	46.3
Korea, Rep. of	841	40.5	4.0	54.6	39.9	1.3	0.2	34.2	46.9
Lithuania	792	43.5	10.2	44.5	42.2	2.3	0.8	39.1	48.1
Malaysia	1278	60.3	7.6	27.9	53.9	7.1	3.5	63.8	56.5
Malta	584	37.5	10.6	48.5	35.4	4.3	1.2	36.3	38.8
Morocco	763	46.6	19.6	27.4	41.2	6.5	5.3	48.9	44.5
New Zealand	562	36.5	10.8	49.7	34.8	4.0	0.7	34.2	38.7
Norway (9)	897	36.9	11.2	46.1	33.4	6.3	3.0	33.5	40.1
Oman	713	42.8	10.3	40.7	38.2	8.8	2.1	41.5	44.1
Palestinian Nat'l Auth.	557	61.6	7.4	26.2	54.1	10.1	2.1	64.2	59.2
Portugal	782	38.3	6.6	53.5	37.3	2.1	0.4	37.1	39.5
Qatar	616	51.5	10.4	34.3	47.6	4.5	3.1	52.7	50.4
Romania	537	52.5	11.2	29.8	45.3	11.8	1.9	54.6	50.7
Saudi Arabia	509	62.2	9.3	24.2	55.1	9.2	2.1	62.6	61.8
Singapore	945	51.5	9.8	36.9	49.5	3.5	0.2	46.7	55.8
Sweden	722	52.7	8.8	34.8	48.5	4.7	3.3	50.2	55.4
Turkiye	708	59.2	5.1	33.9	56.5	4.2	0.3	61.4	56.9
United Arab Emirates	3961	46.1	11.9	37.4	42.2	4.9	3.5	46.4	45.9
United States	1135	46.5	9.0	41.4	43.8	3.0	2.8	44.5	48.5
Uzbekistan	632	54.6	10.9	22.7	40.4	15.7	10.3	54.2	55.0
International Avg. (40)	36556	49.6	10.0	36.2	45.6	6.0	2.3	47.6	51.4
Abu Dhabi, UAE	1043	43.9	16.8	35.1	40.5	3.8	3.8	46.8	41.0
Dubai, UAE	976	50.2	7.2	39.2	46.8	4.5	2.4	49.3	51.1
Sharjah, UAE	925	45.4	9.2	39.6	40.6	6.4	4.2	44.7	46.2

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Applying

B_SD5_13 SE82323: Temperature varies with latitude (DERIVED) - CR - 1 Point

COUNTRY	N	DIFF %	1 %	0 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1217	19.0	18.1	77.2	18.1	77.2	3.1	1.6	18.0	20.1
Austria	678	22.0	21.3	75.7	21.3	75.7	2.5	0.5	22.3	21.7
Azerbaijan	884	7.5	6.1	75.5	6.1	75.5	12.7	5.7	6.7	8.2
Bahrain	750	9.9	9.4	86.0	9.4	86.0	1.8	2.8	9.1	10.7
Brazil	3274	7.7	6.8	81.2	6.8	81.2	4.1	7.9	6.3	9.1
Chile	645	9.4	7.9	76.6	7.9	76.6	12.0	3.4	8.0	10.8
Chinese Taipei	1105	36.0	35.3	62.8	35.3	62.8	1.7	0.1	35.5	36.4
Cyprus	611	14.4	13.7	81.1	13.7	81.1	3.5	1.7	13.6	15.2
Czech Republic	1175	26.2	25.1	70.6	25.1	70.6	3.2	1.1	24.4	27.9
England	603	24.4	23.0	71.4	23.0	71.4	4.1	1.5	23.0	25.7
Finland	850	38.7	37.6	59.6	37.6	59.6	1.4	1.4	41.4	36.0
France	656	18.2	17.0	76.1	17.0	76.1	4.6	2.3	14.5	21.8
Georgia	701	11.3	9.6	75.8	9.6	75.8	8.8	5.8	11.9	10.8
Hong Kong SAR	640	21.0	20.3	76.2	20.3	76.2	3.0	0.4	17.7	24.2
Hungary	801	24.3	24.0	74.9	24.0	74.9	1.0	0.1	22.0	26.4
Ireland	712	25.4	24.6	72.0	24.6	72.0	2.8	0.6	26.0	25.0
Israel	749	8.6	8.1	85.5	8.1	85.5	3.3	3.1	8.0	9.2
Italy	676	24.0	23.0	72.7	23.0	72.7	2.1	2.2	16.9	30.1
Japan	780	42.0	40.8	56.4	40.8	56.4	2.0	0.7	40.2	43.9
Jordan	592	5.7	5.5	90.9	5.5	90.9	0.6	3.0	6.3	5.2
Kazakhstan	923	10.3	9.1	79.5	9.1	79.5	4.1	7.2	8.2	12.0
Korea, Rep. of	841	22.1	21.9	77.2	21.9	77.2	0.6	0.2	21.3	22.9
Lithuania	792	24.4	23.7	73.5	23.7	73.5	2.0	0.8	21.9	27.0
Malaysia	1278	8.2	7.8	87.5	7.8	87.5	0.8	3.9	8.3	8.1
Malta	584	12.1	11.6	84.2	11.6	84.2	2.9	1.4	12.5	11.7
Morocco	0	.	.	.	.	.	.	.	.	.
New Zealand	562	19.2	18.5	78.0	18.5	78.0	2.9	0.7	17.5	20.6
Norway (9)	897	19.7	17.6	71.6	17.6	71.6	6.8	4.1	17.0	22.1
Oman	713	7.7	7.3	87.5	7.3	87.5	2.4	2.8	9.5	6.1
Palestinian Nat'l Auth.	557	3.5	3.3	92.9	3.3	92.9	1.4	2.4	4.5	2.4
Portugal	782	20.0	19.3	77.5	19.3	77.5	2.5	0.7	15.6	24.0
Qatar	616	13.6	12.8	81.6	12.8	81.6	2.4	3.3	14.1	13.1
Romania	537	18.1	17.2	77.6	17.2	77.6	2.0	3.2	18.2	18.0
Saudi Arabia	509	7.6	7.3	88.6	7.3	88.6	1.0	3.1	6.3	8.8
Singapore	945	29.2	29.0	70.4	29.0	70.4	0.2	0.3	26.9	31.3
Sweden	722	31.1	28.5	63.0	28.5	63.0	4.5	4.0	29.1	33.3
Turkiye	708	29.3	28.6	69.2	28.6	69.2	1.8	0.4	25.7	33.1
United Arab Emirates	4027	16.4	15.2	77.7	15.2	77.7	2.8	4.3	15.2	17.6
United States	1135	21.3	20.3	75.1	20.3	75.1	1.1	3.5	18.7	23.7
Uzbekistan	632	3.4	2.8	80.4	2.8	80.4	4.8	12.0	3.6	3.3
International Avg. (39)	35859	18.3	17.4	76.7	17.4	76.7	3.2	2.7	17.1	19.4
Abu Dhabi, UAE	1042	12.2	11.5	82.1	11.5	82.1	1.9	4.5	11.4	13.0
Dubai, UAE	1172	25.2	23.4	69.7	23.4	69.7	3.2	3.7	23.3	26.8
Sharjah, UAE	925	13.7	12.5	78.7	12.5	78.7	3.5	5.3	12.2	15.3

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Applying

B_SD5_13A SE82323A: Temperature varies with latitude - near equator - MC - Key: C

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1217	42.4	27.8	21.6	40.1	4.9	4.0	1.6	36.6	48.1
Austria	678	47.8	19.4	22.4	46.3	8.9	2.7	0.5	45.9	49.4
Azerbaijan	884	27.2	28.3	21.5	21.6	7.9	15.0	5.7	27.1	27.4
Bahrain	750	27.2	36.7	24.2	25.8	8.2	2.2	2.8	23.6	30.7
Brazil	3274	29.1	34.4	21.5	25.1	5.1	6.1	7.9	27.0	31.2
Chile	645	28.9	35.5	19.1	24.1	4.8	13.0	3.4	23.6	34.4
Chinese Taipei	1105	66.3	14.9	14.8	64.9	3.3	2.0	0.1	67.5	65.3
Cyprus	611	37.3	29.2	24.0	35.2	5.8	4.2	1.7	36.7	38.0
Czech Republic	1175	55.9	16.7	17.7	53.2	7.5	3.8	1.1	53.2	58.4
England	603	49.6	26.5	15.5	46.8	5.6	4.1	1.5	47.2	51.9
Finland	850	67.6	11.2	12.7	65.4	7.5	1.8	1.4	69.8	65.5
France	656	42.1	25.3	17.4	38.7	10.5	5.8	2.3	36.3	47.6
Georgia	701	34.8	28.0	21.8	29.2	4.8	10.4	5.8	34.9	34.8
Hong Kong SAR	640	52.5	24.7	14.8	50.3	5.9	3.8	0.4	46.2	58.4
Hungary	801	54.9	15.7	22.3	54.3	6.6	1.0	0.1	50.6	58.8
Ireland	712	51.8	23.7	15.9	49.5	6.5	3.8	0.6	50.8	52.5
Israel	749	27.3	37.3	21.7	25.3	8.3	4.2	3.1	28.0	26.7
Italy	676	50.0	23.0	20.1	47.5	4.4	2.8	2.2	45.4	54.0
Japan	780	73.0	9.8	6.0	70.2	10.1	3.1	0.7	71.5	74.7
Jordan	592	25.0	36.3	25.6	23.4	8.4	3.3	3.0	22.5	27.3
Kazakhstan	923	31.7	28.8	21.9	27.9	9.4	4.7	7.2	27.3	35.5
Korea, Rep. of	841	52.9	23.5	15.4	52.1	7.5	1.2	0.2	48.2	57.6
Lithuania	792	53.3	20.4	16.7	51.7	8.2	2.2	0.8	47.8	59.0
Malaysia	1278	29.9	38.0	22.8	28.4	5.9	1.1	3.9	26.8	33.1
Malta	584	33.1	34.6	22.0	31.5	7.1	3.3	1.4	33.1	33.0
Morocco	0	.	.	.	.	.	.	.	.	.
New Zealand	562	42.5	29.2	20.9	40.9	5.2	3.1	0.7	33.4	50.3
Norway (9)	897	50.3	19.6	14.9	44.2	9.2	8.1	4.1	48.2	52.3
Oman	713	26.6	34.1	25.2	24.5	8.4	5.1	2.8	26.8	26.5
Palestinian Nat'l Auth.	557	21.7	45.6	21.3	20.5	7.1	3.1	2.4	20.4	23.0
Portugal	782	43.4	26.6	21.6	41.8	6.2	3.1	0.7	38.4	48.0
Qatar	616	35.0	33.7	20.3	32.9	7.1	2.8	3.3	32.3	37.5
Romania	537	43.3	28.2	20.6	40.5	4.1	3.3	3.2	39.3	46.9
Saudi Arabia	509	25.0	36.2	26.6	23.7	8.6	1.8	3.1	24.2	25.6
Singapore	945	61.6	19.5	15.0	61.1	3.5	0.6	0.3	59.2	63.9
Sweden	722	59.0	16.8	16.4	53.6	4.1	5.2	4.0	58.5	59.5
Turkiye	708	52.7	23.9	13.7	50.9	8.1	3.0	0.4	50.8	54.7
United Arab Emirates	4027	41.4	27.9	20.1	38.1	6.0	3.6	4.3	39.7	43.0
United States	1135	44.8	26.5	18.9	42.7	7.1	1.3	3.5	40.9	48.6
Uzbekistan	632	19.6	33.5	25.2	15.7	5.6	8.0	12.0	20.2	19.2
International Avg. (39)	35859	42.5	26.9	19.5	40.0	6.8	4.1	2.7	40.0	44.9
Abu Dhabi, UAE	1042	34.5	31.3	23.3	32.0	5.9	3.0	4.5	35.8	33.3
Dubai, UAE	1172	52.6	21.1	16.9	48.8	6.0	3.5	3.7	49.6	55.3
Sharjah, UAE	925	38.9	29.0	21.4	35.1	4.7	4.5	5.3	37.8	40.0

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Applying

B_SD5_13B SE82323B: Temperature varies with latitude - N hemisphere - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1217	54.1	13.5	51.2	22.9	7.0	3.8	1.6	52.1	56.1
Austria	678	58.5	16.0	56.6	19.5	4.7	2.8	0.5	55.6	61.0
Azerbaijan	884	51.0	18.4	40.9	15.1	5.7	14.2	5.7	53.0	49.4
Bahrain	750	44.1	18.4	41.7	24.5	10.1	2.5	2.8	44.6	43.5
Brazil	3274	42.8	16.9	36.9	23.2	9.3	5.9	7.9	42.4	43.2
Chile	645	47.9	11.8	39.1	24.9	5.8	15.0	3.4	44.8	51.2
Chinese Taipei	1105	72.0	11.2	70.6	12.4	3.8	1.9	0.1	72.0	72.1
Cyprus	611	54.7	13.2	51.6	21.2	8.3	3.9	1.7	55.2	54.2
Czech Republic	1175	64.8	9.2	61.6	19.5	4.8	3.9	1.1	62.1	67.2
England	603	63.8	13.8	59.8	16.2	4.0	4.7	1.5	63.9	63.7
Finland	850	67.1	13.7	64.8	12.9	5.2	1.9	1.4	70.0	64.2
France	656	56.3	14.7	51.9	20.5	5.0	5.6	2.3	54.2	58.3
Georgia	701	54.2	16.0	44.4	14.7	6.9	12.2	5.8	52.5	55.6
Hong Kong SAR	640	58.4	11.5	56.0	20.6	7.8	3.7	0.4	58.4	58.4
Hungary	801	57.2	12.1	56.3	20.6	9.4	1.5	0.1	54.7	59.5
Ireland	712	60.3	13.5	57.6	18.6	5.9	3.8	0.6	62.2	58.7
Israel	749	51.1	18.0	47.7	19.0	8.6	3.6	3.1	54.0	48.5
Italy	676	61.1	11.2	58.0	18.0	7.7	2.8	2.2	57.5	64.1
Japan	780	73.5	4.2	70.7	14.6	6.7	3.0	0.7	74.9	72.1
Jordan	592	44.6	19.5	42.0	23.0	9.5	3.0	3.0	49.4	40.2
Kazakhstan	923	57.9	12.4	50.7	17.8	6.6	5.3	7.2	58.2	57.7
Korea, Rep. of	841	59.6	9.4	59.1	26.6	3.9	0.7	0.2	58.6	60.7
Lithuania	792	63.0	8.8	61.3	19.1	8.1	2.0	0.8	60.4	65.8
Malaysia	1278	48.3	19.8	45.9	22.2	7.1	1.2	3.9	48.8	47.9
Malta	584	54.1	15.8	51.6	22.1	5.9	3.2	1.4	50.8	57.6
Morocco	0	.	.	.	.	.	.	.	.	.
New Zealand	562	53.2	15.2	50.8	19.7	9.7	3.9	0.7	50.3	55.8
Norway (9)	897	55.9	11.9	48.9	19.1	7.5	8.4	4.1	55.9	55.9
Oman	713	46.6	16.8	43.4	24.4	8.6	4.0	2.8	48.4	44.8
Palestinian Nat'l Auth.	557	40.8	20.0	38.1	23.3	12.0	4.2	2.4	38.8	42.7
Portugal	782	56.7	14.0	54.3	20.4	7.1	3.5	0.7	56.7	56.6
Qatar	616	54.1	15.4	51.1	22.0	5.9	2.4	3.3	58.1	50.4
Romania	537	51.5	13.9	48.3	22.3	9.3	3.1	3.2	50.4	52.5
Saudi Arabia	509	50.3	18.1	47.7	22.6	6.4	2.2	3.1	46.4	53.8
Singapore	945	62.1	13.3	61.7	16.1	8.3	0.2	0.3	62.2	62.0
Sweden	722	62.5	11.1	56.4	15.5	7.2	5.9	4.0	63.8	61.2
Turkiye	708	56.9	18.7	54.9	14.8	8.0	3.2	0.4	59.0	54.6
United Arab Emirates	4027	54.8	13.1	50.4	21.2	7.2	3.8	4.3	53.3	56.3
United States	1135	53.0	13.0	50.4	20.9	10.8	1.5	3.5	55.2	50.9
Uzbekistan	632	41.9	15.9	32.7	20.9	8.6	9.9	12.0	41.0	42.6
International Avg. (39)	35859	55.4	14.2	51.7	19.8	7.3	4.3	2.7	55.1	55.7
Abu Dhabi, UAE	1042	53.2	12.5	49.5	23.2	7.9	2.4	4.5	53.0	53.4
Dubai, UAE	1172	59.9	11.3	55.2	19.8	5.9	4.0	3.7	56.0	63.3
Sharjah, UAE	925	52.1	14.0	46.4	21.4	7.3	5.5	5.3	51.4	52.7

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Applying

B_SD5_13C SE82323C: Temperature varies with latitude - S hemisphere - MC - Key: D

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1217	44.9	14.1	13.0	24.7	42.2	4.4	1.6	43.4	46.4
Austria	678	40.6	20.3	10.7	26.4	39.2	2.9	0.5	40.0	41.1
Azerbaijan	884	31.2	11.1	12.7	29.6	24.2	16.7	5.7	32.4	30.2
Bahrain	750	41.7	14.4	11.6	28.7	39.1	3.4	2.8	43.9	39.4
Brazil	3274	33.6	11.9	15.1	29.6	28.6	6.9	7.9	35.7	31.5
Chile	645	39.9	8.7	11.9	28.4	32.5	15.0	3.4	38.6	41.2
Chinese Taipei	1105	51.7	28.3	5.8	13.2	50.6	2.0	0.1	48.7	54.4
Cyprus	611	35.9	16.2	10.4	33.4	33.6	4.6	1.7	38.0	33.8
Czech Republic	1175	42.7	26.8	8.7	18.6	40.3	4.5	1.1	43.9	41.6
England	603	44.9	16.1	9.8	24.7	41.3	6.5	1.5	41.9	48.1
Finland	850	55.6	21.4	7.2	14.2	53.6	2.1	1.4	57.6	53.7
France	656	43.0	19.9	9.3	23.2	39.4	6.0	2.3	40.9	45.0
Georgia	701	31.8	10.4	13.6	31.5	25.9	12.7	5.8	32.1	31.6
Hong Kong SAR	640	41.0	25.5	12.9	18.1	39.2	4.0	0.4	38.9	42.9
Hungary	801	42.2	27.6	11.8	17.7	41.6	1.3	0.1	43.1	41.3
Ireland	712	47.9	18.4	8.7	22.4	45.6	4.2	0.6	53.7	43.0
Israel	749	29.6	11.0	16.4	38.0	27.5	4.1	3.1	31.4	27.9
Italy	676	41.8	23.5	9.2	22.3	39.6	3.1	2.2	39.2	44.0
Japan	780	50.4	31.1	10.9	6.1	48.9	2.3	0.7	48.7	52.2
Jordan	592	29.2	13.9	13.3	38.4	27.0	4.3	3.0	34.9	23.9
Kazakhstan	923	27.4	15.1	12.7	35.4	23.8	5.7	7.2	26.0	28.6
Korea, Rep. of	841	42.2	27.7	13.4	15.8	41.5	1.4	0.2	42.2	42.2
Lithuania	792	40.0	25.5	11.0	21.6	38.8	2.3	0.8	39.0	41.1
Malaysia	1278	36.7	13.1	11.9	34.9	34.7	1.5	3.9	38.5	34.8
Malta	584	40.5	15.4	8.8	32.3	38.5	3.6	1.4	42.3	38.7
Morocco	0	.	.	.	.	.	.	.	.	.
New Zealand	562	41.3	12.9	11.1	32.3	39.6	3.4	0.7	44.9	38.1
Norway (9)	897	37.6	21.5	11.5	21.2	32.6	9.2	4.1	35.9	39.1
Oman	713	31.1	13.2	14.9	36.4	29.1	3.6	2.8	33.7	28.7
Palestinian Nat'l Auth.	557	29.8	13.9	19.8	31.1	27.6	5.2	2.4	37.0	23.1
Portugal	782	45.1	18.0	9.8	24.7	43.2	3.6	0.7	43.5	46.5
Qatar	616	34.4	15.1	14.0	32.5	32.3	2.9	3.3	34.9	33.9
Romania	537	38.8	18.3	15.0	23.3	35.9	4.2	3.2	39.1	38.6
Saudi Arabia	509	32.4	14.2	11.5	38.0	30.5	2.6	3.1	34.7	30.2
Singapore	945	51.8	21.5	9.8	16.2	51.1	1.1	0.3	49.3	54.1
Sweden	722	50.1	17.7	10.8	16.6	45.3	5.6	4.0	51.4	48.7
Turkiye	708	55.4	10.2	11.6	21.2	53.3	3.3	0.4	53.2	57.8
United Arab Emirates	4027	38.3	17.8	12.3	26.3	35.0	4.3	4.3	40.6	36.1
United States	1135	43.3	14.8	11.7	27.5	41.2	1.3	3.5	42.2	44.3
Uzbekistan	632	23.7	9.5	15.5	33.2	18.1	11.8	12.0	23.9	23.5
International Avg. (39)	35859	40.0	17.6	11.8	25.9	37.2	4.8	2.7	40.5	39.5
Abu Dhabi, UAE	1042	33.3	17.3	14.5	30.1	30.8	2.9	4.5	36.8	29.8
Dubai, UAE	1172	46.9	19.9	9.3	19.4	42.9	4.8	3.7	46.9	46.9
Sharjah, UAE	925	35.5	16.8	12.9	27.8	31.7	5.5	5.3	39.4	31.7

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Applying

B_SD5_14 SE82099: Trees protect soil from erosion - CR - 1 Point

COUNTRY	N	DIFF %	1 %	0 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1217	37.6	34.3	56.9	34.3	56.9	6.7	2.0	35.5	39.7
Austria	678	21.5	16.5	59.9	16.5	59.9	22.1	1.5	20.2	22.6
Azerbaijan	884	15.0	8.2	46.4	8.2	46.4	37.4	8.0	15.2	14.7
Bahrain	750	20.0	16.9	67.6	16.9	67.6	11.9	3.6	24.1	15.7
Brazil	3274	12.9	9.2	62.2	9.2	62.2	19.5	9.1	9.4	15.9
Chile	645	8.7	5.8	60.5	5.8	60.5	28.2	5.4	8.7	8.8
Chinese Taipei	1105	37.3	35.4	59.6	35.4	59.6	4.7	0.3	40.7	34.1
Cyprus	611	32.6	25.1	51.8	25.1	51.8	19.9	3.2	31.0	34.3
Czech Republic	1175	35.3	27.2	49.9	27.2	49.9	20.9	1.9	32.2	37.9
England	603	31.1	24.9	55.2	24.9	55.2	17.4	2.4	30.2	32.0
Finland	850	14.5	12.6	73.8	12.6	73.8	11.9	1.7	14.9	14.2
France	656	23.6	16.0	51.9	16.0	51.9	27.3	4.7	23.4	23.7
Georgia	701	33.8	22.5	44.1	22.5	44.1	25.0	8.3	33.8	33.7
Hong Kong SAR	640	39.7	32.3	49.1	32.3	49.1	17.4	1.1	39.8	39.6
Hungary	799	23.5	17.5	57.2	17.5	57.2	25.0	0.3	16.9	29.1
Ireland	712	43.7	38.0	49.0	38.0	49.0	12.1	1.0	47.0	40.9
Israel	749	38.8	30.6	48.2	30.6	48.2	17.0	4.3	40.6	37.2
Italy	676	47.8	37.3	40.7	37.3	40.7	19.6	2.4	45.2	50.0
Japan	780	42.1	35.9	49.4	35.9	49.4	13.4	1.2	38.2	46.1
Jordan	592	9.0	8.0	80.9	8.0	80.9	7.2	3.9	10.6	7.5
Kazakhstan	923	14.6	10.1	59.1	10.1	59.1	22.2	8.6	16.1	13.3
Korea, Rep. of	841	28.3	25.2	63.8	25.2	63.8	10.7	0.3	26.0	30.6
Lithuania	792	21.5	15.6	57.1	15.6	57.1	26.1	1.1	23.1	19.9
Malaysia	1279	29.4	27.1	65.2	27.1	65.2	3.3	4.4	29.3	29.5
Malta	584	27.8	23.3	60.4	23.3	60.4	14.7	1.6	28.3	27.2
Morocco	763	10.5	6.3	53.9	6.3	53.9	33.6	6.1	14.8	6.9
New Zealand	562	22.4	19.9	68.9	19.9	68.9	10.6	0.7	23.3	21.7
Norway (9)	897	11.4	7.9	61.4	7.9	61.4	25.0	5.7	8.2	14.2
Oman	712	12.3	10.7	76.1	10.7	76.1	8.9	4.3	14.7	9.9
Palestinian Nat'l Auth.	557	4.3	3.9	88.1	3.9	88.1	4.5	3.4	5.6	3.1
Portugal	782	27.5	20.8	54.9	20.8	54.9	22.6	1.7	23.8	30.4
Qatar	616	36.2	31.8	56.0	31.8	56.0	8.0	4.2	38.0	34.5
Romania	537	33.9	26.6	51.9	26.6	51.9	17.5	4.0	37.3	31.2
Saudi Arabia	509	16.3	15.4	78.7	15.4	78.7	2.5	3.4	23.5	9.8
Singapore	945	61.8	60.2	37.3	60.2	37.3	2.1	0.4	61.9	61.6
Sweden	722	26.2	19.0	53.5	19.0	53.5	22.2	5.2	25.8	26.6
Turkiye	708	57.5	49.7	36.7	49.7	36.7	12.8	0.8	55.3	60.0
United Arab Emirates	4025	26.8	23.2	63.4	23.2	63.4	7.8	5.6	28.2	25.5
United States	1134	28.4	26.1	65.6	26.1	65.6	4.3	4.0	26.2	30.5
Uzbekistan	632	6.5	4.2	60.8	4.2	60.8	21.2	13.8	6.0	6.9
International Avg. (40)	36617	26.8	22.0	58.2	22.0	58.2	16.1	3.7	26.8	26.8
Abu Dhabi, UAE	1042	19.9	17.3	69.5	17.3	69.5	8.0	5.2	23.7	16.4
Dubai, UAE	1172	36.3	31.3	54.8	31.3	54.8	9.3	4.7	35.6	37.0
Sharjah, UAE	925	27.6	24.0	62.8	24.0	62.8	5.8	7.4	28.9	26.3

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Reasoning

B_SD5_15 SE82325: Volcanos affect Earth's climates - CR - 1 Point

COUNTRY	N	DIFF %	1 %	0 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1217	22.7	20.8	70.8	20.8	70.8	4.4	4.0	18.9	26.4
Austria	678	30.9	28.4	63.6	28.4	63.6	4.5	3.4	29.3	32.2
Azerbaijan	884	17.9	11.7	53.6	11.7	53.6	16.4	18.2	21.5	14.4
Bahrain	750	10.5	9.2	77.8	9.2	77.8	5.7	7.3	9.9	11.2
Brazil	3274	22.2	17.4	60.7	17.4	60.7	9.0	12.9	19.7	24.5
Chile	645	10.5	8.4	71.6	8.4	71.6	10.4	9.6	10.6	10.4
Chinese Taipei	1105	31.8	30.5	65.3	30.5	65.3	2.7	1.5	32.9	30.8
Cyprus	611	14.7	12.0	69.9	12.0	69.9	8.9	9.2	13.1	16.4
Czech Republic	1175	15.4	13.0	71.4	13.0	71.4	9.8	5.8	11.3	19.0
England	603	31.9	29.1	62.1	29.1	62.1	4.6	4.2	29.2	34.8
Finland	850	31.3	29.0	63.9	29.0	63.9	4.1	3.1	28.6	33.8
France	656	32.1	26.0	55.0	26.0	55.0	9.9	9.1	29.6	34.4
Georgia	701	14.0	9.8	60.4	9.8	60.4	15.1	14.6	18.4	10.6
Hong Kong SAR	640	39.4	34.1	52.4	34.1	52.4	7.1	6.4	33.6	44.7
Hungary	800	11.9	10.2	75.6	10.2	75.6	8.9	5.3	8.9	14.5
Ireland	712	21.7	20.8	75.2	20.8	75.2	1.6	2.4	20.6	22.5
Israel	749	18.0	15.5	70.5	15.5	70.5	6.1	7.9	16.9	19.0
Italy	676	14.0	11.8	72.3	11.8	72.3	9.2	6.7	12.8	15.0
Japan	780	32.2	28.8	60.8	28.8	60.8	5.8	4.6	30.9	33.4
Jordan	592	31.9	28.2	60.1	28.2	60.1	5.1	6.7	31.4	32.4
Kazakhstan	923	18.2	14.7	66.4	14.7	66.4	6.4	12.4	17.9	18.4
Korea, Rep. of	841	33.5	31.9	63.4	31.9	63.4	2.1	2.6	27.4	39.5
Lithuania	792	30.8	27.4	61.7	27.4	61.7	6.1	4.8	26.2	35.3
Malaysia	1279	13.6	12.4	79.1	12.4	79.1	2.6	5.9	14.8	12.3
Malta	584	27.4	24.6	65.3	24.6	65.3	6.4	3.7	29.0	25.7
Morocco	763	7.5	4.9	60.0	4.9	60.0	17.7	17.5	9.0	6.1
New Zealand	562	15.2	14.3	80.0	14.3	80.0	4.3	1.4	12.8	17.2
Norway (9)	897	23.6	20.5	66.3	20.5	66.3	4.9	8.3	20.8	26.2
Oman	713	28.5	25.2	63.3	25.2	63.3	3.1	8.4	36.4	21.0
Palestinian Nat'l Auth.	557	5.0	4.6	86.5	4.6	86.5	4.2	4.7	7.2	3.1
Portugal	782	25.7	22.9	66.2	22.9	66.2	5.3	5.6	23.0	28.2
Qatar	616	21.8	19.1	68.5	19.1	68.5	5.6	6.7	23.2	20.5
Romania	537	23.7	19.5	62.9	19.5	62.9	8.1	9.4	20.1	26.7
Saudi Arabia	509	12.6	11.9	82.8	11.9	82.8	0.8	4.4	16.6	9.0
Singapore	945	41.8	41.1	57.2	41.1	57.2	1.0	0.7	39.6	43.8
Sweden	722	33.6	27.9	55.3	27.9	55.3	8.3	8.5	31.6	35.6
Turkiye	708	29.2	26.8	64.9	26.8	64.9	5.7	2.6	26.6	32.1
United Arab Emirates	4028	21.5	19.0	69.6	19.0	69.6	4.0	7.3	22.1	20.9
United States	1135	23.4	21.9	71.7	21.9	71.7	1.4	5.0	20.3	26.3
Uzbekistan	632	9.3	7.1	68.8	7.1	68.8	6.8	17.4	11.1	7.7
International Avg. (40)	36623	22.5	19.8	66.8	19.8	66.8	6.4	7.0	21.6	23.4
Abu Dhabi, UAE	1043	12.9	11.3	76.2	11.3	76.2	5.3	7.2	13.9	12.0
Dubai, UAE	1172	29.8	26.8	63.0	26.8	63.0	3.9	6.3	28.2	31.3
Sharjah, UAE	925	23.4	20.5	67.1	20.5	67.1	3.3	9.1	26.7	20.2

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Applying

B_SM1_02 SQ82L01: Role of organisms in energy pyramid (DERIVED) - CR - 1 Point

COUNTRY	N	DIFF %	1 %	0 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1176	60.7	60.1	39.0	60.1	39.0	0.9	0.1	57.3	63.6
Austria	671	54.4	54.0	45.2	54.0	45.2	0.5	0.3	48.4	60.5
Azerbaijan	884	20.7	18.6	71.3	18.6	71.3	9.5	0.6	20.1	21.2
Bahrain	738	51.8	51.5	48.0	51.5	48.0	0.6	0.0	58.7	45.4
Brazil	3287	41.8	40.9	57.0	40.9	57.0	1.8	0.3	43.3	40.2
Chile	638	62.5	62.0	37.2	62.0	37.2	0.8	0.0	61.2	63.9
Chinese Taipei	781	59.8	59.6	40.0	59.6	40.0	0.4	0.0	58.4	61.2
Cyprus	596	28.4	27.9	70.5	27.9	70.5	1.2	0.3	28.1	28.7
Czech Republic	1153	65.8	65.0	33.8	65.0	33.8	1.1	0.1	64.1	67.6
England	601	48.3	47.8	51.2	47.8	51.2	0.5	0.4	41.0	55.4
Finland	834	76.1	75.5	23.8	75.5	23.8	0.8	0.0	76.7	75.5
France	648	58.0	57.9	42.0	57.9	42.0	0.2	0.0	58.9	57.0
Georgia	693	35.2	34.0	62.6	34.0	62.6	3.4	0.0	35.5	34.9
Hong Kong SAR	633	45.0	44.9	54.9	44.9	54.9	0.2	0.0	44.9	45.1
Hungary	769	63.0	62.9	36.9	62.9	36.9	0.2	0.0	58.5	67.3
Ireland	720	45.9	45.7	54.0	45.7	54.0	0.1	0.2	45.5	46.2
Israel	744	43.2	42.4	55.7	42.4	55.7	1.9	0.0	43.9	42.5
Italy	653	70.4	69.8	29.3	69.8	29.3	0.9	0.0	72.7	68.3
Japan	558	51.0	50.9	48.8	50.9	48.8	0.2	0.0	47.7	54.0
Jordan	996	32.7	32.4	66.6	32.4	66.6	0.9	0.0	33.9	31.6
Kazakhstan	912	40.4	40.0	58.9	40.0	58.9	1.0	0.1	35.9	45.0
Korea, Rep. of	610	56.2	56.0	43.5	56.0	43.5	0.3	0.2	49.8	62.2
Lithuania	771	70.3	70.2	29.6	70.2	29.6	0.1	0.0	69.7	71.0
Malaysia	1254	36.7	36.7	63.3	36.7	63.3	0.0	0.0	36.6	36.8
Malta	576	45.7	45.5	53.9	45.5	53.9	0.6	0.0	45.4	46.1
Morocco	1240	24.2	23.8	74.6	23.8	74.6	1.2	0.4	21.2	27.3
New Zealand	561	56.6	56.6	43.4	56.6	43.4	0.0	0.0	51.3	61.4
Norway (9)	921	64.2	63.1	35.3	63.1	35.3	1.1	0.5	64.6	63.7
Oman	1177	57.3	57.1	42.5	57.1	42.5	0.5	0.0	61.1	53.8
Palestinian Nat'l Auth.	938	29.2	28.9	70.2	28.9	70.2	0.9	0.0	35.5	23.4
Portugal	772	57.1	57.0	42.9	57.0	42.9	0.1	0.0	53.8	60.3
Qatar	615	54.7	54.4	45.0	54.4	45.0	0.6	0.0	51.6	57.5
Romania	527	55.0	53.6	43.9	53.6	43.9	1.7	0.8	55.6	54.5
Saudi Arabia	832	44.2	43.8	55.4	43.8	55.4	0.8	0.0	50.9	37.8
Singapore	677	71.7	71.6	28.3	71.6	28.3	0.2	0.0	71.4	71.9
Sweden	722	69.0	68.3	30.6	68.3	30.6	0.9	0.2	68.9	69.1
Turkiye	703	49.2	49.1	50.8	49.1	50.8	0.1	0.0	46.3	51.7
United Arab Emirates	4670	54.0	53.6	45.7	53.6	45.7	0.7	0.1	52.3	55.6
United States	1169	62.7	62.3	37.1	62.3	37.1	0.3	0.3	60.0	65.2
Uzbekistan	621	37.1	36.7	62.1	36.7	62.1	1.2	0.0	35.5	38.7
International Avg. (40)	38041	51.3	50.8	48.1	50.8	48.1	1.0	0.1	50.4	52.1
Abu Dhabi, UAE	1720	45.6	45.2	54.0	45.2	54.0	0.7	0.1	46.9	44.3
Dubai, UAE	1171	62.3	62.3	37.6	62.3	37.6	0.0	0.1	58.8	65.5
Sharjah, UAE	923	59.1	58.3	40.5	58.3	40.5	1.2	0.0	57.2	60.9

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Biology / Applying

B_SM1_02A SQ82L01A: Role of organisms in energy pyramid - grass - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	C %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1176	75.4	1.6	74.0	22.6	1.8	0.1	71.4	78.8
Austria	671	72.5	10.6	70.1	16.0	3.0	0.3	67.0	78.1
Azerbaijan	884	51.4	29.4	39.8	8.2	22.0	0.6	50.1	52.7
Bahrain	738	73.0	12.6	70.9	13.6	2.9	0.0	74.4	71.8
Brazil	3287	65.5	8.9	60.9	23.2	6.7	0.3	64.8	66.1
Chile	638	80.0	4.7	77.5	14.7	3.1	0.0	78.4	81.8
Chinese Taipei	781	81.7	1.7	79.9	16.2	2.2	0.0	78.4	84.7
Cyprus	596	41.9	7.6	40.5	48.7	2.9	0.3	41.9	41.9
Czech Republic	1153	74.4	6.3	72.8	18.8	2.1	0.1	71.0	78.0
England	601	57.5	4.5	56.2	37.0	1.9	0.4	50.2	64.5
Finland	834	90.9	3.7	89.2	5.2	1.9	0.0	90.6	91.3
France	648	72.5	4.7	71.2	22.3	1.8	0.0	72.3	72.6
Georgia	693	54.5	6.2	49.4	35.0	9.3	0.0	54.5	54.6
Hong Kong SAR	633	72.0	2.9	71.2	24.8	1.2	0.0	69.3	74.8
Hungary	769	76.8	1.9	75.6	20.9	1.7	0.0	71.7	81.7
Ireland	720	62.9	4.4	61.0	31.6	2.8	0.2	57.4	68.5
Israel	744	62.5	14.3	60.0	21.7	4.0	0.0	59.5	65.5
Italy	653	80.5	2.7	79.2	16.4	1.7	0.0	78.4	82.5
Japan	558	63.6	6.8	62.1	28.7	2.4	0.0	57.9	68.7
Jordan	996	63.7	16.8	57.8	16.2	9.2	0.0	59.5	67.8
Kazakhstan	912	57.6	6.5	55.2	34.1	4.0	0.1	53.6	61.6
Korea, Rep. of	610	69.3	3.9	67.9	26.2	1.9	0.2	59.3	78.7
Lithuania	771	80.6	3.5	80.0	15.7	0.7	0.0	79.8	81.5
Malaysia	1254	59.7	15.3	57.1	23.2	4.4	0.0	57.5	61.9
Malta	576	59.6	8.5	58.3	31.1	2.1	0.0	56.5	63.0
Morocco	1240	49.3	13.6	44.3	31.9	9.8	0.4	48.4	50.3
New Zealand	561	72.3	4.7	70.5	22.3	2.6	0.0	71.0	73.4
Norway (9)	921	82.9	7.7	80.4	8.9	2.5	0.5	82.3	83.4
Oman	1177	78.2	10.6	76.1	10.6	2.7	0.0	78.2	78.2
Palestinian Nat'l Auth.	938	55.8	21.9	51.2	18.5	8.4	0.0	59.1	52.7
Portugal	772	72.1	1.6	71.0	25.9	1.5	0.0	66.8	77.2
Qatar	615	69.1	12.1	67.3	18.0	2.6	0.0	65.3	72.3
Romania	527	74.8	5.7	69.9	17.8	5.8	0.8	75.8	74.0
Saudi Arabia	832	69.5	17.9	65.0	10.6	6.6	0.0	73.9	65.4
Singapore	677	91.1	2.0	90.4	6.9	0.7	0.0	91.2	90.9
Sweden	722	80.5	9.2	78.2	9.8	2.7	0.2	79.1	81.6
Turkiye	703	74.0	3.6	71.8	21.7	2.9	0.0	69.8	77.7
United Arab Emirates	4670	69.9	10.5	67.6	18.6	3.2	0.1	67.3	72.4
United States	1169	79.5	4.6	78.2	15.6	1.4	0.3	75.7	83.2
Uzbekistan	621	66.2	16.7	59.0	13.4	10.9	0.0	64.8	67.6
International Avg. (40)	38041	69.6	8.3	67.0	20.6	4.0	0.1	67.4	71.8
Abu Dhabi, UAE	1720	62.1	14.0	59.7	22.4	3.9	0.1	62.2	62.0
Dubai, UAE	1171	77.5	4.8	76.4	17.3	1.4	0.1	73.0	81.7
Sharjah, UAE	923	74.3	9.9	71.6	14.9	3.6	0.0	71.7	77.0

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Biology / Applying

B_SM1_02B SQ82L01B: Role of organisms in energy pyramid - termite - MC - Key: C

COUNTRY	N	DIFF %	A %	B %	C %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1176	69.7	9.1	20.4	68.0	2.4	0.1	68.8	70.6
Austria	671	77.1	5.8	16.1	73.7	4.0	0.3	72.6	81.6
Azerbaijan	884	47.1	16.3	24.6	36.4	22.1	0.6	43.1	50.9
Bahrain	738	71.5	12.8	14.1	67.5	5.6	0.0	76.9	66.3
Brazil	3287	59.4	19.2	17.4	53.5	9.6	0.3	61.8	56.9
Chile	638	77.9	9.5	11.5	74.4	4.5	0.0	76.1	80.0
Chinese Taipei	781	68.8	15.4	15.1	67.2	2.3	0.0	67.0	70.6
Cyprus	596	39.1	10.3	47.5	37.1	4.8	0.3	39.3	38.8
Czech Republic	1153	75.7	6.0	17.7	73.7	2.5	0.1	73.8	77.6
England	601	57.3	6.7	34.3	55.1	3.5	0.4	50.3	64.1
Finland	834	86.7	7.0	6.0	84.8	2.2	0.0	86.2	87.2
France	648	72.5	7.2	19.1	69.3	4.4	0.0	72.3	72.7
Georgia	693	50.3	13.7	28.1	42.2	16.1	0.0	49.4	51.2
Hong Kong SAR	633	55.3	17.1	26.1	53.5	3.2	0.0	54.8	55.8
Hungary	769	73.3	5.4	20.8	72.0	1.9	0.0	68.7	77.7
Ireland	720	61.3	11.6	25.2	58.3	4.7	0.2	59.8	62.8
Israel	744	57.6	14.3	25.1	53.6	7.0	0.0	57.4	57.9
Italy	653	79.2	8.1	12.0	76.7	3.2	0.0	81.1	77.5
Japan	558	61.7	10.4	27.1	60.4	2.1	0.0	59.7	63.4
Jordan	996	61.8	15.4	16.3	51.2	17.2	0.0	62.8	60.8
Kazakhstan	912	52.9	12.5	30.4	48.1	8.8	0.1	48.7	56.9
Korea, Rep. of	610	65.8	7.8	25.5	64.2	2.4	0.2	60.6	70.6
Lithuania	771	79.3	6.1	14.4	78.4	1.1	0.0	80.0	78.5
Malaysia	1254	53.4	12.6	28.5	47.2	11.6	0.0	54.1	52.8
Malta	576	57.2	11.3	28.8	53.6	6.3	0.0	55.5	59.1
Morocco	1240	49.1	14.9	26.9	40.4	17.5	0.4	47.9	50.4
New Zealand	561	70.2	11.7	17.1	68.0	3.2	0.0	63.8	75.9
Norway (9)	921	80.3	8.6	10.3	77.3	3.3	0.5	81.3	79.5
Oman	1177	74.5	11.9	11.7	69.0	7.4	0.0	77.9	71.2
Palestinian Nat'l Auth.	938	58.3	17.2	17.2	48.1	17.5	0.0	62.0	54.6
Portugal	772	65.9	9.3	23.9	64.2	2.7	0.0	63.6	68.2
Qatar	615	70.3	10.5	17.3	65.6	6.7	0.0	66.4	73.6
Romania	527	68.4	14.2	15.7	64.7	4.5	0.8	69.2	67.6
Saudi Arabia	832	69.2	15.7	10.0	57.8	16.5	0.0	71.4	66.9
Singapore	677	78.5	13.3	7.7	76.7	2.3	0.0	78.6	78.4
Sweden	722	82.5	4.8	12.1	79.7	3.2	0.2	82.4	82.5
Turkiye	703	61.6	19.6	17.2	59.1	4.1	0.0	61.0	62.1
United Arab Emirates	4670	67.2	11.9	18.9	62.9	6.3	0.1	65.7	68.6
United States	1169	72.4	12.0	14.8	70.4	2.5	0.3	70.4	74.4
Uzbekistan	621	68.9	11.1	14.7	57.3	16.9	0.0	65.9	72.0
International Avg. (40)	38041	66.2	11.5	19.7	62.0	6.7	0.1	65.2	67.2
Abu Dhabi, UAE	1720	60.8	12.9	23.3	55.9	7.9	0.1	61.4	60.1
Dubai, UAE	1171	71.0	11.6	16.4	68.7	3.2	0.1	69.0	72.9
Sharjah, UAE	923	71.1	11.7	15.1	66.2	6.9	0.0	70.2	72.0

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Biology / Applying

B_SM1_02C SQ82L01C: Role of organisms in energy pyramid - earthworm - MC - Key: C

COUNTRY	N	DIFF %	A %	B %	C %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1176	74.9	4.1	20.5	73.3	2.0	0.1	72.7	76.7
Austria	671	73.2	7.2	18.7	70.6	3.2	0.3	68.3	78.1
Azerbaijan	884	46.4	15.3	25.6	35.4	23.0	0.6	41.6	51.2
Bahrain	738	75.1	10.1	13.9	72.4	3.6	0.0	77.9	72.5
Brazil	3287	67.3	11.6	18.1	61.1	8.9	0.3	66.7	67.9
Chile	638	79.2	6.1	13.9	76.3	3.6	0.0	76.3	82.4
Chinese Taipei	781	77.3	5.8	16.3	75.6	2.2	0.0	74.1	80.4
Cyprus	596	43.6	8.8	44.3	41.1	5.4	0.3	42.5	44.8
Czech Republic	1153	78.6	3.7	17.2	77.0	2.0	0.1	76.4	81.0
England	601	61.2	3.0	34.1	58.5	3.9	0.4	54.7	67.4
Finland	834	87.0	5.7	6.9	84.7	2.7	0.0	86.0	87.9
France	648	73.5	4.6	20.9	70.8	3.7	0.0	74.5	72.5
Georgia	693	57.2	9.2	27.7	49.2	13.9	0.0	54.8	59.6
Hong Kong SAR	633	60.3	13.0	25.8	58.9	2.2	0.0	62.4	58.2
Hungary	769	77.1	4.2	17.9	74.4	3.4	0.0	70.5	83.5
Ireland	720	63.1	8.8	27.0	61.2	2.9	0.2	61.8	64.3
Israel	744	64.2	9.7	23.5	59.6	7.2	0.0	63.7	64.8
Italy	653	83.9	3.3	12.3	81.5	2.9	0.0	83.7	84.1
Japan	558	66.2	5.0	28.1	64.8	2.1	0.0	62.5	69.5
Jordan	996	67.3	12.5	15.5	57.6	14.4	0.0	67.5	67.1
Kazakhstan	912	56.8	9.9	29.8	52.3	7.9	0.1	51.8	61.7
Korea, Rep. of	610	71.4	4.3	23.4	69.2	2.9	0.2	64.3	78.0
Lithuania	771	81.5	4.2	14.0	80.0	1.8	0.0	80.7	82.3
Malaysia	1254	56.1	10.9	28.5	50.5	10.1	0.0	54.7	57.6
Malta	576	59.9	8.5	29.7	57.0	4.8	0.0	57.1	62.8
Morocco	1240	55.7	11.9	24.4	45.8	17.5	0.4	55.7	55.8
New Zealand	561	74.7	6.6	18.0	72.7	2.8	0.0	69.0	79.7
Norway (9)	921	80.2	6.5	12.6	77.2	3.3	0.5	79.0	81.3
Oman	1177	78.8	9.5	10.8	75.4	4.3	0.0	83.1	74.7
Palestinian Nat'l Auth.	938	61.5	14.8	18.0	52.5	14.7	0.0	64.7	58.2
Portugal	772	70.4	5.7	23.4	69.1	1.8	0.0	67.0	73.7
Qatar	615	74.4	8.1	16.3	71.1	4.4	0.0	70.5	77.7
Romania	527	75.3	8.8	13.9	69.2	7.3	0.8	77.0	73.8
Saudi Arabia	832	73.3	13.6	10.1	65.3	10.9	0.0	76.9	69.6
Singapore	677	88.7	3.4	7.7	87.3	1.6	0.0	87.9	89.5
Sweden	722	84.9	4.3	10.3	82.0	3.2	0.2	83.9	85.8
Turkiye	703	70.7	9.7	18.5	68.1	3.7	0.0	66.7	74.2
United Arab Emirates	4670	72.7	8.3	17.6	68.8	5.2	0.1	70.3	75.0
United States	1169	78.2	6.5	14.9	76.4	1.9	0.3	75.2	81.0
Uzbekistan	621	66.4	9.2	18.6	54.8	17.4	0.0	62.1	70.8
International Avg. (40)	38041	70.2	7.9	19.7	66.2	6.0	0.1	68.4	71.9
Abu Dhabi, UAE	1720	65.1	10.7	21.8	60.5	7.0	0.1	63.8	66.4
Dubai, UAE	1171	77.6	5.6	16.3	75.5	2.5	0.1	74.8	80.1
Sharjah, UAE	923	77.0	8.3	13.5	73.1	5.2	0.0	75.3	78.7

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Biology / Applying

B_SM1_02D SQ82L01D: Role of organisms in energy pyramid - impala - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	C %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1176	90.4	88.1	6.3	3.1	2.5	0.1	89.9	90.8
Austria	671	74.8	70.8	8.5	15.4	5.0	0.3	70.3	79.1
Azerbaijan	884	36.5	28.3	15.8	33.5	21.8	0.6	31.2	41.7
Bahrain	738	73.8	69.9	12.8	12.0	5.4	0.0	75.1	72.6
Brazil	3287	73.6	64.4	12.2	10.9	12.2	0.3	72.5	74.7
Chile	638	87.3	82.1	5.7	6.2	6.0	0.0	87.4	87.3
Chinese Taipei	781	92.2	89.3	3.3	4.3	3.1	0.0	89.4	94.8
Cyprus	596	72.5	69.2	15.6	10.7	4.2	0.3	72.2	72.8
Czech Republic	1153	88.4	85.1	8.6	2.6	3.6	0.1	88.0	88.7
England	601	86.1	81.6	8.2	5.0	4.7	0.4	82.8	89.2
Finland	834	90.2	88.5	3.0	6.6	1.9	0.0	89.9	90.4
France	648	86.8	82.9	7.8	4.8	4.5	0.0	83.6	90.0
Georgia	693	79.2	66.6	10.3	7.2	15.8	0.0	78.2	80.2
Hong Kong SAR	633	83.2	80.8	6.7	9.5	2.9	0.0	82.7	83.8
Hungary	769	92.3	90.3	3.0	4.5	2.2	0.0	90.6	93.9
Ireland	720	82.8	78.6	10.6	5.7	5.0	0.2	81.2	84.5
Israel	744	73.0	67.5	11.4	13.5	7.6	0.0	72.6	73.4
Italy	653	91.4	88.9	5.9	2.5	2.8	0.0	93.1	89.9
Japan	558	84.9	82.9	8.6	6.2	2.4	0.0	83.4	86.2
Jordan	996	60.4	50.5	14.3	18.8	16.4	0.0	58.7	62.2
Kazakhstan	912	80.0	73.4	7.9	10.5	8.1	0.1	78.3	81.5
Korea, Rep. of	610	87.0	84.8	6.9	5.8	2.4	0.2	86.3	87.7
Lithuania	771	91.0	90.1	3.9	5.0	1.0	0.0	90.8	91.3
Malaysia	1254	65.8	59.1	11.7	19.1	10.2	0.0	63.1	68.4
Malta	576	81.8	77.4	8.7	8.5	5.4	0.0	80.5	83.3
Morocco	1240	58.1	48.5	20.8	14.2	16.1	0.4	55.6	60.6
New Zealand	561	83.6	80.9	10.0	5.9	3.2	0.0	83.5	83.7
Norway (9)	921	82.9	78.3	6.8	9.4	5.0	0.5	81.6	84.1
Oman	1177	80.1	74.4	9.5	9.0	7.1	0.0	82.4	78.0
Palestinian Nat'l Auth.	938	55.7	45.8	16.6	19.8	17.7	0.0	58.1	53.5
Portugal	772	92.3	89.2	4.4	3.1	3.4	0.0	91.6	93.1
Qatar	615	76.3	72.1	12.5	9.9	5.5	0.0	73.5	78.6
Romania	527	82.1	75.7	9.7	6.8	7.0	0.8	83.5	81.0
Saudi Arabia	832	63.2	54.2	15.0	16.5	14.3	0.0	67.4	58.9
Singapore	677	94.3	92.4	2.3	3.3	2.1	0.0	93.8	94.8
Sweden	722	81.6	78.3	10.2	7.5	3.8	0.2	80.9	82.2
Turkiye	703	86.3	81.5	6.2	6.7	5.6	0.0	83.2	89.0
United Arab Emirates	4670	78.1	73.0	10.7	9.7	6.4	0.1	75.8	80.3
United States	1169	87.3	85.1	6.2	6.2	2.1	0.3	84.7	89.7
Uzbekistan	621	74.4	59.6	10.1	10.4	20.0	0.0	69.7	79.3
International Avg. (40)	38041	79.5	74.5	9.2	9.3	6.9	0.1	78.4	80.6
Abu Dhabi, UAE	1720	70.5	64.9	13.2	13.9	7.8	0.1	68.9	72.1
Dubai, UAE	1171	88.0	85.2	6.6	5.1	3.1	0.1	84.7	90.9
Sharjah, UAE	923	79.6	73.8	9.9	9.0	7.2	0.0	78.5	80.6

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Applying

B_SM1_02E SQ82L01E: Role of organisms in energy pyramid - elephant - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	C %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1176	92.5	90.8	3.5	3.8	1.8	0.1	92.2	92.8
Austria	671	81.0	78.7	6.9	11.6	2.5	0.3	76.9	85.1
Azerbaijan	884	38.5	31.4	12.8	37.3	17.9	0.6	33.5	43.4
Bahrain	738	74.0	71.5	12.4	12.7	3.4	0.0	76.8	71.4
Brazil	3287	76.5	70.8	12.8	8.9	7.2	0.3	75.9	77.2
Chile	638	88.9	87.0	6.8	4.1	2.2	0.0	87.9	90.0
Chinese Taipei	781	92.0	91.1	3.0	5.0	0.9	0.0	89.7	94.1
Cyprus	596	83.1	80.3	7.6	8.7	3.1	0.3	81.4	85.0
Czech Republic	1153	90.6	88.8	7.1	2.1	1.9	0.1	90.8	90.3
England	601	92.4	90.0	3.5	3.8	2.2	0.4	91.3	93.5
Finland	834	91.3	89.5	4.0	4.5	2.0	0.0	91.3	91.4
France	648	91.3	90.1	4.8	3.8	1.3	0.0	90.9	91.8
Georgia	693	80.2	72.6	12.0	5.9	9.4	0.0	79.7	80.7
Hong Kong SAR	633	87.2	85.4	4.1	8.5	2.0	0.0	87.7	86.7
Hungary	769	94.6	93.7	2.2	3.1	1.0	0.0	92.5	96.7
Ireland	720	84.8	83.3	9.6	5.3	1.6	0.2	84.4	85.2
Israel	744	74.0	70.1	10.7	13.9	5.3	0.0	71.8	76.1
Italy	653	93.2	91.8	4.6	2.1	1.6	0.0	94.2	92.3
Japan	558	87.6	86.6	7.5	4.7	1.2	0.0	86.4	88.8
Jordan	996	67.8	59.9	13.7	14.7	11.7	0.0	65.5	70.0
Kazakhstan	912	81.7	77.3	7.4	9.9	5.3	0.1	80.0	83.3
Korea, Rep. of	610	91.2	90.1	3.0	5.6	1.1	0.2	92.7	89.8
Lithuania	771	90.2	89.3	5.5	4.2	1.0	0.0	90.2	90.2
Malaysia	1254	71.8	69.1	7.7	19.4	3.8	0.0	71.8	71.9
Malta	576	82.2	80.7	8.9	8.6	1.9	0.0	81.7	82.8
Morocco	1240	67.1	59.7	14.8	14.5	10.7	0.4	64.8	69.3
New Zealand	561	87.5	85.2	6.4	5.8	2.5	0.0	87.7	87.2
Norway (9)	921	84.6	82.1	7.5	7.4	2.4	0.5	84.1	85.0
Oman	1177	81.5	76.8	9.0	8.5	5.7	0.0	83.0	80.0
Palestinian Nat'l Auth.	938	59.7	52.7	15.8	19.8	11.8	0.0	62.8	56.8
Portugal	772	94.2	93.8	2.9	2.9	0.5	0.0	93.4	95.0
Qatar	615	78.4	75.0	10.7	10.0	4.4	0.0	78.1	78.7
Romania	527	86.8	81.8	6.4	6.0	5.0	0.8	87.9	86.0
Saudi Arabia	832	68.5	61.9	13.4	15.1	9.6	0.0	70.0	67.0
Singapore	677	94.9	93.8	2.3	2.8	1.1	0.0	94.5	95.2
Sweden	722	85.3	83.3	7.4	6.9	2.2	0.2	82.6	87.7
Turkiye	703	87.8	85.9	7.5	4.5	2.2	0.0	87.5	88.1
United Arab Emirates	4670	80.3	77.1	9.2	9.7	3.9	0.1	78.0	82.6
United States	1169	90.4	89.3	5.1	4.4	0.9	0.3	89.1	91.6
Uzbekistan	621	71.1	63.9	9.4	16.5	10.2	0.0	68.8	73.4
International Avg. (40)	38041	82.4	79.3	7.8	8.7	4.1	0.1	81.7	83.1
Abu Dhabi, UAE	1720	72.7	69.1	11.8	14.2	4.8	0.1	70.0	75.3
Dubai, UAE	1171	89.7	88.0	4.9	5.3	1.8	0.1	87.2	91.9
Sharjah, UAE	923	82.4	77.7	7.9	8.6	5.7	0.0	81.0	83.9

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Applying

B_SM1_02F SQ82L01F: Role of organisms in energy pyramid - acacia tree - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	C %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1176	77.0	2.1	75.0	20.2	2.6	0.1	74.3	79.4
Austria	671	79.0	8.4	75.0	11.5	4.8	0.3	72.7	85.2
Azerbaijan	884	52.5	28.5	40.2	7.9	22.7	0.6	49.1	55.7
Bahrain	738	71.8	14.4	69.4	12.9	3.3	0.0	74.0	69.6
Brazil	3287	70.0	7.8	63.4	19.4	9.0	0.3	67.6	72.3
Chile	638	84.3	4.8	81.1	10.3	3.8	0.0	83.3	85.4
Chinese Taipei	781	81.3	1.6	79.8	16.7	1.9	0.0	78.8	83.7
Cyprus	596	42.9	7.0	40.8	47.4	4.5	0.3	44.3	41.4
Czech Republic	1153	76.3	5.0	73.4	17.8	3.7	0.1	73.1	79.7
England	601	62.5	4.1	59.9	31.8	3.8	0.4	55.5	69.1
Finland	834	92.3	3.0	89.3	4.5	3.2	0.0	91.9	92.6
France	648	75.2	4.3	72.4	19.5	3.8	0.0	74.1	76.4
Georgia	693	56.5	7.6	50.1	31.0	11.3	0.0	57.0	56.0
Hong Kong SAR	633	69.0	2.4	67.4	27.9	2.2	0.0	67.9	70.0
Hungary	769	80.3	1.5	78.2	17.7	2.6	0.0	74.7	85.6
Ireland	720	65.5	5.7	63.8	27.9	2.4	0.2	62.0	69.0
Israel	744	63.6	13.1	60.5	21.6	4.9	0.0	60.7	66.4
Italy	653	83.6	2.2	80.8	13.6	3.4	0.0	82.4	84.7
Japan	558	64.7	6.2	63.9	28.6	1.3	0.0	58.8	69.9
Jordan	996	68.3	15.2	61.9	13.6	9.4	0.0	65.6	70.9
Kazakhstan	912	60.7	6.6	56.6	30.1	6.7	0.1	54.6	66.7
Korea, Rep. of	610	73.2	3.4	71.9	23.0	1.6	0.2	63.7	82.0
Lithuania	771	81.2	3.6	80.6	15.1	0.7	0.0	80.9	81.4
Malaysia	1254	60.1	13.7	56.1	23.6	6.6	0.0	59.0	61.1
Malta	576	62.2	6.9	59.6	29.4	4.2	0.0	59.6	65.1
Morocco	1240	52.5	13.8	44.0	26.0	15.8	0.4	50.3	54.6
New Zealand	561	77.8	4.8	75.7	16.8	2.7	0.0	76.0	79.3
Norway (9)	921	82.5	7.8	79.2	9.0	3.6	0.5	81.6	83.5
Oman	1177	79.6	8.5	75.4	10.9	5.2	0.0	79.5	79.6
Palestinian Nat'l Auth.	938	61.6	18.3	54.8	15.9	11.1	0.0	63.3	60.0
Portugal	772	74.9	1.5	73.2	23.0	2.3	0.0	69.9	79.8
Qatar	615	72.4	11.7	70.3	15.1	2.9	0.0	68.2	75.9
Romania	527	78.7	4.0	73.1	15.7	6.4	0.8	77.4	79.9
Saudi Arabia	832	73.8	14.0	67.7	10.0	8.3	0.0	77.6	70.1
Singapore	677	90.3	2.5	88.4	6.9	2.1	0.0	90.9	89.8
Sweden	722	80.7	10.1	77.8	8.6	3.4	0.2	79.7	81.5
Turkiye	703	78.0	2.2	76.6	19.3	1.9	0.0	73.8	81.8
United Arab Emirates	4670	72.0	10.3	68.8	16.4	4.3	0.1	69.4	74.5
United States	1169	80.5	3.8	78.6	15.3	2.1	0.3	77.6	83.2
Uzbekistan	621	72.9	10.3	61.0	12.3	16.3	0.0	71.5	74.3
International Avg. (40)	38041	72.1	7.6	68.4	18.6	5.3	0.1	69.8	74.2
Abu Dhabi, UAE	1720	64.4	15.0	61.6	19.1	4.2	0.1	65.0	63.7
Dubai, UAE	1171	78.9	4.9	77.4	15.9	1.8	0.1	74.1	83.2
Sharjah, UAE	923	77.7	7.9	72.2	12.9	7.0	0.0	75.1	80.2

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Biology / Applying

B_SM1_03A SQ82L02A: Two organisms that compete for food - CR - 1 Point

COUNTRY	N	DIFF %	1 %	0 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1176	77.3	76.2	22.4	76.2	22.4	1.3	0.1	76.3	78.2
Austria	671	68.4	67.5	31.1	67.5	31.1	1.1	0.3	66.4	70.5
Azerbaijan	884	60.7	58.8	38.0	58.8	38.0	2.6	0.6	60.1	61.3
Bahrain	739	66.6	66.6	33.4	66.6	33.4	0.1	0.0	69.9	63.6
Brazil	3287	68.3	66.8	31.0	66.8	31.0	1.8	0.3	66.4	70.2
Chile	638	74.4	73.0	25.1	73.0	25.1	1.6	0.2	74.5	74.3
Chinese Taipei	782	87.3	87.3	12.7	87.3	12.7	0.0	0.0	86.1	88.4
Cyprus	596	79.6	78.6	20.1	78.6	20.1	1.0	0.3	81.3	77.9
Czech Republic	1153	86.6	86.3	13.4	86.3	13.4	0.3	0.1	87.4	85.6
England	601	83.1	81.5	16.5	81.5	16.5	1.6	0.4	84.9	81.5
Finland	834	82.3	81.3	17.5	81.3	17.5	1.2	0.0	82.7	81.9
France	648	78.2	77.6	21.6	77.6	21.6	0.8	0.0	74.4	82.0
Georgia	693	75.0	73.9	24.6	73.9	24.6	1.5	0.0	73.2	77.0
Hong Kong SAR	632	71.9	71.3	27.8	71.3	27.8	0.9	0.0	70.3	73.6
Hungary	769	90.2	90.2	9.8	90.2	9.8	0.0	0.0	88.5	91.9
Ireland	720	79.0	78.7	21.0	78.7	21.0	0.2	0.2	77.3	80.7
Israel	744	79.7	78.6	20.1	78.6	20.1	1.3	0.1	79.2	80.1
Italy	653	84.5	84.1	15.5	84.1	15.5	0.4	0.0	80.5	88.2
Japan	558	85.9	85.5	14.1	85.5	14.1	0.5	0.0	83.5	88.0
Jordan	996	61.5	61.5	38.4	61.5	38.4	0.1	0.0	58.2	64.7
Kazakhstan	912	66.7	66.1	33.0	66.1	33.0	0.7	0.1	64.1	69.3
Korea, Rep. of	610	89.2	88.9	10.7	88.9	10.7	0.2	0.2	87.9	90.5
Lithuania	771	87.9	87.8	12.1	87.8	12.1	0.1	0.0	88.0	87.7
Malaysia	1254	69.1	69.1	30.9	69.1	30.9	0.0	0.0	65.0	73.1
Malta	576	71.6	70.8	28.1	70.8	28.1	1.1	0.0	70.6	72.7
Morocco	1240	46.5	45.8	52.6	45.8	52.6	1.2	0.4	42.3	51.2
New Zealand	562	76.5	75.0	23.1	75.0	23.1	1.9	0.0	76.7	76.2
Norway (9)	921	85.4	83.0	14.2	83.0	14.2	2.1	0.7	86.7	84.2
Oman	1178	73.2	72.7	26.7	72.7	26.7	0.6	0.0	76.6	70.0
Palestinian Nat'l Auth.	938	52.3	52.0	47.4	52.0	47.4	0.6	0.0	52.2	52.4
Portugal	772	86.6	86.4	13.4	86.4	13.4	0.2	0.0	86.4	86.8
Qatar	615	73.9	73.5	25.9	73.5	25.9	0.4	0.2	78.4	70.0
Romania	527	79.3	77.8	20.3	77.8	20.3	1.0	0.8	79.0	79.5
Saudi Arabia	832	60.7	60.7	39.3	60.7	39.3	0.1	0.0	60.1	61.3
Singapore	677	89.7	89.6	10.3	89.6	10.3	0.2	0.0	90.6	88.9
Sweden	722	75.5	72.1	23.4	72.1	23.4	4.3	0.2	74.2	76.6
Turkiye	703	82.7	82.5	17.3	82.5	17.3	0.2	0.0	82.9	82.5
United Arab Emirates	4670	70.1	69.8	29.8	69.8	29.8	0.3	0.1	69.1	71.0
United States	1169	80.1	79.7	19.8	79.7	19.8	0.2	0.3	77.6	82.4
Uzbekistan	621	62.3	62.3	37.7	62.3	37.7	0.1	0.0	58.6	66.0
International Avg. (40)	38044	75.5	74.8	24.3	74.8	24.3	0.8	0.1	74.7	76.3
Abu Dhabi, UAE	1720	61.8	61.5	37.9	61.5	37.9	0.5	0.1	59.5	64.2
Dubai, UAE	1171	83.0	82.8	16.9	82.8	16.9	0.2	0.1	81.9	84.0
Sharjah, UAE	923	71.1	70.8	28.8	70.8	28.8	0.3	0.0	72.0	70.1

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Applying

B_SM1_03B SQ82L02B: Two organisms with predator-prey relationship - CR - 1 Point

COUNTRY	N	DIFF %	1 %	0 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1176	70.1	69.1	29.5	69.1	29.5	1.1	0.3	68.9	71.0
Austria	671	69.3	68.3	30.3	68.3	30.3	1.1	0.3	69.2	69.4
Azerbaijan	884	69.3	67.1	29.7	67.1	29.7	2.6	0.6	70.6	68.1
Bahrain	739	74.6	74.6	25.4	74.6	25.4	0.0	0.1	80.3	69.4
Brazil	3287	53.2	52.0	45.8	52.0	45.8	1.7	0.5	52.5	53.8
Chile	638	59.4	58.3	39.8	58.3	39.8	1.4	0.4	61.8	56.8
Chinese Taipei	782	82.1	82.1	17.9	82.1	17.9	0.0	0.0	80.2	83.8
Cyprus	596	55.0	54.3	44.4	54.3	44.4	1.0	0.3	55.9	54.1
Czech Republic	1153	84.7	84.4	15.2	84.4	15.2	0.3	0.1	87.0	82.4
England	601	69.6	68.2	29.8	68.2	29.8	1.6	0.4	68.6	70.6
Finland	834	73.1	72.3	26.5	72.3	26.5	1.1	0.1	79.1	68.0
France	648	75.6	75.1	24.2	75.1	24.2	0.8	0.0	76.8	74.5
Georgia	693	66.1	65.1	33.4	65.1	33.4	1.4	0.1	70.0	61.9
Hong Kong SAR	633	63.6	63.0	36.1	63.0	36.1	0.9	0.0	55.3	71.6
Hungary	769	78.8	78.8	21.2	78.8	21.2	0.0	0.0	81.4	76.3
Ireland	720	63.7	63.5	36.1	63.5	36.1	0.2	0.2	63.0	64.4
Israel	744	84.8	83.6	15.0	83.6	15.0	1.3	0.1	84.8	84.8
Italy	653	72.8	72.5	27.1	72.5	27.1	0.4	0.0	74.3	71.4
Japan	558	65.6	65.3	34.3	65.3	34.3	0.1	0.3	60.7	69.9
Jordan	996	69.5	69.4	30.4	69.4	30.4	0.1	0.0	74.3	65.1
Kazakhstan	912	54.8	54.3	44.9	54.3	44.9	0.4	0.4	54.1	55.5
Korea, Rep. of	610	75.6	75.3	24.3	75.3	24.3	0.2	0.2	72.7	78.3
Lithuania	771	62.2	62.1	37.7	62.1	37.7	0.1	0.0	67.4	56.5
Malaysia	1254	61.7	61.7	38.3	61.7	38.3	0.0	0.0	64.2	59.2
Malta	576	59.3	58.6	40.3	58.6	40.3	0.7	0.4	59.8	58.6
Morocco	1240	42.4	41.7	56.7	41.7	56.7	1.1	0.5	43.1	41.6
New Zealand	562	64.2	63.0	35.1	63.0	35.1	1.9	0.0	62.9	65.4
Norway (9)	921	61.9	60.2	37.0	60.2	37.0	2.0	0.8	61.6	62.3
Oman	1178	65.0	64.6	34.8	64.6	34.8	0.4	0.2	66.9	63.3
Palestinian Nat'l Auth.	938	64.4	64.0	35.4	64.0	35.4	0.5	0.2	71.6	57.9
Portugal	772	80.0	79.8	20.0	79.8	20.0	0.2	0.0	83.3	76.7
Qatar	615	75.5	75.1	24.4	75.1	24.4	0.4	0.2	82.0	69.9
Romania	527	72.6	71.3	26.9	71.3	26.9	1.0	0.8	76.5	69.4
Saudi Arabia	832	69.9	69.9	30.0	69.9	30.0	0.1	0.0	76.5	63.8
Singapore	677	87.1	87.0	12.9	87.0	12.9	0.2	0.0	88.0	86.3
Sweden	722	60.8	58.1	37.4	58.1	37.4	4.2	0.3	65.5	56.9
Turkiye	703	88.0	87.8	12.0	87.8	12.0	0.2	0.0	87.1	88.7
United Arab Emirates	4670	64.9	64.7	34.9	64.7	34.9	0.3	0.1	66.9	63.0
United States	1169	70.5	70.2	29.4	70.2	29.4	0.2	0.3	70.6	70.4
Uzbekistan	0	.	.	.	.	.	.	.	.	.
International Avg. (39)	37424	68.8	68.1	30.9	68.1	30.9	0.8	0.2	70.1	67.5
Abu Dhabi, UAE	1720	52.7	52.3	47.1	52.3	47.1	0.5	0.1	52.3	53.0
Dubai, UAE	1171	76.3	76.1	23.6	76.1	23.6	0.2	0.1	80.5	72.6
Sharjah, UAE	923	69.6	69.4	30.3	69.4	30.3	0.3	0.0	73.1	66.2

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Applying

B_SM1_04A SQ82L04A: Organism that benefits from elephant dung - CR - 1 Point

COUNTRY	N	DIFF %	1 %	0 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1176	88.1	64.3	8.7	64.3	8.7	26.7	0.3	84.5	91.3
Austria	671	82.9	68.4	14.1	68.4	14.1	17.2	0.3	82.7	83.0
Azerbaijan	884	67.3	53.5	26.0	53.5	26.0	19.8	0.6	64.9	69.8
Bahrain	739	67.4	46.6	22.6	46.6	22.6	30.8	0.1	69.3	65.5
Brazil	3287	68.4	48.6	22.5	48.6	22.5	28.4	0.5	69.7	67.0
Chile	638	79.5	58.3	15.1	58.3	15.1	26.2	0.4	78.1	81.0
Chinese Taipei	781	88.9	72.6	9.1	72.6	9.1	18.4	0.0	90.4	87.3
Cyprus	596	81.5	61.9	14.1	61.9	14.1	23.7	0.3	82.0	80.9
Czech Republic	1153	86.2	77.1	12.4	77.1	12.4	10.5	0.1	86.7	85.5
England	601	92.1	73.0	6.3	73.0	6.3	20.3	0.4	91.1	93.1
Finland	834	92.2	79.0	6.6	79.0	6.6	14.3	0.1	93.1	91.5
France	648	87.7	78.1	11.0	78.1	11.0	11.0	0.0	87.0	88.4
Georgia	693	65.1	48.1	25.7	48.1	25.7	26.1	0.1	63.3	67.1
Hong Kong SAR	632	84.3	67.2	12.5	67.2	12.5	20.3	0.0	84.2	84.5
Hungary	769	89.0	78.1	9.7	78.1	9.7	12.3	0.0	87.8	90.2
Ireland	720	89.2	78.4	9.5	78.4	9.5	11.9	0.2	88.3	90.1
Israel	744	80.4	60.9	14.9	60.9	14.9	24.1	0.1	81.3	79.4
Italy	653	85.2	71.4	12.4	71.4	12.4	16.2	0.0	86.0	84.4
Japan	558	92.3	83.7	7.0	83.7	7.0	9.0	0.3	90.9	93.6
Jordan	996	64.7	45.0	24.5	45.0	24.5	30.5	0.0	70.4	59.0
Kazakhstan	912	62.1	38.7	23.6	38.7	23.6	37.3	0.4	61.8	62.3
Korea, Rep. of	610	87.3	69.4	10.1	69.4	10.1	20.4	0.2	86.6	88.1
Lithuania	771	84.2	73.8	13.8	73.8	13.8	12.4	0.0	85.3	83.0
Malaysia	1254	72.4	53.5	20.4	53.5	20.4	26.1	0.0	73.1	71.7
Malta	576	82.1	67.6	14.7	67.6	14.7	17.4	0.4	83.1	80.9
Morocco	1240	45.1	25.2	30.7	25.2	30.7	43.6	0.5	46.0	44.1
New Zealand	562	88.3	66.5	8.8	66.5	8.8	24.7	0.0	87.6	88.8
Norway (9)	921	89.1	69.0	8.4	69.0	8.4	21.8	0.8	88.4	89.8
Oman	1178	75.9	52.5	16.7	52.5	16.7	30.6	0.2	82.8	68.3
Palestinian Nat'l Auth.	938	60.7	45.0	29.1	45.0	29.1	25.8	0.2	68.6	52.1
Portugal	772	86.4	72.3	11.4	72.3	11.4	16.4	0.0	83.9	88.9
Qatar	615	76.7	56.0	17.1	56.0	17.1	26.7	0.2	74.4	78.9
Romania	527	84.3	68.6	12.8	68.6	12.8	17.8	0.8	84.2	84.4
Saudi Arabia	832	60.3	33.9	22.3	33.9	22.3	43.9	0.0	69.7	50.2
Singapore	677	92.8	79.5	6.2	79.5	6.2	14.4	0.0	92.4	93.3
Sweden	722	88.4	72.2	9.4	72.2	9.4	18.1	0.3	89.2	87.8
Turkiye	703	87.5	71.8	10.3	71.8	10.3	17.9	0.0	89.7	85.3
United Arab Emirates	4670	78.2	52.6	14.7	52.6	14.7	32.6	0.1	81.5	75.0
United States	1169	86.7	60.5	9.3	60.5	9.3	29.9	0.3	85.8	87.6
Uzbekistan	621	61.3	33.9	21.5	33.9	21.5	44.6	0.0	62.9	59.5
International Avg. (40)	38043	79.6	61.9	14.9	61.9	14.9	23.0	0.2	80.2	78.8
Abu Dhabi, UAE	1720	70.8	42.1	17.4	42.1	17.4	40.4	0.1	76.7	64.6
Dubai, UAE	1171	88.4	70.1	9.2	70.1	9.2	20.6	0.1	88.9	87.8
Sharjah, UAE	923	76.9	53.7	16.1	53.7	16.1	30.2	0.0	79.3	74.7

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Reasoning

B_SM1_04B SQ82L04B: How leopards depend on elephants - CR - 1 Point

COUNTRY	N	DIFF %	1 %	0 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1176	50.2	46.5	46.2	46.5	46.2	6.8	0.4	48.7	51.4
Austria	671	44.0	33.9	43.1	33.9	43.1	22.8	0.3	45.2	42.9
Azerbaijan	884	21.7	11.4	41.0	11.4	41.0	46.9	0.7	23.2	20.3
Bahrain	739	30.0	24.9	58.0	24.9	58.0	17.1	0.1	28.4	31.5
Brazil	3287	23.6	18.5	60.0	18.5	60.0	20.9	0.6	23.1	24.1
Chile	638	25.8	17.7	50.9	17.7	50.9	30.8	0.6	27.8	23.9
Chinese Taipei	782	41.1	38.7	55.5	38.7	55.5	5.9	0.0	41.8	40.4
Cyprus	596	41.4	31.6	44.6	31.6	44.6	23.5	0.3	48.5	34.2
Czech Republic	1153	45.4	34.2	41.2	34.2	41.2	24.6	0.1	45.8	45.0
England	601	49.8	44.5	44.8	44.5	44.8	9.9	0.8	46.1	53.3
Finland	834	43.9	39.2	50.2	39.2	50.2	10.2	0.4	46.0	42.1
France	648	48.0	34.4	37.2	34.4	37.2	28.5	0.0	49.0	47.2
Georgia	693	24.4	17.5	54.2	17.5	54.2	28.2	0.1	24.3	24.4
Hong Kong SAR	632	55.1	49.9	40.7	49.9	40.7	9.1	0.3	55.7	54.5
Hungary	769	32.8	25.2	51.8	25.2	51.8	23.0	0.0	34.1	31.6
Ireland	720	47.4	42.9	47.7	42.9	47.7	9.3	0.2	45.4	49.3
Israel	744	47.7	40.5	44.4	40.5	44.4	15.1	0.1	50.4	45.2
Italy	653	46.3	38.5	44.6	38.5	44.6	16.8	0.0	43.5	48.9
Japan	558	20.5	17.5	68.0	17.5	68.0	14.1	0.3	21.4	19.7
Jordan	996	26.2	20.6	58.0	20.6	58.0	21.1	0.2	28.6	23.9
Kazakhstan	912	31.7	25.3	54.5	25.3	54.5	19.8	0.4	28.6	34.5
Korea, Rep. of	610	59.6	56.4	38.3	56.4	38.3	5.0	0.3	59.0	60.1
Lithuania	771	36.6	28.1	48.7	28.1	48.7	23.2	0.0	40.5	32.4
Malaysia	1254	9.0	8.6	87.8	8.6	87.8	3.6	0.0	10.0	7.9
Malta	576	44.8	38.6	47.6	38.6	47.6	13.4	0.4	47.9	41.3
Morocco	1240	8.9	5.4	54.7	5.4	54.7	39.3	0.7	9.3	8.5
New Zealand	562	46.8	42.9	48.7	42.9	48.7	8.3	0.2	48.1	45.7
Norway (9)	921	49.3	43.9	45.1	43.9	45.1	10.2	0.9	48.1	50.4
Oman	1177	42.9	37.6	50.0	37.6	50.0	12.2	0.2	50.4	35.5
Palestinian Nat'l Auth.	938	19.4	15.4	64.1	15.4	64.1	20.0	0.5	27.0	12.4
Portugal	772	49.3	43.7	45.0	43.7	45.0	11.3	0.0	50.5	48.2
Qatar	615	49.9	44.5	44.7	44.5	44.7	10.3	0.5	49.2	50.5
Romania	527	41.8	30.6	42.6	30.6	42.6	25.2	1.6	43.4	40.6
Saudi Arabia	832	22.2	20.0	69.9	20.0	69.9	10.1	0.0	23.9	20.6
Singapore	677	56.0	55.6	43.8	55.6	43.8	0.6	0.0	58.3	53.8
Sweden	722	57.8	50.0	36.6	50.0	36.6	13.1	0.3	58.8	56.9
Turkiye	703	39.2	33.1	51.4	33.1	51.4	15.4	0.0	39.9	38.6
United Arab Emirates	4669	40.5	37.4	54.9	37.4	54.9	7.5	0.2	40.0	41.0
United States	1168	44.3	43.2	54.3	43.2	54.3	2.3	0.3	40.5	47.9
Uzbekistan	621	16.3	12.1	62.6	12.1	62.6	25.0	0.3	17.3	15.3
International Avg. (40)	38041	38.3	32.5	50.7	32.5	50.7	16.5	0.3	39.2	37.4
Abu Dhabi, UAE	1720	33.1	30.2	61.1	30.2	61.1	8.5	0.3	33.1	33.1
Dubai, UAE	1170	54.5	51.6	43.1	51.6	43.1	5.1	0.2	53.7	55.2
Sharjah, UAE	923	40.4	37.0	54.6	37.0	54.6	8.3	0.0	39.6	41.2

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Applying

B_SM1_05 SQ82L05: Baobab tree's trunk helps it survive - CR - 1 Point

COUNTRY	N	DIFF %	1 %	0 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1176	55.6	52.2	41.6	52.2	41.6	5.8	0.4	57.5	54.1
Austria	671	44.6	40.8	50.7	40.8	50.7	8.2	0.3	45.1	44.0
Azerbaijan	884	21.5	14.2	51.9	14.2	51.9	32.7	1.2	22.9	20.2
Bahrain	739	39.4	36.7	56.4	36.7	56.4	6.8	0.1	42.8	36.2
Brazil	3287	30.1	25.5	59.3	25.5	59.3	14.6	0.6	28.6	31.5
Chile	638	28.4	24.0	60.4	24.0	60.4	15.0	0.6	30.5	26.3
Chinese Taipei	782	49.2	47.8	49.3	47.8	49.3	2.9	0.0	46.8	51.6
Cyprus	596	38.1	32.9	53.5	32.9	53.5	13.1	0.5	42.0	34.1
Czech Republic	1152	60.8	56.9	36.7	56.9	36.7	6.2	0.1	62.8	58.6
England	601	45.0	40.9	50.0	40.9	50.0	8.3	0.8	43.4	46.5
Finland	834	48.4	46.0	49.1	46.0	49.1	4.4	0.5	52.9	44.6
France	647	24.0	21.0	66.5	21.0	66.5	12.4	0.0	28.1	20.0
Georgia	693	46.0	35.7	42.0	35.7	42.0	21.6	0.8	49.5	42.5
Hong Kong SAR	633	46.1	43.6	50.9	43.6	50.9	5.2	0.3	44.3	48.0
Hungary	769	58.1	55.1	39.8	55.1	39.8	5.2	0.0	54.7	61.2
Ireland	720	41.2	39.2	56.0	39.2	56.0	4.6	0.2	41.9	40.5
Israel	744	33.9	30.4	59.3	30.4	59.3	10.3	0.1	37.1	30.6
Italy	653	34.1	30.3	58.4	30.3	58.4	11.3	0.0	29.5	38.3
Japan	557	40.5	36.5	53.7	36.5	53.7	9.5	0.3	35.0	45.5
Jordan	996	21.6	19.6	71.3	19.6	71.3	8.8	0.2	18.9	24.2
Kazakhstan	912	27.0	24.3	65.6	24.3	65.6	9.8	0.4	31.0	23.3
Korea, Rep. of	610	64.3	62.0	34.4	62.0	34.4	3.3	0.3	63.5	65.0
Lithuania	771	51.7	47.1	43.9	47.1	43.9	9.0	0.0	52.3	51.1
Malaysia	1254	14.8	14.6	84.2	14.6	84.2	1.2	0.0	15.9	13.7
Malta	576	51.9	48.3	44.6	48.3	44.6	6.6	0.5	49.8	54.4
Morocco	1240	6.6	4.9	69.5	4.9	69.5	24.9	0.7	7.7	5.4
New Zealand	562	49.9	47.4	47.6	47.4	47.6	4.8	0.2	45.9	53.5
Norway (9)	921	24.2	20.9	65.4	20.9	65.4	12.6	1.1	24.6	23.9
Oman	1177	33.3	31.3	62.6	31.3	62.6	5.9	0.2	38.1	28.8
Palestinian Nat'l Auth.	938	13.0	12.2	81.3	12.2	81.3	5.8	0.7	14.3	11.8
Portugal	772	42.0	37.4	51.7	37.4	51.7	10.9	0.0	42.9	41.2
Qatar	615	36.1	33.1	58.7	33.1	58.7	7.7	0.5	33.0	38.7
Romania	527	35.0	30.5	56.7	30.5	56.7	11.2	1.6	39.0	31.4
Saudi Arabia	832	20.9	20.3	76.9	20.3	76.9	2.8	0.0	23.6	18.4
Singapore	677	54.4	54.3	45.4	54.3	45.4	0.3	0.0	51.2	57.4
Sweden	722	53.1	48.9	43.1	48.9	43.1	7.8	0.3	54.9	51.7
Turkiye	703	37.3	33.4	56.1	33.4	56.1	10.5	0.0	41.3	34.0
United Arab Emirates	4666	32.2	30.9	65.0	30.9	65.0	3.9	0.3	32.8	31.6
United States	1169	52.7	51.4	46.1	51.4	46.1	2.1	0.3	51.1	54.3
Uzbekistan	621	25.4	22.7	66.6	22.7	66.6	10.4	0.3	26.7	24.3
International Avg. (40)	38037	38.3	35.1	55.5	35.1	55.5	9.0	0.4	38.8	37.8
Abu Dhabi, UAE	1719	25.7	24.5	70.7	24.5	70.7	4.5	0.3	25.6	25.9
Dubai, UAE	1170	42.8	41.5	55.5	41.5	55.5	2.7	0.3	42.6	43.0
Sharjah, UAE	922	35.0	33.6	62.5	33.6	62.5	3.9	0.0	38.3	31.7

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Applying

B_SM1_06A SQ82L07A: Why elephants benefit from pushing a tree - CR - 1 Point

COUNTRY	N	DIFF %	1 %	0 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1176	78.8	75.6	20.4	75.6	20.4	3.6	0.4	75.5	81.6
Austria	671	76.3	72.5	22.5	72.5	22.5	4.7	0.3	73.0	79.6
Azerbaijan	884	70.9	51.5	21.2	51.5	21.2	25.8	1.5	69.9	71.8
Bahrain	739	61.1	57.3	36.5	57.3	36.5	6.1	0.2	65.1	57.5
Brazil	3287	70.4	62.6	26.3	62.6	26.3	10.3	0.8	67.4	73.4
Chile	638	77.0	68.9	20.5	68.9	20.5	10.0	0.6	76.3	77.8
Chinese Taipei	782	62.4	59.5	35.9	59.5	35.9	4.6	0.0	58.5	66.1
Cyprus	596	68.6	61.2	28.0	61.2	28.0	10.3	0.5	66.1	71.0
Czech Republic	1153	76.8	71.5	21.5	71.5	21.5	6.9	0.1	76.2	77.6
England	601	81.4	75.6	17.3	75.6	17.3	6.0	1.0	79.4	83.2
Finland	834	85.8	82.3	13.6	82.3	13.6	3.7	0.5	87.4	84.5
France	647	59.3	56.8	39.0	56.8	39.0	4.2	0.0	56.0	62.5
Georgia	693	45.6	28.1	33.5	28.1	33.5	37.6	0.8	43.4	47.9
Hong Kong SAR	633	58.3	54.7	39.1	54.7	39.1	5.8	0.3	60.0	56.5
Hungary	769	73.8	70.0	24.9	70.0	24.9	5.0	0.0	71.4	75.9
Ireland	720	83.8	82.3	15.9	82.3	15.9	1.6	0.2	80.4	87.2
Israel	744	74.1	67.6	23.6	67.6	23.6	8.7	0.1	76.8	71.5
Italy	653	82.7	75.5	15.8	75.5	15.8	8.7	0.0	81.5	83.7
Japan	558	60.8	57.4	37.0	57.4	37.0	5.3	0.3	60.1	61.5
Jordan	996	63.3	58.4	33.8	58.4	33.8	7.1	0.7	62.4	64.2
Kazakhstan	912	62.4	56.4	34.0	56.4	34.0	9.1	0.6	59.4	65.4
Korea, Rep. of	610	41.1	39.2	56.2	39.2	56.2	4.3	0.3	41.4	40.7
Lithuania	771	73.9	68.2	24.1	68.2	24.1	7.7	0.0	76.2	71.4
Malaysia	1254	47.4	47.0	52.2	47.0	52.2	0.8	0.0	45.6	49.2
Malta	576	66.6	62.6	31.4	62.6	31.4	5.5	0.5	65.8	67.6
Morocco	1240	27.7	19.1	49.8	19.1	49.8	30.3	0.8	27.2	28.2
New Zealand	562	79.2	76.2	20.0	76.2	20.0	3.7	0.2	75.8	82.2
Norway (9)	921	65.4	61.4	32.6	61.4	32.6	4.8	1.2	65.2	65.5
Oman	1178	66.7	64.1	32.0	64.1	32.0	3.6	0.2	69.7	64.0
Palestinian Nat'l Auth.	938	48.9	45.3	47.3	45.3	47.3	6.6	0.7	56.3	41.8
Portugal	772	78.7	72.0	19.5	72.0	19.5	8.4	0.1	76.7	80.5
Qatar	615	71.7	68.2	26.9	68.2	26.9	4.3	0.5	74.5	69.2
Romania	527	63.5	55.6	31.9	55.6	31.9	10.9	1.6	62.3	64.6
Saudi Arabia	832	60.6	58.7	38.1	58.7	38.1	3.3	0.0	64.0	57.6
Singapore	677	79.0	78.1	20.8	78.1	20.8	1.1	0.0	77.3	80.5
Sweden	722	80.2	74.0	18.3	74.0	18.3	7.3	0.4	82.3	78.4
Turkiye	703	87.2	81.0	11.9	81.0	11.9	7.2	0.0	86.2	88.0
United Arab Emirates	4669	68.7	65.3	29.7	65.3	29.7	4.5	0.4	69.4	68.1
United States	1169	78.5	76.8	21.0	76.8	21.0	1.9	0.3	77.3	79.6
Uzbekistan	621	24.8	22.0	66.8	22.0	66.8	10.8	0.3	25.6	24.1
International Avg. (40)	38043	67.1	62.0	29.8	62.0	29.8	7.8	0.4	66.6	67.5
Abu Dhabi, UAE	1720	59.4	56.0	38.2	56.0	38.2	5.4	0.4	59.6	59.2
Dubai, UAE	1171	80.2	77.2	19.1	77.2	19.1	3.4	0.3	79.3	81.0
Sharjah, UAE	922	72.9	69.6	25.9	69.6	25.9	4.3	0.2	76.6	69.2

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Applying

B_SM1_06B SQ82L07B: How elephants help other species - CR - 1 Point

COUNTRY	N	DIFF %	1 %	0 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1176	62.0	58.6	35.9	58.6	35.9	5.1	0.4	63.3	60.9
Austria	671	66.5	56.2	28.3	56.2	28.3	14.9	0.6	69.0	64.1
Azerbaijan	884	32.4	16.8	35.1	16.8	35.1	46.2	1.9	31.1	33.9
Bahrain	739	67.7	59.6	28.4	59.6	28.4	11.7	0.3	74.2	61.7
Brazil	3287	55.4	44.7	35.9	44.7	35.9	18.2	1.1	58.6	52.5
Chile	638	29.3	24.1	58.3	24.1	58.3	16.9	0.6	31.1	27.4
Chinese Taipei	782	56.2	52.8	41.2	52.8	41.2	5.8	0.2	59.8	52.8
Cyprus	596	64.1	50.7	28.4	50.7	28.4	20.4	0.5	69.0	58.9
Czech Republic	1153	71.1	60.3	24.6	60.3	24.6	15.1	0.1	72.6	69.4
England	601	72.2	64.7	24.9	64.7	24.9	9.4	1.0	74.3	70.2
Finland	834	77.2	71.7	21.2	71.7	21.2	6.6	0.5	81.5	73.6
France	647	52.5	43.3	39.2	43.3	39.2	17.6	0.0	54.5	50.6
Georgia	693	55.0	29.0	23.7	29.0	23.7	46.5	0.9	55.3	54.7
Hong Kong SAR	633	53.7	48.0	41.5	48.0	41.5	10.0	0.5	56.0	51.3
Hungary	769	73.4	63.1	22.9	63.1	22.9	14.0	0.0	74.1	72.7
Ireland	720	83.2	79.9	16.2	79.9	16.2	3.8	0.2	80.7	85.6
Israel	744	67.5	58.9	28.3	58.9	28.3	12.6	0.2	71.2	63.9
Italy	653	73.4	61.6	22.3	61.6	22.3	16.1	0.0	77.6	69.5
Japan	558	59.4	52.7	36.0	52.7	36.0	10.9	0.3	57.2	61.3
Jordan	996	37.5	29.5	49.2	29.5	49.2	20.5	0.8	40.8	34.2
Kazakhstan	912	60.7	48.6	31.5	48.6	31.5	19.1	0.8	61.8	59.7
Korea, Rep. of	610	71.4	67.9	27.2	67.9	27.2	4.6	0.3	72.5	70.4
Lithuania	771	81.3	70.4	16.2	70.4	16.2	13.4	0.0	88.8	73.3
Malaysia	1254	32.4	31.1	64.8	31.1	64.8	4.1	0.0	33.8	31.0
Malta	576	65.8	58.3	30.3	58.3	30.3	10.9	0.5	65.8	65.8
Morocco	1240	16.3	8.1	41.7	8.1	41.7	49.4	0.8	16.1	16.4
New Zealand	562	62.8	59.2	35.0	59.2	35.0	4.9	0.9	62.5	63.1
Norway (9)	921	78.4	71.0	19.6	71.0	19.6	8.2	1.2	80.9	76.0
Oman	1178	64.4	57.4	31.7	57.4	31.7	10.6	0.4	71.0	58.3
Palestinian Nat'l Auth.	938	38.9	31.4	49.4	31.4	49.4	18.5	0.7	43.5	34.2
Portugal	772	79.5	67.4	17.4	67.4	17.4	15.1	0.1	80.3	78.8
Qatar	615	73.2	68.0	24.8	68.0	24.8	6.7	0.5	74.8	71.9
Romania	527	57.1	46.0	34.5	46.0	34.5	17.9	1.6	62.4	52.6
Saudi Arabia	832	39.1	35.6	55.5	35.6	55.5	8.9	0.0	44.3	34.0
Singapore	677	73.9	73.0	25.8	73.0	25.8	1.2	0.0	74.3	73.4
Sweden	722	80.1	72.0	17.9	72.0	17.9	9.5	0.6	81.7	78.6
Turkiye	703	73.6	63.1	22.7	63.1	22.7	14.2	0.0	76.9	70.7
United Arab Emirates	4668	61.3	56.9	35.9	56.9	35.9	6.8	0.4	64.6	58.2
United States	1169	70.2	68.2	29.0	68.2	29.0	2.3	0.5	70.9	69.5
Uzbekistan	621	48.2	35.6	38.3	35.6	38.3	25.6	0.5	52.7	43.7
International Avg. (40)	38042	61.0	52.9	32.3	52.9	32.3	14.3	0.5	63.3	58.7
Abu Dhabi, UAE	1720	50.2	46.1	45.8	46.1	45.8	7.6	0.5	54.0	46.4
Dubai, UAE	1171	71.7	68.5	27.0	68.5	27.0	4.2	0.3	71.8	71.7
Sharjah, UAE	922	67.2	61.9	30.1	61.9	30.1	7.8	0.2	72.2	62.3

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Knowing

B_SM1_08A SQ82L09A: Human activities that negatively impact elephants - CR - 1 Point

COUNTRY	N	DIFF %	1 %	0 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1176	77.6	73.9	21.3	73.9	21.3	4.4	0.4	73.5	81.0
Austria	671	66.6	60.6	30.4	60.6	30.4	8.4	0.6	61.0	72.1
Azerbaijan	884	45.5	26.9	32.2	26.9	32.2	38.9	1.9	44.6	46.3
Bahrain	739	67.2	62.8	30.7	62.8	30.7	6.1	0.4	71.1	63.5
Brazil	3287	69.1	57.5	25.7	57.5	25.7	15.3	1.5	66.6	71.7
Chile	638	66.3	57.8	29.4	57.8	29.4	12.3	0.6	62.7	70.1
Chinese Taipei	782	51.8	49.3	46.0	49.3	46.0	4.5	0.2	55.8	48.0
Cyprus	596	62.6	52.6	31.5	52.6	31.5	15.2	0.7	60.3	64.9
Czech Republic	1153	80.5	74.6	18.1	74.6	18.1	7.2	0.1	80.1	80.9
England	601	86.2	79.1	12.7	79.1	12.7	7.2	1.0	81.2	90.9
Finland	834	71.0	65.3	26.6	65.3	26.6	7.6	0.5	70.5	71.5
France	648	69.9	63.6	27.4	63.6	27.4	8.7	0.2	64.6	75.0
Georgia	693	73.6	57.3	20.6	57.3	20.6	21.2	0.9	76.3	70.9
Hong Kong SAR	633	68.4	62.7	29.0	62.7	29.0	7.7	0.6	63.1	73.7
Hungary	769	59.0	55.0	38.3	55.0	38.3	6.7	0.0	49.0	68.1
Ireland	720	81.8	79.7	17.7	79.7	17.7	2.3	0.3	80.5	83.2
Israel	744	65.1	57.0	30.5	57.0	30.5	12.2	0.3	62.6	67.6
Italy	653	77.7	71.3	20.5	71.3	20.5	8.0	0.2	75.2	79.9
Japan	558	59.6	55.5	37.5	55.5	37.5	6.5	0.5	54.4	64.2
Jordan	996	49.2	43.5	44.8	43.5	44.8	10.3	1.4	51.7	46.8
Kazakhstan	912	57.8	50.2	36.7	50.2	36.7	12.2	0.9	54.7	60.7
Korea, Rep. of	610	75.4	71.6	23.4	71.6	23.4	4.6	0.3	68.4	81.8
Lithuania	771	70.7	64.0	26.6	64.0	26.6	9.4	0.0	69.9	71.5
Malaysia	1254	72.6	71.2	26.9	71.2	26.9	1.9	0.1	75.4	69.7
Malta	576	72.2	66.7	25.7	66.7	25.7	7.1	0.5	67.4	77.3
Morocco	1240	27.4	17.7	47.0	17.7	47.0	33.4	1.8	26.8	28.0
New Zealand	562	75.2	70.5	23.2	70.5	23.2	5.2	1.1	72.9	77.2
Norway (9)	921	73.4	66.5	24.0	66.5	24.0	8.0	1.5	71.0	75.7
Oman	1178	60.8	56.4	36.4	56.4	36.4	6.6	0.7	65.8	56.2
Palestinian Nat'l Auth.	938	40.6	35.9	52.7	35.9	52.7	10.3	1.0	45.1	36.3
Portugal	772	83.9	76.3	14.6	76.3	14.6	8.8	0.2	80.9	86.6
Qatar	615	64.5	60.2	33.1	60.2	33.1	6.2	0.5	64.9	64.1
Romania	527	59.0	52.2	36.2	52.2	36.2	10.0	1.6	58.9	59.1
Saudi Arabia	832	44.4	42.3	52.9	42.3	52.9	4.7	0.1	47.4	41.6
Singapore	677	87.7	87.6	12.3	87.6	12.3	0.2	0.0	86.5	88.8
Sweden	722	74.4	66.1	22.8	66.1	22.8	10.5	0.6	74.8	74.0
Turkiye	703	75.6	65.8	21.2	65.8	21.2	13.0	0.0	73.9	77.0
United Arab Emirates	4670	68.5	63.9	29.3	63.9	29.3	6.2	0.6	69.0	68.1
United States	1169	76.5	73.9	22.7	73.9	22.7	2.5	0.9	74.0	78.8
Uzbekistan	621	44.3	34.8	43.7	34.8	43.7	20.1	1.3	47.4	41.3
International Avg. (40)	38045	66.3	60.0	29.6	60.0	29.6	9.8	0.7	65.0	67.6
Abu Dhabi, UAE	1720	57.6	53.0	38.9	53.0	38.9	7.3	0.8	59.4	56.0
Dubai, UAE	1171	82.0	77.9	17.1	77.9	17.1	4.6	0.4	80.0	83.8
Sharjah, UAE	923	74.8	70.1	23.6	70.1	23.6	5.9	0.5	74.9	74.8

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Knowing

B_SM1_08B SQ82L09B: Human activities that help elephants - CR - 1 Point

COUNTRY	N	DIFF %	1 %	0 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1176	33.3	31.0	62.2	31.0	62.2	6.0	0.9	32.0	34.3
Austria	671	24.6	21.6	66.2	21.6	66.2	11.6	0.6	23.3	25.8
Azerbaijan	884	20.4	11.3	44.2	11.3	44.2	42.3	2.2	20.4	20.4
Bahrain	739	29.5	26.3	62.6	26.3	62.6	10.7	0.4	32.2	27.1
Brazil	3287	26.0	20.1	57.4	20.1	57.4	20.8	1.6	24.4	27.5
Chile	638	32.1	26.6	56.1	26.6	56.1	16.7	0.6	27.7	36.7
Chinese Taipei	782	59.4	56.5	38.6	56.5	38.6	4.8	0.2	61.9	57.2
Cyprus	596	29.5	23.0	55.0	23.0	55.0	21.3	0.7	33.5	25.4
Czech Republic	1153	42.0	35.3	48.6	35.3	48.6	16.0	0.1	44.4	39.6
England	601	46.9	40.5	45.9	40.5	45.9	12.6	1.0	44.7	49.0
Finland	834	51.7	46.7	43.6	46.7	43.6	9.1	0.5	54.8	49.2
France	648	51.1	40.4	38.6	40.4	38.6	20.9	0.2	53.2	49.2
Georgia	693	34.1	24.0	46.4	24.0	46.4	28.8	0.9	31.3	36.7
Hong Kong SAR	633	31.9	29.1	62.2	29.1	62.2	8.0	0.6	37.3	26.4
Hungary	769	59.0	49.8	34.7	49.8	34.7	15.5	0.0	59.2	58.8
Ireland	720	34.9	32.7	61.0	32.7	61.0	6.0	0.3	34.0	35.9
Israel	744	26.2	22.1	62.4	22.1	62.4	15.2	0.3	26.0	26.4
Italy	653	36.4	28.4	49.7	28.4	49.7	21.7	0.2	38.2	34.9
Japan	558	14.7	12.7	73.5	12.7	73.5	13.4	0.5	15.4	14.1
Jordan	996	33.3	28.2	56.5	28.2	56.5	13.9	1.4	35.3	31.3
Kazakhstan	912	25.4	21.2	62.2	21.2	62.2	15.4	1.2	21.6	29.1
Korea, Rep. of	610	57.5	54.3	40.2	54.3	40.2	5.0	0.5	53.5	61.2
Lithuania	771	35.1	30.6	56.5	30.6	56.5	12.9	0.0	34.8	35.3
Malaysia	1254	26.3	25.6	71.9	25.6	71.9	2.4	0.1	26.2	26.3
Malta	576	34.0	30.0	58.1	30.0	58.1	11.3	0.5	28.8	40.1
Morocco	1240	10.1	5.5	48.4	5.5	48.4	44.0	2.1	9.3	11.0
New Zealand	562	38.0	35.7	58.1	35.7	58.1	5.2	1.1	34.8	40.9
Norway (9)	921	29.1	25.2	61.3	25.2	61.3	11.8	1.7	27.0	31.1
Oman	1178	43.0	39.3	52.0	39.3	52.0	8.0	0.7	43.8	42.3
Palestinian Nat'l Auth.	938	22.1	18.6	65.7	18.6	65.7	14.7	1.0	22.9	21.2
Portugal	772	37.8	30.8	50.5	30.8	50.5	18.2	0.5	39.6	36.3
Qatar	615	33.7	31.0	60.9	31.0	60.9	7.6	0.5	35.3	32.3
Romania	527	36.8	30.8	52.8	30.8	52.8	14.8	1.6	37.9	35.9
Saudi Arabia	832	29.3	26.9	64.9	26.9	64.9	8.1	0.1	30.2	28.5
Singapore	677	48.8	48.5	50.8	48.5	50.8	0.8	0.0	45.7	51.7
Sweden	722	42.7	36.5	49.0	36.5	49.0	14.0	0.6	46.3	39.7
Turkiye	703	48.6	41.9	44.3	41.9	44.3	13.8	0.0	45.8	51.0
United Arab Emirates	4670	31.6	28.9	62.7	28.9	62.7	7.5	0.9	31.0	32.1
United States	1169	37.4	35.9	59.9	35.9	59.9	3.2	1.1	34.9	39.8
Uzbekistan	621	29.0	21.2	51.9	21.2	51.9	25.4	1.6	29.2	28.8
International Avg. (40)	38045	35.3	30.6	54.7	30.6	54.7	14.0	0.7	35.2	35.5
Abu Dhabi, UAE	1720	21.1	19.0	71.3	19.0	71.3	8.5	1.2	20.9	21.2
Dubai, UAE	1171	35.6	33.4	60.5	33.4	60.5	5.4	0.7	31.2	39.5
Sharjah, UAE	923	35.8	32.5	58.4	32.5	58.4	8.4	0.7	36.5	35.1

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Applying

B_SM1_09 SE82077: Carbon dioxide cycle (DERIVED) - CR - 1 Point

COUNTRY	N	DIFF %	1 %	0 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1176	48.0	47.4	51.4	47.4	51.4	0.4	0.9	40.9	54.2
Austria	671	52.7	52.2	46.9	52.2	46.9	0.3	0.6	49.2	56.2
Azerbaijan	884	38.7	35.8	56.7	35.8	56.7	5.3	2.2	37.0	40.4
Bahrain	739	38.7	38.6	61.0	38.6	61.0	0.0	0.4	41.1	36.6
Brazil	3287	21.0	20.2	76.2	20.2	76.2	1.9	1.7	19.4	22.6
Chile	638	30.8	29.9	67.2	29.9	67.2	2.3	0.6	27.0	35.0
Chinese Taipei	782	70.7	70.6	29.2	70.6	29.2	0.0	0.2	65.3	75.8
Cyprus	596	33.3	32.8	65.7	32.8	65.7	0.8	0.7	34.5	32.1
Czech Republic	1153	63.3	63.1	36.6	63.1	36.6	0.2	0.1	60.3	66.5
England	601	58.8	57.6	40.4	57.6	40.4	1.0	1.0	53.2	64.2
Finland	834	45.5	45.1	53.9	45.1	53.9	0.5	0.5	37.4	52.6
France	648	41.5	41.0	57.6	41.0	57.6	1.2	0.2	36.4	46.6
Georgia	693	36.3	35.8	62.7	35.8	62.7	0.7	0.9	32.9	40.0
Hong Kong SAR	633	72.6	71.7	27.1	71.7	27.1	0.6	0.6	68.2	76.9
Hungary	769	50.0	49.8	49.8	49.8	49.8	0.3	0.0	41.9	57.7
Ireland	720	61.5	61.2	38.3	61.2	38.3	0.2	0.3	60.0	63.0
Israel	744	40.7	40.2	58.6	40.2	58.6	0.9	0.3	40.0	41.4
Italy	653	53.4	53.3	46.5	53.3	46.5	0.0	0.2	46.6	59.7
Japan	558	82.6	81.7	17.2	81.7	17.2	0.6	0.5	82.5	82.7
Jordan	996	33.4	32.6	65.0	32.6	65.0	0.9	1.4	34.4	32.5
Kazakhstan	912	38.8	37.9	59.7	37.9	59.7	1.1	1.2	38.1	39.6
Korea, Rep. of	610	66.0	65.6	33.7	65.6	33.7	0.2	0.5	64.4	67.6
Lithuania	771	43.4	43.3	56.5	43.3	56.5	0.2	0.0	37.7	49.5
Malaysia	1254	24.7	24.7	75.1	24.7	75.1	0.0	0.2	21.7	27.7
Malta	576	48.0	47.4	51.3	47.4	51.3	0.7	0.5	44.4	52.0
Morocco	984	14.1	13.5	82.2	13.5	82.2	2.8	1.6	12.5	15.9
New Zealand	562	47.7	46.9	51.4	46.9	51.4	0.6	1.1	43.8	51.1
Norway (9)	921	43.3	42.0	55.0	42.0	55.0	1.2	1.7	39.1	47.4
Oman	1178	37.0	36.4	61.9	36.4	61.9	1.0	0.7	42.5	32.0
Palestinian Nat'l Auth.	938	29.8	29.1	68.5	29.1	68.5	1.3	1.2	33.9	26.0
Portugal	772	62.2	61.8	37.6	61.8	37.6	0.1	0.5	54.3	69.9
Qatar	615	51.0	50.0	48.1	50.0	48.1	1.4	0.5	51.2	50.8
Romania	527	33.2	31.8	63.9	31.8	63.9	2.8	1.6	35.4	31.4
Saudi Arabia	832	28.8	28.7	71.0	28.7	71.0	0.1	0.2	31.0	26.7
Singapore	677	79.0	79.0	21.0	79.0	21.0	0.0	0.0	80.4	77.7
Sweden	722	64.5	63.6	35.0	63.6	35.0	0.7	0.6	59.5	68.8
Turkiye	703	42.4	42.4	57.5	42.4	57.5	0.1	0.0	39.9	44.7
United Arab Emirates	4670	48.4	47.7	50.9	47.7	50.9	0.5	1.0	48.6	48.2
United States	1169	42.7	42.2	56.6	42.2	56.6	0.1	1.2	38.0	47.1
Uzbekistan	621	21.2	20.4	75.9	20.4	75.9	1.9	1.7	21.3	21.2
International Avg. (40)	37789	46.0	45.4	53.0	45.4	53.0	0.9	0.7	43.7	48.3
Abu Dhabi, UAE	1720	36.4	35.7	62.4	35.7	62.4	0.7	1.3	35.7	37.1
Dubai, UAE	1171	63.4	62.8	36.3	62.8	36.3	0.2	0.7	66.2	60.8
Sharjah, UAE	923	56.8	56.2	42.7	56.2	42.7	0.4	0.8	55.7	58.0

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Applying

B_SM1_09A SE82077A: Carbon dioxide cycle - photosynthesis - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1176	58.5	40.9	57.7	0.5	0.9	54.6	62.0
Austria	671	70.1	29.5	69.3	0.5	0.6	71.2	69.0
Azerbaijan	884	60.6	34.8	53.5	9.5	2.2	61.4	59.8
Bahrain	739	56.8	42.9	56.4	0.2	0.4	56.7	56.9
Brazil	3287	39.2	57.3	36.9	4.1	1.7	37.9	40.5
Chile	638	40.5	56.9	38.8	3.7	0.6	35.0	46.7
Chinese Taipei	782	75.8	24.1	75.7	0.0	0.2	70.2	81.0
Cyprus	596	50.3	48.6	49.2	1.5	0.7	51.8	48.9
Czech Republic	1153	70.9	29.0	70.6	0.4	0.1	68.6	73.4
England	601	68.3	31.0	66.8	1.1	1.0	61.2	75.2
Finland	834	53.1	46.3	52.4	0.8	0.5	46.7	58.6
France	648	57.4	41.4	55.6	2.8	0.2	53.7	60.9
Georgia	693	54.5	43.8	52.5	2.8	0.9	52.2	56.9
Hong Kong SAR	633	78.6	21.1	77.5	0.8	0.6	75.3	81.9
Hungary	769	62.6	37.2	62.3	0.5	0.0	56.5	68.4
Ireland	720	74.6	25.2	74.0	0.5	0.3	70.3	78.9
Israel	744	64.1	35.0	62.4	2.2	0.3	63.2	65.0
Italy	653	63.7	36.0	63.3	0.4	0.2	54.8	72.0
Japan	558	91.2	8.7	89.6	1.2	0.5	92.7	89.8
Jordan	996	48.8	49.0	46.6	2.9	1.4	49.0	48.5
Kazakhstan	912	53.1	45.6	51.6	1.6	1.2	51.3	55.0
Korea, Rep. of	610	72.8	27.1	72.3	0.2	0.5	70.7	74.7
Lithuania	771	52.6	47.3	52.5	0.2	0.0	48.4	57.2
Malaysia	1254	36.5	63.2	36.3	0.4	0.2	32.3	40.6
Malta	576	63.2	36.1	62.0	1.4	0.5	61.5	65.1
Morocco	1240	34.6	58.6	31.0	8.1	2.2	34.0	35.2
New Zealand	562	60.7	38.5	59.5	0.8	1.1	54.6	66.1
Norway (9)	921	62.4	36.4	60.3	1.6	1.7	58.5	66.1
Oman	1178	47.6	50.9	46.2	2.2	0.7	51.3	44.1
Palestinian Nat'l Auth.	938	44.3	53.2	42.3	3.3	1.2	44.0	44.6
Portugal	772	69.8	29.9	69.1	0.4	0.5	61.1	78.3
Qatar	615	62.5	36.7	61.3	1.4	0.5	59.8	64.9
Romania	527	50.8	46.3	47.8	4.2	1.6	55.8	46.6
Saudi Arabia	832	53.2	46.3	52.7	0.8	0.2	55.7	50.9
Singapore	677	83.6	16.4	83.5	0.1	0.0	85.2	82.0
Sweden	722	79.4	20.3	78.0	1.1	0.6	76.0	82.2
Turkiye	703	61.0	38.9	60.9	0.3	0.0	57.0	64.6
United Arab Emirates	4670	60.3	38.8	59.0	1.2	1.0	59.7	61.0
United States	1169	55.2	44.0	54.2	0.6	1.2	51.1	59.0
Uzbekistan	621	45.4	46.6	38.9	12.8	1.7	48.4	42.6
International Avg. (40)	38045	59.7	39.0	58.3	2.0	0.7	57.5	61.9
Abu Dhabi, UAE	1720	50.6	48.0	49.2	1.6	1.3	49.0	52.2
Dubai, UAE	1171	72.1	27.6	71.2	0.5	0.7	73.5	70.8
Sharjah, UAE	923	67.5	31.9	66.4	0.8	0.8	64.9	70.2

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Applying

B_SM1_09B SE82077B: Carbon dioxide cycle - animal respiration - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1176	69.5	68.4	30.1	0.6	0.9	65.2	73.2
Austria	671	67.0	66.2	32.7	0.5	0.6	66.4	67.5
Azerbaijan	884	62.4	55.8	33.6	8.5	2.2	64.2	60.6
Bahrain	739	56.3	55.0	42.6	2.0	0.4	56.9	55.9
Brazil	3287	64.3	60.4	33.5	4.4	1.7	64.5	64.1
Chile	638	73.6	70.8	25.4	3.2	0.6	73.6	73.6
Chinese Taipei	782	86.7	86.4	13.2	0.2	0.2	85.7	87.7
Cyprus	596	63.5	61.6	35.5	2.2	0.7	63.3	63.6
Czech Republic	1153	81.4	80.9	18.5	0.5	0.1	81.0	81.8
England	601	74.8	72.7	24.5	1.8	1.0	72.2	77.3
Finland	834	70.8	69.7	28.7	1.1	0.5	69.2	72.2
France	648	75.3	73.9	24.2	1.7	0.2	73.6	77.1
Georgia	693	60.8	58.8	37.9	2.4	0.9	59.5	62.1
Hong Kong SAR	633	86.9	85.5	12.9	0.9	0.6	84.4	89.3
Hungary	769	69.6	68.9	30.2	0.9	0.0	66.6	72.3
Ireland	720	74.1	73.7	25.8	0.2	0.3	73.0	75.2
Israel	744	58.4	57.2	40.8	1.6	0.3	56.9	59.9
Italy	653	74.9	74.5	25.0	0.3	0.2	69.5	79.9
Japan	558	89.1	88.1	10.8	0.6	0.5	90.1	88.2
Jordan	996	62.5	59.5	35.7	3.4	1.4	64.2	60.8
Kazakhstan	912	73.1	70.9	26.1	1.8	1.2	73.5	72.8
Korea, Rep. of	610	89.7	88.9	10.2	0.4	0.5	90.9	88.6
Lithuania	771	69.0	68.6	30.8	0.6	0.0	66.4	71.8
Malaysia	1254	62.9	62.2	36.7	0.9	0.2	64.2	61.6
Malta	576	67.1	66.1	32.4	0.9	0.5	64.6	69.7
Morocco	984	47.6	42.2	46.4	9.9	1.6	44.5	51.2
New Zealand	562	68.9	67.4	30.4	1.0	1.1	69.8	68.1
Norway (9)	921	66.6	63.8	31.9	2.5	1.7	63.1	70.0
Oman	1178	70.2	67.2	28.5	3.6	0.7	74.2	66.5
Palestinian Nat'l Auth.	938	60.4	56.6	37.1	5.2	1.2	62.7	58.1
Portugal	772	77.3	76.6	22.5	0.4	0.5	74.3	80.1
Qatar	615	72.7	70.5	26.5	2.5	0.5	76.3	69.5
Romania	527	62.7	59.5	35.3	3.6	1.6	62.2	63.2
Saudi Arabia	832	56.7	55.4	42.3	2.0	0.2	60.0	53.6
Singapore	677	89.0	89.0	11.0	0.0	0.0	88.9	89.0
Sweden	722	78.3	77.1	21.4	0.9	0.6	75.3	80.8
Turkiye	703	62.3	62.0	37.6	0.3	0.0	58.4	65.6
United Arab Emirates	4670	71.5	69.6	27.8	1.6	1.0	71.9	71.1
United States	1169	66.7	65.4	32.7	0.7	1.2	63.0	70.2
Uzbekistan	621	57.1	47.7	35.9	14.7	1.7	56.2	57.9
International Avg. (40)	37789	69.8	67.9	29.1	2.3	0.7	69.0	70.5
Abu Dhabi, UAE	1720	63.9	61.5	34.7	2.6	1.3	64.2	63.7
Dubai, UAE	1171	79.0	77.9	20.7	0.7	0.7	82.0	76.3
Sharjah, UAE	923	77.1	75.7	22.5	1.0	0.8	75.5	78.7

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Applying

B_SM1_09C SE82077C: Carbon dioxide cycle - wildfire - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1176	72.2	70.9	27.3	0.9	0.9	67.3	76.4
Austria	671	76.2	75.0	23.4	1.0	0.6	72.5	80.0
Azerbaijan	884	72.7	64.8	24.4	8.6	2.2	71.3	74.0
Bahrain	739	78.4	75.3	20.7	3.5	0.4	79.4	77.5
Brazil	3287	49.7	46.1	46.6	5.7	1.7	48.4	51.1
Chile	638	47.2	45.0	50.4	4.0	0.6	43.5	51.2
Chinese Taipei	782	86.6	86.2	13.4	0.3	0.2	84.6	88.4
Cyprus	596	61.5	59.7	37.3	2.2	0.7	62.5	60.5
Czech Republic	1153	74.9	74.5	24.9	0.5	0.1	72.7	77.3
England	601	83.5	81.7	16.2	1.2	1.0	79.8	87.1
Finland	834	67.2	66.0	32.2	1.4	0.5	57.1	76.0
France	648	59.4	57.7	39.5	2.6	0.2	55.7	63.1
Georgia	693	56.4	54.3	42.0	2.8	0.9	51.4	61.7
Hong Kong SAR	633	84.3	83.1	15.4	0.8	0.6	81.5	87.1
Hungary	769	72.1	70.8	27.4	1.8	0.0	66.0	77.9
Ireland	720	85.0	83.9	14.8	1.0	0.3	83.5	86.5
Israel	744	76.5	74.8	23.0	1.9	0.3	76.4	76.6
Italy	653	75.3	74.6	24.4	0.8	0.2	71.9	78.5
Japan	558	92.7	91.6	7.2	0.6	0.5	92.5	92.8
Jordan	996	61.6	56.8	35.4	6.5	1.4	60.6	62.7
Kazakhstan	912	56.7	54.9	41.9	1.9	1.2	56.2	57.2
Korea, Rep. of	610	78.1	77.2	21.7	0.6	0.5	76.4	79.6
Lithuania	771	65.8	65.2	34.0	0.8	0.0	62.3	69.5
Malaysia	1254	53.0	52.4	46.5	0.9	0.2	46.7	59.4
Malta	576	76.2	74.3	23.2	2.0	0.5	74.9	77.6
Morocco	1240	54.2	44.3	37.4	16.1	2.2	53.8	54.6
New Zealand	562	77.4	75.1	21.9	1.9	1.1	70.1	83.9
Norway (9)	921	63.2	60.6	35.3	2.4	1.7	59.2	67.1
Oman	1178	63.4	60.0	34.6	4.8	0.7	62.3	64.5
Palestinian Nat'l Auth.	938	58.9	54.6	38.2	6.1	1.2	58.1	59.6
Portugal	772	77.4	76.6	22.3	0.6	0.5	70.6	84.1
Qatar	615	74.7	71.9	24.3	3.2	0.5	73.9	75.4
Romania	527	59.3	55.8	38.2	4.4	1.6	65.2	54.5
Saudi Arabia	832	52.7	51.5	46.2	2.1	0.2	52.6	52.8
Singapore	677	89.9	89.8	10.0	0.1	0.0	92.0	88.0
Sweden	722	85.1	83.5	14.6	1.2	0.6	83.9	86.2
Turkiye	703	71.2	70.7	28.6	0.7	0.0	72.1	70.4
United Arab Emirates	4670	74.2	71.9	25.0	2.1	1.0	72.6	75.8
United States	1169	71.5	70.1	27.9	0.9	1.2	69.5	73.4
Uzbekistan	621	60.2	48.3	31.8	18.2	1.7	61.2	59.3
International Avg. (40)	38045	69.9	67.5	28.7	3.0	0.7	67.8	72.0
Abu Dhabi, UAE	1720	67.0	63.9	31.5	3.3	1.3	65.1	68.9
Dubai, UAE	1171	84.5	83.2	15.3	0.8	0.7	83.8	85.1
Sharjah, UAE	923	77.9	76.1	21.6	1.5	0.8	75.4	80.5

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Chemistry / Applying

B_SM1_10 SE82103: Model of a group of molecules - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1176	40.4	10.4	39.9	31.1	17.4	0.3	0.9	44.9	36.5
Austria	671	26.3	6.4	25.9	47.7	18.5	0.9	0.6	28.9	23.8
Azerbaijan	884	30.5	14.5	28.8	34.5	16.6	2.9	2.8	26.9	34.3
Bahrain	739	31.3	11.3	31.0	43.0	13.6	0.7	0.4	30.5	32.1
Brazil	0	.	.	.	.	.	.	.	.	.
Chile	0	.	.	.	.	.	.	.	.	.
Chinese Taipei	782	60.5	3.3	60.4	24.3	11.8	0.0	0.2	59.2	61.8
Cyprus	596	52.9	12.0	52.4	23.8	10.8	0.3	0.7	59.2	46.6
Czech Republic	1153	35.7	8.3	35.5	39.2	16.4	0.5	0.1	35.3	36.1
England	601	49.0	8.2	47.7	28.0	13.6	1.5	1.0	51.5	46.4
Finland	834	34.8	5.7	33.9	41.4	16.4	2.0	0.5	36.8	33.1
France	648	59.9	10.4	58.7	19.1	9.8	1.7	0.3	62.5	57.4
Georgia	693	45.5	10.4	44.7	26.4	16.7	0.8	1.0	46.0	45.0
Hong Kong SAR	633	34.7	13.5	34.4	33.7	17.4	0.3	0.7	34.8	34.6
Hungary	769	41.0	4.8	40.8	39.8	14.1	0.5	0.0	41.8	40.2
Ireland	720	33.2	10.6	32.8	33.2	22.1	0.9	0.3	33.1	33.3
Israel	744	55.4	8.1	54.5	24.6	11.2	1.2	0.3	56.8	53.9
Italy	653	30.4	8.7	30.1	39.5	20.8	0.7	0.2	28.7	32.0
Japan	558	81.0	3.1	80.1	10.5	5.2	0.6	0.5	83.5	78.8
Jordan	996	36.8	16.8	35.8	33.5	11.2	1.3	1.4	34.8	38.6
Kazakhstan	912	22.2	13.1	21.7	40.6	22.2	0.6	1.8	19.8	24.6
Korea, Rep. of	610	60.1	5.4	59.8	28.1	6.2	0.0	0.5	66.1	54.5
Lithuania	771	36.8	6.5	36.8	43.4	13.2	0.1	0.0	36.2	37.5
Malaysia	1254	36.0	15.9	35.9	29.4	18.5	0.1	0.2	39.1	33.0
Malta	576	52.7	13.8	51.9	21.3	11.6	0.9	0.5	58.1	46.8
Morocco	1240	45.5	18.1	44.0	24.8	9.9	0.9	2.2	51.3	39.1
New Zealand	562	35.9	11.4	35.0	29.4	21.9	1.2	1.1	37.3	34.5
Norway (9)	921	23.7	8.4	23.0	49.7	15.6	1.3	2.0	24.0	23.5
Oman	1178	39.6	10.8	38.7	34.9	13.4	1.2	1.0	46.7	33.0
Palestinian Nat'l Auth.	938	41.4	14.5	40.2	32.1	10.5	1.5	1.2	42.6	40.2
Portugal	772	48.8	7.9	48.3	29.7	13.1	0.5	0.5	50.5	47.2
Qatar	615	38.9	14.3	38.3	33.2	12.8	0.5	0.9	39.0	38.8
Romania	527	30.7	8.3	29.7	39.1	19.7	1.4	1.8	28.7	32.3
Saudi Arabia	832	30.9	19.6	30.8	35.3	13.8	0.4	0.2	32.1	29.8
Singapore	677	69.9	9.0	69.7	12.8	8.3	0.3	0.0	71.2	68.6
Sweden	722	49.8	7.4	48.3	28.6	12.7	2.2	0.7	50.5	49.1
Turkiye	703	69.7	12.4	69.0	12.5	5.0	1.0	0.0	73.9	66.2
United Arab Emirates	4670	43.5	11.8	42.8	29.9	13.8	0.5	1.1	43.4	43.7
United States	1169	32.1	9.9	31.5	33.3	23.5	0.6	1.2	34.9	29.4
Uzbekistan	0	.	.	.	.	.	.	.	.	.
International Avg. (37)	33499	42.9	10.4	42.2	31.4	14.3	0.9	0.8	44.3	41.5
Abu Dhabi, UAE	1720	39.0	14.2	38.3	31.1	14.5	0.6	1.4	38.0	40.0
Dubai, UAE	1171	54.1	7.0	53.5	26.1	12.2	0.3	0.8	56.4	52.0
Sharjah, UAE	923	44.7	12.6	44.0	28.1	13.8	0.5	0.9	43.5	45.9

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Chemistry / Reasoning

B_SM1_11 SE82146: Order steps to separate a mixture - CR - 1 Point

COUNTRY	N	DIFF %	1 %	0 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1176	19.9	19.5	78.5	19.5	78.5	1.1	0.9	19.7	20.1
Austria	670	18.2	18.0	81.1	18.0	81.1	0.3	0.6	19.1	17.2
Azerbaijan	884	7.9	7.1	82.1	7.1	82.1	7.9	2.8	7.3	8.5
Bahrain	739	20.1	19.9	78.8	19.9	78.8	0.6	0.7	23.2	17.3
Brazil	3287	6.0	5.7	88.7	5.7	88.7	2.9	2.8	6.8	5.2
Chile	638	10.4	9.9	85.7	9.9	85.7	3.7	0.7	12.2	8.3
Chinese Taipei	782	32.8	32.6	66.9	32.6	66.9	0.2	0.2	33.6	32.0
Cyprus	596	7.8	7.7	90.6	7.7	90.6	1.0	0.7	8.1	7.6
Czech Republic	1153	30.0	29.7	69.3	29.7	69.3	0.6	0.4	33.2	26.6
England	601	23.7	23.1	74.1	23.1	74.1	1.6	1.3	25.5	22.0
Finland	834	22.2	21.7	76.2	21.7	76.2	1.3	0.8	25.4	19.4
France	648	11.7	11.4	86.3	11.4	86.3	2.0	0.3	12.8	10.5
Georgia	693	9.4	9.0	86.2	9.0	86.2	3.6	1.1	10.1	8.7
Hong Kong SAR	633	16.4	16.1	82.3	16.1	82.3	0.9	0.7	15.3	17.4
Hungary	769	24.2	24.1	75.7	24.1	75.7	0.2	0.0	26.6	21.9
Ireland	720	19.7	19.6	79.8	19.6	79.8	0.3	0.3	18.7	20.8
Israel	744	31.1	30.4	67.4	30.4	67.4	1.3	0.9	33.3	28.9
Italy	653	15.9	15.8	83.4	15.8	83.4	0.6	0.2	15.8	16.0
Japan	558	35.3	35.1	64.2	35.1	64.2	0.3	0.5	31.7	38.6
Jordan	996	10.6	10.3	86.6	10.3	86.6	1.6	1.6	12.9	8.4
Kazakhstan	912	13.8	13.4	83.4	13.4	83.4	1.3	2.0	15.4	12.3
Korea, Rep. of	610	37.5	37.2	61.9	37.2	61.9	0.5	0.5	40.4	34.8
Lithuania	771	24.8	24.7	74.8	24.7	74.8	0.5	0.0	27.1	22.3
Malaysia	1254	8.5	8.5	91.1	8.5	91.1	0.2	0.2	9.8	7.3
Malta	576	23.3	22.9	75.5	22.9	75.5	1.0	0.5	27.5	18.7
Morocco	1240	4.1	4.0	92.3	4.0	92.3	1.1	2.6	4.9	3.3
New Zealand	562	20.2	19.7	77.8	19.7	77.8	1.0	1.5	19.0	21.3
Norway (9)	921	14.4	13.7	81.3	13.7	81.3	3.0	2.1	13.3	15.4
Oman	1178	14.8	14.4	83.1	14.4	83.1	1.1	1.3	19.2	10.6
Palestinian Nat'l Auth.	938	15.2	14.8	82.9	14.8	82.9	1.0	1.3	18.9	11.8
Portugal	772	16.3	16.0	82.5	16.0	82.5	0.6	0.9	19.2	13.4
Qatar	615	20.8	20.3	77.5	20.3	77.5	1.3	0.9	21.5	20.1
Romania	527	10.9	10.5	85.4	10.5	85.4	2.2	1.9	14.8	7.7
Saudi Arabia	832	14.0	14.0	85.6	14.0	85.6	0.2	0.2	17.0	11.2
Singapore	677	48.7	48.6	51.3	48.6	51.3	0.0	0.1	51.3	46.2
Sweden	722	27.6	26.7	70.1	26.7	70.1	2.4	0.8	27.2	28.0
Turkiye	703	29.1	28.9	70.2	28.9	70.2	1.0	0.0	29.1	29.1
United Arab Emirates	4670	21.2	20.8	77.2	20.8	77.2	0.8	1.2	22.6	19.9
United States	1169	16.5	16.2	81.9	16.2	81.9	0.6	1.3	17.6	15.4
Uzbekistan	621	3.2	3.0	91.3	3.0	91.3	2.9	2.7	3.2	3.2
International Avg. (40)	38044	19.0	18.6	79.0	18.6	79.0	1.4	1.0	20.3	17.7
Abu Dhabi, UAE	1720	14.0	13.6	83.9	13.6	83.9	1.0	1.5	14.3	13.7
Dubai, UAE	1171	33.1	32.7	66.0	32.7	66.0	0.5	0.8	36.3	30.2
Sharjah, UAE	923	20.6	20.3	78.1	20.3	78.1	0.4	1.2	23.1	18.1

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Physics / Reasoning

B_SM1_12 SE82246: Speed of sound in various media (DERIVED) - CR - 1 Point

COUNTRY	N	DIFF %	1 %	7 %	0 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1176	50.5	49.3	1.6	46.7	49.3	48.3	0.8	1.6	45.4	54.9
Austria	671	49.8	48.9	1.6	47.8	48.9	49.3	1.1	0.6	47.1	52.4
Azerbaijan	884	31.8	29.7	1.7	62.1	29.7	63.7	3.3	3.2	33.9	29.6
Bahrain	739	41.0	40.6	2.4	56.0	40.6	58.5	0.1	0.9	41.2	40.7
Brazil	3287	23.3	21.8	1.6	70.4	21.8	72.0	2.6	3.6	19.4	27.2
Chile	638	38.9	37.3	2.6	56.0	37.3	58.6	2.4	1.8	36.6	41.5
Chinese Taipei	782	50.1	50.0	9.0	40.8	50.0	49.8	0.0	0.2	51.0	49.3
Cyprus	596	36.3	35.6	2.4	60.1	35.6	62.6	0.9	1.0	36.9	35.6
Czech Republic	1153	52.2	51.8	5.0	42.4	51.8	47.4	0.4	0.4	47.4	57.3
England	601	47.1	45.8	1.1	50.5	45.8	51.6	0.9	1.7	49.0	45.2
Finland	834	52.0	51.2	4.1	43.2	51.2	47.2	0.5	1.1	52.7	51.4
France	648	41.8	41.1	4.7	52.6	41.1	57.3	0.9	0.6	43.7	39.9
Georgia	693	30.5	29.4	2.9	64.1	29.4	66.9	1.9	1.8	27.1	34.0
Hong Kong SAR	633	46.9	46.2	2.1	50.1	46.2	52.2	0.8	0.8	43.0	50.8
Hungary	769	50.4	50.4	4.9	44.7	50.4	49.6	0.0	0.0	47.2	53.4
Ireland	720	42.5	42.2	2.5	54.5	42.2	57.0	0.4	0.4	37.0	48.1
Israel	744	49.6	48.7	3.2	46.3	48.7	49.5	0.6	1.2	48.0	51.2
Italy	653	57.5	57.0	2.5	39.5	57.0	42.0	0.8	0.2	57.2	57.9
Japan	558	37.8	37.4	8.2	53.3	37.4	61.5	0.6	0.5	33.7	41.4
Jordan	996	23.3	22.8	2.7	72.0	22.8	74.7	1.0	1.6	23.1	23.6
Kazakhstan	912	31.1	30.0	2.4	63.9	30.0	66.3	1.6	2.1	29.2	33.1
Korea, Rep. of	610	56.5	56.1	3.4	39.8	56.1	43.2	0.2	0.5	55.7	57.2
Lithuania	771	49.8	49.7	3.8	46.2	49.7	50.1	0.1	0.2	49.2	50.5
Malaysia	1254	28.9	28.7	0.7	69.9	28.7	70.6	0.3	0.4	28.8	29.1
Malta	576	44.9	44.3	2.1	52.2	44.3	54.3	0.7	0.7	41.2	48.9
Morocco	1240	19.6	18.7	1.3	75.5	18.7	76.8	1.7	2.8	20.2	18.9
New Zealand	562	43.0	41.9	1.2	54.3	41.9	55.5	0.8	1.8	41.8	44.1
Norway (9)	921	37.7	36.2	2.0	57.8	36.2	59.8	1.2	2.8	35.4	39.9
Oman	1178	32.0	31.3	2.9	63.5	31.3	66.4	0.7	1.7	36.8	27.6
Palestinian Nat'l Auth.	938	28.7	27.9	3.5	65.7	27.9	69.2	0.9	2.0	33.9	24.0
Portugal	772	57.6	56.6	1.8	39.9	56.6	41.7	0.5	1.2	55.4	59.7
Qatar	615	37.0	36.1	4.1	57.4	36.1	61.5	1.4	1.0	38.6	35.6
Romania	527	33.4	32.2	3.5	60.8	32.2	64.3	1.6	1.9	33.4	33.4
Saudi Arabia	832	30.3	30.2	3.0	66.4	30.2	69.5	0.1	0.2	35.5	25.4
Singapore	677	61.0	60.9	4.4	34.5	60.9	39.0	0.0	0.1	59.2	62.6
Sweden	722	51.6	50.0	1.9	44.8	50.0	46.8	2.1	1.1	46.6	55.9
Turkiye	703	51.8	51.5	4.3	43.6	51.5	47.9	0.4	0.1	47.6	55.5
United Arab Emirates	4670	46.6	45.5	2.8	49.3	45.5	52.2	0.8	1.5	43.4	49.6
United States	1169	44.8	43.9	1.6	52.6	43.9	54.2	0.5	1.4	42.8	46.7
Uzbekistan	621	15.5	14.7	2.2	77.8	14.7	80.0	2.1	3.1	17.2	13.9
International Avg. (40)	38045	41.4	40.6	3.0	54.2	40.6	57.2	0.9	1.2	40.3	42.4
Abu Dhabi, UAE	1720	39.2	38.1	2.5	56.6	38.1	59.0	0.9	1.9	36.9	41.5
Dubai, UAE	1171	57.0	56.1	2.5	39.9	56.1	42.3	0.6	1.1	53.1	60.5
Sharjah, UAE	923	48.4	47.2	3.8	46.6	47.2	50.4	1.2	1.2	42.4	54.4

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Physics / Reasoning

B_SM1_12A SE82246A: Speed of sound in various media - 1 - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1176	75.3	73.0	24.0	1.4	1.6	71.0	79.0
Austria	671	75.3	73.9	24.3	1.2	0.6	70.9	79.7
Azerbaijan	884	73.9	67.5	23.8	5.5	3.2	70.2	78.0
Bahrain	739	71.8	70.6	27.7	0.9	0.9	71.5	72.1
Brazil	3287	66.9	60.4	29.8	6.2	3.6	61.8	72.1
Chile	638	72.3	68.2	26.1	4.0	1.8	67.8	77.4
Chinese Taipei	782	82.6	82.4	17.3	0.0	0.2	79.8	85.2
Cyprus	596	68.3	66.9	31.1	1.1	1.0	68.1	68.5
Czech Republic	1153	76.2	75.5	23.6	0.6	0.4	74.3	78.2
England	601	68.7	66.8	30.4	1.2	1.7	69.2	68.3
Finland	834	82.8	81.1	16.8	1.0	1.1	83.4	82.3
France	648	71.6	70.5	28.0	0.9	0.6	70.9	72.3
Georgia	693	61.7	58.3	36.2	3.6	1.8	58.6	64.9
Hong Kong SAR	633	74.2	73.0	25.3	0.8	0.8	69.0	79.4
Hungary	769	75.1	75.0	24.9	0.1	0.0	72.0	78.0
Ireland	720	66.3	65.5	33.2	0.8	0.4	64.0	68.7
Israel	744	71.0	69.7	28.5	0.6	1.2	68.5	73.5
Italy	653	80.2	79.1	19.5	1.2	0.2	77.2	83.0
Japan	558	69.6	68.6	30.0	0.9	0.5	67.5	71.4
Jordan	996	59.5	57.5	39.1	1.8	1.6	57.6	61.3
Kazakhstan	912	69.4	66.6	29.3	1.9	2.1	68.1	70.8
Korea, Rep. of	610	79.6	78.8	20.1	0.6	0.5	79.4	79.9
Lithuania	771	76.7	76.6	23.2	0.1	0.2	77.4	76.0
Malaysia	1254	68.2	67.6	31.5	0.5	0.4	65.1	71.3
Malta	576	70.0	68.9	29.5	0.9	0.7	64.6	75.9
Morocco	1240	55.2	51.0	41.3	4.8	2.8	57.0	53.4
New Zealand	562	68.4	66.4	30.6	1.2	1.8	69.4	67.6
Norway (9)	921	73.6	70.0	25.2	2.0	2.8	70.7	76.3
Oman	1178	67.4	65.3	31.6	1.4	1.7	63.7	70.8
Palestinian Nat'l Auth.	938	70.7	67.4	27.9	2.7	2.0	73.3	68.3
Portugal	772	79.6	78.1	20.0	0.7	1.2	78.1	81.1
Qatar	615	64.7	62.7	34.3	2.0	1.0	61.6	67.4
Romania	527	67.6	64.9	31.2	2.0	1.9	71.9	63.8
Saudi Arabia	832	67.4	66.4	32.1	1.3	0.2	65.7	69.1
Singapore	677	79.4	79.3	20.6	0.0	0.1	76.3	82.3
Sweden	722	76.7	73.7	22.4	2.7	1.1	71.1	81.5
Turkiye	703	80.6	79.6	19.2	1.0	0.1	75.1	85.4
United Arab Emirates	4670	74.3	71.8	24.9	1.8	1.5	69.8	78.5
United States	1169	68.2	66.6	31.1	0.9	1.5	64.4	71.8
Uzbekistan	621	72.7	63.9	24.0	8.8	3.3	71.9	73.5
International Avg. (40)	38045	71.8	69.7	27.2	1.8	1.3	69.7	73.9
Abu Dhabi, UAE	1720	72.8	69.9	26.2	2.0	1.9	69.3	76.2
Dubai, UAE	1171	77.6	76.0	22.0	0.9	1.1	72.3	82.3
Sharjah, UAE	923	73.6	70.9	25.4	2.5	1.2	68.3	78.9

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Physics / Reasoning

B_SM1_12B SE82246B: Speed of sound in various media - 2 - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1176	70.4	28.8	68.5	1.1	1.6	68.4	72.2
Austria	671	74.2	25.3	72.8	1.3	0.6	72.7	75.7
Azerbaijan	884	64.0	32.0	56.9	7.8	3.2	61.1	67.2
Bahrain	739	70.3	29.1	68.8	1.2	0.9	68.8	71.6
Brazil	3287	60.6	35.2	54.1	7.1	3.6	58.2	62.9
Chile	638	64.4	33.3	60.3	4.7	1.8	61.0	68.2
Chinese Taipei	782	82.3	17.6	81.8	0.3	0.2	81.4	83.1
Cyprus	596	68.9	30.4	67.6	1.0	1.0	66.1	71.9
Czech Republic	1153	78.3	21.6	77.6	0.5	0.4	75.4	81.3
England	601	67.6	31.3	65.4	1.6	1.7	68.6	66.6
Finland	834	77.2	22.4	75.7	0.8	1.1	76.7	77.7
France	648	70.7	28.7	69.1	1.6	0.6	69.6	71.8
Georgia	693	61.7	34.8	56.1	7.3	1.8	59.6	64.0
Hong Kong SAR	633	71.2	28.3	69.9	0.9	0.8	65.9	76.4
Hungary	769	76.3	23.7	76.3	0.0	0.0	73.9	78.5
Ireland	720	69.2	30.5	68.4	0.7	0.4	69.0	69.3
Israel	744	70.7	28.6	69.0	1.2	1.2	69.1	72.3
Italy	653	81.1	18.6	79.9	1.2	0.2	78.7	83.4
Japan	558	70.3	29.3	69.3	0.9	0.5	70.4	70.2
Jordan	996	60.8	37.4	58.1	3.0	1.6	61.4	60.3
Kazakhstan	912	63.9	34.6	61.2	2.1	2.1	62.3	65.6
Korea, Rep. of	610	81.8	18.0	81.0	0.6	0.5	81.6	82.1
Lithuania	771	75.6	24.4	75.4	0.1	0.2	75.0	76.1
Malaysia	1254	61.4	38.0	60.4	1.2	0.4	58.9	63.8
Malta	576	69.4	29.9	67.8	1.6	0.7	67.2	71.9
Morocco	1240	54.2	41.8	49.5	5.9	2.8	52.3	56.3
New Zealand	562	64.7	34.4	62.9	1.0	1.8	62.5	66.6
Norway (9)	921	71.1	27.5	67.7	2.0	2.8	68.3	73.9
Oman	1178	65.9	32.8	63.4	2.1	1.7	64.4	67.3
Palestinian Nat'l Auth.	938	66.4	31.7	62.7	3.6	2.0	69.3	63.8
Portugal	772	79.0	20.6	77.4	0.8	1.2	78.4	79.5
Qatar	615	65.7	33.2	63.5	2.2	1.0	61.4	69.4
Romania	527	65.8	32.8	63.1	2.3	1.9	69.2	62.8
Saudi Arabia	832	65.5	33.7	63.9	2.1	0.2	67.5	63.5
Singapore	677	77.8	22.2	77.7	0.0	0.1	75.1	80.3
Sweden	722	73.4	25.6	70.6	2.7	1.1	70.0	76.3
Turkiye	703	73.0	26.7	72.5	0.7	0.1	70.3	75.4
United Arab Emirates	4670	73.0	26.0	70.3	2.2	1.5	68.9	77.0
United States	1169	67.9	31.2	66.1	1.2	1.5	62.1	73.4
Uzbekistan	621	57.7	36.2	49.4	11.1	3.3	57.1	58.3
International Avg. (40)	38045	69.6	29.2	67.3	2.2	1.3	67.9	71.2
Abu Dhabi, UAE	1720	70.3	28.4	67.2	2.5	1.9	67.3	73.2
Dubai, UAE	1171	76.2	23.3	74.3	1.4	1.1	71.9	80.1
Sharjah, UAE	923	74.2	24.7	71.0	3.1	1.2	68.5	79.9

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Physics / Reasoning

B_SM1_12C SE82246C: Speed of sound in various media - 3 - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1176	64.5	34.5	62.8	1.1	1.6	58.4	69.8
Austria	671	65.1	34.1	63.7	1.6	0.6	60.4	69.9
Azerbaijan	884	56.9	38.2	50.5	8.1	3.2	57.9	55.9
Bahrain	739	59.4	39.6	57.9	1.6	0.9	60.8	58.1
Brazil	3287	49.8	44.2	43.8	8.4	3.6	47.1	52.5
Chile	638	63.0	34.5	58.8	4.9	1.8	60.4	65.9
Chinese Taipei	782	67.9	31.9	67.4	0.5	0.2	67.3	68.4
Cyprus	596	55.5	43.3	54.1	1.6	1.0	56.4	54.6
Czech Republic	1153	67.4	32.2	66.5	1.0	0.4	64.9	70.0
England	601	61.7	37.2	59.9	1.2	1.7	63.0	60.4
Finland	834	72.9	26.5	71.3	1.1	1.1	74.4	71.6
France	648	63.7	35.3	62.0	2.0	0.6	65.6	61.9
Georgia	693	53.4	43.0	49.3	5.8	1.8	51.3	55.6
Hong Kong SAR	633	61.2	38.1	60.1	1.0	0.8	57.2	65.1
Hungary	769	67.3	32.6	67.2	0.2	0.0	63.8	70.7
Ireland	720	57.9	41.2	56.6	1.9	0.4	54.0	61.7
Israel	744	66.7	32.5	65.1	1.3	1.2	63.8	69.7
Italy	653	74.7	24.8	73.3	1.6	0.2	74.7	74.7
Japan	558	55.7	43.5	54.9	1.1	0.5	53.6	57.6
Jordan	996	49.4	48.0	46.9	3.5	1.6	46.0	52.8
Kazakhstan	912	54.3	43.6	51.8	2.4	2.1	53.1	55.5
Korea, Rep. of	610	71.5	28.1	70.6	0.8	0.5	69.8	73.2
Lithuania	771	68.9	30.9	68.5	0.4	0.2	68.4	69.3
Malaysia	1254	48.2	51.0	47.4	1.2	0.4	47.4	49.0
Malta	576	61.9	37.2	60.5	1.6	0.7	59.2	64.9
Morocco	1240	47.2	48.7	43.5	5.1	2.8	50.4	43.7
New Zealand	562	59.5	39.2	57.6	1.5	1.8	61.7	57.6
Norway (9)	921	53.9	43.8	51.3	2.1	2.8	53.3	54.5
Oman	1178	59.1	39.4	56.9	2.1	1.7	64.5	54.0
Palestinian Nat'l Auth.	938	57.6	39.8	54.0	4.2	2.0	60.0	55.3
Portugal	772	71.3	28.0	69.6	1.2	1.2	67.9	74.6
Qatar	615	54.0	44.2	52.0	2.8	1.0	53.8	54.2
Romania	527	50.3	47.6	48.1	2.4	1.9	54.5	46.6
Saudi Arabia	832	53.1	45.4	51.4	3.0	0.2	55.0	51.3
Singapore	677	76.9	23.0	76.5	0.4	0.1	75.8	77.9
Sweden	722	70.8	28.0	67.9	2.9	1.1	65.9	75.1
Turkiye	703	70.3	29.2	69.0	1.7	0.1	67.0	73.1
United Arab Emirates	4670	63.1	35.4	60.6	2.5	1.5	60.7	65.4
United States	1169	61.8	37.2	60.2	1.2	1.5	59.5	64.1
Uzbekistan	621	43.5	46.3	35.6	14.8	3.3	48.0	38.7
International Avg. (40)	38045	60.8	37.5	58.6	2.6	1.3	59.9	61.6
Abu Dhabi, UAE	1720	58.1	39.8	55.2	3.0	1.9	55.3	60.9
Dubai, UAE	1171	71.4	27.8	69.4	1.7	1.1	68.5	74.0
Sharjah, UAE	923	63.5	35.0	61.0	2.8	1.2	59.4	67.6

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Reasoning

B_SM1_12D SE82246D: Speed of sound in various media - 4 - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1176	71.4	69.2	27.7	1.5	1.6	65.7	76.4
Austria	671	72.6	71.2	26.8	1.3	0.6	69.7	75.5
Azerbaijan	884	66.7	58.3	29.1	9.4	3.2	66.9	66.5
Bahrain	739	66.0	64.2	33.2	1.8	0.9	63.2	68.5
Brazil	3287	61.2	54.2	34.3	7.9	3.6	59.8	62.7
Chile	638	69.6	64.8	28.4	5.1	1.8	69.4	69.7
Chinese Taipei	782	66.8	66.6	33.0	0.2	0.2	64.1	69.4
Cyprus	596	62.8	61.1	36.3	1.6	1.0	59.6	65.9
Czech Republic	1153	69.0	68.0	30.5	1.1	0.4	65.9	72.4
England	601	72.2	69.9	27.0	1.4	1.7	75.0	69.4
Finland	834	74.6	72.7	24.7	1.4	1.1	74.3	74.9
France	648	70.5	68.3	28.6	2.5	0.6	70.3	70.7
Georgia	693	62.2	55.5	33.7	9.0	1.8	59.3	65.4
Hong Kong SAR	633	72.6	71.2	26.9	1.1	0.8	69.9	75.3
Hungary	769	67.6	67.2	32.2	0.5	0.0	62.5	72.5
Ireland	720	67.3	66.4	32.3	0.9	0.4	64.5	70.1
Israel	744	70.7	68.7	28.5	1.6	1.2	68.7	72.7
Italy	653	77.6	76.6	22.0	1.1	0.2	80.3	75.2
Japan	558	61.3	60.3	38.0	1.2	0.5	56.7	65.5
Jordan	996	63.9	59.9	33.9	4.7	1.6	62.3	65.4
Kazakhstan	912	61.7	58.2	36.1	3.6	2.1	61.8	61.7
Korea, Rep. of	610	80.6	79.6	19.1	0.7	0.5	79.1	82.1
Lithuania	771	69.7	69.3	30.2	0.3	0.2	67.5	72.0
Malaysia	1254	62.6	61.4	36.7	1.6	0.4	62.7	62.5
Malta	576	69.1	67.2	30.0	2.1	0.7	66.6	71.9
Morocco	1240	54.9	49.7	40.8	6.7	2.8	57.7	51.8
New Zealand	562	73.0	70.5	26.1	1.6	1.8	72.0	73.8
Norway (9)	921	67.3	63.7	31.0	2.5	2.8	65.0	69.5
Oman	1178	68.2	65.1	30.3	2.9	1.7	71.6	65.1
Palestinian Nat'l Auth.	938	64.9	60.4	32.6	5.0	2.0	69.4	60.6
Portugal	772	76.6	75.1	22.9	0.8	1.2	74.5	78.7
Qatar	615	62.0	59.5	36.5	3.0	1.0	60.1	63.6
Romania	527	60.1	57.6	38.3	2.2	1.9	60.8	59.5
Saudi Arabia	832	64.4	62.5	34.6	2.6	0.2	63.6	65.1
Singapore	677	79.9	79.7	20.0	0.1	0.1	77.4	82.3
Sweden	722	79.1	75.7	20.0	3.1	1.1	77.1	80.7
Turkiye	703	75.1	74.4	24.7	0.8	0.1	74.9	75.3
United Arab Emirates	4670	71.6	68.6	27.2	2.7	1.5	68.4	74.7
United States	1169	71.2	69.1	27.9	1.4	1.5	68.8	73.4
Uzbekistan	621	58.0	47.2	34.2	15.3	3.3	61.6	54.2
International Avg. (40)	38045	68.4	65.7	30.2	2.9	1.3	67.2	69.6
Abu Dhabi, UAE	1720	68.5	65.1	29.9	3.1	1.9	68.2	68.9
Dubai, UAE	1171	77.5	75.2	21.8	1.9	1.1	73.6	81.1
Sharjah, UAE	923	70.4	67.6	28.4	2.8	1.2	64.3	76.6

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Knowing

B_SM1_13 SE82331: Salt water and fresh water in the water cycle - CR - 1 Point

COUNTRY	N	DIFF %	1 %	0 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1176	66.4	64.9	32.9	64.9	32.9	0.5	1.7	66.5	66.3
Austria	671	68.0	66.9	31.4	66.9	31.4	0.7	1.0	67.2	68.9
Azerbaijan	884	32.4	29.3	61.1	29.3	61.1	5.1	4.5	33.1	31.8
Bahrain	739	47.4	47.0	52.1	47.0	52.1	0.0	0.9	45.1	49.5
Brazil	3287	32.4	30.6	63.7	30.6	63.7	1.0	4.7	30.7	34.1
Chile	638	54.9	53.2	43.6	53.2	43.6	0.9	2.2	53.3	56.8
Chinese Taipei	782	66.4	66.3	33.5	66.3	33.5	0.0	0.2	64.6	68.1
Cyprus	596	55.5	54.6	43.8	54.6	43.8	0.4	1.1	56.0	54.9
Czech Republic	1153	73.7	73.2	26.0	73.2	26.0	0.2	0.6	72.5	75.1
England	601	67.2	65.2	31.8	65.2	31.8	1.0	2.0	66.6	67.8
Finland	834	73.7	72.2	25.8	72.2	25.8	0.5	1.5	79.4	68.8
France	648	66.0	65.2	33.5	65.2	33.5	0.4	0.9	70.9	61.3
Georgia	693	49.9	47.5	47.6	47.5	47.6	2.2	2.7	51.4	48.3
Hong Kong SAR	633	68.1	67.2	31.5	67.2	31.5	0.3	1.1	65.4	70.8
Hungary	769	71.8	71.8	28.2	71.8	28.2	0.0	0.0	72.9	70.8
Ireland	720	65.6	65.1	34.2	65.1	34.2	0.1	0.6	62.4	68.8
Israel	744	65.8	64.6	33.6	64.6	33.6	0.4	1.4	65.9	65.6
Italy	653	69.4	68.5	30.2	68.5	30.2	0.8	0.5	72.6	66.6
Japan	558	68.4	67.2	31.1	67.2	31.1	0.6	1.1	70.2	66.7
Jordan	996	37.3	36.4	61.1	36.4	61.1	0.6	1.8	40.5	34.4
Kazakhstan	912	44.0	42.2	53.7	42.2	53.7	0.8	3.2	42.2	45.9
Korea, Rep. of	610	64.3	63.6	35.3	63.6	35.3	0.6	0.5	64.3	64.4
Lithuania	771	70.5	70.3	29.5	70.3	29.5	0.0	0.2	73.7	67.0
Malaysia	1254	43.4	43.0	56.0	43.0	56.0	0.3	0.7	46.6	40.3
Malta	576	63.3	62.0	36.0	62.0	36.0	0.8	1.2	63.5	63.0
Morocco	1240	25.4	24.3	71.2	24.3	71.2	0.8	3.7	25.7	25.2
New Zealand	562	63.0	61.5	36.0	61.5	36.0	0.5	2.0	61.5	64.4
Norway (9)	921	66.2	63.2	32.2	63.2	32.2	1.7	3.0	64.5	67.9
Oman	1178	49.9	48.6	48.7	48.6	48.7	0.4	2.3	54.7	45.6
Palestinian Nat'l Auth.	938	31.9	30.9	66.1	30.9	66.1	0.6	2.3	34.2	29.7
Portugal	772	66.6	65.5	32.9	65.5	32.9	0.1	1.5	67.1	66.1
Qatar	615	55.4	54.4	43.7	54.4	43.7	0.6	1.3	57.5	53.6
Romania	527	50.0	47.9	47.9	47.9	47.9	1.5	2.7	52.7	47.6
Saudi Arabia	832	37.1	36.8	62.5	36.8	62.5	0.3	0.4	43.1	31.5
Singapore	677	79.5	79.4	20.5	79.4	20.5	0.0	0.1	79.5	79.5
Sweden	722	68.4	65.7	30.4	65.7	30.4	1.6	2.2	68.4	68.4
Turkiye	703	60.0	59.3	39.5	59.3	39.5	1.0	0.2	59.0	60.9
United Arab Emirates	4670	55.4	53.9	43.3	53.9	43.3	0.5	2.3	56.2	54.7
United States	1169	63.8	62.5	35.5	62.5	35.5	0.5	1.5	61.2	66.2
Uzbekistan	621	25.4	24.0	70.5	24.0	70.5	1.3	4.3	24.4	26.4
International Avg. (40)	38045	57.1	55.9	41.7	55.9	41.7	0.7	1.7	57.7	56.6
Abu Dhabi, UAE	1720	46.0	44.6	52.4	44.6	52.4	0.4	2.6	46.9	45.1
Dubai, UAE	1171	69.8	68.3	29.5	68.3	29.5	0.3	1.9	71.8	68.1
Sharjah, UAE	923	57.2	55.3	41.5	55.3	41.5	0.6	2.6	56.3	58.0

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Knowing

B_SM2_01 SE62279: Healthy and balanced meal - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1200	84.5	84.2	3.1	4.8	7.6	0.2	0.1	85.1	83.8
Austria	655	70.5	70.5	9.8	5.2	14.6	0.0	0.0	69.3	71.7
Azerbaijan	880	14.6	14.4	5.3	38.2	41.1	0.2	0.9	12.0	16.9
Bahrain	741	53.0	53.0	4.4	15.4	27.1	0.1	0.0	63.8	41.7
Brazil	3290	66.5	66.3	1.6	2.5	29.3	0.1	0.2	70.3	62.8
Chile	640	66.3	65.8	1.8	11.9	19.7	0.2	0.6	68.8	64.1
Chinese Taipei	798	86.5	86.3	1.7	6.9	4.8	0.3	0.0	87.9	85.3
Cyprus	603	79.0	78.5	4.5	4.8	11.7	0.2	0.3	82.6	75.2
Czech Republic	1157	64.5	64.3	3.6	15.3	16.5	0.2	0.0	64.9	64.0
England	597	86.6	86.6	5.5	2.9	5.0	0.0	0.0	87.3	86.0
Finland	833	82.7	82.6	5.1	8.3	3.9	0.0	0.1	85.0	80.6
France	642	78.7	78.5	3.0	6.3	12.0	0.2	0.0	78.4	79.0
Georgia	690	49.5	49.4	4.2	16.4	29.9	0.2	0.0	55.7	43.3
Hong Kong SAR	637	83.5	83.4	6.0	4.0	6.5	0.0	0.2	86.5	80.5
Hungary	772	78.1	78.0	2.7	6.4	12.8	0.1	0.0	80.4	75.6
Ireland	714	85.6	85.6	7.3	3.9	3.2	0.0	0.0	87.2	84.2
Israel	736	72.4	72.0	2.8	7.4	17.3	0.3	0.3	78.2	66.2
Italy	657	81.6	81.6	4.9	4.1	9.4	0.0	0.0	83.5	79.6
Japan	548	95.3	95.1	0.4	3.4	1.0	0.2	0.0	94.4	96.1
Jordan	977	32.6	32.5	4.9	20.4	41.9	0.2	0.0	35.8	29.6
Kazakhstan	909	35.1	35.1	5.8	17.4	41.8	0.0	0.0	33.9	36.0
Korea, Rep. of	609	88.2	88.2	2.3	5.0	4.4	0.0	0.0	88.9	87.6
Lithuania	778	79.0	79.0	2.1	8.3	10.6	0.0	0.0	78.7	79.3
Malaysia	1255	65.9	65.9	4.1	6.7	23.3	0.0	0.0	69.1	62.7
Malta	581	80.8	80.8	5.2	4.3	9.7	0.0	0.0	83.4	78.5
Morocco	1246	22.5	22.3	20.2	24.4	32.3	0.4	0.3	23.3	21.7
New Zealand	544	83.2	83.0	5.7	2.0	9.1	0.0	0.2	86.0	80.9
Norway (9)	896	71.9	71.3	6.8	14.1	7.0	0.2	0.6	71.2	72.6
Oman	1180	47.0	47.0	4.7	11.7	36.6	0.0	0.0	54.4	40.1
Palestinian Nat'l Auth.	940	32.4	32.3	6.0	19.3	42.0	0.2	0.1	37.8	27.5
Portugal	784	77.4	77.4	3.4	3.6	15.6	0.0	0.0	81.6	72.9
Qatar	616	62.8	62.4	2.8	11.5	22.7	0.5	0.0	68.8	56.2
Romania	541	74.7	74.5	2.0	7.7	15.6	0.1	0.1	73.8	75.5
Saudi Arabia	840	51.8	51.8	5.6	11.6	31.0	0.0	0.0	63.1	41.3
Singapore	676	91.4	91.4	2.5	2.9	3.2	0.0	0.0	91.9	90.9
Sweden	714	87.4	86.8	5.4	4.4	2.7	0.1	0.5	89.1	85.8
Turkiye	705	43.1	43.0	1.4	36.5	18.9	0.1	0.1	42.8	43.4
United Arab Emirates	4708	65.1	65.0	3.9	9.8	21.2	0.1	0.1	67.8	62.4
United States	1158	81.6	81.4	4.1	4.4	9.9	0.0	0.1	84.5	78.8
Uzbekistan	620	17.0	17.0	10.4	29.7	42.6	0.5	0.0	14.3	19.6
International Avg. (40)	38067	66.7	66.6	4.7	10.6	17.9	0.1	0.1	69.0	64.5
Abu Dhabi, UAE	1740	54.5	54.3	6.5	11.3	27.5	0.2	0.1	55.5	53.6
Dubai, UAE	1175	81.9	81.9	2.2	3.9	12.0	0.0	0.0	86.2	77.8
Sharjah, UAE	921	67.9	67.8	3.0	10.7	18.5	0.0	0.1	68.0	67.7

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Applying

B_SM2_02 SE62112: Tony gets the measles - CR - 1 Point

COUNTRY	N	DIFF %	10 %	79 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1200	48.3	48.1	51.6	48.1	51.6	0.1	0.2	50.7	46.6
Austria	654	68.7	68.6	31.2	68.6	31.2	0.1	0.0	71.7	65.6
Azerbaijan	880	51.1	49.2	47.0	49.2	47.0	2.9	0.9	52.8	49.6
Bahrain	741	34.0	33.6	65.3	33.6	65.3	1.2	0.0	38.9	28.7
Brazil	3288	28.4	27.8	70.0	27.8	70.0	2.1	0.2	24.9	31.9
Chile	640	39.5	37.8	57.9	37.8	57.9	3.7	0.6	42.0	37.3
Chinese Taipei	798	22.5	22.5	77.5	22.5	77.5	0.0	0.0	24.5	20.7
Cyprus	603	41.1	40.9	58.4	40.9	58.4	0.4	0.3	45.4	36.7
Czech Republic	1157	65.5	65.5	34.5	65.5	34.5	0.0	0.0	67.4	63.7
England	597	60.8	60.6	39.1	60.6	39.1	0.3	0.0	56.3	65.1
Finland	833	63.9	63.8	36.0	63.8	36.0	0.1	0.1	67.0	61.2
France	642	54.3	53.9	45.4	53.9	45.4	0.7	0.0	55.4	53.1
Georgia	690	60.9	60.6	39.0	60.6	39.0	0.5	0.0	64.6	57.2
Hong Kong SAR	637	44.5	44.2	55.2	44.2	55.2	0.4	0.2	40.0	48.8
Hungary	772	57.6	57.5	42.3	57.5	42.3	0.3	0.0	57.3	58.0
Ireland	714	71.4	70.9	28.4	70.9	28.4	0.7	0.0	73.5	69.6
Israel	736	45.1	44.4	54.0	44.4	54.0	1.1	0.5	45.1	45.1
Italy	657	64.7	64.4	35.1	64.4	35.1	0.5	0.0	67.2	62.2
Japan	548	49.1	48.7	50.5	48.7	50.5	0.8	0.0	49.4	48.8
Jordan	977	33.4	33.4	66.6	33.4	66.6	0.0	0.0	33.7	33.1
Kazakhstan	909	56.7	56.5	43.1	56.5	43.1	0.4	0.0	60.5	53.6
Korea, Rep. of	609	41.1	41.0	58.7	41.0	58.7	0.4	0.0	38.8	43.1
Lithuania	778	63.2	63.1	36.7	63.1	36.7	0.2	0.0	62.7	63.7
Malaysia	1255	29.9	29.9	70.1	29.9	70.1	0.0	0.0	32.6	27.0
Malta	581	50.5	50.2	49.1	50.2	49.1	0.7	0.0	54.3	47.2
Morocco	1246	5.6	5.4	91.4	5.4	91.4	2.9	0.3	7.1	4.2
New Zealand	544	60.1	59.8	39.6	59.8	39.6	0.4	0.2	62.5	58.3
Norway (9)	896	60.6	59.5	38.7	59.5	38.7	1.2	0.6	63.2	58.6
Oman	1180	18.5	18.3	80.7	18.3	80.7	1.0	0.0	18.6	18.4
Palestinian Nat'l Auth.	940	22.8	22.7	76.8	22.7	76.8	0.4	0.1	26.6	19.4
Portugal	784	53.8	53.5	45.9	53.5	45.9	0.6	0.0	58.9	48.5
Qatar	616	33.9	33.6	65.3	33.6	65.3	1.1	0.0	35.6	32.1
Romania	541	53.7	53.5	46.1	53.5	46.1	0.2	0.1	56.7	51.0
Saudi Arabia	840	22.1	22.1	77.9	22.1	77.9	0.0	0.0	24.8	19.6
Singapore	676	44.9	44.9	55.1	44.9	55.1	0.0	0.0	41.0	48.5
Sweden	714	67.3	65.8	32.0	65.8	32.0	1.6	0.5	67.9	66.7
Turkiye	704	37.2	36.9	62.3	36.9	62.3	0.6	0.1	38.5	35.7
United Arab Emirates	4708	35.8	35.6	63.8	35.6	63.8	0.5	0.1	33.6	38.0
United States	1158	42.3	42.0	57.2	42.0	57.2	0.6	0.1	36.6	47.6
Uzbekistan	620	28.1	27.9	71.3	27.9	71.3	0.8	0.0	32.4	24.3
International Avg. (40)	38063	45.8	45.5	53.7	45.5	53.7	0.7	0.1	47.0	44.7
Abu Dhabi, UAE	1740	27.9	27.6	71.4	27.6	71.4	0.9	0.1	26.7	29.0
Dubai, UAE	1175	47.6	47.4	52.1	47.4	52.1	0.4	0.0	42.1	53.0
Sharjah, UAE	921	38.5	38.3	61.3	38.3	61.3	0.2	0.1	35.1	41.9

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Reasoning

B_SM2_03 SE62119: Fossils in rock layers - MC - Key: C

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1200	69.8	5.7	17.2	69.4	7.0	0.5	0.2	68.6	70.6
Austria	655	60.8	8.3	20.5	60.7	10.4	0.1	0.0	59.6	62.0
Azerbaijan	880	43.0	15.9	22.0	40.4	15.7	5.0	1.1	42.0	43.8
Bahrain	741	46.9	12.8	19.8	46.4	19.9	1.0	0.0	52.0	41.5
Brazil	3290	49.5	11.8	18.2	48.8	19.9	1.3	0.2	48.4	50.5
Chile	640	51.7	7.8	24.4	50.4	14.9	2.0	0.6	53.8	49.9
Chinese Taipei	798	83.8	3.9	6.3	83.8	6.0	0.0	0.0	87.7	80.2
Cyprus	603	48.3	9.6	24.0	47.6	17.5	1.0	0.3	48.9	47.6
Czech Republic	1157	66.3	4.0	15.8	66.2	13.9	0.1	0.0	67.5	65.1
England	597	70.6	6.8	13.8	70.5	8.8	0.1	0.0	68.9	72.2
Finland	833	57.3	8.5	18.4	56.9	15.5	0.6	0.1	60.4	54.4
France	642	60.9	4.8	18.0	60.4	15.9	0.9	0.0	62.0	59.8
Georgia	690	45.0	11.1	19.9	44.2	23.0	1.8	0.0	46.4	43.7
Hong Kong SAR	637	70.0	7.8	10.9	69.9	11.2	0.0	0.2	67.8	72.2
Hungary	772	56.4	7.1	24.3	56.2	12.1	0.3	0.0	55.6	57.2
Ireland	714	67.8	5.9	19.7	67.8	6.6	0.0	0.0	69.8	66.1
Israel	736	55.2	8.1	22.8	54.7	13.6	0.4	0.5	53.9	56.5
Italy	657	72.0	3.6	15.9	71.9	8.4	0.2	0.0	76.2	67.7
Japan	548	89.3	1.4	5.8	89.1	3.4	0.2	0.0	90.7	87.9
Jordan	977	36.1	15.3	33.0	36.0	15.5	0.3	0.0	39.2	33.2
Kazakhstan	909	34.8	9.7	23.2	34.3	31.6	1.1	0.1	35.5	34.1
Korea, Rep. of	609	79.4	3.5	12.0	79.4	5.1	0.0	0.0	78.4	80.3
Lithuania	778	67.4	4.3	17.0	67.2	11.2	0.2	0.0	68.4	66.3
Malaysia	1255	47.3	5.2	26.4	47.3	21.0	0.1	0.0	48.6	46.0
Malta	581	62.9	8.9	18.6	62.4	9.2	0.8	0.0	66.5	59.8
Morocco	1246	38.1	15.7	21.7	37.6	23.5	1.1	0.3	35.3	40.9
New Zealand	544	60.2	8.8	20.5	60.0	10.3	0.2	0.2	62.4	58.5
Norway (9)	896	63.8	9.0	12.2	62.1	14.0	1.7	0.9	64.8	63.1
Oman	1180	37.2	14.3	23.1	36.9	24.8	0.8	0.1	38.6	36.0
Palestinian Nat'l Auth.	940	30.1	18.7	28.9	30.0	22.1	0.3	0.1	30.7	29.5
Portugal	784	72.6	5.1	13.3	72.5	9.0	0.1	0.0	73.2	71.9
Qatar	616	46.3	16.6	21.8	45.9	14.9	0.8	0.0	48.5	43.9
Romania	541	54.4	11.8	20.0	53.6	13.2	1.2	0.1	57.9	51.3
Saudi Arabia	840	37.9	20.2	19.7	37.8	21.8	0.5	0.0	43.4	32.8
Singapore	676	77.2	4.1	12.5	77.1	6.2	0.1	0.0	76.5	77.8
Sweden	714	67.6	5.9	13.8	66.4	12.1	1.2	0.5	67.6	67.6
Turkiye	705	66.8	9.0	12.8	65.9	11.0	1.3	0.1	72.3	60.8
United Arab Emirates	4708	66.5	7.1	17.6	66.1	8.6	0.4	0.1	69.2	63.8
United States	1158	75.2	4.3	14.1	74.8	6.3	0.3	0.2	77.1	73.4
Uzbekistan	620	31.6	15.2	22.2	31.4	30.7	0.5	0.0	30.9	32.2
International Avg. (40)	38067	57.9	8.9	18.6	57.5	14.1	0.7	0.1	59.1	56.8
Abu Dhabi, UAE	1740	63.9	8.0	19.4	63.6	8.4	0.4	0.1	66.6	61.4
Dubai, UAE	1175	78.6	4.0	11.4	78.5	6.0	0.1	0.1	82.1	75.2
Sharjah, UAE	921	63.6	8.3	18.5	63.2	9.4	0.5	0.1	65.5	61.7

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Knowing

B_SM2_04 SE62093: Mammals in cold weather - CR - 2 Points

COUNTRY	N	DIFF %	20 %	10 %	79 %	2pt %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1200	77.5	59.3	29.1	6.8	59.3	29.1	6.8	4.6	0.2	78.5	76.9
Austria	654	70.2	49.6	31.0	12.1	49.6	31.0	12.1	7.3	0.0	75.9	64.4
Azerbaijan	880	40.4	12.9	29.9	26.1	12.9	29.9	26.1	30.0	1.2	43.9	37.4
Bahrain	741	40.7	19.0	35.3	35.9	19.0	35.3	35.9	9.8	0.0	46.8	33.8
Brazil	3290	65.3	37.8	30.3	13.0	37.8	30.3	13.0	18.7	0.2	64.8	65.7
Chile	640	56.9	30.0	33.6	18.6	30.0	33.6	18.6	17.2	0.6	59.1	55.1
Chinese Taipei	798	72.8	56.2	29.8	11.7	56.2	29.8	11.7	2.3	0.0	75.6	70.1
Cyprus	603	51.1	21.0	41.3	19.3	21.0	41.3	19.3	18.0	0.5	54.3	47.5
Czech Republic	1157	61.6	37.2	39.5	15.8	37.2	39.5	15.8	7.5	0.0	68.2	55.4
England	597	69.6	46.2	35.9	10.0	46.2	35.9	10.0	7.9	0.0	66.1	73.2
Finland	833	67.8	45.4	36.1	12.1	45.4	36.1	12.1	6.2	0.2	71.8	64.2
France	642	66.6	39.4	37.0	10.6	39.4	37.0	10.6	12.8	0.2	68.0	65.0
Georgia	690	68.6	37.3	31.9	8.3	37.3	31.9	8.3	22.5	0.0	70.5	66.8
Hong Kong SAR	637	70.0	48.3	28.7	12.5	48.3	28.7	12.5	10.4	0.2	71.7	68.2
Hungary	771	68.7	45.3	39.1	10.0	45.3	39.1	10.0	5.6	0.0	71.0	66.0
Ireland	714	74.4	54.0	29.3	8.9	54.0	29.3	8.9	7.7	0.0	76.8	72.5
Israel	736	58.0	30.8	33.2	17.7	30.8	33.2	17.7	17.8	0.5	58.8	57.2
Italy	657	53.4	24.0	40.3	18.3	24.0	40.3	18.3	17.4	0.0	50.7	56.2
Japan	548	44.7	14.0	58.1	24.1	14.0	58.1	24.1	3.9	0.0	44.7	44.8
Jordan	977	36.0	15.1	36.5	41.1	15.1	36.5	41.1	7.3	0.0	39.3	32.9
Kazakhstan	909	59.8	34.8	30.6	18.3	34.8	30.6	18.3	16.2	0.2	62.2	57.9
Korea, Rep. of	609	54.6	30.3	44.4	21.5	30.3	44.4	21.5	3.8	0.0	55.0	54.2
Lithuania	778	65.6	37.7	38.0	10.7	37.7	38.0	10.7	13.6	0.0	69.9	61.1
Malaysia	1255	32.1	12.9	35.9	47.5	12.9	35.9	47.5	3.7	0.0	33.0	31.1
Malta	581	71.1	50.5	29.7	11.7	50.5	29.7	11.7	8.1	0.0	73.8	68.6
Morocco	1246	14.6	2.6	11.8	44.1	2.6	11.8	44.1	40.9	0.5	14.0	15.0
New Zealand	544	71.4	53.2	28.9	12.7	53.2	28.9	12.7	5.0	0.2	70.8	71.8
Norway (9)	896	61.8	37.1	34.8	16.3	37.1	34.8	16.3	10.8	1.0	66.8	57.9
Oman	1180	55.0	32.3	36.9	23.1	32.3	36.9	23.1	7.6	0.1	60.2	50.0
Palestinian Nat'l Auth.	940	25.5	9.2	25.8	51.7	9.2	25.8	51.7	13.3	0.1	27.6	23.5
Portugal	784	61.9	34.5	41.7	13.2	34.5	41.7	13.2	10.6	0.0	63.9	60.0
Qatar	615	58.6	34.3	37.7	18.7	34.3	37.7	18.7	9.2	0.0	59.1	58.0
Romania	541	60.4	36.0	33.9	17.8	36.0	33.9	17.8	11.3	0.9	63.7	57.5
Saudi Arabia	840	34.3	14.3	36.4	44.0	14.3	36.4	44.0	5.3	0.0	35.3	33.4
Singapore	676	80.1	66.2	26.9	6.4	66.2	26.9	6.4	0.5	0.0	80.2	79.9
Sweden	714	66.9	45.5	31.4	14.6	45.5	31.4	14.6	8.1	0.5	72.2	62.2
Turkiye	704	75.2	51.2	31.0	6.5	51.2	31.0	6.5	11.2	0.1	75.5	74.8
United Arab Emirates	4707	54.4	35.8	31.7	27.3	35.8	31.7	27.3	5.1	0.1	56.9	52.1
United States	1158	73.9	55.9	32.0	9.4	55.9	32.0	9.4	2.3	0.4	74.3	73.5
Uzbekistan	620	36.3	13.6	33.2	36.4	13.6	33.2	36.4	16.9	0.0	37.9	35.0
International Avg. (40)	38062	58.2	35.3	34.0	19.6	35.3	34.0	19.6	11.0	0.2	60.2	56.3
Abu Dhabi, UAE	1739	44.2	26.9	28.4	37.7	26.9	28.4	37.7	6.9	0.1	44.5	43.9
Dubai, UAE	1175	68.5	49.4	32.8	13.9	49.4	32.8	13.9	3.9	0.1	71.3	65.7
Sharjah, UAE	921	57.8	38.8	34.4	23.8	38.8	34.4	23.8	2.9	0.2	60.5	55.0

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Knowing

B_SM2_05 SE62089: Symbiosis between two organisms - MC - Key: D

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1200	35.9	11.2	41.1	11.5	35.7	0.3	0.2	32.0	39.5
Austria	655	27.5	21.5	41.0	9.1	27.2	1.1	0.0	24.3	30.9
Azerbaijan	880	24.9	20.9	37.3	13.5	23.8	3.2	1.2	30.0	20.3
Bahrain	741	29.2	13.7	44.7	12.1	29.0	0.4	0.1	31.8	26.3
Brazil	3290	21.1	18.0	43.4	16.5	20.9	0.9	0.3	18.2	24.0
Chile	640	26.9	17.5	37.1	16.5	26.2	2.1	0.6	23.1	30.2
Chinese Taipei	798	79.0	4.1	12.5	4.4	79.0	0.0	0.0	83.4	75.0
Cyprus	603	17.0	14.1	54.4	13.5	16.7	0.9	0.5	18.6	15.3
Czech Republic	1157	35.5	21.8	30.0	12.6	35.5	0.2	0.0	32.6	38.3
England	597	29.0	12.5	43.3	14.7	28.8	0.7	0.0	25.3	32.6
Finland	833	43.7	18.2	26.9	10.9	43.5	0.2	0.2	41.6	45.5
France	642	20.0	13.9	49.9	15.4	19.8	0.8	0.2	20.6	19.3
Georgia	690	30.0	24.6	26.7	17.0	29.4	2.3	0.0	34.2	25.9
Hong Kong SAR	636	48.2	17.1	27.0	7.5	48.0	0.2	0.2	40.4	55.7
Hungary	772	39.7	19.2	27.0	14.0	39.7	0.1	0.0	40.2	39.1
Ireland	714	28.8	14.5	45.5	11.0	28.7	0.4	0.0	26.3	30.9
Israel	736	42.0	7.6	33.5	16.1	41.5	0.8	0.5	45.9	37.9
Italy	657	22.2	10.4	54.3	12.1	22.0	1.2	0.0	19.5	25.0
Japan	548	45.4	27.0	17.0	10.5	45.4	0.2	0.0	42.0	48.8
Jordan	977	27.6	15.5	41.9	14.7	27.5	0.4	0.0	28.1	27.1
Kazakhstan	909	18.3	34.5	31.0	15.4	18.1	0.9	0.2	14.1	21.6
Korea, Rep. of	609	55.2	12.8	23.1	8.9	55.2	0.0	0.0	46.5	62.8
Lithuania	778	23.7	17.8	38.6	19.5	23.6	0.4	0.0	20.5	26.9
Malaysia	1255	21.5	20.2	40.7	17.5	21.4	0.2	0.0	21.4	21.5
Malta	581	21.5	12.3	53.8	11.8	21.4	0.7	0.0	20.2	22.8
Morocco	0	.	.	.	.	.	.	.	.	.
New Zealand	544	29.1	12.5	43.8	14.0	28.9	0.6	0.2	31.6	27.2
Norway (9)	896	30.4	23.0	29.1	15.6	29.6	1.7	1.1	30.6	30.1
Oman	1180	30.4	24.3	31.2	13.7	30.2	0.5	0.1	29.3	31.4
Palestinian Nat'l Auth.	940	20.5	17.9	48.6	12.7	20.4	0.3	0.1	21.3	19.8
Portugal	784	46.2	9.1	29.5	15.1	46.1	0.2	0.0	48.7	43.5
Qatar	616	25.0	17.3	43.4	13.2	24.6	1.4	0.0	27.7	22.0
Romania	541	22.7	16.8	43.8	15.9	22.4	0.2	0.9	23.9	21.6
Saudi Arabia	840	18.8	20.3	46.0	14.8	18.8	0.1	0.0	23.2	14.7
Singapore	676	76.1	3.5	15.7	4.7	76.0	0.0	0.1	76.9	75.3
Sweden	714	35.1	19.9	31.8	11.8	34.4	1.6	0.5	32.5	37.5
Turkiye	705	35.3	13.7	33.0	15.0	33.7	4.4	0.1	35.0	35.6
United Arab Emirates	4708	39.9	12.3	34.3	13.1	39.6	0.6	0.1	38.7	41.1
United States	1158	36.3	11.1	37.4	14.8	36.1	0.3	0.4	33.6	38.9
Uzbekistan	620	13.9	23.9	44.7	16.7	13.7	1.1	0.0	16.8	11.3
International Avg. (39)	36820	32.7	16.6	36.8	13.3	32.4	0.8	0.2	32.1	33.2
Abu Dhabi, UAE	1740	31.4	14.9	34.1	18.9	31.1	0.8	0.1	31.6	31.1
Dubai, UAE	1175	51.2	9.5	30.1	9.0	51.0	0.4	0.1	49.0	53.3
Sharjah, UAE	921	44.6	11.1	35.4	8.4	44.3	0.6	0.2	41.2	48.0

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Chemistry / Knowing

B_SM2_06 SE62006: Atoms in nitric acid (DERIVED) - CR - 1 Point

COUNTRY	N	DIFF %	10 %	79 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1200	42.7	39.6	53.2	39.6	53.2	7.0	0.2	41.4	44.0
Austria	655	38.7	35.5	56.2	35.5	56.2	8.4	0.0	37.8	39.6
Azerbaijan	880	39.9	30.5	45.9	30.5	45.9	22.4	1.2	39.8	40.1
Bahrain	741	29.2	27.3	66.2	27.3	66.2	6.4	0.1	34.0	24.0
Brazil	3285	10.4	7.9	68.1	7.9	68.1	23.6	0.4	6.0	14.3
Chile	640	21.3	15.1	55.8	15.1	55.8	28.5	0.6	20.2	22.1
Chinese Taipei	798	52.1	51.3	47.3	51.3	47.3	1.4	0.0	58.1	46.5
Cyprus	603	66.7	61.8	30.8	61.8	30.8	6.9	0.5	73.2	60.0
Czech Republic	1157	40.6	37.2	54.4	37.2	54.4	8.4	0.0	40.0	41.3
England	597	54.4	49.6	41.7	49.6	41.7	8.5	0.3	59.3	49.6
Finland	833	52.5	49.4	44.6	49.4	44.6	5.7	0.2	58.2	47.5
France	642	52.0	44.4	41.1	44.4	41.1	14.3	0.2	53.4	50.5
Georgia	689	49.3	40.5	41.7	40.5	41.7	17.7	0.0	53.2	45.5
Hong Kong SAR	636	30.7	26.7	60.4	26.7	60.4	12.8	0.2	26.3	34.8
Hungary	772	49.1	46.5	48.2	46.5	48.2	5.3	0.0	48.7	49.5
Ireland	714	37.8	33.3	54.8	33.3	54.8	11.9	0.0	34.7	40.5
Israel	736	53.5	48.5	42.2	48.5	42.2	8.7	0.6	57.0	49.8
Italy	657	56.4	48.5	37.5	48.5	37.5	14.1	0.0	57.5	55.2
Japan	548	61.9	60.3	37.2	60.3	37.2	2.6	0.0	60.7	63.0
Jordan	977	23.4	22.7	74.3	22.7	74.3	2.9	0.2	24.3	22.6
Kazakhstan	909	23.7	21.2	68.3	21.2	68.3	10.3	0.2	25.5	22.1
Korea, Rep. of	609	61.3	60.4	38.2	60.4	38.2	1.4	0.0	59.9	62.4
Lithuania	778	41.4	38.4	54.4	38.4	54.4	7.2	0.0	45.7	37.1
Malaysia	1255	15.9	15.5	81.9	15.5	81.9	2.6	0.0	16.4	15.3
Malta	581	36.6	32.7	56.7	32.7	56.7	10.6	0.0	41.3	32.4
Morocco	1243	32.1	29.0	61.4	29.0	61.4	9.0	0.7	35.0	29.3
New Zealand	544	31.2	26.4	58.1	26.4	58.1	15.4	0.2	28.0	33.5
Norway (9)	896	34.0	29.6	57.4	29.6	57.4	11.7	1.2	38.1	30.9
Oman	1178	35.7	34.7	62.6	34.7	62.6	2.6	0.1	45.3	26.7
Palestinian Nat'l Auth.	937	32.6	31.7	65.6	31.7	65.6	2.5	0.1	36.6	29.0
Portugal	784	61.9	58.0	35.7	58.0	35.7	6.3	0.0	66.0	57.6
Qatar	616	46.0	44.4	52.1	44.4	52.1	3.5	0.0	46.3	45.6
Romania	540	42.7	40.1	53.9	40.1	53.9	5.1	0.9	43.5	41.9
Saudi Arabia	839	24.0	23.6	74.5	23.6	74.5	1.9	0.0	31.7	16.8
Singapore	676	72.8	72.2	27.0	72.2	27.0	0.7	0.1	75.4	70.4
Sweden	713	53.8	49.7	42.7	49.7	42.7	7.1	0.5	56.3	51.7
Turkiye	705	41.4	37.2	52.6	37.2	52.6	10.0	0.1	44.0	38.5
United Arab Emirates	4704	55.1	53.4	43.6	53.4	43.6	2.8	0.2	58.9	51.4
United States	1158	41.9	40.3	55.9	40.3	55.9	3.4	0.4	41.1	42.7
Uzbekistan	620	29.1	26.5	64.5	26.5	64.5	8.9	0.0	31.2	27.3
International Avg. (40)	38045	41.9	38.5	52.7	38.5	52.7	8.5	0.2	43.8	40.1
Abu Dhabi, UAE	1738	42.6	41.2	55.4	41.2	55.4	3.2	0.1	45.8	39.6
Dubai, UAE	1175	68.9	66.1	29.8	66.1	29.8	3.9	0.1	70.8	67.2
Sharjah, UAE	921	59.6	58.7	39.8	58.7	39.8	1.3	0.2	62.7	56.6

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Chemistry / Knowing

B_SM2_06A SE62006A: Atoms in nitric acid - Hydrogen - CR - 1 Point

COUNTRY	N	DIFF %	10 %	79 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1200	60.5	55.9	36.5	55.9	36.5	7.3	0.2	57.6	62.7
Austria	655	62.1	56.2	34.3	56.2	34.3	9.5	0.0	62.6	61.7
Azerbaijan	880	57.8	43.5	31.7	43.5	31.7	23.6	1.2	61.2	54.7
Bahrain	741	44.9	42.0	51.5	42.0	51.5	6.4	0.1	52.1	37.2
Brazil	3285	24.2	18.3	57.3	18.3	57.3	24.0	0.4	18.3	29.4
Chile	640	43.2	29.9	39.4	29.9	39.4	30.2	0.6	42.3	43.8
Chinese Taipei	798	78.9	77.6	20.7	77.6	20.7	1.7	0.0	82.4	75.7
Cyprus	603	74.0	68.1	23.9	68.1	23.9	7.5	0.5	79.4	68.4
Czech Republic	1157	68.3	62.1	28.9	62.1	28.9	9.0	0.0	66.3	70.1
England	597	69.8	63.2	27.4	63.2	27.4	9.1	0.3	72.0	67.7
Finland	833	65.9	61.5	31.8	61.5	31.8	6.5	0.2	70.7	61.7
France	642	64.5	54.4	29.9	54.4	29.9	15.4	0.2	66.2	62.7
Georgia	689	68.4	55.6	25.7	55.6	25.7	18.7	0.0	70.7	66.3
Hong Kong SAR	636	42.2	36.6	50.1	36.6	50.1	13.0	0.2	37.9	46.3
Hungary	772	67.0	63.2	31.2	63.2	31.2	5.7	0.0	65.3	68.8
Ireland	714	53.5	46.8	40.6	46.8	40.6	12.5	0.0	49.0	57.4
Israel	736	68.4	61.8	28.5	61.8	28.5	9.2	0.6	71.0	65.7
Italy	657	68.4	57.9	26.7	57.9	26.7	15.4	0.0	69.4	67.4
Japan	548	67.6	65.8	31.6	65.8	31.6	2.6	0.0	67.3	67.8
Jordan	977	44.1	42.3	53.7	42.3	53.7	3.8	0.2	48.4	40.0
Kazakhstan	909	61.4	54.5	34.2	54.5	34.2	11.1	0.2	65.5	58.0
Korea, Rep. of	609	78.1	77.0	21.6	77.0	21.6	1.4	0.0	77.8	78.3
Lithuania	778	81.8	75.3	16.7	75.3	16.7	8.0	0.0	83.3	80.3
Malaysia	1255	24.7	24.0	73.2	24.0	73.2	2.8	0.0	26.4	22.8
Malta	581	48.3	43.1	46.2	43.1	46.2	10.8	0.0	51.9	45.0
Morocco	1244	44.2	39.1	49.3	39.1	49.3	10.9	0.7	45.2	43.2
New Zealand	544	46.6	39.0	44.7	39.0	44.7	16.1	0.2	41.4	50.3
Norway (9)	896	50.7	43.5	42.3	43.5	42.3	12.9	1.2	51.9	49.9
Oman	1179	52.5	50.9	46.1	50.9	46.1	3.0	0.1	61.2	44.3
Palestinian Nat'l Auth.	938	53.6	51.8	44.9	51.8	44.9	3.2	0.1	60.9	46.9
Portugal	784	73.0	68.0	25.1	68.0	25.1	6.9	0.0	77.4	68.4
Qatar	616	61.5	59.3	37.0	59.3	37.0	3.7	0.0	61.5	61.6
Romania	540	70.8	66.5	27.5	66.5	27.5	5.1	0.9	75.2	67.0
Saudi Arabia	840	36.5	35.6	61.9	35.6	61.9	2.4	0.0	43.1	30.3
Singapore	676	79.7	79.1	20.1	79.1	20.1	0.7	0.1	81.5	78.1
Sweden	714	65.5	60.1	31.6	60.1	31.6	7.7	0.5	67.6	63.8
Turkiye	705	68.3	61.0	28.3	61.0	28.3	10.5	0.1	72.1	64.1
United Arab Emirates	4705	68.4	66.2	30.6	66.2	30.6	3.0	0.2	71.1	65.8
United States	1158	57.9	55.6	40.4	55.6	40.4	3.6	0.4	59.0	57.0
Uzbekistan	620	61.0	54.9	35.1	54.9	35.1	10.0	0.0	67.3	55.3
International Avg. (40)	38051	59.5	54.2	36.5	54.2	36.5	9.1	0.2	61.3	57.6
Abu Dhabi, UAE	1739	57.5	55.5	41.0	55.5	41.0	3.3	0.1	60.9	54.4
Dubai, UAE	1175	80.4	76.9	18.8	76.9	18.8	4.2	0.1	80.0	80.8
Sharjah, UAE	921	73.2	72.0	26.4	72.0	26.4	1.5	0.2	75.0	71.3

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Chemistry / Knowing

B_SM2_06B SE62006B: Atoms in nitric acid - Nitrogen - CR - 1 Point

COUNTRY	N	DIFF %	10 %	79 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1200	55.3	50.9	41.1	50.9	41.1	7.8	0.2	52.4	57.6
Austria	655	46.1	40.1	47.0	40.1	47.0	12.8	0.0	45.3	46.8
Azerbaijan	880	51.8	37.3	34.7	37.3	34.7	26.9	1.2	55.0	48.9
Bahrain	741	40.9	37.4	54.2	37.4	54.2	8.3	0.1	49.4	31.7
Brazil	3288	20.7	15.5	59.2	15.5	59.2	24.9	0.4	16.2	24.7
Chile	640	31.8	21.2	45.5	21.2	45.5	32.7	0.6	27.1	35.2
Chinese Taipei	798	56.0	54.5	42.9	54.5	42.9	2.6	0.0	62.0	50.3
Cyprus	603	72.9	67.0	24.9	67.0	24.9	7.6	0.5	80.9	64.6
Czech Republic	1157	51.3	45.3	43.0	45.3	43.0	11.7	0.0	53.9	48.9
England	597	61.7	55.0	34.1	55.0	34.1	10.7	0.3	69.1	54.9
Finland	833	60.2	56.3	37.2	56.3	37.2	6.3	0.2	66.1	55.0
France	642	68.2	56.9	26.6	56.9	26.6	16.2	0.2	69.9	66.4
Georgia	690	58.6	44.7	31.5	44.7	31.5	23.8	0.0	64.3	53.4
Hong Kong SAR	636	37.3	31.9	53.6	31.9	53.6	14.3	0.2	34.0	40.5
Hungary	772	60.8	56.2	36.2	56.2	36.2	7.6	0.0	58.1	63.8
Ireland	714	46.4	39.8	46.0	39.8	46.0	14.2	0.0	43.4	49.0
Israel	736	62.6	55.5	33.1	55.5	33.1	10.8	0.6	67.1	58.0
Italy	657	65.3	54.6	29.0	54.6	29.0	16.4	0.0	66.7	64.0
Japan	548	77.8	75.5	21.5	75.5	21.5	3.0	0.0	78.8	76.8
Jordan	977	34.8	32.8	61.3	32.8	61.3	5.8	0.2	34.9	34.7
Kazakhstan	909	30.2	25.3	58.4	25.3	58.4	16.1	0.2	31.8	28.9
Korea, Rep. of	609	68.8	67.7	30.8	67.7	30.8	1.5	0.0	68.2	69.3
Lithuania	778	47.7	41.6	45.6	41.6	45.6	12.8	0.0	52.4	43.1
Malaysia	1255	25.8	25.0	71.9	25.0	71.9	3.1	0.0	27.7	23.9
Malta	581	43.0	37.9	50.3	37.9	50.3	11.8	0.0	44.8	41.4
Morocco	1245	46.9	40.6	45.9	40.6	45.9	12.9	0.7	50.1	44.0
New Zealand	544	41.5	34.3	48.5	34.3	48.5	17.0	0.2	38.3	43.7
Norway (9)	896	44.4	37.2	46.6	37.2	46.6	15.0	1.2	48.1	41.4
Oman	1180	44.6	42.8	53.3	42.8	53.3	3.8	0.1	54.7	35.0
Palestinian Nat'l Auth.	938	42.6	40.3	54.4	40.3	54.4	5.2	0.1	45.9	39.5
Portugal	784	72.9	67.5	25.1	67.5	25.1	7.4	0.0	77.5	68.0
Qatar	616	55.1	52.8	43.1	52.8	43.1	4.2	0.0	55.3	54.8
Romania	540	50.7	46.3	45.1	46.3	45.1	7.7	0.9	52.7	49.0
Saudi Arabia	839	31.8	30.8	66.0	30.8	66.0	3.2	0.0	40.1	23.9
Singapore	676	78.0	77.4	21.8	77.4	21.8	0.7	0.1	79.5	76.6
Sweden	714	63.7	57.7	32.9	57.7	32.9	8.9	0.5	67.2	60.7
Turkiye	705	49.6	42.6	43.3	42.6	43.3	14.0	0.1	54.3	44.4
United Arab Emirates	4707	62.8	60.3	35.7	60.3	35.7	3.8	0.2	66.5	59.3
United States	1158	52.5	50.4	45.7	50.4	45.7	3.5	0.4	51.9	53.0
Uzbekistan	620	39.8	34.3	51.9	34.3	51.9	13.8	0.0	42.1	37.7
International Avg. (40)	38058	51.3	46.0	43.0	46.0	43.0	10.8	0.2	53.6	49.1
Abu Dhabi, UAE	1739	51.9	49.7	45.9	49.7	45.9	4.2	0.1	55.8	48.3
Dubai, UAE	1175	75.0	71.3	23.8	71.3	23.8	4.8	0.1	76.3	73.7
Sharjah, UAE	921	68.1	66.5	31.1	66.5	31.1	2.2	0.2	70.0	66.3

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Chemistry / Knowing

B_SM2_06C SE62006C: Atoms in nitric acid - Oxygen - CR - 1 Point

COUNTRY	N	DIFF %	10 %	79 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1200	51.8	47.6	44.3	47.6	44.3	7.9	0.2	54.2	50.3
Austria	655	51.0	44.9	43.2	44.9	43.2	11.9	0.0	52.8	49.1
Azerbaijan	880	49.8	36.5	36.9	36.5	36.9	25.4	1.2	49.9	49.6
Bahrain	741	40.9	37.6	54.2	37.6	54.2	8.1	0.1	47.3	34.1
Brazil	3287	24.3	18.2	56.5	18.2	56.5	24.9	0.4	21.7	26.6
Chile	640	32.9	22.1	45.1	22.1	45.1	32.2	0.6	29.8	35.2
Chinese Taipei	798	58.1	57.0	41.1	57.0	41.1	1.9	0.0	62.4	54.1
Cyprus	603	74.6	68.5	23.3	68.5	23.3	7.7	0.5	79.6	69.3
Czech Republic	1157	52.4	46.7	42.5	46.7	42.5	10.8	0.0	53.7	51.2
England	597	65.7	59.0	30.7	59.0	30.7	10.0	0.3	71.5	60.4
Finland	833	63.0	59.0	34.7	59.0	34.7	6.0	0.2	67.3	59.2
France	642	61.5	51.7	32.4	51.7	32.4	15.6	0.2	61.9	61.0
Georgia	690	55.6	43.5	34.7	43.5	34.7	21.9	0.0	60.7	51.0
Hong Kong SAR	636	41.0	35.2	50.6	35.2	50.6	14.1	0.2	36.8	45.2
Hungary	772	60.3	56.0	36.9	56.0	36.9	7.1	0.0	62.5	57.8
Ireland	714	49.4	42.7	43.7	42.7	43.7	13.5	0.0	45.6	52.6
Israel	736	65.3	58.2	30.9	58.2	30.9	10.2	0.6	70.8	59.6
Italy	657	66.0	55.8	28.8	55.8	28.8	15.5	0.0	67.5	64.4
Japan	548	70.1	67.8	28.9	67.8	28.9	3.3	0.0	70.2	70.0
Jordan	977	34.9	32.7	60.9	32.7	60.9	6.2	0.2	37.0	32.9
Kazakhstan	909	33.1	28.3	57.3	28.3	57.3	14.2	0.2	34.7	31.8
Korea, Rep. of	609	69.5	68.5	30.0	68.5	30.0	1.5	0.0	70.1	69.1
Lithuania	778	47.6	42.9	47.1	42.9	47.1	10.0	0.0	52.2	43.1
Malaysia	1255	25.5	24.7	72.3	24.7	72.3	3.1	0.0	26.4	24.5
Malta	581	45.2	40.0	48.4	40.0	48.4	11.6	0.0	47.7	42.9
Morocco	1245	44.5	38.8	48.4	38.8	48.4	12.2	0.7	46.4	42.7
New Zealand	544	40.6	33.9	49.7	33.9	49.7	16.3	0.2	38.5	42.0
Norway (9)	896	44.3	38.0	47.9	38.0	47.9	12.8	1.2	48.4	41.1
Oman	1179	45.7	44.1	52.3	44.1	52.3	3.5	0.1	55.8	36.2
Palestinian Nat'l Auth.	939	45.4	43.2	52.0	43.2	52.0	4.7	0.1	50.1	41.0
Portugal	784	70.6	65.8	27.4	65.8	27.4	6.8	0.0	74.3	66.8
Qatar	616	55.8	53.7	42.5	53.7	42.5	3.8	0.0	57.3	54.2
Romania	540	53.1	48.8	43.2	48.8	43.2	7.1	0.9	52.5	53.5
Saudi Arabia	840	38.0	36.7	59.9	36.7	59.9	3.4	0.0	45.7	30.7
Singapore	676	77.9	77.2	21.9	77.2	21.9	0.7	0.1	79.3	76.6
Sweden	713	62.9	57.6	34.0	57.6	34.0	7.9	0.5	64.9	61.2
Turkiye	705	51.2	44.7	42.7	44.7	42.7	12.5	0.1	54.0	48.1
United Arab Emirates	4708	65.1	62.6	33.6	62.6	33.6	3.7	0.2	69.0	61.4
United States	1158	55.7	53.6	42.6	53.6	42.6	3.4	0.4	56.0	55.4
Uzbekistan	620	40.9	35.4	51.2	35.4	51.2	13.3	0.0	41.9	39.9
International Avg. (40)	38058	52.0	47.0	42.6	47.0	42.6	10.2	0.2	54.2	49.9
Abu Dhabi, UAE	1740	55.5	53.0	42.6	53.0	42.6	4.3	0.1	59.3	51.8
Dubai, UAE	1175	75.7	72.3	23.2	72.3	23.2	4.4	0.1	78.2	73.3
Sharjah, UAE	921	68.6	67.0	30.7	67.0	30.7	2.1	0.2	71.8	65.3

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Chemistry / Reasoning

B_SM2_07 SE62067: Rate of sugar dissolving - CR - 1 Point

COUNTRY	N	DIFF %	10 %	79 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1200	43.3	42.1	55.1	42.1	55.1	2.5	0.3	44.0	42.5
Austria	655	32.9	31.8	65.0	31.8	65.0	3.2	0.0	34.0	31.8
Azerbaijan	880	39.5	31.9	48.9	31.9	48.9	18.0	1.2	38.3	40.5
Bahrain	741	29.7	28.7	68.0	28.7	68.0	3.0	0.3	34.2	24.8
Brazil	3290	19.3	17.6	73.6	17.6	73.6	8.1	0.8	17.2	21.4
Chile	640	24.2	21.2	66.5	21.2	66.5	11.6	0.7	23.5	24.8
Chinese Taipei	798	70.3	70.2	29.6	70.2	29.6	0.2	0.0	72.8	68.0
Cyprus	603	34.7	32.7	61.4	32.7	61.4	5.2	0.7	36.1	33.3
Czech Republic	1157	45.6	44.2	52.9	44.2	52.9	2.9	0.0	44.1	47.0
England	597	43.9	41.0	52.3	41.0	52.3	6.5	0.3	44.6	43.3
Finland	833	49.2	47.3	48.9	47.3	48.9	3.4	0.4	53.3	45.5
France	642	37.5	34.9	58.0	34.9	58.0	6.9	0.2	40.2	34.7
Georgia	690	36.4	32.8	57.4	32.8	57.4	9.8	0.0	35.7	37.0
Hong Kong SAR	637	62.3	61.0	36.8	61.0	36.8	2.0	0.2	57.6	67.0
Hungary	772	47.2	46.2	51.6	46.2	51.6	2.2	0.0	45.9	48.7
Ireland	714	46.2	45.0	52.4	45.0	52.4	2.5	0.0	41.2	50.5
Israel	736	42.6	40.0	54.0	40.0	54.0	5.4	0.6	45.8	39.1
Italy	657	39.2	37.5	58.2	37.5	58.2	4.3	0.0	37.8	40.5
Japan	548	69.0	68.1	30.6	68.1	30.6	1.3	0.0	66.8	71.2
Jordan	977	20.2	19.8	78.4	19.8	78.4	1.6	0.2	17.8	22.4
Kazakhstan	909	34.6	32.1	60.8	32.1	60.8	6.7	0.5	33.6	35.3
Korea, Rep. of	609	67.5	66.4	32.0	66.4	32.0	1.7	0.0	68.4	66.7
Lithuania	778	47.8	46.1	50.3	46.1	50.3	3.6	0.0	48.1	47.6
Malaysia	1255	31.8	31.7	67.9	31.7	67.9	0.4	0.0	31.9	31.8
Malta	581	36.6	35.4	61.4	35.4	61.4	3.2	0.0	34.6	38.4
Morocco	1245	11.5	10.3	79.4	10.3	79.4	9.3	1.1	12.8	10.2
New Zealand	544	41.3	39.9	56.8	39.9	56.8	2.9	0.5	44.2	38.9
Norway (9)	896	37.5	33.5	55.8	33.5	55.8	9.3	1.4	41.8	34.1
Oman	1179	27.5	27.2	71.6	27.2	71.6	1.1	0.1	26.6	28.3
Palestinian Nat'l Auth.	940	16.0	15.6	81.9	15.6	81.9	2.4	0.1	17.4	14.8
Portugal	784	43.6	42.8	55.4	42.8	55.4	1.8	0.0	45.8	41.3
Qatar	616	34.9	33.9	63.4	33.9	63.4	2.7	0.0	31.4	38.8
Romania	540	33.5	31.9	63.3	31.9	63.3	3.6	1.2	33.8	33.3
Saudi Arabia	840	21.3	21.0	77.8	21.0	77.8	1.1	0.0	21.0	21.5
Singapore	676	67.0	66.7	32.9	66.7	32.9	0.3	0.1	69.1	65.0
Sweden	714	43.6	40.1	51.8	40.1	51.8	7.4	0.7	50.0	37.9
Turkiye	705	60.6	59.7	38.8	59.7	38.8	1.4	0.1	61.0	60.2
United Arab Emirates	4708	38.4	37.6	60.5	37.6	60.5	1.7	0.2	37.0	39.7
United States	1158	30.6	30.0	67.9	30.0	67.9	1.5	0.6	27.8	33.1
Uzbekistan	620	22.6	20.8	71.1	20.8	71.1	8.0	0.1	23.4	21.8
International Avg. (40)	38064	39.5	37.9	57.5	37.9	57.5	4.3	0.3	39.8	39.3
Abu Dhabi, UAE	1740	29.9	29.2	68.4	29.2	68.4	2.2	0.2	29.0	30.7
Dubai, UAE	1175	51.5	50.7	47.8	50.7	47.8	1.2	0.3	49.6	53.3
Sharjah, UAE	921	41.4	40.8	57.8	40.8	57.8	1.3	0.2	40.7	42.0

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Chemistry / Knowing

B_SM2_08 SE62247: Properties of baking soda - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1200	49.0	8.9	48.5	26.0	15.6	0.6	0.3	49.1	49.3
Austria	655	57.4	9.8	56.5	12.3	19.7	1.5	0.1	56.7	58.2
Azerbaijan	880	26.2	16.8	25.1	24.8	29.3	2.8	1.3	20.7	31.1
Bahrain	741	46.1	26.8	45.5	14.9	11.5	0.7	0.6	49.2	42.9
Brazil	3290	40.8	11.4	39.8	26.3	20.0	1.7	0.8	40.0	41.6
Chile	640	31.6	6.8	29.5	29.3	27.9	5.7	0.7	33.1	30.2
Chinese Taipei	798	84.5	9.8	84.5	5.3	0.4	0.0	0.0	88.3	81.0
Cyprus	603	22.4	11.4	21.8	29.4	34.9	1.7	0.9	17.4	27.6
Czech Republic	1157	35.8	12.3	35.6	23.9	27.6	0.5	0.0	35.7	35.9
England	597	52.7	12.6	52.2	25.0	9.2	0.8	0.3	49.9	55.5
Finland	833	72.2	7.5	71.5	9.5	10.6	0.5	0.4	75.6	69.1
France	642	44.7	6.3	43.8	29.5	18.4	1.9	0.2	45.4	43.9
Georgia	0	.	.	.	.	.	.	.	.	.
Hong Kong SAR	637	65.7	13.0	65.4	14.1	6.9	0.4	0.2	66.1	65.4
Hungary	772	50.2	16.1	50.2	15.3	18.4	0.1	0.0	51.2	49.0
Ireland	714	58.6	19.8	58.3	11.0	10.4	0.4	0.0	57.6	59.5
Israel	736	45.3	10.6	44.5	28.8	14.4	1.0	0.8	44.3	46.5
Italy	657	45.6	10.8	45.0	29.3	13.5	1.4	0.0	42.8	48.6
Japan	548	23.2	60.0	23.1	10.9	5.8	0.2	0.0	19.6	26.7
Jordan	977	31.5	42.9	31.4	14.7	10.5	0.3	0.2	33.3	29.9
Kazakhstan	909	18.7	20.6	18.4	23.2	36.1	0.9	0.9	16.8	20.2
Korea, Rep. of	609	14.2	47.8	14.2	20.4	17.4	0.2	0.0	10.1	17.8
Lithuania	778	28.6	16.2	28.6	28.2	26.9	0.2	0.0	28.6	28.7
Malaysia	1255	38.1	29.9	38.0	17.9	14.0	0.1	0.2	40.6	35.6
Malta	581	49.7	20.2	49.5	16.9	12.9	0.5	0.0	50.9	48.7
Morocco	0	.	.	.	.	.	.	.	.	.
New Zealand	544	51.1	8.9	50.2	19.8	19.4	1.2	0.5	51.9	50.4
Norway (9)	896	53.6	7.8	51.2	21.8	14.7	3.0	1.6	53.9	53.5
Oman	1180	32.0	27.6	31.9	20.4	19.6	0.2	0.2	33.9	30.4
Palestinian Nat'l Auth.	0	.	.	.	.	.	.	.	.	.
Portugal	784	61.7	16.8	61.4	13.9	7.5	0.4	0.0	62.4	60.9
Qatar	616	40.6	23.8	40.4	23.3	12.0	0.5	0.0	37.3	44.1
Romania	541	41.1	11.9	40.1	23.8	21.8	1.2	1.2	36.0	45.4
Saudi Arabia	840	40.7	23.3	40.6	20.3	15.6	0.1	0.1	42.3	39.2
Singapore	676	79.3	7.6	79.2	5.9	7.2	0.0	0.1	81.2	77.5
Sweden	714	70.3	6.1	68.3	11.5	11.3	2.0	0.8	71.8	69.0
Turkiye	705	67.2	12.7	66.3	9.5	10.2	1.3	0.1	72.4	61.5
United Arab Emirates	4708	50.3	16.1	49.8	21.4	11.6	0.7	0.4	48.8	51.7
United States	1158	51.9	8.2	51.4	27.4	12.1	0.3	0.7	52.5	51.3
Uzbekistan	0	.	.	.	.	.	.	.	.	.
International Avg. (36)	34571	46.5	17.2	45.9	19.6	16.0	1.0	0.4	46.3	46.6
Abu Dhabi, UAE	1740	46.8	16.0	46.4	24.6	12.1	0.7	0.2	47.5	46.3
Dubai, UAE	1175	58.0	13.7	57.5	17.1	10.8	0.4	0.6	55.5	60.5
Sharjah, UAE	921	52.0	15.6	51.4	19.9	12.0	0.9	0.2	49.5	54.5

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Knowing

B_SM2_09 SE62177: Formation of oil - MC - Key: D

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1200	40.8	32.9	14.7	11.2	40.6	0.4	0.3	35.4	45.7
Austria	655	42.7	32.7	18.1	6.1	42.4	0.5	0.2	35.4	50.2
Azerbaijan	880	21.0	30.4	17.5	28.5	20.3	2.0	1.3	18.1	23.6
Bahrain	741	53.7	21.1	10.0	14.6	53.0	0.6	0.6	54.8	52.5
Brazil	3290	40.8	25.8	10.1	22.2	40.1	0.8	0.9	31.6	49.8
Chile	640	40.1	30.0	8.1	19.7	38.7	2.8	0.7	32.5	46.8
Chinese Taipei	798	64.4	23.9	3.6	8.0	64.4	0.0	0.0	57.9	70.5
Cyprus	603	27.1	41.2	12.1	18.4	26.7	0.7	0.9	20.8	33.7
Czech Republic	1157	41.3	29.9	13.5	15.2	41.3	0.1	0.0	31.5	50.6
England	597	43.5	35.7	11.0	9.6	43.4	0.1	0.3	37.7	49.3
Finland	833	35.8	45.9	9.7	8.2	35.6	0.3	0.4	24.0	46.5
France	642	31.7	41.6	7.2	18.9	31.4	0.6	0.2	26.4	37.5
Georgia	690	18.4	52.7	11.4	16.4	18.1	1.3	0.1	19.1	17.7
Hong Kong SAR	637	51.0	23.2	12.6	13.0	50.9	0.2	0.2	42.6	59.3
Hungary	772	45.2	30.5	10.6	13.7	45.2	0.0	0.0	39.2	52.0
Ireland	714	47.4	35.6	9.8	7.2	47.4	0.1	0.0	38.1	55.3
Israel	736	31.6	36.4	8.5	22.6	31.2	0.5	0.8	27.6	35.8
Italy	657	54.6	21.5	11.4	12.4	54.5	0.2	0.0	50.9	58.4
Japan	548	31.4	46.3	6.8	15.3	31.3	0.3	0.0	23.4	39.4
Jordan	977	42.2	22.8	15.9	19.0	42.1	0.1	0.2	42.0	42.4
Kazakhstan	909	28.4	38.1	9.6	22.8	28.0	0.5	0.9	25.1	31.0
Korea, Rep. of	609	37.6	40.9	4.2	17.2	37.6	0.1	0.0	22.8	50.7
Lithuania	778	33.9	40.3	6.2	19.6	33.9	0.0	0.0	28.6	39.2
Malaysia	1255	34.0	32.5	17.4	15.9	34.0	0.1	0.2	31.6	36.6
Malta	581	38.3	35.0	13.1	13.4	38.1	0.5	0.0	34.6	41.5
Morocco	1246	25.4	26.9	20.2	25.5	24.8	1.0	1.7	22.3	28.4
New Zealand	543	42.7	34.4	10.0	11.9	42.1	0.8	0.8	38.4	46.2
Norway (9)	896	56.7	18.3	15.7	8.1	54.9	1.5	1.6	51.0	61.4
Oman	1180	33.5	33.3	13.5	19.5	33.4	0.1	0.2	27.6	38.9
Palestinian Nat'l Auth.	940	23.7	31.2	17.1	27.5	23.5	0.5	0.1	18.8	28.1
Portugal	784	32.1	37.5	8.7	21.5	31.9	0.4	0.0	18.6	46.2
Qatar	616	49.9	24.1	12.8	13.1	49.6	0.5	0.0	50.1	49.6
Romania	541	30.6	38.7	11.7	18.1	30.2	0.2	1.2	25.1	35.3
Saudi Arabia	840	45.1	23.3	13.5	17.9	45.0	0.1	0.1	47.0	43.3
Singapore	676	49.0	33.3	5.8	11.8	48.9	0.1	0.1	41.7	55.6
Sweden	714	47.3	27.9	18.1	5.7	46.3	1.2	0.8	44.5	49.8
Turkiye	705	43.4	38.1	5.1	12.6	42.8	1.3	0.1	42.4	44.5
United Arab Emirates	4708	47.5	24.1	14.6	13.4	47.2	0.4	0.4	44.5	50.4
United States	1158	39.9	36.0	10.3	13.1	39.5	0.4	0.7	36.1	43.3
Uzbekistan	620	20.3	45.1	13.1	20.8	20.1	0.5	0.5	17.9	22.4
International Avg. (40)	38066	39.1	33.0	11.6	15.7	38.8	0.5	0.4	33.9	44.0
Abu Dhabi, UAE	1740	47.7	21.2	13.7	17.0	47.3	0.5	0.3	47.8	47.7
Dubai, UAE	1175	48.7	28.8	14.1	8.0	48.3	0.3	0.6	42.5	54.6
Sharjah, UAE	921	43.6	25.1	17.6	13.5	43.4	0.2	0.2	37.8	49.5

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Knowing

B_SM2_10 SE62186: Greenhouse on Mars - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1200	25.6	22.7	25.3	15.1	35.8	0.8	0.3	19.0	31.3
Austria	655	36.4	28.3	36.0	9.2	25.5	0.8	0.2	37.7	35.0
Azerbaijan	880	32.5	20.8	30.6	19.3	23.4	4.6	1.3	34.5	30.8
Bahrain	741	31.0	20.6	30.7	21.3	26.6	0.2	0.6	33.5	28.3
Brazil	0	.	.	.	.	.	.	.	.	.
Chile	0	.	.	.	.	.	.	.	.	.
Chinese Taipei	798	63.6	12.1	63.5	9.8	14.4	0.1	0.0	64.6	62.7
Cyprus	603	21.4	24.2	20.9	14.8	38.0	1.2	0.9	15.9	27.0
Czech Republic	1157	53.5	21.1	53.3	7.3	17.9	0.3	0.0	48.9	57.8
England	597	37.5	19.5	37.1	11.5	30.8	0.8	0.3	32.8	42.2
Finland	833	31.9	22.4	31.5	11.1	33.9	0.6	0.5	27.3	36.0
France	642	30.4	25.9	29.7	15.4	26.6	1.9	0.5	27.5	33.5
Georgia	690	38.5	20.3	37.5	15.7	23.9	2.5	0.1	34.4	42.5
Hong Kong SAR	637	56.9	12.8	56.7	12.2	18.0	0.2	0.2	51.7	62.1
Hungary	772	49.3	23.3	49.2	7.7	19.7	0.1	0.0	42.7	56.7
Ireland	714	25.6	22.8	25.5	12.5	38.9	0.3	0.0	19.6	30.7
Israel	736	32.5	21.3	31.8	13.8	31.0	1.3	0.8	25.7	39.7
Italy	657	32.4	28.9	32.0	10.1	27.9	1.1	0.0	30.6	34.2
Japan	548	74.9	6.7	74.8	7.6	10.8	0.1	0.0	73.6	76.1
Jordan	977	30.9	29.1	30.8	18.9	20.9	0.2	0.2	28.4	33.4
Kazakhstan	909	34.9	25.7	34.1	13.8	24.2	1.1	1.1	31.9	37.2
Korea, Rep. of	609	49.1	18.5	49.1	10.9	21.5	0.1	0.0	41.8	55.5
Lithuania	778	37.5	20.9	37.4	10.8	30.6	0.3	0.0	33.4	41.5
Malaysia	1255	26.8	22.9	26.7	17.9	32.1	0.2	0.2	26.1	27.6
Malta	581	39.5	22.5	39.1	12.9	24.5	1.0	0.0	39.9	39.1
Morocco	1246	31.9	21.8	31.0	22.2	22.3	0.9	1.8	31.5	32.2
New Zealand	544	27.5	19.5	26.9	13.7	37.6	1.5	0.8	21.1	32.5
Norway (9)	896	24.3	22.9	23.2	14.0	35.3	2.9	1.7	20.8	27.2
Oman	1180	30.1	29.1	30.0	15.4	25.0	0.4	0.2	27.7	32.4
Palestinian Nat'l Auth.	940	28.4	27.3	28.2	20.9	22.9	0.7	0.1	29.3	27.7
Portugal	784	33.4	20.9	33.4	16.2	29.5	0.0	0.0	32.6	34.3
Qatar	616	39.9	24.4	39.5	11.0	24.3	0.7	0.1	34.3	45.9
Romania	541	36.9	23.1	36.2	12.0	26.6	0.9	1.2	35.0	38.6
Saudi Arabia	840	34.2	30.6	34.1	17.0	18.1	0.1	0.1	34.3	34.0
Singapore	676	54.5	9.4	54.3	14.3	21.7	0.2	0.1	50.8	57.9
Sweden	714	28.9	21.1	27.9	14.4	32.9	2.8	0.8	23.4	33.9
Turkiye	705	43.3	18.0	42.4	16.3	21.1	2.0	0.1	39.5	47.6
United Arab Emirates	4708	40.0	19.6	39.5	14.0	25.8	0.7	0.5	38.1	41.7
United States	1158	25.8	22.6	25.6	13.8	37.0	0.3	0.7	22.5	28.9
Uzbekistan	620	30.5	28.2	30.0	15.5	24.7	0.8	0.8	30.2	30.7
International Avg. (38)	34137	36.9	21.9	36.5	14.0	26.4	0.9	0.4	34.0	39.6
Abu Dhabi, UAE	1740	36.1	20.8	35.6	16.6	25.8	0.8	0.4	34.1	38.0
Dubai, UAE	1175	45.5	14.7	44.9	11.3	27.8	0.7	0.6	46.4	44.6
Sharjah, UAE	921	41.9	20.1	41.6	14.4	23.2	0.5	0.3	39.5	44.4

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Applying

B_SM2_11A SE62211A: Warmest and driest time of year - CR - 1 Point

COUNTRY	N	DIFF %	10 %	79 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1200	62.9	60.7	35.8	60.7	35.8	3.2	0.3	66.1	59.9
Austria	654	39.8	38.5	58.3	38.5	58.3	3.2	0.1	41.7	37.8
Azerbaijan	880	18.1	14.1	63.8	14.1	63.8	20.8	1.3	18.0	18.1
Bahrain	741	29.3	26.9	65.0	26.9	65.0	7.4	0.6	35.8	21.9
Brazil	3285	34.6	31.1	59.0	31.1	59.0	8.7	1.2	37.6	31.5
Chile	640	43.6	37.7	48.7	37.7	48.7	12.6	0.9	42.6	44.5
Chinese Taipei	798	68.1	67.7	31.7	67.7	31.7	0.6	0.0	75.7	61.1
Cyprus	603	38.6	36.3	57.7	36.3	57.7	5.1	0.9	41.4	35.5
Czech Republic	1157	45.2	43.7	52.9	43.7	52.9	3.4	0.0	47.6	42.9
England	597	54.6	51.7	43.1	51.7	43.1	4.9	0.3	59.3	49.7
Finland	833	57.9	55.8	40.6	55.8	40.6	3.1	0.5	63.2	52.9
France	642	34.7	32.5	61.3	32.5	61.3	5.6	0.6	35.3	34.0
Georgia	690	17.9	15.6	71.5	15.6	71.5	12.8	0.2	19.5	16.3
Hong Kong SAR	636	52.9	50.7	45.2	50.7	45.2	3.9	0.2	51.2	54.5
Hungary	772	46.7	45.2	51.7	45.2	51.7	3.1	0.0	52.2	40.4
Ireland	714	54.2	53.7	45.4	53.7	45.4	0.9	0.0	54.9	53.6
Israel	736	50.7	46.5	45.3	46.5	45.3	7.3	0.9	53.6	47.4
Italy	657	43.9	42.0	53.7	42.0	53.7	4.3	0.0	48.4	39.1
Japan	548	66.0	64.5	33.2	64.5	33.2	2.3	0.0	64.0	68.1
Jordan	977	12.0	10.6	78.4	10.6	78.4	10.8	0.2	10.4	13.5
Kazakhstan	908	16.6	15.1	75.9	15.1	75.9	7.8	1.3	16.0	17.0
Korea, Rep. of	609	48.7	47.8	50.3	47.8	50.3	1.8	0.0	48.5	48.9
Lithuania	778	48.6	46.9	49.5	46.9	49.5	3.6	0.0	51.3	45.9
Malaysia	1255	30.1	29.6	68.9	29.6	68.9	1.2	0.2	32.8	27.2
Malta	581	38.9	37.2	58.5	37.2	58.5	4.3	0.0	42.2	35.8
Morocco	1246	10.6	7.5	62.8	7.5	62.8	27.8	1.9	11.8	9.5
New Zealand	544	53.7	52.2	45.0	52.2	45.0	2.0	0.8	56.7	51.2
Norway (9)	896	45.2	41.4	50.1	41.4	50.1	6.7	1.7	49.5	41.7
Oman	1180	24.0	22.4	70.9	22.4	70.9	6.6	0.2	27.3	20.6
Palestinian Nat'l Auth.	940	7.2	6.0	77.7	6.0	77.7	16.1	0.2	9.0	5.3
Portugal	784	43.8	42.8	55.0	42.8	55.0	2.2	0.0	47.0	40.2
Qatar	616	30.3	28.8	66.2	28.8	66.2	4.6	0.4	30.8	29.7
Romania	541	22.3	20.7	72.0	20.7	72.0	5.8	1.4	22.2	22.4
Saudi Arabia	840	19.8	18.3	74.0	18.3	74.0	7.5	0.1	20.3	19.3
Singapore	676	67.2	66.8	32.5	66.8	32.5	0.5	0.1	67.6	66.9
Sweden	714	48.4	45.9	48.9	45.9	48.9	4.3	0.8	53.0	44.3
Turkiye	704	57.7	54.9	40.4	54.9	40.4	4.6	0.1	59.1	56.0
United Arab Emirates	4707	35.1	32.5	60.0	32.5	60.0	7.0	0.6	35.8	34.5
United States	1158	41.9	40.6	56.2	40.6	56.2	2.5	0.7	40.7	42.9
Uzbekistan	620	9.4	7.8	75.4	7.8	75.4	16.0	0.8	7.9	10.7
International Avg. (40)	38057	39.3	37.3	55.8	37.3	55.8	6.4	0.5	41.2	37.3
Abu Dhabi, UAE	1740	29.4	26.3	63.2	26.3	63.2	10.0	0.5	30.1	28.7
Dubai, UAE	1174	49.3	47.0	48.4	47.0	48.4	3.9	0.7	49.8	48.8
Sharjah, UAE	921	32.3	30.3	63.6	30.3	63.6	5.7	0.3	31.4	33.2

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Reasoning

B_SM2_11B SE62211B: Climate data are wrong - CR - 1 Point

COUNTRY	N	DIFF %	10 %	79 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1200	5.2	5.1	92.4	5.1	92.4	2.2	0.3	6.0	4.6
Austria	654	9.1	8.7	87.8	8.7	87.8	3.1	0.4	9.1	9.0
Azerbaijan	880	0.8	0.7	87.2	0.7	87.2	10.7	1.4	1.0	0.6
Bahrain	741	1.5	1.5	95.8	1.5	95.8	2.1	0.6	2.3	0.7
Brazil	3289	2.4	2.3	92.1	2.3	92.1	4.4	1.3	2.1	2.7
Chile	640	4.0	3.6	84.7	3.6	84.7	10.5	1.3	5.4	2.9
Chinese Taipei	798	4.4	4.3	95.3	4.3	95.3	0.3	0.0	6.2	2.6
Cyprus	603	6.1	5.9	90.3	5.9	90.3	3.0	0.9	8.1	4.0
Czech Republic	1157	2.3	2.3	95.2	2.3	95.2	2.5	0.0	1.6	3.0
England	597	12.5	12.2	85.5	12.2	85.5	2.0	0.4	13.0	11.9
Finland	833	11.0	10.8	87.1	10.8	87.1	1.5	0.6	13.5	8.7
France	642	4.6	4.3	90.5	4.3	90.5	4.6	0.6	2.4	7.0
Georgia	690	3.5	3.1	87.0	3.1	87.0	9.7	0.2	4.0	2.9
Hong Kong SAR	637	11.0	10.9	87.9	10.9	87.9	1.1	0.2	13.3	8.8
Hungary	772	5.2	5.1	93.1	5.1	93.1	1.8	0.0	6.4	3.8
Ireland	714	7.9	7.9	91.3	7.9	91.3	0.9	0.0	6.8	8.9
Israel	736	6.2	5.9	90.6	5.9	90.6	2.6	0.9	6.4	5.9
Italy	657	5.3	5.1	90.0	5.1	90.0	4.9	0.0	7.7	2.9
Japan	548	9.1	8.9	89.3	8.9	89.3	1.8	0.0	7.3	10.9
Jordan	977	1.4	1.4	96.9	1.4	96.9	1.4	0.3	1.8	1.0
Kazakhstan	908	2.3	2.1	90.4	2.1	90.4	6.1	1.4	1.7	2.7
Korea, Rep. of	609	13.0	12.8	85.9	12.8	85.9	1.2	0.0	15.8	10.6
Lithuania	778	7.6	7.6	91.6	7.6	91.6	0.8	0.0	8.6	6.7
Malaysia	1255	6.7	6.6	92.7	6.6	92.7	0.5	0.2	7.5	5.8
Malta	581	5.4	5.2	92.5	5.2	92.5	2.2	0.0	7.3	3.6
Morocco	1245	2.0	1.9	91.3	1.9	91.3	4.8	2.1	1.6	2.3
New Zealand	544	7.4	7.3	91.0	7.3	91.0	0.9	0.8	8.4	6.6
Norway (9)	896	11.1	10.5	84.0	10.5	84.0	3.8	1.7	10.8	11.3
Oman	1180	2.7	2.6	92.8	2.6	92.8	4.5	0.2	3.8	1.7
Palestinian Nat'l Auth.	940	1.0	0.9	96.6	0.9	96.6	2.3	0.2	1.4	0.6
Portugal	784	2.7	2.6	94.2	2.6	94.2	3.1	0.1	2.6	2.9
Qatar	616	6.2	6.1	92.2	6.1	92.2	1.3	0.4	7.8	4.5
Romania	541	2.9	2.8	92.2	2.8	92.2	3.6	1.4	2.4	3.4
Saudi Arabia	840	2.0	2.0	97.0	2.0	97.0	0.9	0.2	2.9	1.2
Singapore	676	22.9	22.9	76.8	22.9	76.8	0.2	0.1	22.3	23.5
Sweden	714	11.4	10.8	83.8	10.8	83.8	4.4	1.0	12.0	10.8
Turkiye	704	19.8	19.3	77.9	19.3	77.9	2.6	0.1	20.5	19.1
United Arab Emirates	4708	4.4	4.3	93.0	4.3	93.0	2.1	0.6	4.6	4.2
United States	1158	8.8	8.7	89.4	8.7	89.4	1.0	0.9	8.8	8.9
Uzbekistan	620	0.8	0.8	93.9	0.8	93.9	4.1	1.2	1.5	0.2
International Avg. (40)	38062	6.4	6.2	90.2	6.2	90.2	3.0	0.6	6.9	5.8
Abu Dhabi, UAE	1740	2.3	2.2	94.8	2.2	94.8	2.3	0.6	3.0	1.6
Dubai, UAE	1175	8.0	7.7	89.1	7.7	89.1	2.4	0.8	7.8	8.2
Sharjah, UAE	921	3.7	3.7	95.0	3.7	95.0	1.0	0.3	4.4	3.1

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Reasoning

B_SM2_13 SE62033: Pressure applied to pistons - CR - 1 Point

COUNTRY	N	DIFF %	10 %	11 %	79 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1200	29.4	23.5	5.6	69.8	29.1	69.8	0.8	0.3	28.5	30.3
Austria	654	27.2	21.8	4.9	71.5	26.7	71.5	1.4	0.4	25.9	28.6
Azerbaijan	880	11.2	7.3	2.8	79.8	10.1	79.8	8.7	1.5	12.6	10.0
Bahrain	741	21.1	16.8	3.8	77.2	20.6	77.2	1.4	0.8	24.7	17.2
Brazil	3287	4.9	2.6	2.0	90.2	4.6	90.2	3.7	1.4	3.4	6.2
Chile	640	12.9	8.2	3.3	77.9	11.5	77.9	9.3	1.3	10.7	14.6
Chinese Taipei	798	29.7	28.0	1.8	70.2	29.7	70.2	0.0	0.0	28.8	30.6
Cyprus	603	12.3	9.9	2.1	85.6	12.1	85.6	1.3	1.0	12.5	12.2
Czech Republic	1155	52.1	49.8	1.8	47.5	51.6	47.5	1.0	0.0	50.7	53.3
England	597	29.3	20.3	8.4	69.3	28.7	69.3	1.6	0.4	23.9	34.5
Finland	833	30.9	26.5	3.7	67.7	30.2	67.7	1.3	0.8	31.7	30.1
France	642	28.2	25.0	2.4	69.6	27.4	69.6	2.3	0.8	27.0	29.7
Georgia	689	12.4	7.6	4.1	82.2	11.6	82.2	5.8	0.3	11.8	12.9
Hong Kong SAR	637	28.3	17.3	10.8	71.2	28.1	71.2	0.6	0.2	24.9	31.6
Hungary	772	25.3	22.9	2.3	74.5	25.2	74.5	0.3	0.0	23.9	26.9
Ireland	714	29.6	21.1	8.2	69.9	29.3	69.9	0.8	0.0	29.6	29.6
Israel	736	33.8	16.5	16.2	64.0	32.7	64.0	2.5	0.9	37.1	30.3
Italy	657	21.2	14.9	6.1	78.0	20.9	78.0	0.9	0.2	21.5	20.8
Japan	548	21.0	20.2	0.6	78.2	20.8	78.2	1.0	0.0	21.4	20.6
Jordan	977	16.6	7.5	9.0	82.9	16.5	82.9	0.1	0.5	19.5	13.8
Kazakhstan	909	17.1	12.8	3.7	80.1	16.5	80.1	1.6	1.8	15.2	18.6
Korea, Rep. of	609	52.2	30.8	21.0	47.5	51.8	47.5	0.4	0.2	51.9	52.4
Lithuania	778	33.9	21.6	12.0	65.4	33.6	65.4	1.0	0.0	33.7	34.1
Malaysia	1255	5.6	2.8	2.7	93.7	5.5	93.7	0.2	0.6	6.2	4.9
Malta	581	36.6	28.0	8.2	62.7	36.1	62.7	1.2	0.0	37.6	35.6
Morocco	1246	9.3	8.7	0.3	87.1	9.0	87.1	1.5	2.4	7.9	10.7
New Zealand	544	33.2	21.5	11.0	65.2	32.5	65.2	1.5	0.8	30.5	35.4
Norway (9)	896	25.9	18.7	5.9	70.5	24.7	70.5	2.7	2.2	23.9	27.6
Oman	1180	22.8	17.0	5.6	76.6	22.6	76.6	0.5	0.2	25.2	20.6
Palestinian Nat'l Auth.	940	8.8	6.3	2.4	90.2	8.7	90.2	0.8	0.3	11.6	6.2
Portugal	784	24.1	8.9	15.0	75.2	23.8	75.2	0.9	0.1	25.2	22.8
Qatar	616	30.8	22.6	7.6	68.0	30.2	68.0	1.0	0.7	32.6	28.8
Romania	541	11.0	7.0	3.8	87.2	10.7	87.2	0.7	1.4	9.4	12.3
Saudi Arabia	840	17.4	11.2	6.0	81.9	17.2	81.9	0.6	0.2	20.8	14.2
Singapore	676	73.6	53.7	19.8	26.4	73.5	26.4	0.0	0.1	75.8	71.7
Sweden	714	35.1	19.0	14.7	62.3	33.7	62.3	3.0	1.0	34.9	35.3
Turkiye	704	45.6	38.5	5.6	52.7	44.1	52.7	3.0	0.1	49.5	41.3
United Arab Emirates	4708	24.5	15.7	8.4	74.2	24.1	74.2	1.0	0.7	24.7	24.3
United States	1158	26.1	12.8	13.0	72.7	25.7	72.7	0.5	1.0	23.7	28.4
Uzbekistan	620	7.0	5.8	0.9	89.8	6.7	89.8	2.2	1.2	4.5	9.2
International Avg. (40)	38059	25.4	18.3	6.7	72.7	25.0	72.7	1.7	0.6	25.4	25.5
Abu Dhabi, UAE	1740	16.0	11.5	4.3	82.3	15.7	82.3	1.2	0.8	15.0	17.0
Dubai, UAE	1175	39.7	23.6	15.4	59.3	39.0	59.3	1.0	0.8	41.4	38.1
Sharjah, UAE	921	25.7	17.0	8.5	73.5	25.5	73.5	0.7	0.4	25.0	26.5

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Applying

B_SM2_14 SE62037: Toy car powered by battery - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1200	68.4	68.1	4.6	7.0	19.9	0.1	0.4	64.1	72.0
Austria	655	42.8	42.1	11.8	16.1	28.4	1.0	0.6	36.2	49.6
Azerbaijan	880	45.0	43.0	14.7	10.7	27.0	2.7	1.9	38.6	50.9
Bahrain	741	37.6	37.2	7.9	5.5	48.3	0.2	0.9	36.3	38.9
Brazil	3290	41.5	40.4	14.7	12.6	29.7	0.7	2.0	35.4	47.5
Chile	640	47.9	46.5	12.0	9.2	29.3	1.3	1.7	45.2	50.3
Chinese Taipei	798	48.8	48.7	2.7	0.9	47.5	0.2	0.0	42.8	54.3
Cyprus	603	50.0	49.1	6.7	5.9	36.4	0.7	1.2	47.0	53.2
Czech Republic	1157	36.1	36.0	9.2	4.7	49.9	0.1	0.0	30.0	41.8
England	597	64.3	63.7	4.9	7.6	22.9	0.4	0.6	65.1	63.5
Finland	833	63.7	63.0	3.4	2.3	30.1	0.3	0.8	59.5	67.6
France	642	38.3	37.5	16.7	9.9	34.0	0.9	1.0	34.0	42.9
Georgia	690	39.2	38.0	9.9	7.9	41.2	2.0	1.0	34.4	43.9
Hong Kong SAR	637	82.4	81.9	2.8	4.0	10.7	0.3	0.3	79.5	85.2
Hungary	772	53.7	53.4	5.5	6.7	33.8	0.4	0.2	48.5	59.6
Ireland	714	60.8	60.7	5.0	6.6	27.6	0.1	0.0	53.6	66.9
Israel	736	57.0	56.4	4.9	2.4	35.2	0.1	1.0	52.2	62.2
Italy	657	51.7	51.4	7.0	10.4	30.5	0.3	0.3	50.0	53.5
Japan	548	60.7	60.7	1.6	1.6	36.1	0.0	0.0	57.3	64.1
Jordan	977	37.9	37.7	9.3	6.5	45.8	0.1	0.6	34.9	40.7
Kazakhstan	909	33.0	31.8	12.5	10.2	42.1	1.5	1.9	29.4	35.8
Korea, Rep. of	609	51.0	50.9	2.5	2.0	44.5	0.0	0.2	49.1	52.7
Lithuania	778	43.6	43.3	7.8	5.9	42.3	0.5	0.2	34.1	53.1
Malaysia	1255	46.7	46.4	15.5	12.0	25.4	0.1	0.6	46.3	47.2
Malta	581	52.3	52.3	8.9	6.9	31.8	0.0	0.0	49.7	54.7
Morocco	1246	29.5	28.3	20.7	25.4	21.7	1.1	2.8	29.9	29.0
New Zealand	544	62.7	62.0	4.6	9.0	23.2	0.2	0.9	63.1	62.4
Norway (9)	896	58.2	56.4	7.0	8.1	25.4	0.4	2.7	54.2	61.7
Oman	1180	41.1	40.9	6.1	4.0	48.5	0.2	0.3	40.5	41.7
Palestinian Nat'l Auth.	940	45.6	45.3	9.6	7.0	37.4	0.4	0.4	46.2	45.1
Portugal	784	36.8	36.6	13.4	18.8	30.7	0.3	0.1	35.3	38.3
Qatar	616	49.2	48.6	5.8	5.2	39.1	0.6	0.7	44.9	53.9
Romania	541	47.5	46.7	10.4	8.3	33.0	0.2	1.4	43.5	50.9
Saudi Arabia	840	45.9	45.7	5.9	4.1	43.9	0.0	0.4	46.2	45.6
Singapore	676	85.4	85.3	2.0	1.5	11.0	0.0	0.1	83.9	86.8
Sweden	714	58.9	57.6	3.6	3.5	33.1	1.1	1.2	58.7	59.1
Turkiye	705	56.5	56.1	5.1	3.8	34.2	0.7	0.1	54.3	59.0
United Arab Emirates	4708	55.4	54.7	6.9	6.6	30.6	0.4	0.8	53.0	57.6
United States	1158	62.2	61.4	6.2	5.2	25.9	0.2	1.0	57.3	66.7
Uzbekistan	620	31.5	30.7	26.6	18.3	22.0	1.0	1.4	28.5	34.2
International Avg. (40)	38067	50.5	49.9	8.4	7.6	32.8	0.5	0.8	47.3	53.6
Abu Dhabi, UAE	1740	49.9	49.2	10.1	10.2	29.1	0.6	0.8	49.1	50.7
Dubai, UAE	1175	65.7	65.1	3.0	4.4	26.6	0.1	0.8	62.5	68.7
Sharjah, UAE	921	55.1	54.5	7.4	4.0	33.1	0.5	0.5	52.0	58.3

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Applying

B_SM2_15 SE62242: Waste removed by electromagnet (DERIVED) - CR - 1 Point

COUNTRY	N	DIFF %	10 %	79 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1200	83.4	82.6	16.4	82.6	16.4	0.5	0.4	81.8	84.9
Austria	655	81.2	80.3	18.6	80.3	18.6	0.6	0.6	80.4	82.1
Azerbaijan	880	56.1	49.9	39.0	49.9	39.0	8.2	2.9	53.6	58.4
Bahrain	741	73.7	72.4	25.8	72.4	25.8	0.7	1.0	84.6	62.4
Brazil	3290	65.3	62.0	32.9	62.0	32.9	2.8	2.3	62.4	68.2
Chile	640	76.9	71.8	21.5	71.8	21.5	5.0	1.7	76.2	77.5
Chinese Taipei	798	92.2	92.2	7.8	92.2	7.8	0.0	0.0	93.5	91.0
Cyprus	603	58.6	56.8	40.1	56.8	40.1	1.5	1.6	58.6	58.6
Czech Republic	1157	84.6	83.7	15.3	83.7	15.3	1.0	0.0	83.4	85.6
England	597	78.3	76.9	21.3	76.9	21.3	1.3	0.6	77.3	79.3
Finland	833	80.1	79.0	19.6	79.0	19.6	0.7	0.8	80.0	80.2
France	642	76.3	73.6	22.9	73.6	22.9	2.3	1.2	73.6	79.2
Georgia	690	56.8	54.3	41.3	54.3	41.3	2.8	1.6	56.7	56.9
Hong Kong SAR	637	81.0	80.7	19.0	80.7	19.0	0.0	0.3	80.8	81.1
Hungary	772	77.4	77.1	22.6	77.1	22.6	0.2	0.2	75.9	79.0
Ireland	714	84.1	83.7	15.8	83.7	15.8	0.5	0.0	83.8	84.4
Israel	736	72.6	70.7	26.7	70.7	26.7	1.6	1.0	72.3	73.0
Italy	657	75.7	74.3	23.9	74.3	23.9	1.3	0.4	79.7	71.6
Japan	548	69.1	68.8	30.8	68.8	30.8	0.3	0.0	62.9	75.3
Jordan	977	73.9	72.8	25.8	72.8	25.8	0.8	0.6	76.5	71.4
Kazakhstan	909	66.0	63.7	32.7	63.7	32.7	1.0	2.6	68.5	64.1
Korea, Rep. of	609	84.7	83.9	15.1	83.9	15.1	0.8	0.2	84.1	85.3
Lithuania	778	73.3	73.0	26.6	73.0	26.6	0.2	0.2	73.0	73.6
Malaysia	1255	70.0	69.4	29.8	69.4	29.8	0.2	0.6	71.2	68.7
Malta	581	78.8	78.1	21.0	78.1	21.0	0.9	0.0	80.0	77.6
Morocco	1246	26.4	25.0	69.8	25.0	69.8	2.1	3.0	23.2	29.4
New Zealand	544	78.2	77.1	21.5	77.1	21.5	0.5	0.9	81.6	75.6
Norway (9)	896	75.3	71.4	23.4	71.4	23.4	2.5	2.7	77.5	73.7
Oman	1180	78.2	77.2	21.5	77.2	21.5	0.8	0.5	83.8	72.9
Palestinian Nat'l Auth.	940	61.4	60.5	38.0	60.5	38.0	0.9	0.6	67.7	55.7
Portugal	784	80.9	80.8	19.0	80.8	19.0	0.1	0.1	80.3	81.7
Qatar	616	79.5	78.4	20.3	78.4	20.3	0.6	0.8	81.9	76.8
Romania	541	74.7	73.3	24.9	73.3	24.9	0.4	1.4	79.2	70.8
Saudi Arabia	840	51.8	51.1	47.7	51.1	47.7	0.8	0.4	56.9	46.9
Singapore	676	93.0	92.9	7.0	92.9	7.0	0.0	0.1	93.6	92.5
Sweden	714	76.7	74.6	22.6	74.6	22.6	1.5	1.3	81.2	72.7
Turkiye	705	86.8	85.5	13.0	85.5	13.0	1.4	0.1	91.0	82.3
United Arab Emirates	4708	74.8	73.2	24.7	73.2	24.7	1.0	1.0	76.4	73.2
United States	1158	79.9	78.6	19.8	78.6	19.8	0.4	1.1	79.5	80.1
Uzbekistan	620	56.7	53.8	41.1	53.8	41.1	3.1	2.0	51.2	61.9
International Avg. (40)	38067	73.6	72.1	25.7	72.1	25.7	1.3	0.9	74.4	72.9
Abu Dhabi, UAE	1740	65.0	63.2	34.1	63.2	34.1	1.5	1.2	65.6	64.4
Dubai, UAE	1175	83.5	82.2	16.3	82.2	16.3	0.6	0.9	82.3	84.5
Sharjah, UAE	921	79.4	78.0	20.2	78.0	20.2	1.2	0.6	81.7	77.0

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Applying

B_SM2_15A SE62242A: Waste removed by electromagnet: cans - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1200	93.6	91.7	6.3	1.7	0.4	91.7	95.2
Austria	655	88.6	87.5	11.2	0.7	0.6	87.0	90.2
Azerbaijan	880	79.5	68.1	17.5	11.5	2.9	74.7	84.1
Bahrain	741	89.9	87.8	9.9	1.3	1.0	91.9	87.7
Brazil	3290	85.0	78.2	13.9	5.6	2.3	82.4	87.4
Chile	640	89.8	82.7	9.4	6.1	1.7	89.5	90.0
Chinese Taipei	798	95.6	95.4	4.4	0.3	0.0	96.3	95.0
Cyprus	603	78.1	75.4	21.2	1.9	1.6	74.5	81.8
Czech Republic	1157	89.2	88.1	10.7	1.1	0.0	88.5	89.8
England	597	88.3	86.7	11.5	1.3	0.6	86.8	89.8
Finland	833	88.3	86.3	11.4	1.5	0.8	86.6	89.8
France	642	88.4	84.5	11.1	3.3	1.2	88.7	88.2
Georgia	690	71.8	65.8	25.9	6.6	1.6	69.8	73.8
Hong Kong SAR	637	89.4	88.2	10.4	1.0	0.3	89.0	89.9
Hungary	772	86.3	85.8	13.6	0.4	0.2	83.6	89.3
Ireland	714	91.8	91.1	8.1	0.8	0.0	89.3	94.0
Israel	736	84.9	81.7	14.5	2.8	1.0	83.2	86.7
Italy	657	87.3	85.4	12.5	1.6	0.4	88.3	86.1
Japan	548	72.1	71.6	27.7	0.6	0.0	65.4	78.7
Jordan	977	89.9	87.2	9.8	2.4	0.6	87.9	91.8
Kazakhstan	909	80.2	76.5	18.9	2.0	2.6	78.8	81.3
Korea, Rep. of	609	95.2	89.9	4.5	5.3	0.2	94.3	96.0
Lithuania	778	82.9	82.3	16.9	0.6	0.2	81.3	84.6
Malaysia	1255	82.6	81.7	17.2	0.5	0.6	81.5	83.9
Malta	581	91.8	90.3	8.0	1.6	0.0	91.2	92.4
Morocco	1246	60.9	56.1	36.0	4.9	3.0	57.8	63.9
New Zealand	544	91.4	88.0	8.3	2.8	0.9	92.1	90.8
Norway (9)	896	87.9	81.5	11.2	4.6	2.7	87.1	88.7
Oman	1180	91.6	90.0	8.2	1.3	0.5	91.2	92.0
Palestinian Nat'l Auth.	940	80.5	77.6	18.8	3.0	0.6	79.9	81.1
Portugal	784	88.1	87.7	11.8	0.4	0.1	86.9	89.4
Qatar	616	92.7	90.6	7.1	1.6	0.8	92.2	93.3
Romania	541	86.1	82.1	13.3	3.2	1.4	86.1	86.0
Saudi Arabia	840	71.4	69.0	27.7	2.9	0.4	70.6	72.1
Singapore	676	97.0	96.7	3.0	0.1	0.1	97.0	97.0
Sweden	714	89.6	86.2	10.0	2.6	1.3	92.3	87.2
Turkiye	705	94.5	92.9	5.4	1.5	0.1	96.4	92.3
United Arab Emirates	4708	89.4	87.0	10.3	1.7	1.0	88.7	90.1
United States	1158	91.0	89.2	8.8	0.9	1.1	90.6	91.4
Uzbekistan	620	80.5	70.2	17.0	10.8	2.0	74.1	86.5
International Avg. (40)	38067	86.3	83.4	13.1	2.6	0.9	85.1	87.5
Abu Dhabi, UAE	1740	88.2	84.7	11.3	2.7	1.2	86.4	89.9
Dubai, UAE	1175	90.4	88.8	9.5	0.9	0.9	88.3	92.4
Sharjah, UAE	921	89.9	88.2	9.9	1.3	0.6	90.7	89.1

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Applying

B_SM2_15B SE62242B: Waste removed by electromagnet: cups - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1200	94.7	5.2	92.4	2.0	0.4	93.6	95.6
Austria	655	94.2	5.7	92.1	1.6	0.6	92.2	96.3
Azerbaijan	880	78.8	17.7	66.1	13.2	2.9	74.2	83.2
Bahrain	741	88.5	11.2	85.7	2.0	1.0	93.7	82.8
Brazil	3290	85.2	13.2	75.9	8.6	2.3	82.5	88.0
Chile	640	91.2	7.9	82.3	8.0	1.7	88.4	93.5
Chinese Taipei	798	97.4	2.6	96.4	0.9	0.0	98.3	96.5
Cyprus	603	82.9	16.4	79.3	2.7	1.6	81.2	84.7
Czech Republic	1157	96.3	3.6	94.9	1.5	0.0	96.1	96.5
England	597	92.1	7.6	89.5	2.3	0.6	91.5	92.7
Finland	833	93.2	6.6	90.0	2.6	0.8	93.0	93.4
France	642	88.5	11.0	84.9	2.9	1.2	87.7	89.4
Georgia	690	88.7	10.2	80.2	8.0	1.6	90.2	87.3
Hong Kong SAR	637	91.7	8.2	90.8	0.7	0.3	90.5	92.9
Hungary	772	91.3	8.6	90.4	0.8	0.2	90.1	92.6
Ireland	714	93.7	6.2	92.0	1.8	0.0	92.8	94.4
Israel	736	91.7	8.0	88.3	2.7	1.0	91.7	91.8
Italy	657	90.2	9.7	88.5	1.4	0.4	90.8	89.5
Japan	548	97.6	2.4	96.4	1.3	0.0	98.8	96.4
Jordan	977	89.2	10.4	85.5	3.6	0.6	92.1	86.3
Kazakhstan	909	90.5	8.9	84.5	4.0	2.6	91.2	89.9
Korea, Rep. of	609	94.7	5.1	90.1	4.6	0.2	94.0	95.2
Lithuania	778	90.4	9.5	89.5	0.8	0.2	89.5	91.3
Malaysia	1255	82.7	17.0	81.5	0.9	0.6	81.9	83.6
Malta	581	89.7	10.0	87.1	2.9	0.0	91.2	88.4
Morocco	1246	61.2	35.1	55.5	6.3	3.0	58.6	63.7
New Zealand	544	91.4	8.4	89.0	1.6	0.9	93.2	89.9
Norway (9)	896	88.4	10.9	82.5	3.9	2.7	89.9	87.3
Oman	1180	91.7	8.1	89.4	2.1	0.5	93.9	89.6
Palestinian Nat'l Auth.	940	87.5	11.9	83.0	4.5	0.6	91.6	83.7
Portugal	784	90.9	9.0	89.7	1.2	0.1	90.4	91.4
Qatar	616	91.0	8.7	88.3	2.2	0.8	92.6	89.3
Romania	541	92.3	7.3	87.1	4.2	1.4	95.3	89.5
Saudi Arabia	840	86.3	13.3	83.6	2.8	0.4	89.5	83.2
Singapore	676	98.0	2.0	97.5	0.4	0.1	98.2	97.9
Sweden	714	91.6	7.9	86.5	4.3	1.3	93.7	89.7
Turkiye	705	96.0	3.9	93.5	2.4	0.1	98.0	93.8
United Arab Emirates	4708	89.3	10.3	86.4	2.3	1.0	90.6	88.1
United States	1158	90.9	8.8	88.0	2.1	1.1	90.3	91.5
Uzbekistan	620	86.8	11.0	72.6	14.4	2.0	84.6	89.0
International Avg. (40)	38067	90.0	9.5	86.2	3.4	0.9	90.2	89.8
Abu Dhabi, UAE	1740	83.3	15.9	79.5	3.3	1.2	83.5	83.2
Dubai, UAE	1175	94.6	5.3	92.8	1.1	0.9	94.8	94.4
Sharjah, UAE	921	91.7	8.0	88.8	2.6	0.6	93.3	90.1

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Applying

B_SM2_15D SE62242D: Waste removed by electromagnet: paper - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1200	91.9	7.8	89.0	2.7	0.4	91.2	92.7
Austria	655	92.5	7.4	90.6	1.4	0.6	93.5	91.4
Azerbaijan	880	81.7	15.2	67.7	14.2	2.9	84.1	79.5
Bahrain	741	86.2	13.3	83.3	2.4	1.0	92.2	79.9
Brazil	3290	83.5	14.5	73.0	10.3	2.3	82.8	84.1
Chile	640	89.2	9.7	80.0	8.5	1.7	88.7	89.5
Chinese Taipei	798	97.6	2.3	95.9	1.8	0.0	98.4	97.0
Cyprus	603	78.0	21.0	74.7	2.7	1.6	77.1	79.0
Czech Republic	1157	96.4	3.5	94.9	1.5	0.0	96.5	96.4
England	597	91.9	7.9	89.2	2.3	0.6	91.1	92.7
Finland	833	92.5	7.2	89.2	2.9	0.8	92.1	92.9
France	642	87.9	11.5	84.0	3.3	1.2	85.2	90.9
Georgia	690	90.0	8.9	79.6	9.9	1.6	92.8	87.0
Hong Kong SAR	637	91.8	8.1	90.7	0.8	0.3	91.9	91.7
Hungary	772	89.3	10.6	88.4	0.8	0.2	89.8	88.7
Ireland	714	91.9	7.9	90.4	1.7	0.0	92.3	91.6
Israel	736	90.5	9.1	86.9	3.0	1.0	91.9	89.0
Italy	657	87.2	12.5	85.2	1.8	0.4	90.7	83.7
Japan	548	97.5	2.5	96.5	1.1	0.0	97.4	97.6
Jordan	977	89.2	10.2	84.8	4.4	0.6	91.6	86.9
Kazakhstan	909	88.8	10.5	83.0	3.9	2.6	91.6	86.5
Korea, Rep. of	609	96.4	3.4	91.9	4.5	0.2	96.2	96.6
Lithuania	778	89.1	10.7	87.8	1.3	0.2	90.8	87.5
Malaysia	1255	82.0	17.7	80.5	1.1	0.6	82.1	81.8
Malta	581	89.3	10.3	86.8	2.9	0.0	90.3	88.5
Morocco	1246	61.5	34.8	55.6	6.6	3.0	59.0	63.9
New Zealand	544	90.5	9.0	86.1	3.9	0.9	93.1	88.4
Norway (9)	896	89.5	9.7	82.5	5.2	2.7	92.0	87.4
Oman	1180	87.9	11.6	84.6	3.3	0.5	90.6	85.3
Palestinian Nat'l Auth.	940	80.8	18.0	75.8	5.6	0.6	88.5	73.5
Portugal	784	91.1	8.7	89.8	1.3	0.1	91.8	90.4
Qatar	616	89.9	9.7	86.8	2.7	0.8	90.4	89.4
Romania	541	91.0	8.6	86.5	3.6	1.4	93.6	88.7
Saudi Arabia	840	82.4	16.7	78.2	4.7	0.4	87.5	77.5
Singapore	676	97.3	2.7	96.5	0.7	0.1	99.0	95.8
Sweden	714	89.2	10.2	83.9	4.6	1.3	92.1	86.4
Turkiye	705	93.6	6.2	91.1	2.6	0.1	96.5	90.4
United Arab Emirates	4708	87.0	12.5	83.5	3.0	1.0	88.7	85.4
United States	1158	89.8	9.9	87.3	1.7	1.1	89.7	89.9
Uzbekistan	620	87.6	10.2	72.0	15.8	2.0	85.4	89.7
International Avg. (40)	38067	88.8	10.6	84.6	3.9	0.9	90.0	87.6
Abu Dhabi, UAE	1740	79.5	19.4	75.0	4.3	1.2	80.4	78.6
Dubai, UAE	1175	94.2	5.7	92.0	1.5	0.9	94.3	94.1
Sharjah, UAE	921	89.8	9.8	86.7	2.9	0.6	91.5	88.3

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Applying

B_SM2_15E SE62242E: Waste removed by electromagnet: nails - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1200	91.5	89.1	8.3	2.2	0.4	89.8	92.9
Austria	655	91.4	90.2	8.5	0.7	0.6	90.5	92.3
Azerbaijan	880	81.8	68.6	15.3	13.2	2.9	81.5	82.0
Bahrain	741	87.9	85.0	11.7	2.3	1.0	93.7	81.7
Brazil	3290	85.4	74.6	12.7	10.4	2.3	82.7	88.1
Chile	640	87.8	79.9	11.2	7.2	1.7	86.0	89.3
Chinese Taipei	798	96.7	96.3	3.3	0.4	0.0	98.0	95.6
Cyprus	603	79.1	75.5	19.9	3.0	1.6	78.8	79.4
Czech Republic	1157	96.5	94.9	3.5	1.6	0.0	96.6	96.3
England	597	89.9	87.6	9.8	2.0	0.6	89.9	89.9
Finland	833	91.3	88.6	8.4	2.2	0.8	91.0	91.6
France	642	86.5	82.6	12.9	3.4	1.2	83.6	89.6
Georgia	690	88.4	79.6	10.5	8.3	1.6	88.7	87.9
Hong Kong SAR	637	92.8	91.7	7.1	0.9	0.3	92.7	92.9
Hungary	772	88.6	87.7	11.3	0.8	0.2	88.8	88.4
Ireland	714	91.8	90.7	8.1	1.2	0.0	92.3	91.3
Israel	736	89.6	86.0	9.9	3.1	1.0	90.8	88.4
Italy	657	87.7	86.1	12.1	1.4	0.4	89.0	86.4
Japan	548	98.4	97.2	1.6	1.1	0.0	98.9	97.8
Jordan	977	91.0	87.4	8.7	3.3	0.6	91.1	90.9
Kazakhstan	909	88.5	83.3	10.9	3.3	2.6	90.2	87.0
Korea, Rep. of	609	95.4	90.1	4.4	5.2	0.2	94.3	96.3
Lithuania	778	90.0	89.2	9.9	0.7	0.2	91.0	89.0
Malaysia	1255	81.8	80.6	18.0	0.7	0.6	80.4	83.2
Malta	581	90.3	87.4	9.4	3.2	0.0	89.8	90.8
Morocco	1246	66.9	60.2	29.8	7.0	3.0	65.9	67.8
New Zealand	544	87.5	83.2	11.9	3.9	0.9	90.8	84.8
Norway (9)	896	89.9	82.4	9.3	5.7	2.7	91.7	88.3
Oman	1180	89.3	85.8	10.3	3.4	0.5	91.7	87.0
Palestinian Nat'l Auth.	940	87.4	82.3	11.8	5.3	0.6	93.0	82.2
Portugal	784	91.4	90.8	8.5	0.5	0.1	92.5	90.3
Qatar	616	89.4	87.2	10.3	1.7	0.8	90.6	88.1
Romania	541	89.8	86.7	9.9	2.0	1.4	93.7	86.4
Saudi Arabia	840	87.4	83.7	12.0	3.9	0.4	91.8	83.3
Singapore	676	97.3	96.7	2.7	0.5	0.1	98.9	95.9
Sweden	714	89.1	84.7	10.4	3.6	1.3	90.9	87.3
Turkiye	705	95.8	94.2	4.1	1.6	0.1	97.0	94.5
United Arab Emirates	4708	88.6	85.2	11.0	2.7	1.0	89.9	87.3
United States	1158	89.6	87.2	10.2	1.6	1.1	87.6	91.3
Uzbekistan	620	88.7	77.0	9.9	11.1	2.0	86.8	90.4
International Avg. (40)	38067	89.2	85.4	10.2	3.4	0.9	89.8	88.6
Abu Dhabi, UAE	1740	81.8	77.3	17.2	4.2	1.2	82.4	81.2
Dubai, UAE	1175	94.5	92.5	5.3	1.3	0.9	94.4	94.7
Sharjah, UAE	921	90.8	88.4	9.0	2.0	0.6	91.6	89.9

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Knowing

B_SM3_01 SE72033: Functions of different types of cells (DERIVED) - CR - 2 Points

COUNTRY	N	DIFF %	20 %	10 %	79 %	2pt %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1193	44.4	36.0	15.6	47.0	36.0	15.6	47.0	1.1	0.3	39.0	48.9
Austria	666	50.3	42.2	15.8	41.6	42.2	15.8	41.6	0.4	0.0	49.3	51.3
Azerbaijan	895	24.1	16.3	13.4	65.8	16.3	13.4	65.8	4.5	0.0	24.1	24.0
Bahrain	730	29.0	21.8	13.9	63.6	21.8	13.9	63.6	0.8	0.0	29.2	28.7
Brazil	3222	20.7	15.1	9.9	71.9	15.1	9.9	71.9	3.1	0.1	18.9	22.4
Chile	634	33.3	25.0	14.6	57.3	25.0	14.6	57.3	3.0	0.0	28.9	37.9
Chinese Taipei	801	82.3	76.3	11.7	11.8	76.3	11.7	11.8	0.2	0.0	80.9	83.6
Cyprus	599	23.9	17.6	11.5	68.7	17.6	11.5	68.7	2.2	0.0	24.5	23.2
Czech Republic	1153	49.6	38.2	22.3	39.1	38.2	22.3	39.1	0.4	0.0	44.9	54.1
England	596	57.7	50.2	14.4	35.0	50.2	14.4	35.0	0.4	0.0	54.5	61.3
Finland	842	44.4	33.8	20.4	44.8	33.8	20.4	44.8	0.8	0.2	44.1	44.8
France	637	28.4	21.0	13.6	63.2	21.0	13.6	63.2	2.2	0.0	25.5	30.8
Georgia	692	38.2	28.2	18.6	51.4	28.2	18.6	51.4	1.8	0.0	40.6	36.0
Hong Kong SAR	635	62.1	51.8	19.8	27.8	51.8	19.8	27.8	0.3	0.2	57.1	66.5
Hungary	774	53.4	45.1	16.6	38.2	45.1	16.6	38.2	0.0	0.0	51.3	55.5
Ireland	732	43.4	33.5	19.6	46.5	33.5	19.6	46.5	0.3	0.0	43.2	43.7
Israel	745	36.4	28.9	14.2	55.9	28.9	14.2	55.9	0.8	0.2	35.1	37.6
Italy	655	56.6	48.7	15.0	35.6	48.7	15.0	35.6	0.7	0.0	53.6	59.5
Japan	573	77.6	70.8	13.6	15.6	70.8	13.6	15.6	0.0	0.0	75.7	79.3
Jordan	1008	18.6	13.9	9.0	76.3	13.9	9.0	76.3	0.7	0.0	19.4	17.9
Kazakhstan	901	21.0	13.7	14.4	71.3	13.7	14.4	71.3	0.5	0.0	21.6	20.6
Korea, Rep. of	606	67.6	61.0	12.3	26.0	61.0	12.3	26.0	0.6	0.0	64.9	70.0
Lithuania	775	54.4	44.4	19.1	35.7	44.4	19.1	35.7	0.8	0.0	53.3	55.5
Malaysia	1254	18.4	14.5	7.8	77.5	14.5	7.8	77.5	0.2	0.1	17.7	19.2
Malta	562	46.0	38.9	13.6	46.9	38.9	13.6	46.9	0.7	0.0	49.3	42.7
Morocco	1239	6.0	3.4	4.6	87.1	3.4	4.6	87.1	4.6	0.3	5.2	6.9
New Zealand	570	36.4	28.6	14.1	55.2	28.6	14.1	55.2	1.9	0.1	29.6	41.6
Norway (9)	901	41.3	30.7	19.2	47.8	30.7	19.2	47.8	1.8	0.4	37.6	44.5
Oman	1180	39.3	30.3	16.3	51.4	30.3	16.3	51.4	1.9	0.0	45.9	32.7
Palestinian Nat'l Auth.	924	17.7	12.4	9.7	75.8	12.4	9.7	75.8	2.0	0.1	22.7	12.5
Portugal	770	32.9	25.6	14.1	59.6	25.6	14.1	59.6	0.7	0.0	29.2	36.4
Qatar	611	41.5	33.9	14.3	50.7	33.9	14.3	50.7	1.1	0.0	43.1	40.1
Romania	517	37.6	28.9	13.6	52.4	28.9	13.6	52.4	3.8	1.2	36.7	38.6
Saudi Arabia	835	25.1	19.7	10.6	69.2	19.7	10.6	69.2	0.5	0.0	29.3	21.2
Singapore	689	71.1	64.5	13.1	22.4	64.5	13.1	22.4	0.0	0.0	66.6	74.9
Sweden	720	51.8	43.6	15.2	40.0	43.6	15.2	40.0	1.1	0.1	50.3	53.1
Turkiye	711	28.3	20.0	16.6	63.2	20.0	16.6	63.2	0.2	0.0	28.2	28.5
United Arab Emirates	4674	44.0	37.8	11.7	49.7	37.8	11.7	49.7	0.8	0.1	43.6	44.3
United States	1147	40.8	33.6	13.8	52.0	33.6	13.8	52.0	0.1	0.5	39.1	42.5
Uzbekistan	619	15.4	9.9	9.8	76.1	9.9	9.8	76.1	4.2	0.0	16.3	14.6
International Avg. (40)	37987	40.3	32.7	14.2	51.7	32.7	14.2	51.7	1.3	0.1	39.3	41.2
Abu Dhabi, UAE	1723	32.8	27.7	9.6	61.8	27.7	9.6	61.8	0.7	0.2	33.0	32.6
Dubai, UAE	1155	61.2	54.1	13.4	31.8	54.1	13.4	31.8	0.7	0.0	58.7	63.4
Sharjah, UAE	921	47.1	40.4	12.5	46.2	40.4	12.5	46.2	0.8	0.0	48.5	45.6

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Biology / Knowing

B_SM3_01A SE72033A: Functions of different types of cells - muscle - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	C %	D %	E %	F %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1193	57.6	5.7	56.2	1.9	16.4	15.1	2.2	2.2	0.3	54.7	60.1
Austria	666	80.9	2.9	80.2	0.9	7.5	6.6	1.0	0.9	0.0	85.2	76.9
Azerbaijan	895	43.4	10.8	38.0	2.8	18.3	13.4	4.3	12.4	0.0	43.1	43.7
Bahrain	730	44.9	11.2	44.0	3.2	19.5	13.7	6.6	1.9	0.0	46.5	43.2
Brazil	3222	49.5	9.5	46.5	2.3	19.6	10.1	6.0	5.9	0.1	50.8	48.2
Chile	634	61.9	4.2	58.8	1.5	14.5	12.0	4.0	5.1	0.0	58.8	65.1
Chinese Taipei	801	92.9	1.1	92.7	0.0	4.3	1.4	0.4	0.2	0.0	93.3	92.6
Cyprus	599	52.0	4.2	50.3	2.9	15.1	19.6	4.8	3.2	0.0	53.4	50.6
Czech Republic	1153	75.1	2.5	74.0	0.6	13.6	6.0	1.8	1.5	0.0	72.7	77.4
England	596	75.4	3.5	74.7	2.0	8.8	8.2	1.9	0.9	0.0	73.2	77.9
Finland	842	72.4	4.7	71.4	1.5	15.0	4.1	1.9	1.2	0.2	75.2	69.4
France	637	71.9	5.3	69.8	3.0	12.8	4.8	1.4	2.9	0.0	71.2	72.4
Georgia	692	73.5	4.6	71.7	0.7	14.0	5.1	1.4	2.5	0.0	76.4	71.0
Hong Kong SAR	635	78.6	4.3	77.9	0.3	12.1	2.9	1.6	0.6	0.2	76.9	80.1
Hungary	774	77.9	2.0	77.7	0.2	12.5	5.1	2.2	0.2	0.0	78.7	77.0
Ireland	732	58.1	5.7	56.5	1.1	17.9	13.1	3.0	2.7	0.0	57.9	58.3
Israel	745	67.4	5.9	66.3	1.4	14.5	6.5	3.7	1.5	0.2	67.6	67.2
Italy	655	81.0	3.6	80.0	0.6	9.2	4.0	1.4	1.2	0.0	78.0	83.9
Japan	573	95.8	0.8	95.8	0.0	2.3	1.2	0.0	0.0	0.0	95.1	96.4
Jordan	1008	43.0	16.4	40.7	4.8	16.7	10.9	5.1	5.3	0.0	42.6	43.4
Kazakhstan	901	39.0	10.2	37.3	3.3	21.5	14.7	8.6	4.5	0.0	41.0	37.3
Korea, Rep. of	606	82.3	2.0	81.6	1.1	9.0	4.1	1.3	0.8	0.0	81.7	82.8
Lithuania	775	77.0	3.9	76.0	1.2	9.4	4.9	3.3	1.3	0.0	79.3	74.8
Malaysia	1254	38.8	9.8	38.4	2.4	25.9	16.3	6.3	1.0	0.1	38.3	39.4
Malta	562	58.4	5.5	57.0	0.9	17.9	11.3	5.0	2.4	0.0	61.3	55.5
Morocco	1239	28.5	23.0	25.5	12.3	14.9	7.5	6.4	10.0	0.3	31.0	26.0
New Zealand	570	58.5	4.8	56.4	1.1	17.6	13.8	2.8	3.5	0.1	55.8	60.5
Norway (9)	901	63.9	4.0	61.8	1.5	19.5	6.9	3.0	2.8	0.4	65.3	62.7
Oman	1180	70.7	8.2	67.4	2.2	7.9	5.7	4.0	4.6	0.0	76.0	65.3
Palestinian Nat'l Auth.	924	38.5	14.7	35.5	6.2	18.1	9.9	7.9	7.7	0.1	42.6	34.0
Portugal	770	62.0	3.4	61.3	2.3	12.7	14.1	5.1	1.1	0.0	59.8	64.2
Qatar	611	58.1	7.7	56.6	3.3	15.6	11.6	2.6	2.6	0.0	61.5	55.1
Romania	517	64.4	6.6	59.1	3.9	7.9	10.2	4.1	7.1	1.2	69.3	59.6
Saudi Arabia	835	44.1	12.7	43.7	3.9	18.7	12.2	7.8	1.0	0.0	46.3	42.0
Singapore	689	77.2	1.1	77.1	0.5	10.9	8.6	1.7	0.1	0.0	75.0	79.1
Sweden	720	69.7	4.8	68.3	1.7	12.7	6.8	3.6	1.9	0.1	68.9	70.3
Turkiye	711	71.8	4.2	70.6	1.2	12.2	9.3	0.8	1.6	0.0	72.1	71.5
United Arab Emirates	4674	57.9	8.8	56.9	3.4	16.8	9.2	3.2	1.6	0.1	58.8	57.0
United States	1147	58.1	7.0	57.5	1.4	15.5	15.0	2.4	0.6	0.5	59.2	56.9
Uzbekistan	619	49.2	14.9	40.7	2.1	15.0	6.1	3.9	17.4	0.0	52.6	46.2
International Avg. (40)	37987	63.0	6.7	61.3	2.2	14.1	9.0	3.5	3.2	0.1	63.7	62.4
Abu Dhabi, UAE	1723	47.7	14.3	46.8	5.8	15.9	11.0	4.3	1.6	0.2	49.8	45.6
Dubai, UAE	1155	73.6	3.2	72.6	1.6	12.6	6.5	2.0	1.4	0.0	72.5	74.6
Sharjah, UAE	921	60.2	6.7	59.2	1.8	18.1	9.9	2.7	1.7	0.0	61.8	58.6

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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COUNTRY	N	DIFF %	A %	B %	C %	D %	E %	F %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1193	69.2	5.2	13.5	1.4	5.7	67.6	4.2	2.1	0.3	64.1	73.5
Austria	666	80.3	5.2	6.3	1.6	3.7	79.2	2.6	1.3	0.0	83.0	77.7
Azerbaijan	895	69.4	4.2	11.1	2.6	5.7	58.8	2.4	15.3	0.0	68.0	70.6
Bahrain	730	43.9	6.6	23.6	3.1	15.4	42.7	6.0	2.5	0.0	44.6	43.1
Brazil	3222	59.3	5.3	12.5	1.9	8.4	54.6	9.4	7.8	0.1	59.1	59.4
Chile	634	75.5	2.8	8.2	1.7	6.1	70.7	4.3	6.3	0.0	72.9	78.0
Chinese Taipei	801	94.6	1.4	2.4	0.2	1.4	94.0	0.1	0.6	0.0	94.9	94.3
Cyprus	599	59.5	6.0	9.5	7.6	6.8	57.4	9.2	3.6	0.0	64.5	54.5
Czech Republic	1153	61.6	7.1	7.5	2.0	17.5	59.4	2.9	3.5	0.0	58.0	65.0
England	596	75.1	4.1	10.0	1.0	6.6	74.3	3.0	1.0	0.0	71.7	79.1
Finland	842	82.1	4.4	3.7	2.2	5.0	80.1	2.2	2.3	0.2	85.3	78.8
France	637	56.1	10.6	8.0	7.7	12.8	53.2	2.4	5.3	0.0	56.2	56.1
Georgia	692	81.0	3.5	5.0	2.6	4.5	76.2	2.3	5.9	0.0	79.2	82.6
Hong Kong SAR	635	84.5	2.7	4.5	1.8	5.2	83.9	1.2	0.5	0.2	84.7	84.3
Hungary	774	85.1	2.7	3.5	1.3	4.6	84.5	2.7	0.7	0.0	83.6	86.7
Ireland	732	69.1	2.8	12.2	1.1	8.5	67.2	5.5	2.6	0.0	71.3	67.1
Israel	745	65.8	6.3	9.0	2.0	8.1	63.5	7.6	3.4	0.2	65.0	66.5
Italy	655	76.3	4.3	5.4	1.5	9.0	74.5	2.9	2.3	0.0	73.2	79.2
Japan	573	83.3	0.9	2.5	0.5	11.5	82.9	1.3	0.5	0.0	81.7	84.8
Jordan	1008	42.4	8.9	20.4	4.8	12.0	38.9	6.8	8.3	0.0	39.2	45.7
Kazakhstan	901	68.8	6.4	10.4	2.1	6.9	66.4	4.3	3.5	0.0	69.0	68.6
Korea, Rep. of	606	85.3	1.8	4.9	1.1	5.2	84.2	1.5	1.3	0.0	82.5	87.7
Lithuania	775	78.2	2.9	6.4	1.7	8.1	76.2	2.2	2.5	0.0	80.1	76.3
Malaysia	1254	50.4	8.5	11.2	2.4	17.2	49.7	9.7	1.4	0.1	49.1	51.9
Malta	562	64.1	4.1	14.6	1.4	8.7	63.0	6.6	1.6	0.0	65.0	63.1
Morocco	1239	24.2	12.0	17.5	14.3	13.8	20.5	6.8	14.8	0.3	21.5	26.9
New Zealand	571	68.8	7.0	12.0	1.3	7.2	66.0	2.5	4.0	0.1	62.8	73.3
Norway (9)	901	68.8	4.6	10.8	3.4	7.5	65.4	3.4	4.4	0.4	67.7	69.7
Oman	1180	52.6	6.0	9.7	5.1	14.5	49.1	8.9	6.7	0.0	57.8	47.3
Palestinian Nat'l Auth.	924	32.9	16.1	16.4	9.2	13.5	30.4	6.7	7.4	0.1	37.3	28.3
Portugal	770	58.8	6.4	9.9	5.5	10.4	56.7	7.6	3.5	0.0	56.1	61.4
Qatar	611	55.0	4.7	18.6	4.3	10.7	53.3	5.3	3.0	0.0	55.2	54.7
Romania	517	70.3	4.5	8.5	1.0	7.6	62.3	4.8	10.1	1.2	72.5	68.1
Saudi Arabia	835	35.5	9.1	26.3	3.9	15.4	34.7	8.3	2.3	0.0	40.7	30.5
Singapore	689	83.5	0.8	7.2	0.6	5.5	83.3	2.4	0.3	0.0	78.1	88.1
Sweden	720	72.7	1.8	11.5	2.0	9.2	70.6	2.0	2.7	0.1	70.6	74.5
Turkiye	711	69.4	4.7	14.5	0.7	6.4	67.1	3.4	3.2	0.0	69.6	69.1
United Arab Emirates	4674	58.3	5.5	16.4	3.6	10.9	56.9	4.3	2.4	0.1	57.6	58.9
United States	1147	66.8	5.7	14.3	1.1	7.0	66.1	4.6	0.7	0.5	67.6	66.1
Uzbekistan	619	41.1	10.1	15.6	3.2	12.9	32.0	4.0	22.3	0.0	39.5	42.5
International Avg. (40)	37988	65.5	5.4	10.9	2.9	8.9	62.9	4.5	4.3	0.1	65.0	65.9
Abu Dhabi, UAE	1723	48.3	8.1	18.4	6.1	11.8	47.1	6.1	2.1	0.2	48.6	47.9
Dubai, UAE	1155	74.6	2.4	11.0	0.8	8.3	72.7	2.2	2.5	0.0	72.3	76.7
Sharjah, UAE	921	63.0	4.4	16.5	2.9	10.3	61.4	2.0	2.4	0.0	62.4	63.5

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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COUNTRY	N	DIFF %	A %	B %	C %	D %	E %	F %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1193	75.8	4.4	8.8	3.0	4.1	3.5	74.2	1.8	0.3	74.1	77.2
Austria	666	74.8	5.2	5.7	2.6	7.9	3.2	72.8	2.7	0.0	74.0	75.5
Azerbaijan	895	67.0	5.1	11.7	3.2	5.1	2.9	56.8	15.3	0.0	67.5	66.6
Bahrain	730	65.1	6.2	7.1	6.9	6.8	6.8	63.0	3.3	0.0	68.1	62.1
Brazil	3222	43.9	6.7	18.9	6.5	11.6	7.0	39.8	9.4	0.1	42.5	45.4
Chile	634	62.1	5.6	14.3	2.8	5.6	6.7	57.3	7.7	0.0	60.9	63.3
Chinese Taipei	801	95.1	1.0	0.3	0.4	1.2	1.9	94.2	1.0	0.0	95.9	94.5
Cyprus	599	43.5	9.5	13.4	10.0	13.0	7.0	40.7	6.4	0.0	42.2	44.8
Czech Republic	1153	85.9	2.2	2.8	2.4	4.0	2.2	83.5	2.9	0.0	84.7	87.1
England	596	78.7	4.2	5.1	3.7	4.8	3.2	77.4	1.7	0.0	78.0	79.5
Finland	842	81.7	4.1	5.2	1.6	4.1	3.0	79.6	2.3	0.2	82.5	80.8
France	637	67.7	4.3	7.6	4.4	10.2	4.0	64.0	5.5	0.0	65.3	69.7
Georgia	692	73.9	4.7	6.3	2.8	7.3	3.4	69.4	6.0	0.0	75.7	72.3
Hong Kong SAR	635	86.5	3.0	3.1	2.9	2.1	2.3	86.0	0.4	0.2	84.1	88.7
Hungary	774	73.8	4.8	9.8	2.2	6.2	2.9	73.1	0.9	0.0	71.9	75.7
Ireland	732	75.5	4.3	8.7	1.3	6.6	3.0	73.4	2.8	0.0	72.8	78.0
Israel	745	59.0	5.9	7.5	6.8	11.9	6.9	56.1	4.7	0.2	56.1	61.8
Italy	655	82.9	1.6	4.0	2.8	6.8	1.4	80.9	2.4	0.0	79.3	86.4
Japan	573	90.8	1.6	1.3	0.6	2.4	3.4	90.6	0.2	0.0	90.1	91.4
Jordan	1008	54.6	9.0	7.8	5.1	10.2	9.8	50.5	7.5	0.0	59.4	50.0
Kazakhstan	901	64.2	6.2	11.0	4.7	9.8	2.8	61.6	4.0	0.0	66.2	62.3
Korea, Rep. of	606	88.8	2.8	1.8	2.2	0.9	3.2	87.2	1.8	0.0	87.9	89.7
Lithuania	775	84.6	1.6	5.4	1.8	4.3	2.1	83.1	1.7	0.0	83.8	85.3
Malaysia	1254	41.8	20.2	14.6	7.8	6.7	7.9	41.1	1.7	0.1	39.4	44.7
Malta	562	70.8	6.4	9.1	2.5	5.5	4.9	68.9	2.7	0.0	70.2	71.4
Morocco	1239	23.4	12.1	14.7	13.9	11.9	11.5	19.5	16.1	0.3	24.7	22.0
New Zealand	570	71.3	8.5	10.2	2.0	4.1	2.4	67.6	5.1	0.1	65.2	76.1
Norway (9)	901	76.1	5.1	6.1	4.1	3.4	4.0	72.8	3.9	0.4	76.7	75.6
Oman	1180	61.1	5.3	6.8	5.2	8.5	10.1	56.5	7.6	0.0	67.3	54.8
Palestinian Nat'l Auth.	924	48.6	7.0	10.9	9.8	9.2	9.7	43.9	9.4	0.1	56.3	40.4
Portugal	770	60.2	2.7	17.3	4.7	10.5	3.6	58.7	2.5	0.0	54.2	66.2
Qatar	611	72.9	5.4	8.0	3.8	4.2	4.8	70.7	3.1	0.0	79.2	67.5
Romania	517	72.1	3.6	5.9	2.7	8.5	4.8	65.8	7.5	1.2	69.9	74.2
Saudi Arabia	835	57.1	5.8	8.6	7.7	8.7	10.8	55.2	3.2	0.0	60.9	53.5
Singapore	689	84.4	3.0	6.0	1.6	3.0	1.9	83.8	0.7	0.0	81.6	87.0
Sweden	720	78.0	4.7	6.2	2.8	3.6	4.3	76.7	1.6	0.1	78.6	77.5
Turkiye	711	76.2	4.1	9.0	2.3	4.2	3.5	74.1	2.7	0.0	77.6	74.7
United Arab Emirates	4674	67.8	6.3	7.6	5.9	6.1	5.4	65.8	2.9	0.1	69.2	66.4
United States	1147	77.2	4.7	10.5	2.0	2.9	2.4	76.2	0.8	0.5	74.5	79.9
Uzbekistan	619	62.0	6.9	8.8	4.0	4.5	5.3	48.3	22.2	0.0	65.1	59.2
International Avg. (40)	37987	69.4	5.4	8.2	4.1	6.3	4.8	66.5	4.6	0.1	69.3	69.5
Abu Dhabi, UAE	1723	54.7	8.4	10.2	9.2	9.6	6.4	52.8	3.2	0.2	57.5	51.8
Dubai, UAE	1155	82.8	4.3	4.4	2.7	2.4	3.0	81.1	2.1	0.0	80.8	84.6
Sharjah, UAE	921	73.4	5.7	7.1	4.2	4.0	4.8	71.1	3.0	0.0	75.7	71.0

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Knowing

B_SM3_01D SE72033D: Functions of different types of cells - red blood cell - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	C %	D %	E %	F %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1193	67.2	65.7	3.0	13.6	9.5	2.6	3.4	1.9	0.3	65.0	69.0
Austria	666	64.9	64.0	1.1	17.5	10.1	2.2	3.8	1.4	0.0	63.0	66.7
Azerbaijan	895	46.4	39.3	5.7	18.4	13.4	3.9	4.0	15.2	0.0	49.3	43.9
Bahrain	730	59.3	58.0	4.9	13.7	7.9	7.5	5.9	2.3	0.0	62.8	55.8
Brazil	3222	46.2	42.4	5.0	20.4	10.5	6.5	6.9	8.2	0.1	44.7	47.7
Chile	634	59.6	54.4	1.5	17.6	11.0	1.8	5.0	8.6	0.0	54.7	64.4
Chinese Taipei	801	87.2	86.4	0.6	6.1	4.5	0.8	0.6	1.0	0.0	83.8	90.2
Cyprus	599	52.2	49.7	5.6	17.5	9.2	4.4	8.7	4.7	0.0	55.3	49.1
Czech Republic	1153	74.5	72.8	2.7	10.4	4.7	5.8	1.3	2.3	0.0	72.7	76.2
England	596	78.1	76.9	1.5	9.5	5.9	1.6	2.9	1.6	0.0	74.2	82.7
Finland	842	58.5	57.4	2.4	22.5	7.7	4.3	3.7	1.7	0.2	57.1	59.9
France	637	47.9	45.7	2.0	18.7	12.6	7.9	8.5	4.6	0.0	46.9	48.7
Georgia	692	52.9	49.4	2.8	17.0	14.7	4.9	4.7	6.5	0.0	58.9	47.7
Hong Kong SAR	635	75.0	74.1	1.1	12.8	6.1	2.6	2.0	1.0	0.2	71.7	77.9
Hungary	774	71.2	70.5	1.3	17.6	4.2	2.9	2.4	1.0	0.0	69.0	73.5
Ireland	732	72.2	70.5	2.8	14.6	5.7	2.1	2.0	2.4	0.0	72.3	72.2
Israel	745	60.5	58.3	3.3	14.3	9.0	6.3	5.2	3.5	0.2	58.9	62.1
Italy	655	72.9	71.6	1.1	13.1	5.6	4.8	2.0	1.8	0.0	72.8	73.0
Japan	573	87.8	87.6	0.3	6.8	3.4	1.5	0.2	0.2	0.0	85.6	90.0
Jordan	1008	41.2	37.7	5.6	20.0	10.2	11.8	6.2	8.6	0.0	39.8	42.6
Kazakhstan	901	46.5	44.1	7.1	21.5	11.2	5.0	6.0	5.1	0.0	46.2	46.7
Korea, Rep. of	606	79.7	78.8	3.6	5.8	7.6	1.1	1.9	1.2	0.0	80.1	79.4
Lithuania	775	70.8	69.5	2.3	13.0	7.0	3.9	2.4	2.0	0.0	68.6	73.0
Malaysia	1254	41.5	40.9	10.7	17.9	13.7	7.7	7.7	1.3	0.1	40.6	42.4
Malta	562	71.1	69.8	2.6	9.6	7.1	4.3	4.7	1.8	0.0	75.1	67.2
Morocco	1239	29.2	24.9	8.9	17.1	12.4	13.0	8.9	14.6	0.3	27.6	30.9
New Zealand	570	56.2	53.4	3.2	17.2	10.2	5.4	5.6	4.8	0.1	50.7	60.3
Norway (9)	901	65.8	62.9	3.7	13.1	7.8	4.0	4.0	4.0	0.4	64.1	67.5
Oman	1180	66.4	62.0	2.6	11.1	7.2	7.0	3.3	6.7	0.0	71.8	60.9
Palestinian Nat'l Auth.	924	46.1	41.9	6.7	15.5	9.9	11.0	5.9	9.0	0.1	50.0	41.9
Portugal	770	59.1	58.0	1.8	16.3	11.2	6.0	4.7	1.9	0.0	59.1	59.1
Qatar	611	72.0	70.7	1.1	9.0	7.7	5.8	3.9	1.8	0.0	76.1	68.4
Romania	517	60.0	55.4	3.1	18.5	6.0	4.5	4.8	6.5	1.2	61.1	59.0
Saudi Arabia	835	57.2	55.4	4.2	10.7	10.0	10.7	5.9	3.1	0.0	63.7	51.1
Singapore	689	90.5	90.5	1.2	2.1	3.7	1.4	1.0	0.0	0.0	91.6	89.5
Sweden	720	73.3	71.9	1.3	11.0	6.4	4.3	3.2	1.8	0.1	72.1	74.3
Turkiye	711	43.6	41.9	2.2	25.8	15.5	6.2	4.6	3.9	0.0	46.1	41.2
United Arab Emirates	4674	65.9	64.4	3.8	10.2	7.6	6.6	5.2	2.2	0.1	66.4	65.3
United States	1147	59.7	58.8	2.6	16.4	9.8	6.5	4.2	1.1	0.5	56.8	62.9
Uzbekistan	619	41.1	31.7	4.5	14.8	13.3	9.0	3.8	22.9	0.0	43.1	39.3
International Avg. (40)	37987	61.8	59.5	3.3	14.5	8.8	5.2	4.3	4.4	0.1	61.7	61.8
Abu Dhabi, UAE	1723	54.3	52.6	5.9	12.8	9.0	9.3	7.4	2.9	0.2	54.0	54.6
Dubai, UAE	1155	79.5	78.3	2.1	6.5	5.9	3.3	2.5	1.5	0.0	78.0	80.9
Sharjah, UAE	921	69.9	68.6	2.4	10.1	7.5	6.1	3.5	1.7	0.0	73.2	66.5

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Knowing

B_SM3_01E SE72033E: Functions of different types of cells - white blood cell - MC - Key: C

COUNTRY	N	DIFF %	A %	B %	C %	D %	E %	F %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1193	70.2	9.7	2.4	68.3	9.7	4.2	3.0	2.5	0.3	67.5	72.5
Austria	666	67.1	11.8	1.6	66.3	11.0	3.3	4.7	1.2	0.0	67.5	66.7
Azerbaijan	895	45.9	20.5	4.7	38.5	9.4	4.4	6.2	16.2	0.0	47.8	44.5
Bahrain	730	61.4	10.2	3.7	59.9	8.5	9.2	6.0	2.4	0.0	64.7	58.1
Brazil	3222	44.4	15.1	3.9	41.1	11.6	6.9	14.0	7.5	0.1	43.5	45.3
Chile	634	55.6	13.8	3.4	50.6	13.7	3.8	5.7	8.9	0.0	49.2	61.9
Chinese Taipei	801	89.8	4.0	0.1	89.3	4.8	0.5	0.7	0.6	0.0	88.9	90.6
Cyprus	599	45.9	18.8	5.1	43.8	11.5	5.9	10.3	4.5	0.0	47.1	44.8
Czech Republic	1153	76.5	7.9	3.3	75.1	5.6	5.1	1.2	1.9	0.0	75.6	77.4
England	596	74.2	7.2	2.0	73.3	7.4	4.1	4.7	1.3	0.0	70.9	78.1
Finland	842	57.6	17.6	2.9	56.4	12.0	5.3	3.7	1.9	0.2	55.3	60.1
France	637	47.7	16.1	3.8	44.7	12.1	9.0	8.1	6.2	0.0	44.5	50.4
Georgia	692	52.5	10.6	4.1	48.9	16.1	4.9	8.6	6.8	0.0	55.9	49.5
Hong Kong SAR	635	75.5	8.9	1.8	74.6	8.3	2.7	2.6	0.9	0.2	70.8	79.7
Hungary	774	65.8	14.0	2.3	65.3	11.8	2.4	3.5	0.8	0.0	67.8	63.8
Ireland	732	72.5	12.7	2.2	70.8	5.5	3.1	3.3	2.2	0.0	73.0	72.0
Israel	745	60.4	13.2	3.5	58.3	8.3	6.7	6.5	3.4	0.2	62.3	58.6
Italy	655	71.1	10.1	1.2	69.7	8.5	4.0	4.6	1.9	0.0	69.1	73.0
Japan	573	87.8	5.0	0.2	87.4	3.6	2.1	1.3	0.4	0.0	86.8	88.8
Jordan	1008	48.6	13.6	6.0	44.3	7.9	12.2	7.2	8.9	0.0	49.2	48.1
Kazakhstan	901	40.0	17.2	11.8	37.8	15.4	3.5	8.9	5.5	0.0	37.8	41.9
Korea, Rep. of	606	81.1	8.2	2.1	80.2	4.8	1.9	1.5	1.2	0.0	81.6	80.8
Lithuania	775	65.3	4.8	3.4	64.3	17.0	5.1	3.8	1.5	0.0	64.5	66.0
Malaysia	1254	58.1	9.0	7.7	57.4	7.0	8.5	9.3	1.2	0.1	59.3	56.7
Malta	562	77.6	6.9	1.5	76.1	4.9	5.7	3.0	1.9	0.0	80.7	74.4
Morocco	1239	27.4	10.8	10.6	23.0	12.2	13.5	13.8	15.8	0.3	25.6	29.2
New Zealand	571	61.1	13.1	2.8	57.8	10.1	4.2	6.6	5.3	0.1	63.2	59.5
Norway (9)	901	59.9	15.8	3.6	57.3	9.7	4.0	5.2	4.0	0.4	56.8	62.8
Oman	1180	67.1	9.3	3.2	63.0	7.9	6.3	4.1	6.1	0.0	72.4	61.6
Palestinian Nat'l Auth.	924	43.0	10.8	7.4	39.1	11.4	12.4	9.8	9.1	0.1	45.7	40.2
Portugal	770	56.1	16.0	2.4	55.1	11.6	5.9	7.1	1.8	0.0	54.1	58.1
Qatar	611	70.9	5.3	4.0	69.4	9.6	5.5	4.0	2.1	0.0	68.7	72.9
Romania	517	56.8	14.5	2.9	51.6	10.5	5.5	5.8	8.0	1.2	55.2	58.4
Saudi Arabia	835	64.2	7.6	3.9	62.4	4.8	9.2	9.2	2.9	0.0	64.9	63.6
Singapore	689	88.2	2.5	1.0	88.2	2.1	3.9	2.2	0.0	0.0	87.0	89.3
Sweden	720	69.1	9.6	2.3	67.5	7.7	5.2	5.3	2.3	0.1	69.6	68.7
Turkiye	711	41.7	21.8	0.9	39.6	18.3	8.7	5.6	5.0	0.0	39.8	43.7
United Arab Emirates	4674	67.7	8.0	3.9	66.1	5.1	7.7	6.8	2.3	0.1	68.5	67.0
United States	1147	66.0	12.3	3.1	65.0	7.1	4.9	6.1	0.9	0.5	64.8	67.1
Uzbekistan	619	40.8	11.7	4.5	30.3	9.6	10.5	7.6	25.8	0.0	43.9	38.2
International Avg. (40)	37988	61.8	11.4	3.5	59.4	9.4	5.8	5.8	4.6	0.1	61.5	62.1
Abu Dhabi, UAE	1723	57.0	9.8	5.4	55.5	6.7	8.6	11.3	2.5	0.2	58.9	55.0
Dubai, UAE	1155	82.0	4.7	1.7	80.5	3.6	5.0	2.8	1.8	0.0	79.4	84.4
Sharjah, UAE	921	72.4	8.4	2.6	70.9	4.2	6.9	4.9	2.1	0.0	75.0	69.9

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Biology / Applying

B_SM3_02 SE72440: Inherited and acquired traits (bird) - CR - 1 Point

COUNTRY	N	DIFF %	10 %	70 %	71 %	79 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1192	55.0	54.3	5.1	3.2	36.0	54.3	44.3	1.2	0.3	54.5	55.4
Austria	666	67.3	66.7	4.9	4.1	23.5	66.7	32.5	0.8	0.0	70.9	63.7
Azerbaijan	895	49.3	45.9	6.1	4.8	36.3	45.9	47.2	6.7	0.1	52.5	46.5
Bahrain	732	37.8	37.3	10.6	10.6	40.1	37.3	61.4	1.4	0.0	42.2	33.4
Brazil	3222	35.6	34.7	10.3	6.2	46.3	34.7	62.9	2.3	0.1	33.4	37.8
Chile	634	47.1	45.2	8.6	5.9	36.2	45.2	50.7	4.1	0.0	42.5	52.0
Chinese Taipei	801	84.6	84.6	3.3	2.8	9.3	84.6	15.4	0.0	0.0	87.4	82.1
Cyprus	599	45.4	44.6	6.7	10.0	36.8	44.6	53.5	1.9	0.0	51.6	39.2
Czech Republic	1153	69.4	69.2	3.9	2.2	24.4	69.2	30.5	0.4	0.0	67.3	71.4
England	596	61.6	60.5	5.1	2.9	29.7	60.5	37.7	1.8	0.0	61.0	62.3
Finland	842	76.7	75.1	4.4	3.4	15.1	75.1	22.9	1.8	0.2	79.5	73.7
France	637	41.0	40.2	8.3	5.2	44.4	40.2	57.9	2.0	0.0	36.4	45.0
Georgia	692	72.0	71.0	6.4	3.8	17.4	71.0	27.6	1.4	0.0	79.3	65.7
Hong Kong SAR	635	63.8	63.3	4.6	4.8	26.6	63.3	36.0	0.4	0.2	67.1	60.7
Hungary	774	82.3	82.3	5.0	3.6	9.1	82.3	17.7	0.0	0.0	85.3	79.3
Ireland	732	53.6	53.2	5.6	4.9	35.6	53.2	46.1	0.7	0.0	53.1	54.0
Israel	745	58.3	56.9	6.7	8.0	25.9	56.9	40.7	2.2	0.2	57.4	59.2
Italy	655	56.4	55.7	3.7	5.9	33.5	55.7	43.1	1.2	0.0	51.5	61.1
Japan	573	63.8	63.6	6.8	6.5	22.7	63.6	36.0	0.4	0.0	59.3	68.2
Jordan	1008	41.6	41.3	10.4	7.3	40.2	41.3	58.0	0.7	0.0	45.3	38.2
Kazakhstan	901	40.0	39.5	10.2	8.2	40.9	39.5	59.3	1.2	0.0	41.1	39.0
Korea, Rep. of	606	71.7	71.4	4.3	3.2	20.6	71.4	28.2	0.4	0.0	76.1	67.8
Lithuania	775	82.0	81.2	3.4	7.6	6.8	81.2	17.8	1.1	0.0	85.0	79.1
Malaysia	1254	10.4	10.3	11.2	6.8	71.3	10.3	89.3	0.3	0.1	10.5	10.2
Malta	562	45.6	44.7	7.0	4.9	41.4	44.7	53.3	2.0	0.0	46.8	44.3
Morocco	1239	17.6	16.4	10.9	11.7	54.4	16.4	77.0	6.2	0.4	18.3	16.8
New Zealand	571	55.0	53.5	5.2	5.6	33.1	53.5	43.9	2.1	0.5	51.5	57.6
Norway (9)	901	55.0	52.8	6.4	3.2	33.6	52.8	43.2	3.4	0.6	60.9	50.0
Oman	116	42.9	41.4	10.1	5.5	39.5	41.4	55.1	3.5	0.0	39.9	45.6
Palestinian Nat'l Auth.	924	23.6	23.3	12.2	7.4	55.5	23.3	75.1	1.5	0.1	26.8	20.4
Portugal	770	43.3	42.5	8.1	4.9	42.7	42.5	55.7	1.8	0.0	40.4	46.2
Qatar	611	40.1	39.9	12.3	4.2	43.0	39.9	59.5	0.5	0.0	40.7	39.7
Romania	517	44.8	43.6	9.0	4.0	40.8	43.6	53.8	1.5	1.2	47.6	41.9
Saudi Arabia	835	39.2	39.0	14.8	7.8	38.0	39.0	60.6	0.4	0.0	40.4	38.0
Singapore	689	43.7	43.7	5.5	3.7	47.0	43.7	56.2	0.1	0.0	46.8	41.1
Sweden	720	77.6	76.4	7.0	3.9	11.1	76.4	22.1	1.4	0.1	82.2	73.6
Turkiye	711	59.3	57.9	4.7	4.0	31.0	57.9	39.8	2.3	0.0	59.6	59.0
United Arab Emirates	4675	44.5	44.1	7.9	7.4	39.7	44.1	55.0	0.7	0.1	46.2	42.8
United States	1147	51.8	51.4	5.5	4.3	38.1	51.4	47.9	0.2	0.5	54.0	49.5
Uzbekistan	619	45.9	45.0	10.1	10.7	32.2	45.0	53.0	1.8	0.2	46.4	45.4
International Avg. (40)	36926	52.4	51.6	7.3	5.6	33.8	51.6	46.7	1.6	0.1	53.5	51.4
Abu Dhabi, UAE	1723	36.5	36.0	7.1	8.7	46.9	36.0	62.7	1.1	0.2	38.9	34.1
Dubai, UAE	1155	58.3	57.9	5.7	5.2	30.6	57.9	41.5	0.7	0.0	58.0	58.4
Sharjah, UAE	922	45.1	44.9	8.0	7.8	38.9	44.9	54.7	0.4	0.0	48.2	42.0

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Biology / Applying

B_SM3_03 SE72032: Tube with materials for cellular respiration - MC - Key: C

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1193	44.1	31.3	18.0	43.6	6.0	0.8	0.3	42.9	45.2
Austria	666	40.2	33.6	19.0	39.7	6.3	1.4	0.0	39.3	41.2
Azerbaijan	895	46.7	23.2	18.8	45.3	9.8	2.9	0.1	49.0	44.8
Bahrain	732	38.7	28.9	23.2	38.4	8.6	0.9	0.0	36.2	41.2
Brazil	3222	40.2	30.2	18.8	39.6	9.8	1.5	0.1	39.9	40.5
Chile	634	41.2	37.1	15.5	39.7	4.1	3.6	0.0	37.9	44.6
Chinese Taipei	801	66.4	25.1	5.4	66.4	3.0	0.0	0.0	62.1	70.1
Cyprus	599	44.8	34.4	14.7	44.6	5.8	0.5	0.0	41.4	48.0
Czech Republic	1153	46.8	22.3	17.0	46.4	13.5	0.8	0.0	45.7	47.8
England	596	52.4	34.7	8.8	51.6	3.3	1.5	0.0	51.4	53.7
Finland	842	36.6	23.2	23.8	36.0	15.5	1.3	0.2	37.3	35.9
France	637	42.7	36.9	12.7	42.2	7.0	1.2	0.0	37.8	46.9
Georgia	692	45.0	32.0	16.4	44.1	5.4	2.1	0.0	46.8	43.5
Hong Kong SAR	635	65.4	18.5	9.5	64.8	6.3	0.8	0.2	61.9	68.6
Hungary	774	57.2	12.5	16.1	56.9	14.0	0.4	0.0	52.3	62.0
Ireland	732	49.7	33.3	10.5	48.9	5.6	1.7	0.0	48.0	51.2
Israel	745	38.8	36.6	16.4	38.0	7.0	1.8	0.2	38.2	39.4
Italy	655	51.3	27.7	13.8	51.1	7.0	0.4	0.0	47.7	54.7
Japan	573	75.4	15.2	4.8	75.2	4.7	0.2	0.0	71.1	79.5
Jordan	1008	29.5	36.3	23.0	29.5	11.2	0.1	0.0	27.8	31.1
Kazakhstan	901	46.6	29.6	15.9	46.0	7.3	1.1	0.0	47.1	46.1
Korea, Rep. of	606	60.6	29.0	7.4	60.4	2.8	0.4	0.0	60.1	61.1
Lithuania	775	49.5	31.7	13.7	49.3	4.7	0.6	0.0	47.3	51.7
Malaysia	1254	38.7	34.1	19.8	38.7	7.2	0.1	0.1	35.4	42.5
Malta	562	45.8	28.1	17.9	45.3	7.5	1.2	0.0	45.4	46.2
Morocco	1239	33.3	20.6	30.1	33.0	15.4	0.6	0.4	29.7	37.1
New Zealand	571	45.0	29.6	19.9	44.1	4.3	1.6	0.6	42.9	46.7
Norway (9)	901	44.4	37.5	13.3	43.6	3.8	1.0	0.8	41.5	46.9
Oman	1180	47.9	29.5	15.6	47.8	6.7	0.3	0.0	51.0	45.0
Palestinian Nat'l Auth.	924	35.4	27.5	25.3	35.2	11.3	0.7	0.1	35.3	35.6
Portugal	770	53.6	27.2	11.8	53.6	7.4	0.0	0.0	54.8	52.4
Qatar	611	45.9	31.2	15.9	45.5	6.6	0.7	0.0	51.0	41.5
Romania	517	46.3	25.3	16.1	45.7	11.6	0.0	1.2	44.0	48.5
Saudi Arabia	835	29.5	35.4	26.1	29.4	8.7	0.3	0.0	31.8	27.4
Singapore	689	72.3	15.9	6.3	72.1	5.6	0.1	0.0	71.5	72.9
Sweden	720	45.1	39.1	11.5	44.4	3.4	1.4	0.1	38.0	51.4
Turkiye	711	46.7	22.2	13.5	45.9	16.7	1.8	0.0	43.4	50.1
United Arab Emirates	4675	48.9	30.6	14.0	48.6	6.1	0.5	0.2	46.0	51.7
United States	1147	46.0	33.0	15.0	45.6	5.6	0.3	0.5	44.9	47.1
Uzbekistan	619	33.8	35.7	21.1	33.4	8.6	0.9	0.2	34.4	33.2
International Avg. (40)	37991	46.7	29.1	15.9	46.2	7.6	0.9	0.1	45.3	48.1
Abu Dhabi, UAE	1723	41.5	31.6	19.1	41.3	7.6	0.2	0.2	39.1	43.9
Dubai, UAE	1155	60.3	25.3	10.0	60.0	4.3	0.5	0.0	56.7	63.5
Sharjah, UAE	922	50.9	31.4	11.2	50.4	6.0	0.9	0.1	50.3	51.5

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Reasoning

B_SM3_04 SE72031: Plant heights in woodlice habitats - MC - Key: D

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1193	18.2	23.5	21.7	35.8	18.0	0.7	0.3	16.6	19.5
Austria	666	36.1	15.8	29.5	18.0	35.7	1.1	0.0	32.7	39.3
Azerbaijan	895	14.2	30.6	35.8	16.3	13.7	3.5	0.1	12.7	15.4
Bahrain	732	40.2	16.5	22.2	20.7	39.9	0.8	0.0	47.0	33.4
Brazil	3222	22.7	23.8	35.8	17.1	22.5	0.7	0.1	23.0	22.3
Chile	634	27.9	20.6	31.5	18.4	27.2	1.9	0.3	27.7	28.0
Chinese Taipei	801	37.2	19.4	10.8	32.7	37.2	0.0	0.0	32.0	41.7
Cyprus	599	26.4	24.3	32.4	16.8	26.3	0.2	0.0	29.5	23.3
Czech Republic	1153	31.8	13.6	22.4	32.0	31.6	0.5	0.0	32.2	31.4
England	596	34.3	15.1	25.3	23.9	33.6	1.4	0.7	32.7	36.3
Finland	842	32.1	22.1	20.4	24.7	31.7	0.9	0.2	36.1	27.9
France	637	18.5	29.7	25.1	25.7	18.3	1.3	0.0	17.7	19.2
Georgia	692	25.5	25.8	25.7	22.1	25.2	1.2	0.0	32.1	19.7
Hong Kong SAR	635	48.0	13.1	14.8	23.7	47.6	0.0	0.8	43.4	52.1
Hungary	774	18.1	33.8	36.6	11.4	18.1	0.0	0.0	16.4	19.8
Ireland	732	30.4	18.5	21.3	29.4	30.3	0.5	0.0	32.0	29.0
Israel	745	35.2	17.5	26.2	20.4	34.8	1.0	0.2	35.1	35.3
Italy	655	37.4	17.0	28.3	17.1	37.3	0.3	0.0	37.9	36.8
Japan	573	49.7	7.2	9.2	33.8	49.6	0.2	0.0	47.9	51.4
Jordan	1008	24.3	27.0	26.3	22.4	24.3	0.0	0.0	27.0	21.8
Kazakhstan	901	27.8	20.3	21.8	29.5	27.5	0.8	0.0	27.7	27.8
Korea, Rep. of	606	24.3	27.3	21.8	26.3	24.2	0.4	0.0	21.1	27.2
Lithuania	733	47.0	15.6	24.3	13.0	46.9	0.1	0.0	45.6	48.4
Malaysia	1254	38.7	16.3	23.2	21.8	38.7	0.0	0.1	43.5	33.2
Malta	562	24.8	23.0	24.6	27.1	24.6	0.7	0.0	25.9	23.6
Morocco	1239	18.6	22.1	33.6	24.0	18.3	1.6	0.4	20.0	17.3
New Zealand	571	25.6	21.8	19.8	31.8	25.3	0.8	0.6	26.1	25.3
Norway (9)	901	37.7	20.1	25.8	15.2	37.0	1.0	0.8	38.2	37.3
Oman	1180	32.1	20.1	24.1	23.4	31.9	0.5	0.0	34.2	30.0
Palestinian Nat'l Auth.	924	28.1	21.7	26.9	22.6	27.8	0.8	0.1	33.9	22.3
Portugal	770	44.3	11.1	24.7	19.9	44.3	0.1	0.0	42.7	46.0
Qatar	611	37.6	18.8	25.4	18.0	37.4	0.4	0.0	40.0	35.5
Romania	517	31.2	21.7	25.6	20.6	30.8	0.0	1.2	33.4	29.1
Saudi Arabia	835	28.1	22.0	24.6	25.2	28.1	0.1	0.0	35.2	21.4
Singapore	689	69.9	5.3	11.3	13.5	69.9	0.0	0.0	70.5	69.3
Sweden	720	44.0	15.2	15.6	24.5	43.5	1.0	0.1	44.1	44.0
Turkiye	711	42.8	19.2	25.2	12.4	42.6	0.6	0.0	43.8	41.8
United Arab Emirates	4675	40.0	16.0	21.4	22.3	39.7	0.5	0.2	40.4	39.5
United States	1147	25.4	20.4	24.7	29.0	25.2	0.2	0.5	26.8	23.9
Uzbekistan	619	22.6	28.0	25.5	23.0	22.3	1.0	0.2	24.0	21.2
International Avg. (40)	37949	32.5	20.0	24.3	22.6	32.2	0.7	0.2	33.2	31.7
Abu Dhabi, UAE	1723	33.8	19.2	23.5	23.1	33.6	0.4	0.2	35.6	31.9
Dubai, UAE	1155	46.5	12.1	17.0	24.1	46.3	0.4	0.0	45.9	46.9
Sharjah, UAE	922	47.1	12.9	20.5	18.9	46.6	1.0	0.1	46.4	47.8

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Applying

B_SM3_05 SE72086: Place organisms in energy pyramid - CR - 1 Point

COUNTRY	N	DIFF %	10 %	79 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1193	80.1	79.2	19.7	79.2	19.7	0.8	0.3	73.3	85.9
Austria	666	56.2	56.2	43.7	56.2	43.7	0.1	0.0	53.4	58.9
Azerbaijan	895	41.4	39.9	56.5	39.9	56.5	3.4	0.1	33.7	47.9
Bahrain	732	59.5	59.4	40.4	59.4	40.4	0.2	0.0	52.0	66.9
Brazil	3222	51.1	50.4	48.2	50.4	48.2	1.3	0.1	41.7	60.4
Chile	634	56.8	56.0	42.5	56.0	42.5	1.1	0.3	47.0	67.2
Chinese Taipei	801	88.0	88.0	12.0	88.0	12.0	0.0	0.0	86.3	89.4
Cyprus	599	64.9	64.7	35.0	64.7	35.0	0.3	0.0	57.9	71.7
Czech Republic	1153	75.6	75.6	24.3	75.6	24.3	0.1	0.0	72.1	79.1
England	596	79.5	78.2	20.1	78.2	20.1	0.9	0.7	72.9	87.4
Finland	842	59.1	58.6	40.6	58.6	40.6	0.7	0.2	53.6	64.8
France	637	59.9	59.5	39.9	59.5	39.9	0.7	0.0	52.8	65.9
Georgia	692	48.1	47.5	51.2	47.5	51.2	1.4	0.0	43.3	52.3
Hong Kong SAR	635	73.7	72.9	26.0	72.9	26.0	0.3	0.8	70.7	76.4
Hungary	774	79.7	79.7	20.3	79.7	20.3	0.0	0.0	72.2	87.2
Ireland	732	62.6	62.1	37.2	62.1	37.2	0.7	0.0	53.2	70.8
Israel	745	65.7	65.5	34.1	65.5	34.1	0.2	0.2	60.7	70.6
Italy	655	65.8	65.8	34.2	65.8	34.2	0.0	0.0	61.1	70.2
Japan	573	82.5	82.5	17.5	82.5	17.5	0.0	0.0	75.5	89.3
Jordan	1008	52.4	52.3	47.6	52.3	47.6	0.1	0.0	46.5	57.8
Kazakhstan	901	58.6	58.3	41.3	58.3	41.3	0.2	0.1	55.3	61.3
Korea, Rep. of	606	91.7	91.5	8.3	91.5	8.3	0.2	0.0	88.7	94.4
Lithuania	775	66.6	66.5	33.3	66.5	33.3	0.1	0.0	58.6	74.4
Malaysia	1254	60.8	60.8	39.2	60.8	39.2	0.0	0.1	53.8	68.8
Malta	562	67.5	67.3	32.5	67.3	32.5	0.2	0.0	62.6	72.3
Morocco	1239	53.4	53.1	46.2	53.1	46.2	0.1	0.6	45.8	61.4
New Zealand	571	65.0	64.4	34.6	64.4	34.6	0.4	0.6	56.6	71.5
Norway (9)	901	71.8	70.9	27.8	70.9	27.8	0.4	0.8	68.6	74.7
Oman	1180	45.8	45.6	53.9	45.6	53.9	0.5	0.0	38.6	52.8
Palestinian Nat'l Auth.	924	39.7	39.6	60.1	39.6	60.1	0.2	0.1	37.1	42.2
Portugal	770	72.8	72.5	27.1	72.5	27.1	0.4	0.0	61.7	83.6
Qatar	611	67.0	66.8	33.0	66.8	33.0	0.0	0.2	60.8	72.2
Romania	516	51.8	50.2	46.6	50.2	46.6	2.0	1.2	46.2	57.4
Saudi Arabia	835	46.9	46.9	53.1	46.9	53.1	0.0	0.0	43.0	50.5
Singapore	689	80.1	80.1	19.9	80.1	19.9	0.0	0.0	74.8	84.8
Sweden	720	78.0	77.3	21.7	77.3	21.7	0.9	0.1	72.4	83.0
Turkiye	711	71.0	70.9	28.9	70.9	28.9	0.1	0.0	65.2	76.8
United Arab Emirates	4675	69.2	68.6	30.6	68.6	30.6	0.7	0.2	61.7	76.5
United States	1147	82.2	81.4	17.7	81.4	17.7	0.4	0.5	79.5	84.9
Uzbekistan	619	39.2	38.8	60.1	38.8	60.1	0.9	0.2	35.0	43.2
International Avg. (40)	37990	64.5	64.1	35.2	64.1	35.2	0.5	0.2	58.7	70.2
Abu Dhabi, UAE	1723	64.5	64.2	35.3	64.2	35.3	0.3	0.2	57.5	71.6
Dubai, UAE	1155	81.3	79.8	18.3	79.8	18.3	1.8	0.0	74.3	87.8
Sharjah, UAE	922	67.6	67.4	32.3	67.4	32.3	0.2	0.2	59.0	76.1

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Applying

B_SM3_06 SE72005: Differences between tuna and dolphins - CR - 2 Points

COUNTRY	N	DIFF %	20 %	10 %	79 %	2pt %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1193	43.1	24.1	31.0	36.8	24.1	31.0	36.8	7.8	0.3	44.2	42.0
Austria	665	38.2	16.2	36.0	37.2	16.2	36.0	37.2	10.7	0.0	42.3	34.2
Azerbaijan	895	19.4	4.9	15.0	44.3	4.9	15.0	44.3	35.7	0.1	20.3	18.5
Bahrain	732	24.0	9.6	23.9	56.0	9.6	23.9	56.0	10.6	0.0	28.7	19.2
Brazil	3222	16.4	6.5	12.8	59.9	6.5	12.8	59.9	20.6	0.1	13.9	18.6
Chile	634	18.6	6.1	17.6	56.3	6.1	17.6	56.3	19.7	0.3	14.9	22.1
Chinese Taipei	801	24.2	13.4	20.4	63.9	13.4	20.4	63.9	2.3	0.0	26.9	21.8
Cyprus	599	36.3	15.5	30.4	38.8	15.5	30.4	38.8	15.1	0.1	38.4	34.2
Czech Republic	1153	39.8	20.9	29.6	39.3	20.9	29.6	39.3	10.3	0.0	41.6	38.0
England	596	39.1	20.4	27.4	39.5	20.4	27.4	39.5	12.0	0.7	37.5	41.0
Finland	842	33.5	15.1	29.0	44.2	15.1	29.0	44.2	11.5	0.2	37.2	29.5
France	637	33.6	13.3	28.0	39.8	13.3	28.0	39.8	18.9	0.0	35.7	31.7
Georgia	692	27.2	9.2	21.3	42.5	9.2	21.3	42.5	27.0	0.0	30.7	24.0
Hong Kong SAR	635	39.4	21.3	28.0	40.3	21.3	28.0	40.3	9.6	0.8	44.8	34.1
Hungary	774	37.0	13.1	37.2	35.4	13.1	37.2	35.4	14.4	0.0	40.3	33.7
Ireland	732	34.2	16.6	30.6	46.1	16.6	30.6	46.1	6.6	0.0	35.1	33.5
Israel	745	33.3	16.8	23.5	45.5	16.8	23.5	45.5	14.1	0.2	32.8	33.8
Italy	655	41.3	16.8	36.3	31.5	16.8	36.3	31.5	15.5	0.0	42.1	40.6
Japan	573	52.1	25.8	48.0	21.7	25.8	48.0	21.7	4.5	0.0	53.1	51.2
Jordan	1008	15.5	4.1	20.1	66.9	4.1	20.1	66.9	8.9	0.0	16.2	14.9
Kazakhstan	901	21.7	11.8	12.8	59.3	11.8	12.8	59.3	15.9	0.1	23.7	19.9
Korea, Rep. of	606	33.0	18.8	23.0	50.2	18.8	23.0	50.2	8.0	0.0	34.6	31.6
Lithuania	775	39.3	20.2	25.2	38.0	20.2	25.2	38.0	16.6	0.0	43.1	35.5
Malaysia	1254	39.1	32.2	11.8	53.4	32.2	11.8	53.4	2.5	0.1	41.3	36.7
Malta	562	39.9	20.8	32.0	39.5	20.8	32.0	39.5	7.7	0.0	39.7	40.1
Morocco	1239	6.6	3.9	1.3	63.8	3.9	1.3	63.8	30.3	0.6	6.8	6.5
New Zealand	571	39.9	19.1	33.8	37.2	19.1	33.8	37.2	9.2	0.7	37.1	42.0
Norway (9)	901	36.8	17.2	29.2	40.0	17.2	29.2	40.0	12.8	0.8	35.2	38.3
Oman	1180	23.5	11.6	21.8	62.2	11.6	21.8	62.2	4.5	0.0	26.5	20.5
Palestinian Nat'l Auth.	923	13.4	4.5	14.8	69.6	4.5	14.8	69.6	11.0	0.1	17.5	9.2
Portugal	770	38.5	20.4	24.8	39.9	20.4	24.8	39.9	15.0	0.0	37.1	39.8
Qatar	610	27.5	11.7	27.4	53.3	11.7	27.4	53.3	7.3	0.2	30.9	24.6
Romania	0	.	.	.	.	.	.	.	.	.	.	.
Saudi Arabia	835	19.2	7.7	21.0	65.8	7.7	21.0	65.8	5.5	0.0	23.3	15.3
Singapore	689	66.6	53.0	26.8	19.9	53.0	26.8	19.9	0.3	0.0	65.9	67.2
Sweden	720	37.6	12.9	41.1	35.0	12.9	41.1	35.0	10.9	0.1	38.1	37.2
Turkiye	711	41.0	19.5	31.8	35.1	19.5	31.8	35.1	13.6	0.0	43.9	38.0
United Arab Emirates	4675	36.1	20.3	27.4	46.6	20.3	27.4	46.6	5.5	0.2	37.1	35.0
United States	1147	37.9	20.3	32.2	43.5	20.3	32.2	43.5	3.4	0.6	39.9	35.8
Uzbekistan	619	8.2	2.5	8.9	73.4	2.5	8.9	73.4	15.0	0.2	9.1	7.4
International Avg. (39)	37471	32.1	15.9	25.5	46.4	15.9	25.5	46.4	12.1	0.2	33.5	30.7
Abu Dhabi, UAE	1723	26.7	14.1	21.9	57.9	14.1	21.9	57.9	5.9	0.2	27.4	25.9
Dubai, UAE	1155	49.8	30.5	32.9	30.8	30.5	32.9	30.8	5.8	0.0	49.8	49.9
Sharjah, UAE	922	40.0	23.1	29.8	42.1	23.1	29.8	42.1	4.7	0.3	42.7	37.4

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Chemistry / Reasoning

B_SM3_08 SE72123: Properties of liquid in thermometer - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1193	70.2	10.9	69.3	8.3	10.1	1.0	0.3	68.8	71.4
Austria	666	60.0	16.8	59.9	10.5	12.6	0.2	0.0	58.9	61.1
Azerbaijan	895	69.3	11.0	68.1	12.3	6.8	1.8	0.1	67.4	71.0
Bahrain	732	61.4	16.1	61.1	9.1	13.2	0.5	0.0	64.3	58.5
Brazil	3222	58.4	15.2	57.6	11.6	14.2	1.1	0.2	60.1	56.7
Chile	634	66.4	11.8	64.0	11.5	9.0	3.1	0.5	64.7	68.2
Chinese Taipei	801	80.4	11.9	80.4	3.6	4.0	0.0	0.0	77.7	82.8
Cyprus	599	57.0	16.1	56.5	12.5	13.9	0.5	0.5	55.3	58.8
Czech Republic	1153	76.4	12.6	76.1	5.7	5.2	0.4	0.0	73.8	78.9
England	596	64.9	16.5	64.1	9.2	9.0	0.4	0.8	64.7	65.2
Finland	842	66.3	20.4	65.7	6.1	6.9	0.7	0.2	67.8	64.8
France	637	54.0	22.2	53.4	7.0	16.2	1.1	0.0	56.0	52.5
Georgia	692	62.4	14.5	61.6	9.4	13.3	1.0	0.3	61.8	62.8
Hong Kong SAR	635	65.1	19.2	64.6	6.2	9.2	0.0	0.8	62.3	67.6
Hungary	774	69.3	19.5	69.3	6.2	5.0	0.0	0.0	70.0	68.6
Ireland	732	61.4	18.1	61.1	9.0	11.3	0.5	0.0	59.1	63.4
Israel	745	54.2	19.6	53.5	12.9	12.6	1.2	0.2	58.1	50.6
Italy	655	75.8	6.9	75.5	7.2	10.1	0.3	0.0	77.2	74.3
Japan	573	65.5	18.2	65.4	8.2	8.0	0.2	0.0	59.0	71.8
Jordan	1008	64.8	13.7	64.6	8.6	12.9	0.1	0.1	67.6	62.2
Kazakhstan	901	46.9	30.5	46.1	11.7	9.9	1.6	0.1	45.3	48.3
Korea, Rep. of	606	61.7	14.6	61.4	11.0	12.5	0.4	0.0	57.9	65.0
Lithuania	775	64.6	17.4	64.5	8.4	9.5	0.2	0.0	64.0	65.3
Malaysia	1254	39.5	30.9	39.4	8.7	20.9	0.1	0.1	37.7	41.4
Malta	562	60.2	17.5	59.6	10.8	11.1	0.7	0.3	59.4	61.0
Morocco	1239	43.9	21.4	43.2	18.8	15.0	1.0	0.6	45.2	42.5
New Zealand	571	61.2	13.3	60.2	11.5	13.4	0.7	1.0	58.7	63.2
Norway (9)	901	56.8	26.8	56.0	6.0	9.9	0.4	0.9	58.9	54.9
Oman	1180	58.3	17.7	58.0	10.1	13.7	0.5	0.0	58.1	58.4
Palestinian Nat'l Auth.	924	63.3	11.3	62.8	13.3	11.8	0.7	0.1	67.8	58.7
Portugal	769	68.1	12.2	68.0	9.4	10.2	0.3	0.0	66.6	69.6
Qatar	611	52.7	20.4	51.9	7.5	18.7	1.2	0.2	56.5	49.3
Romania	517	64.0	15.3	63.2	7.6	12.8	0.0	1.2	63.1	64.8
Saudi Arabia	835	61.5	14.8	61.5	9.0	14.7	0.0	0.0	65.0	58.2
Singapore	689	76.0	13.3	75.8	4.4	6.2	0.1	0.1	76.0	76.0
Sweden	720	53.5	25.3	52.9	9.9	10.6	1.2	0.1	49.2	57.2
Turkiye	711	44.2	33.5	43.7	9.4	12.2	1.2	0.0	44.4	44.1
United Arab Emirates	4675	66.5	13.6	66.1	9.7	10.0	0.3	0.3	66.6	66.4
United States	1147	58.9	15.5	58.3	12.0	13.1	0.1	1.0	60.4	57.3
Uzbekistan	619	67.1	14.0	66.2	9.8	8.6	1.1	0.3	65.5	68.8
International Avg. (40)	37990	61.8	17.3	61.3	9.4	11.2	0.6	0.3	61.5	62.1
Abu Dhabi, UAE	1723	56.6	16.7	56.3	13.8	12.6	0.2	0.4	57.6	55.6
Dubai, UAE	1155	73.7	11.7	73.3	6.9	7.7	0.4	0.0	73.5	73.7
Sharjah, UAE	922	71.1	11.1	70.5	8.3	9.2	0.6	0.3	68.9	73.3

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Chemistry / Knowing

B_SM3_09 SE72116: Elements in Group 7 - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1193	59.0	58.4	13.6	15.5	11.4	0.7	0.3	63.0	55.5
Austria	666	28.6	28.4	9.2	49.3	12.3	0.8	0.0	31.6	25.8
Azerbaijan	895	37.4	35.8	22.4	21.3	16.2	4.1	0.2	40.4	34.9
Bahrain	732	39.6	39.4	18.9	21.5	19.5	0.6	0.0	45.0	34.3
Brazil	3222	47.9	47.0	26.7	13.7	10.6	1.6	0.3	47.2	48.6
Chile	634	55.5	53.3	15.1	16.5	11.2	3.5	0.5	57.6	53.3
Chinese Taipei	801	71.1	71.1	8.2	11.5	9.3	0.0	0.0	71.6	70.6
Cyprus	599	48.2	47.9	15.8	21.6	14.0	0.2	0.5	52.4	44.2
Czech Republic	1153	47.9	47.8	7.6	33.6	10.8	0.2	0.0	49.3	46.6
England	596	49.6	49.0	12.8	20.1	16.9	0.4	0.8	48.9	50.4
Finland	842	31.9	31.6	6.1	52.8	8.7	0.6	0.2	31.2	32.5
France	637	44.7	43.8	18.8	16.1	19.2	2.1	0.0	45.8	43.9
Georgia	692	41.7	41.0	13.9	26.9	16.4	1.5	0.3	40.0	43.2
Hong Kong SAR	635	53.6	52.9	16.5	14.0	15.2	0.7	0.8	54.3	53.1
Hungary	774	43.7	43.7	8.9	39.4	8.1	0.0	0.0	47.8	39.6
Ireland	732	41.2	41.0	14.0	25.4	19.0	0.6	0.0	41.3	41.2
Israel	745	58.3	57.7	17.9	16.1	7.2	0.8	0.3	60.9	55.9
Italy	655	45.8	45.1	13.1	20.6	19.8	1.4	0.0	44.4	47.1
Japan	573	51.0	50.9	15.8	13.5	19.6	0.2	0.0	52.6	49.5
Jordan	1008	37.4	37.1	25.3	19.5	17.2	0.6	0.2	39.0	36.0
Kazakhstan	901	50.2	49.9	15.8	22.1	11.5	0.5	0.1	50.4	50.1
Korea, Rep. of	606	39.1	39.0	14.0	21.0	25.8	0.2	0.0	34.3	43.3
Lithuania	775	51.5	51.4	10.8	27.1	10.6	0.1	0.0	54.4	48.7
Malaysia	1254	36.5	36.4	21.1	18.6	23.7	0.1	0.1	37.4	35.4
Malta	562	52.7	52.0	14.0	18.3	14.4	1.1	0.3	53.8	51.6
Morocco	1239	27.0	26.2	31.8	25.4	13.6	2.3	0.7	30.7	23.1
New Zealand	571	56.2	55.3	14.2	13.2	15.6	0.7	1.0	55.4	56.8
Norway (9)	901	28.7	28.3	13.4	40.9	15.9	0.5	0.9	28.9	28.5
Oman	1180	43.4	43.1	20.9	21.4	13.9	0.6	0.0	47.5	39.5
Palestinian Nat'l Auth.	924	43.1	42.8	18.2	26.7	11.7	0.5	0.1	49.5	36.6
Portugal	770	47.4	47.2	12.9	26.9	12.5	0.4	0.0	51.1	43.9
Qatar	611	51.1	50.5	15.3	18.0	14.9	1.1	0.2	51.5	50.8
Romania	517	41.5	41.0	8.5	33.1	16.2	0.0	1.2	44.1	38.9
Saudi Arabia	835	42.7	42.6	26.7	16.8	13.7	0.2	0.0	44.8	40.6
Singapore	689	60.9	60.8	15.6	13.1	10.4	0.0	0.1	58.3	63.1
Sweden	720	37.3	36.8	14.3	33.2	14.5	1.1	0.1	39.3	35.4
Turkiye	711	69.6	69.2	13.4	8.7	8.0	0.7	0.0	74.0	65.3
United Arab Emirates	4674	51.9	51.5	13.8	19.5	14.3	0.6	0.3	51.2	52.6
United States	1147	57.5	56.8	13.8	19.0	9.1	0.3	1.1	59.1	55.9
Uzbekistan	619	47.6	46.9	14.0	20.1	17.6	1.1	0.3	50.5	44.7
International Avg. (40)	37990	46.8	46.3	15.6	22.8	14.3	0.8	0.3	48.3	45.3
Abu Dhabi, UAE	1723	44.4	44.1	19.2	19.6	16.4	0.3	0.4	44.4	44.3
Dubai, UAE	1155	62.1	61.7	8.8	17.5	11.4	0.5	0.0	62.2	61.8
Sharjah, UAE	921	55.6	54.8	12.3	17.9	13.6	0.8	0.5	51.0	60.2

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Chemistry / Applying

B_SM3_10 SE72920: Burn rates for different logs - CR - 2 Points

COUNTRY	N	DIFF %	20 %	10 %	79 %	2pt %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1193	38.9	8.4	60.3	30.4	8.4	60.3	30.4	0.6	0.3	40.9	37.1
Austria	665	33.7	7.9	51.0	40.3	7.9	51.0	40.3	0.8	0.0	36.4	31.0
Azerbaijan	895	14.3	0.6	26.8	70.3	0.6	26.8	70.3	2.1	0.2	15.0	13.8
Bahrain	732	30.0	5.3	49.3	45.3	5.3	49.3	45.3	0.1	0.0	34.9	25.1
Brazil	3222	25.9	2.7	45.8	50.3	2.7	45.8	50.3	0.9	0.4	26.9	24.9
Chile	634	32.4	3.3	57.0	38.0	3.3	57.0	38.0	1.2	0.5	32.6	32.1
Chinese Taipei	800	72.2	66.7	11.1	22.2	66.7	11.1	22.2	0.0	0.0	74.5	70.2
Cyprus	599	32.2	3.9	56.2	39.3	3.9	56.2	39.3	0.1	0.5	34.7	29.7
Czech Republic	1153	34.6	6.2	56.8	36.9	6.2	56.8	36.9	0.1	0.0	36.2	33.1
England	596	32.2	9.8	44.1	45.0	9.8	44.1	45.0	0.3	0.8	31.1	33.5
Finland	842	38.0	11.4	52.6	35.2	11.4	52.6	35.2	0.6	0.2	40.0	35.8
France	637	31.7	1.9	59.4	38.2	1.9	59.4	38.2	0.5	0.0	33.0	30.6
Georgia	692	25.2	2.1	46.0	51.6	2.1	46.0	51.6	0.1	0.3	29.8	21.2
Hong Kong SAR	635	36.7	17.9	36.8	44.3	17.9	36.8	44.3	0.2	0.8	36.2	37.2
Hungary	774	24.4	6.0	36.6	57.2	6.0	36.6	57.2	0.2	0.0	25.6	23.2
Ireland	732	39.6	10.3	58.6	31.0	10.3	58.6	31.0	0.1	0.0	41.0	38.4
Israel	745	30.2	5.6	48.8	44.9	5.6	48.8	44.9	0.4	0.4	31.5	28.9
Italy	654	29.3	1.3	55.0	41.9	1.3	55.0	41.9	0.8	1.1	30.8	28.0
Japan	573	41.8	17.1	48.7	33.5	17.1	48.7	33.5	0.7	0.0	41.5	42.0
Jordan	1008	22.2	2.4	39.5	57.6	2.4	39.5	57.6	0.1	0.4	25.4	19.3
Kazakhstan	901	22.8	3.3	38.6	57.0	3.3	38.6	57.0	0.9	0.1	22.8	22.9
Korea, Rep. of	606	33.5	11.2	44.6	44.0	11.2	44.6	44.0	0.2	0.0	34.3	32.9
Lithuania	775	32.2	7.1	49.9	42.6	7.1	49.9	42.6	0.4	0.0	33.5	31.0
Malaysia	1254	31.0	2.6	56.7	40.7	2.6	56.7	40.7	0.0	0.1	32.6	29.0
Malta	562	38.8	9.3	58.6	31.6	9.3	58.6	31.6	0.0	0.5	41.0	36.6
Morocco	1239	5.8	0.1	11.1	86.9	0.1	11.1	86.9	0.5	1.3	7.6	3.9
New Zealand	570	39.0	9.8	57.5	31.6	9.8	57.5	31.6	0.0	1.0	40.1	38.1
Norway (9)	901	27.8	9.2	36.4	53.1	9.2	36.4	53.1	0.4	0.9	30.8	25.1
Oman	1180	26.8	1.8	49.8	48.1	1.8	49.8	48.1	0.0	0.2	32.0	21.8
Palestinian Nat'l Auth.	923	18.1	2.6	30.9	66.3	2.6	30.9	66.3	0.1	0.1	21.4	14.8
Portugal	770	33.2	6.0	54.3	39.5	6.0	54.3	39.5	0.2	0.0	32.0	34.4
Qatar	611	24.4	4.0	40.8	55.0	4.0	40.8	55.0	0.1	0.2	27.0	22.3
Romania	517	27.0	3.3	46.7	48.8	3.3	46.7	48.8	0.0	1.2	23.9	30.1
Saudi Arabia	835	22.3	1.3	42.0	56.5	1.3	42.0	56.5	0.2	0.0	26.3	18.6
Singapore	689	64.7	52.3	24.6	23.0	52.3	24.6	23.0	0.0	0.1	65.8	63.8
Sweden	720	39.6	17.8	43.0	38.4	17.8	43.0	38.4	0.7	0.1	40.9	38.5
Turkiye	711	39.5	5.9	66.9	26.8	5.9	66.9	26.8	0.4	0.0	39.9	39.1
United Arab Emirates	4674	26.3	9.4	33.3	56.5	9.4	33.3	56.5	0.4	0.4	27.7	24.8
United States	1147	39.9	6.1	66.4	26.1	6.1	66.4	26.1	0.3	1.1	39.0	40.7
Uzbekistan	619	16.5	0.6	31.3	66.6	0.6	31.3	66.6	1.3	0.3	17.0	16.1
International Avg. (40)	37985	31.9	8.9	45.6	44.8	8.9	45.6	44.8	0.4	0.3	33.3	30.5
Abu Dhabi, UAE	1723	21.5	5.6	31.4	62.1	5.6	31.4	62.1	0.5	0.4	23.3	19.7
Dubai, UAE	1155	31.4	14.2	34.2	51.2	14.2	34.2	51.2	0.5	0.0	31.9	31.0
Sharjah, UAE	921	29.6	11.4	35.9	51.9	11.4	35.9	51.9	0.1	0.6	30.7	28.5

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Physics / Applying

B_SM3_11 SE72294: How parachute slows Skydiver B's fall - CR - 1 Point

COUNTRY	N	DIFF %	10 %	79 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1193	60.7	58.4	37.9	58.4	37.9	3.4	0.3	60.5	60.7
Austria	666	51.3	48.7	46.2	48.7	46.2	4.9	0.2	51.1	51.5
Azerbaijan	895	14.2	10.6	63.8	10.6	63.8	25.4	0.2	15.0	13.7
Bahrain	732	28.2	26.5	67.5	26.5	67.5	6.0	0.0	25.7	30.7
Brazil	3222	44.0	38.3	48.8	38.3	48.8	12.5	0.4	40.0	47.8
Chile	634	25.1	22.1	66.1	22.1	66.1	11.2	0.5	18.9	31.1
Chinese Taipei	801	48.8	48.1	50.4	48.1	50.4	1.5	0.0	41.1	55.6
Cyprus	599	34.0	30.1	58.4	30.1	58.4	11.0	0.5	28.7	39.3
Czech Republic	1153	48.6	46.6	49.4	46.6	49.4	4.0	0.0	50.6	46.6
England	596	62.3	60.2	36.4	60.2	36.4	2.4	1.0	61.9	62.8
Finland	842	71.6	68.7	27.2	68.7	27.2	3.9	0.2	70.7	72.6
France	637	52.8	49.1	43.9	49.1	43.9	7.0	0.0	54.0	51.8
Georgia	692	30.1	25.9	60.3	25.9	60.3	13.5	0.3	26.6	32.9
Hong Kong SAR	635	39.5	37.3	57.2	37.3	57.2	4.8	0.8	41.5	37.7
Hungary	774	52.8	49.6	44.3	49.6	44.3	6.1	0.0	53.5	52.2
Ireland	732	60.5	58.4	38.2	58.4	38.2	3.4	0.0	61.8	59.4
Israel	745	44.8	41.7	51.4	41.7	51.4	6.5	0.4	41.9	47.4
Italy	655	39.6	36.5	55.7	36.5	55.7	6.7	1.1	39.1	40.0
Japan	573	70.0	68.1	29.2	68.1	29.2	2.7	0.0	62.9	76.8
Jordan	1008	20.9	19.9	75.2	19.9	75.2	4.6	0.4	15.8	25.7
Kazakhstan	900	37.1	34.3	58.2	34.3	58.2	7.2	0.3	34.1	39.7
Korea, Rep. of	606	51.1	49.0	46.9	49.0	46.9	4.1	0.0	41.9	59.3
Lithuania	775	52.2	48.3	44.1	48.3	44.1	7.6	0.0	50.1	54.2
Malaysia	1254	20.3	20.0	78.7	20.0	78.7	1.2	0.1	19.2	21.6
Malta	562	57.1	54.3	40.9	54.3	40.9	4.2	0.5	55.4	58.8
Morocco	1239	9.7	7.6	70.8	7.6	70.8	20.2	1.3	8.7	10.6
New Zealand	571	57.6	54.6	40.2	54.6	40.2	4.2	1.0	57.1	58.0
Norway (9)	901	56.9	53.3	40.4	53.3	40.4	5.4	0.9	59.7	54.4
Oman	1180	30.6	29.6	67.2	29.6	67.2	3.0	0.2	33.3	28.0
Palestinian Nat'l Auth.	923	14.0	13.4	82.0	13.4	82.0	4.6	0.1	13.7	14.3
Portugal	770	45.1	42.4	51.6	42.4	51.6	5.9	0.0	41.9	48.1
Qatar	611	36.5	34.7	60.4	34.7	60.4	4.7	0.2	32.9	39.8
Romania	517	31.7	28.9	62.2	28.9	62.2	7.8	1.2	29.1	34.2
Saudi Arabia	835	17.8	17.4	80.5	17.4	80.5	2.1	0.0	18.4	17.2
Singapore	689	68.4	68.1	31.5	68.1	31.5	0.3	0.1	62.8	73.3
Sweden	720	62.3	58.5	35.5	58.5	35.5	5.9	0.1	65.6	59.3
Turkiye	711	49.8	47.0	47.4	47.0	47.4	5.6	0.0	46.4	53.2
United Arab Emirates	4675	33.1	32.0	64.6	32.0	64.6	3.0	0.4	31.2	35.1
United States	1147	58.6	57.6	40.6	57.6	40.6	0.5	1.3	58.7	58.6
Uzbekistan	619	22.9	21.5	72.5	21.5	72.5	5.6	0.5	20.2	25.5
International Avg. (40)	37989	42.8	40.4	53.1	40.4	53.1	6.1	0.4	41.0	44.5
Abu Dhabi, UAE	1723	26.3	25.0	70.0	25.0	70.0	4.7	0.4	25.0	27.6
Dubai, UAE	1155	50.6	49.4	48.3	49.4	48.3	2.2	0.0	46.2	54.7
Sharjah, UAE	922	30.6	29.9	67.8	29.9	67.8	1.7	0.6	31.6	29.6

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Reasoning

B_SM3_12 SE72231: Experimental set up to test how quickly bars conduct heat - MC - Key: C

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1193	52.8	10.0	22.2	51.7	14.1	1.6	0.3	48.6	56.3
Austria	666	52.1	6.2	20.4	50.8	20.1	2.0	0.6	52.6	51.7
Azerbaijan	895	31.2	19.0	31.9	28.1	11.1	9.3	0.5	32.6	30.0
Bahrain	732	36.3	15.2	29.7	35.9	18.2	0.8	0.2	34.9	37.6
Brazil	3222	34.1	18.7	30.5	32.9	14.3	2.7	0.8	33.6	34.6
Chile	634	39.2	18.4	26.4	36.9	12.3	5.5	0.5	35.2	43.3
Chinese Taipei	801	32.1	8.6	18.1	32.1	41.2	0.0	0.0	34.5	30.0
Cyprus	599	53.5	10.0	19.1	52.4	16.5	0.8	1.1	54.4	52.5
Czech Republic	1153	46.1	11.8	17.2	45.3	24.1	1.5	0.0	46.7	45.4
England	596	58.8	6.4	20.5	57.0	13.0	2.1	1.0	55.2	63.1
Finland	842	55.0	7.4	20.4	53.6	16.1	2.3	0.2	58.0	51.8
France	637	45.9	13.5	22.9	44.4	16.0	3.2	0.0	45.2	46.6
Georgia	692	40.2	17.9	25.9	38.1	13.0	4.7	0.5	43.0	37.7
Hong Kong SAR	635	53.1	9.3	22.3	52.3	14.6	0.8	0.8	52.1	54.0
Hungary	774	53.2	7.4	24.5	53.1	14.8	0.2	0.0	51.0	55.4
Ireland	732	61.1	8.3	16.6	59.9	13.4	1.9	0.0	57.3	64.4
Israel	745	48.7	12.4	22.8	47.8	15.2	1.5	0.4	44.4	52.9
Italy	655	35.6	11.2	24.7	34.9	27.3	0.8	1.1	37.3	33.9
Japan	573	75.6	3.9	9.5	75.2	10.9	0.5	0.0	78.3	73.0
Jordan	1008	32.3	19.3	33.8	31.8	13.7	1.0	0.5	29.9	34.4
Kazakhstan	901	31.3	19.7	30.8	30.6	16.5	2.1	0.4	31.2	31.5
Korea, Rep. of	606	63.7	7.6	15.4	63.4	13.1	0.5	0.0	66.0	61.6
Lithuania	775	51.9	8.3	21.0	51.5	18.5	0.8	0.0	51.2	52.5
Malaysia	1254	27.5	21.1	30.3	27.5	20.9	0.1	0.1	26.7	28.4
Malta	562	49.2	11.1	24.9	48.5	14.0	0.9	0.5	48.3	50.0
Morocco	1239	27.4	19.0	39.0	26.6	12.2	1.6	1.6	26.7	28.2
New Zealand	571	51.3	10.7	19.7	49.4	16.7	2.5	1.0	51.5	51.1
Norway (9)	901	48.2	10.3	20.6	46.4	18.9	2.8	1.0	44.6	51.4
Oman	1180	35.2	17.0	30.7	34.8	16.4	0.7	0.3	37.6	32.9
Palestinian Nat'l Auth.	924	27.4	27.2	34.5	27.2	10.2	0.8	0.1	31.7	23.2
Portugal	770	39.5	12.8	25.1	39.2	22.0	0.9	0.0	34.0	44.9
Qatar	611	39.1	14.8	27.7	38.7	17.8	0.8	0.2	39.9	38.4
Romania	517	34.4	15.2	31.9	33.7	17.1	1.0	1.2	34.4	34.4
Saudi Arabia	835	31.8	24.3	33.1	31.6	10.4	0.4	0.1	28.5	34.9
Singapore	689	68.3	4.0	11.5	68.2	16.2	0.0	0.1	66.3	70.0
Sweden	720	41.5	9.2	21.7	40.0	25.4	3.6	0.1	42.0	41.1
Turkiye	711	45.5	11.8	19.5	44.9	22.6	1.3	0.0	48.4	42.6
United Arab Emirates	4675	42.6	16.2	26.8	41.9	13.6	1.0	0.5	40.7	44.3
United States	1147	52.4	9.7	24.4	51.5	12.6	0.3	1.4	54.3	50.5
Uzbekistan	619	29.7	22.7	32.2	28.6	13.0	2.9	0.6	27.9	31.3
International Avg. (40)	37991	44.4	13.2	24.5	43.5	16.7	1.7	0.4	43.9	44.8
Abu Dhabi, UAE	1723	39.5	17.8	29.7	38.9	12.1	0.9	0.6	37.3	41.8
Dubai, UAE	1155	56.3	9.3	19.4	55.5	14.4	1.1	0.2	53.7	58.6
Sharjah, UAE	922	39.8	18.0	27.3	39.2	13.9	0.9	0.7	39.4	40.3

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Knowing

B_SM3_13 SE72261: Conductors or insulators (DERIVED) - CR - 1 Point

COUNTRY	N	DIFF %	10 %	79 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1193	51.3	50.6	47.9	50.6	47.9	1.1	0.4	48.0	54.1
Austria	666	64.9	63.7	34.5	63.7	34.5	1.2	0.6	62.9	66.8
Azerbaijan	895	34.4	31.5	60.1	31.5	60.1	7.9	0.5	31.9	36.5
Bahrain	732	52.0	51.4	47.5	51.4	47.5	0.8	0.2	55.8	48.1
Brazil	3222	30.1	29.0	67.5	29.0	67.5	2.5	1.0	23.2	36.8
Chile	634	42.9	40.5	53.8	40.5	53.8	5.1	0.6	35.9	50.1
Chinese Taipei	801	82.5	82.5	17.5	82.5	17.5	0.0	0.0	84.5	80.8
Cyprus	599	46.4	45.2	52.3	45.2	52.3	1.4	1.1	47.1	45.6
Czech Republic	1153	63.8	63.4	36.0	63.4	36.0	0.6	0.0	58.3	69.2
England	596	51.4	49.8	47.2	49.8	47.2	2.0	1.0	45.9	57.8
Finland	842	56.3	55.7	43.2	55.7	43.2	0.8	0.3	58.1	54.4
France	637	58.2	57.1	41.0	57.1	41.0	2.0	0.0	55.2	60.8
Georgia	692	43.3	41.1	53.8	41.1	53.8	4.4	0.7	43.2	43.4
Hong Kong SAR	635	78.9	78.1	20.9	78.1	20.9	0.1	0.9	77.1	80.6
Hungary	774	60.9	60.9	39.1	60.9	39.1	0.0	0.0	58.1	63.7
Ireland	732	53.8	53.3	45.7	53.3	45.7	1.0	0.0	48.6	58.3
Israel	745	70.5	69.2	29.0	69.2	29.0	1.3	0.5	70.7	70.3
Italy	655	57.0	55.9	42.1	55.9	42.1	0.8	1.1	52.9	61.0
Japan	573	72.1	71.8	27.8	71.8	27.8	0.3	0.0	72.2	72.0
Jordan	1008	47.3	46.8	52.2	46.8	52.2	0.3	0.7	45.2	49.3
Kazakhstan	901	40.8	39.4	57.1	39.4	57.1	3.0	0.4	36.9	44.3
Korea, Rep. of	606	69.1	68.7	30.7	68.7	30.7	0.6	0.0	67.6	70.5
Lithuania	775	64.1	63.8	35.7	63.8	35.7	0.5	0.0	62.8	65.3
Malaysia	1254	42.9	42.9	57.0	42.9	57.0	0.1	0.1	43.3	42.4
Malta	562	52.4	51.4	46.8	51.4	46.8	1.3	0.5	46.7	58.1
Morocco	1239	29.9	28.6	67.1	28.6	67.1	2.5	1.8	31.2	28.6
New Zealand	571	44.0	42.5	54.1	42.5	54.1	2.3	1.0	38.0	48.6
Norway (9)	901	47.5	45.8	50.7	45.8	50.7	2.3	1.2	47.6	47.4
Oman	1180	60.5	59.9	39.0	59.9	39.0	0.7	0.4	65.5	55.7
Palestinian Nat'l Auth.	924	45.6	45.1	53.9	45.1	53.9	0.8	0.1	52.4	38.8
Portugal	770	52.3	52.2	47.6	52.2	47.6	0.2	0.0	44.8	59.6
Qatar	611	55.1	54.6	44.6	54.6	44.6	0.6	0.2	53.6	56.3
Romania	517	45.0	43.3	52.9	43.3	52.9	2.7	1.2	40.6	49.4
Saudi Arabia	835	40.4	40.3	59.4	40.3	59.4	0.1	0.1	43.2	37.8
Singapore	689	68.5	68.4	31.4	68.4	31.4	0.0	0.1	64.7	71.8
Sweden	720	61.1	59.7	37.9	59.7	37.9	2.3	0.1	60.9	61.3
Turkiye	711	58.1	57.8	41.7	57.8	41.7	0.5	0.0	55.9	60.3
United Arab Emirates	4675	55.2	54.5	44.2	54.5	44.2	0.7	0.6	54.4	56.0
United States	1147	43.3	42.6	55.7	42.6	55.7	0.1	1.6	38.4	48.4
Uzbekistan	619	25.2	24.5	72.8	24.5	72.8	2.0	0.8	21.8	28.3
International Avg. (40)	37991	53.0	52.1	46.0	52.1	46.0	1.4	0.5	51.1	54.7
Abu Dhabi, UAE	1723	43.8	43.2	55.4	43.2	55.4	0.8	0.6	43.1	44.5
Dubai, UAE	1155	63.9	63.2	35.7	63.2	35.7	0.8	0.3	62.8	64.8
Sharjah, UAE	922	61.4	60.7	38.1	60.7	38.1	0.5	0.7	59.1	63.8

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Knowing

B_SM3_13A SE72261A: Conductors or insulators - Material 1 - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1193	91.6	87.2	8.0	4.4	0.4	90.7	92.4
Austria	666	95.7	92.8	4.2	2.5	0.6	94.9	96.5
Azerbaijan	895	86.2	74.7	12.0	12.7	0.5	86.0	86.3
Bahrain	732	90.8	88.3	9.0	2.5	0.2	92.9	88.6
Brazil	3222	86.8	77.1	11.7	10.2	1.0	86.4	87.3
Chile	634	90.2	81.4	8.8	9.2	0.6	90.7	89.8
Chinese Taipei	801	97.0	95.2	2.9	1.8	0.0	96.3	97.6
Cyprus	599	89.8	86.9	9.8	2.2	1.1	89.2	90.4
Czech Republic	1153	96.0	94.6	3.9	1.4	0.0	95.8	96.2
England	596	91.1	87.4	8.5	3.2	1.0	89.8	92.7
Finland	842	94.0	90.5	5.8	3.4	0.3	97.3	90.4
France	637	94.6	91.1	5.2	3.7	0.0	94.7	94.5
Georgia	692	83.2	72.6	14.7	12.0	0.7	84.5	82.1
Hong Kong SAR	635	95.7	93.4	4.2	1.5	0.9	96.4	95.1
Hungary	774	94.3	93.8	5.7	0.5	0.0	94.3	94.3
Ireland	732	94.0	90.0	5.8	4.2	0.0	92.6	95.2
Israel	745	95.8	92.6	4.1	2.8	0.5	96.9	94.7
Italy	655	95.6	93.8	4.3	0.8	1.1	95.2	96.0
Japan	573	97.5	94.6	2.4	3.0	0.0	97.4	97.6
Jordan	1008	90.7	86.6	8.9	3.8	0.7	92.1	89.4
Kazakhstan	901	87.8	83.3	11.5	4.8	0.4	86.9	88.6
Korea, Rep. of	606	96.0	90.2	3.7	6.1	0.0	95.2	96.8
Lithuania	775	94.8	93.5	5.2	1.4	0.0	94.5	95.1
Malaysia	1254	87.4	85.8	12.3	1.8	0.1	87.2	87.8
Malta	562	94.4	90.8	5.4	3.3	0.5	92.4	96.5
Morocco	1239	81.7	74.5	16.7	7.0	1.8	83.9	79.4
New Zealand	571	91.8	85.5	7.6	5.8	1.0	90.5	92.8
Norway (9)	901	91.4	84.2	7.9	6.7	1.2	92.4	90.6
Oman	1180	94.4	92.1	5.4	2.0	0.4	95.4	93.5
Palestinian Nat'l Auth.	924	89.6	85.6	9.9	4.4	0.1	94.3	84.6
Portugal	770	95.6	94.4	4.3	1.3	0.0	96.8	94.5
Qatar	611	95.1	92.7	4.7	2.4	0.2	97.1	93.4
Romania	517	91.6	85.3	7.8	5.7	1.2	90.5	92.7
Saudi Arabia	835	92.3	88.8	7.4	3.7	0.1	95.3	89.4
Singapore	689	96.2	95.2	3.8	0.9	0.1	95.5	96.8
Sweden	720	93.7	90.3	6.0	3.6	0.1	95.7	92.0
Turkiye	711	94.3	93.5	5.6	0.8	0.0	94.9	93.7
United Arab Emirates	4675	93.6	90.7	6.2	2.4	0.6	94.9	92.2
United States	1147	91.8	88.6	7.9	2.0	1.6	91.2	92.4
Uzbekistan	619	86.6	74.3	11.5	13.5	0.8	84.0	89.1
International Avg. (40)	37991	92.3	88.1	7.3	4.1	0.5	92.6	92.0
Abu Dhabi, UAE	1723	91.5	87.3	8.1	3.9	0.6	93.9	89.0
Dubai, UAE	1155	95.2	93.2	4.7	1.8	0.3	95.5	94.9
Sharjah, UAE	922	95.7	93.6	4.2	1.5	0.7	95.6	95.8

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Physics / Knowing

B_SM3_13B SE72261B: Conductors or insulators - Material 2 - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1193	62.6	59.1	35.3	5.3	0.4	57.9	66.7
Austria	666	71.4	68.6	27.5	3.3	0.6	68.7	74.0
Azerbaijan	895	56.1	44.9	35.1	19.5	0.5	52.4	59.1
Bahrain	732	63.0	60.6	35.6	3.6	0.2	63.4	62.5
Brazil	3222	48.9	40.7	42.5	15.8	1.0	40.0	57.9
Chile	634	54.8	47.8	39.5	12.1	0.6	48.9	60.9
Chinese Taipei	801	87.9	85.3	11.7	3.0	0.0	88.7	87.2
Cyprus	599	59.2	56.9	39.2	2.8	1.1	58.7	59.7
Czech Republic	1153	69.0	67.9	30.5	1.6	0.0	63.2	74.6
England	596	61.7	58.4	36.2	4.5	1.0	56.2	68.5
Finland	842	66.2	63.2	32.2	4.3	0.3	63.3	69.3
France	637	68.7	65.7	29.9	4.5	0.0	65.7	71.3
Georgia	692	66.8	56.7	28.2	14.4	0.7	64.3	68.9
Hong Kong SAR	635	86.6	83.8	13.0	2.4	0.9	83.0	89.9
Hungary	774	66.9	66.2	32.8	1.0	0.0	63.2	70.5
Ireland	732	62.9	59.6	35.1	5.3	0.0	59.3	66.1
Israel	745	78.0	75.0	21.2	3.3	0.5	76.4	79.5
Italy	655	62.9	61.5	36.2	1.2	1.1	58.9	66.7
Japan	573	77.8	74.8	21.3	3.9	0.0	78.1	77.5
Jordan	1008	60.2	56.1	37.1	6.1	0.7	54.5	65.6
Kazakhstan	901	54.4	49.2	41.2	9.2	0.4	50.4	58.0
Korea, Rep. of	606	81.2	73.7	17.1	9.2	0.0	78.1	83.9
Lithuania	775	70.2	69.2	29.3	1.6	0.0	68.1	72.3
Malaysia	1254	55.9	54.4	42.9	2.6	0.1	56.0	55.8
Malta	562	60.5	57.3	37.5	4.6	0.5	54.9	66.1
Morocco	1239	52.4	45.6	41.4	11.2	1.8	49.9	55.1
New Zealand	571	55.1	49.4	40.3	9.2	1.0	48.9	59.9
Norway (9)	901	61.1	54.8	34.9	9.1	1.2	59.1	62.8
Oman	1180	70.7	67.1	27.7	4.7	0.4	73.0	68.5
Palestinian Nat'l Auth.	924	61.0	56.1	35.9	7.9	0.1	62.9	58.9
Portugal	770	58.3	57.0	40.8	2.2	0.0	50.5	65.7
Qatar	611	61.4	60.2	37.9	1.7	0.2	58.2	64.2
Romania	517	57.2	52.1	38.9	7.8	1.2	51.6	62.7
Saudi Arabia	835	53.4	50.0	43.6	6.4	0.1	51.8	55.0
Singapore	689	73.6	72.7	26.1	1.0	0.1	69.8	76.8
Sweden	720	68.6	65.4	29.9	4.6	0.1	65.6	71.2
Turkiye	711	64.5	63.8	35.1	1.1	0.0	62.0	67.1
United Arab Emirates	4675	64.3	61.4	34.0	4.0	0.6	61.3	67.3
United States	1147	52.9	50.8	45.1	2.6	1.6	46.7	59.5
Uzbekistan	619	52.5	40.0	36.3	23.0	0.8	49.1	55.7
International Avg. (40)	37991	64.0	60.1	33.4	6.0	0.5	60.8	67.1
Abu Dhabi, UAE	1723	56.0	52.4	41.2	5.7	0.6	52.1	59.9
Dubai, UAE	1155	70.7	68.9	28.6	2.2	0.3	68.5	72.7
Sharjah, UAE	922	68.0	65.0	30.6	3.6	0.7	65.3	70.7

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Knowing

B_SM3_13C SE72261C: Conductors or insulators - Material 3 - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1193	87.8	11.4	82.0	6.2	0.4	86.6	88.7
Austria	666	90.7	9.0	88.0	2.4	0.6	92.6	88.8
Azerbaijan	895	74.9	20.0	59.7	19.7	0.5	74.8	75.0
Bahrain	732	83.7	15.7	80.6	3.4	0.2	88.8	78.4
Brazil	3222	77.7	18.0	62.9	18.1	1.0	77.2	78.2
Chile	634	81.7	15.7	70.3	13.4	0.6	80.3	83.2
Chinese Taipei	801	94.7	5.2	92.4	2.4	0.0	96.0	93.6
Cyprus	599	83.1	16.1	78.8	4.1	1.1	85.4	80.8
Czech Republic	1153	91.7	8.2	90.2	1.6	0.0	91.1	92.2
England	596	88.8	10.6	83.9	4.6	1.0	88.2	89.6
Finland	842	90.2	9.4	86.3	4.0	0.3	92.7	87.5
France	637	91.1	8.5	86.2	5.3	0.0	92.1	90.1
Georgia	692	77.9	18.9	66.9	13.5	0.7	78.9	77.1
Hong Kong SAR	635	94.0	5.8	90.9	2.4	0.9	92.4	95.5
Hungary	774	90.1	9.8	88.9	1.4	0.0	89.1	91.1
Ireland	732	89.8	9.7	85.5	4.9	0.0	88.4	91.1
Israel	745	91.7	8.1	88.9	2.5	0.5	93.5	89.9
Italy	655	91.4	8.3	88.6	2.1	1.1	90.9	92.0
Japan	573	95.1	4.8	91.8	3.4	0.0	93.5	96.6
Jordan	1008	85.2	14.0	80.2	5.1	0.7	89.5	81.1
Kazakhstan	901	82.3	16.0	74.5	9.1	0.4	81.9	82.6
Korea, Rep. of	606	91.4	7.8	83.1	9.1	0.0	90.9	91.9
Lithuania	775	90.4	9.4	88.5	2.1	0.0	92.2	88.6
Malaysia	1254	81.2	18.1	78.3	3.6	0.1	83.1	79.0
Malta	562	87.9	11.5	83.7	4.3	0.5	86.8	89.1
Morocco	1239	70.4	25.3	60.0	12.9	1.8	69.9	70.8
New Zealand	571	89.5	9.2	78.7	11.0	1.0	87.2	91.2
Norway (9)	901	84.8	13.8	76.9	8.1	1.2	87.1	82.7
Oman	1180	88.5	10.9	83.4	5.3	0.4	92.4	84.6
Palestinian Nat'l Auth.	924	81.6	16.6	73.5	9.8	0.1	87.3	75.3
Portugal	770	90.7	9.1	88.9	2.0	0.0	91.4	90.1
Qatar	611	90.3	9.3	86.6	3.9	0.2	93.0	87.9
Romania	517	82.4	16.0	75.0	7.8	1.2	77.9	86.9
Saudi Arabia	835	83.6	15.1	77.0	7.8	0.1	90.0	77.2
Singapore	689	93.5	6.3	91.9	1.6	0.1	93.2	93.9
Sweden	720	88.9	10.6	84.5	4.8	0.1	90.9	87.1
Turkiye	711	91.7	8.2	90.7	1.1	0.0	93.4	90.0
United Arab Emirates	4675	87.8	11.7	83.6	4.2	0.6	89.8	85.6
United States	1147	88.9	10.5	84.1	3.9	1.6	89.1	88.7
Uzbekistan	619	67.7	23.1	48.5	27.7	0.8	64.6	70.7
International Avg. (40)	37991	86.6	12.1	80.9	6.5	0.5	87.4	85.9
Abu Dhabi, UAE	1723	82.3	16.6	77.4	5.4	0.6	85.5	79.1
Dubai, UAE	1155	92.5	7.3	89.8	2.6	0.3	93.1	91.9
Sharjah, UAE	922	90.8	8.8	86.9	3.6	0.7	92.7	88.9

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Knowing

B_SM3_13D SE72261D: Conductors or insulators - Material 4 - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1193	87.2	82.1	12.0	5.5	0.4	87.4	87.1
Austria	666	91.8	88.4	7.9	3.1	0.6	93.0	90.6
Azerbaijan	895	77.7	61.3	17.6	20.5	0.5	76.9	78.3
Bahrain	732	84.7	81.9	14.8	3.0	0.2	90.1	79.1
Brazil	3222	77.1	63.7	18.9	16.4	1.0	77.8	76.4
Chile	634	83.3	72.4	14.5	12.6	0.6	81.5	85.2
Chinese Taipei	801	96.2	93.1	3.7	3.2	0.0	97.0	95.4
Cyprus	599	84.5	81.1	14.9	3.0	1.1	85.7	83.3
Czech Republic	1153	93.5	91.7	6.4	1.8	0.0	93.3	93.6
England	596	89.8	85.4	9.7	3.9	1.0	89.4	90.2
Finland	842	89.6	85.3	9.9	4.6	0.3	92.9	86.0
France	637	90.0	85.7	9.5	4.8	0.0	91.6	88.7
Georgia	692	77.3	64.8	19.0	15.5	0.7	79.4	75.4
Hong Kong SAR	635	93.6	90.8	6.3	2.0	0.9	95.4	91.8
Hungary	774	91.0	90.6	9.0	0.4	0.0	90.9	91.1
Ireland	732	90.0	85.7	9.5	4.8	0.0	88.9	91.0
Israel	745	93.0	88.9	6.6	3.9	0.5	95.2	90.9
Italy	655	94.9	92.5	4.9	1.5	1.1	94.9	94.9
Japan	573	94.0	91.2	5.8	3.0	0.0	93.4	94.6
Jordan	1008	86.4	79.7	12.6	7.0	0.7	92.5	80.6
Kazakhstan	901	82.3	75.8	16.3	7.5	0.4	80.8	83.6
Korea, Rep. of	606	90.9	82.5	8.2	9.3	0.0	91.1	90.8
Lithuania	775	91.7	89.9	8.1	2.0	0.0	93.0	90.5
Malaysia	1254	83.0	80.4	16.5	3.1	0.1	82.9	83.0
Malta	562	88.7	84.2	10.8	4.5	0.5	87.6	89.7
Morocco	1239	71.2	62.2	25.1	10.9	1.8	72.8	69.6
New Zealand	571	88.3	78.8	10.4	9.8	1.0	85.2	90.8
Norway (9)	901	84.1	75.6	14.2	9.0	1.2	87.0	81.6
Oman	1180	89.4	82.9	9.9	6.8	0.4	93.5	85.3
Palestinian Nat'l Auth.	924	83.4	74.4	14.8	10.6	0.1	88.2	77.9
Portugal	770	92.2	90.1	7.6	2.3	0.0	92.1	92.3
Qatar	611	91.7	87.3	7.9	4.6	0.2	93.6	90.0
Romania	517	84.9	76.5	13.6	8.7	1.2	82.9	86.9
Saudi Arabia	835	85.8	79.2	13.1	7.6	0.1	91.8	79.8
Singapore	689	94.0	92.9	5.9	1.1	0.1	93.0	94.9
Sweden	720	92.1	86.9	7.5	5.5	0.1	95.0	89.6
Turkiye	711	90.8	89.8	9.1	1.1	0.0	92.6	89.0
United Arab Emirates	4675	89.7	85.2	9.7	4.5	0.6	92.2	87.2
United States	1147	88.2	84.9	11.4	2.2	1.6	88.2	88.1
Uzbekistan	619	72.1	52.0	20.1	27.1	0.8	67.4	76.4
International Avg. (40)	37991	87.5	81.7	11.3	6.5	0.5	88.5	86.5
Abu Dhabi, UAE	1723	85.8	79.8	13.2	6.4	0.6	89.9	81.7
Dubai, UAE	1155	93.5	90.3	6.3	3.1	0.3	94.2	92.8
Sharjah, UAE	922	92.0	88.1	7.7	3.5	0.7	93.2	90.8

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Knowing

B_SM3_13E SE72261E: Conductors or insulators - Material 5 - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1193	87.0	11.9	80.2	7.5	0.4	84.7	89.1
Austria	666	91.9	7.7	87.8	4.0	0.6	92.8	91.0
Azerbaijan	895	76.4	17.9	57.7	23.9	0.5	76.6	76.2
Bahrain	732	84.2	15.0	79.6	5.2	0.2	88.9	79.3
Brazil	3222	79.3	15.8	60.6	22.6	1.0	78.1	80.5
Chile	634	84.9	12.5	70.5	16.3	0.6	81.7	88.3
Chinese Taipei	801	96.2	3.6	92.3	4.0	0.0	96.1	96.3
Cyprus	599	82.2	16.8	77.5	4.7	1.1	86.1	78.4
Czech Republic	1153	92.4	7.4	90.6	2.0	0.0	91.9	93.0
England	596	89.1	10.2	83.3	5.6	1.0	88.4	90.1
Finland	842	90.8	8.6	85.3	5.8	0.3	94.2	87.1
France	637	89.0	10.2	82.4	7.4	0.0	90.5	87.7
Georgia	692	77.6	17.9	61.8	19.7	0.7	76.9	78.1
Hong Kong SAR	635	94.0	5.7	89.6	3.8	0.9	93.9	94.0
Hungary	774	91.9	7.9	90.5	1.6	0.0	92.0	91.9
Ireland	732	90.9	8.4	83.9	7.7	0.0	88.7	92.8
Israel	745	92.6	7.0	88.5	4.0	0.5	94.5	90.8
Italy	655	92.6	7.2	89.6	2.2	1.1	91.8	93.3
Japan	573	97.7	2.2	93.0	4.8	0.0	97.7	97.7
Jordan	1008	85.5	13.4	78.9	6.9	0.7	91.1	80.1
Kazakhstan	901	83.2	14.4	71.7	13.5	0.4	83.4	83.1
Korea, Rep. of	606	94.3	5.0	82.6	12.4	0.0	95.0	93.6
Lithuania	775	90.1	9.6	87.4	3.0	0.0	91.8	88.4
Malaysia	1254	82.5	16.7	78.5	4.8	0.1	82.3	82.6
Malta	562	88.8	10.5	83.1	5.9	0.5	88.8	88.7
Morocco	1239	72.1	23.3	60.2	14.6	1.8	72.2	71.9
New Zealand	571	89.6	9.0	76.9	13.1	1.0	86.5	92.0
Norway (9)	901	85.8	12.3	74.4	12.0	1.2	88.3	83.6
Oman	1180	89.4	9.6	81.3	8.6	0.4	91.7	87.1
Palestinian Nat'l Auth.	924	82.7	15.3	72.9	11.7	0.1	89.1	75.3
Portugal	770	92.1	7.7	89.1	3.3	0.0	92.8	91.4
Qatar	611	91.1	8.4	86.5	4.9	0.2	92.4	90.0
Romania	517	84.3	14.1	75.6	9.2	1.2	81.3	87.3
Saudi Arabia	835	85.1	13.0	74.2	12.7	0.1	92.7	77.5
Singapore	689	94.8	5.1	92.7	2.1	0.1	93.6	95.8
Sweden	720	91.7	7.8	86.4	5.6	0.1	96.3	87.7
Turkiye	711	90.1	9.7	88.8	1.4	0.0	91.6	88.6
United Arab Emirates	4675	88.8	10.5	83.3	5.6	0.6	91.2	86.4
United States	1147	87.7	11.5	81.6	5.3	1.6	87.2	88.2
Uzbekistan	619	71.8	19.1	48.8	31.3	0.8	68.9	74.6
International Avg. (40)	37991	87.6	11.0	80.0	8.5	0.5	88.3	86.7
Abu Dhabi, UAE	1723	83.0	15.5	76.0	7.8	0.6	86.8	79.1
Dubai, UAE	1155	93.6	6.2	89.8	3.8	0.3	94.4	92.7
Sharjah, UAE	922	91.7	7.9	87.2	4.2	0.7	92.9	90.4

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Knowing

B_SM3_15 SE72348: What must be removed from ocean water before drinking - CR - 1 Point

COUNTRY	N	DIFF %	10 %	11 %	70 %	79 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1193	79.4	67.0	11.0	5.1	15.1	77.9	20.2	1.5	0.4	78.1	80.4
Austria	666	83.2	70.9	9.4	6.5	9.7	80.2	16.2	2.7	0.8	85.9	80.6
Azerbaijan	895	67.5	48.6	6.2	4.2	22.2	54.8	26.4	17.9	0.9	64.7	69.7
Bahrain	732	68.9	47.5	18.5	9.6	20.2	66.0	29.8	4.0	0.2	70.8	66.9
Brazil	3222	73.1	43.6	22.4	3.8	20.5	66.0	24.3	8.5	1.1	73.0	73.2
Chile	634	68.4	53.4	10.3	12.6	16.8	63.7	29.4	6.3	0.6	66.1	70.8
Chinese Taipei	801	84.2	74.0	9.4	11.3	4.3	83.4	15.6	1.0	0.0	82.0	86.1
Cyprus	599	86.7	70.1	11.3	2.6	10.0	81.4	12.5	5.0	1.1	88.2	85.1
Czech Republic	1153	93.7	79.9	12.5	1.8	4.4	92.3	6.2	1.4	0.1	93.8	93.7
England	596	77.9	67.4	7.0	7.4	13.7	74.4	21.2	3.4	1.1	80.4	74.9
Finland	842	84.0	69.0	13.0	8.1	7.6	82.0	15.6	2.2	0.3	81.9	86.2
France	637	90.5	72.5	15.5	2.8	6.4	88.0	9.3	2.8	0.0	90.8	90.2
Georgia	692	79.7	63.1	9.3	3.6	14.9	72.5	18.5	8.3	0.8	75.9	82.8
Hong Kong SAR	635	66.2	56.8	5.5	11.9	19.9	62.4	31.8	5.0	0.9	65.8	66.6
Hungary	774	89.8	79.3	8.3	0.4	9.5	87.6	10.0	2.5	0.0	88.9	90.7
Ireland	732	76.2	64.7	10.1	3.3	20.1	74.8	23.4	1.8	0.0	74.3	77.8
Israel	745	68.9	48.4	16.2	12.8	16.3	64.6	29.2	5.6	0.7	68.9	68.9
Italy	655	87.4	71.8	10.8	0.1	11.8	82.6	11.9	4.4	1.1	84.8	89.9
Japan	573	81.5	69.8	11.1	2.9	15.5	80.9	18.4	0.7	0.0	80.8	82.2
Jordan	1008	67.3	46.2	18.3	2.1	29.2	64.5	31.3	3.5	0.7	70.6	64.2
Kazakhstan	901	65.2	54.9	5.5	3.1	29.1	60.4	32.2	6.6	0.8	60.2	69.5
Korea, Rep. of	606	82.3	65.7	14.6	6.3	11.0	80.3	17.3	2.4	0.0	82.1	82.4
Lithuania	775	91.3	70.4	18.4	0.9	7.5	88.7	8.4	2.7	0.1	90.3	92.3
Malaysia	1254	39.4	32.1	6.7	16.4	43.3	38.8	59.7	1.5	0.1	38.6	40.3
Malta	562	91.1	71.5	16.5	3.0	5.6	87.9	8.6	2.9	0.5	92.5	89.6
Morocco	1239	33.0	20.1	4.9	0.7	50.0	25.0	50.7	22.1	2.2	35.1	30.9
New Zealand	571	74.8	56.5	15.5	8.0	16.3	72.1	24.3	2.6	1.0	69.6	78.7
Norway (9)	901	75.8	57.6	15.0	0.7	22.5	72.6	23.1	3.0	1.3	74.6	76.9
Oman	1180	86.6	78.0	6.2	1.0	12.1	84.2	13.1	2.1	0.6	91.9	81.4
Palestinian Nat'l Auth.	923	32.9	25.2	6.4	5.3	59.0	31.6	64.3	3.9	0.2	34.6	31.3
Portugal	770	76.9	59.7	13.7	5.9	16.1	73.4	22.0	4.6	0.0	77.3	76.6
Qatar	610	83.5	59.8	21.0	0.5	15.5	80.9	16.0	2.9	0.3	89.7	77.9
Romania	517	77.8	57.8	14.6	9.5	11.2	72.5	20.6	5.7	1.2	77.1	78.6
Saudi Arabia	835	72.1	58.7	12.4	2.6	24.9	71.0	27.5	1.3	0.2	74.9	69.5
Singapore	689	74.0	61.1	12.8	6.4	19.5	73.9	26.0	0.0	0.1	72.4	75.4
Sweden	720	73.3	56.7	12.8	10.0	15.3	69.4	25.3	5.1	0.1	73.2	73.4
Turkiye	711	74.7	56.8	10.6	4.9	18.0	67.4	22.8	9.8	0.0	69.5	79.8
United Arab Emirates	4674	72.4	56.9	12.5	2.0	24.5	69.5	26.5	3.1	0.9	74.6	70.1
United States	1147	78.5	57.5	19.4	9.3	11.7	76.8	21.0	0.6	1.6	76.7	80.4
Uzbekistan	619	82.0	65.8	10.9	0.7	16.1	76.7	16.8	5.3	1.1	78.1	85.5
International Avg. (40)	37988	75.3	59.7	12.2	5.3	17.9	71.8	23.2	4.4	0.6	75.0	75.5
Abu Dhabi, UAE	1722	63.3	49.7	9.8	2.4	32.2	59.5	34.6	4.6	1.3	66.8	59.7
Dubai, UAE	1155	82.3	64.2	16.0	1.7	15.5	80.2	17.2	2.2	0.3	82.0	82.6
Sharjah, UAE	922	76.2	59.5	14.8	2.8	20.3	74.2	23.1	1.8	0.8	77.7	74.8

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Reasoning

B_SM3_16 SE72720: Why temperature is hotter in the city center - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1193	54.0	53.3	12.1	17.8	15.5	0.6	0.8	53.7	54.3
Austria	666	52.9	52.1	8.2	18.4	19.8	0.3	1.1	51.1	54.7
Azerbaijan	895	25.6	25.1	18.4	28.6	25.8	1.1	1.1	28.4	23.3
Bahrain	732	30.3	30.0	19.6	26.9	22.6	0.4	0.5	26.3	34.4
Brazil	3222	27.5	27.0	12.8	42.8	15.6	0.3	1.5	28.8	26.2
Chile	634	29.8	29.1	11.0	41.2	16.5	1.4	0.8	28.0	31.6
Chinese Taipei	801	40.5	40.5	8.7	7.1	43.7	0.0	0.0	43.4	38.0
Cyprus	599	27.7	27.2	15.3	31.4	24.3	0.6	1.2	31.4	24.0
Czech Republic	1153	34.0	34.0	7.9	36.4	21.5	0.0	0.2	33.9	34.2
England	596	53.7	52.4	10.9	18.2	16.1	0.9	1.5	56.5	50.4
Finland	842	42.0	41.8	8.0	34.2	15.5	0.1	0.4	42.9	41.1
France	637	33.2	32.8	13.3	35.1	17.6	1.2	0.1	35.1	31.6
Georgia	0	.	.	.	.	.	.	.	.	.
Hong Kong SAR	635	39.5	38.9	13.8	21.5	24.4	0.5	0.9	41.5	37.6
Hungary	774	35.0	35.0	8.7	39.7	16.6	0.0	0.0	34.2	35.7
Ireland	732	46.0	45.9	9.8	28.4	15.8	0.1	0.0	42.7	48.9
Israel	745	32.9	32.4	14.9	33.3	18.0	0.4	1.0	34.0	31.8
Italy	0	.	.	.	.	.	.	.	.	.
Japan	573	43.8	43.7	10.7	14.4	30.9	0.3	0.0	39.8	47.8
Jordan	1008	26.0	25.7	22.2	28.6	22.4	0.1	0.9	29.1	23.2
Kazakhstan	0	.	.	.	.	.	.	.	.	.
Korea, Rep. of	606	41.1	40.9	6.2	22.6	29.8	0.4	0.0	47.4	35.4
Lithuania	775	41.0	40.9	7.8	25.3	25.7	0.2	0.1	41.3	40.7
Malaysia	1254	38.6	38.5	17.0	20.9	23.3	0.2	0.1	41.2	35.6
Malta	562	45.5	45.0	11.3	22.0	20.8	0.4	0.5	46.4	44.5
Morocco	1239	16.9	16.2	30.7	32.0	16.9	0.7	3.4	16.2	17.7
New Zealand	571	43.9	43.1	10.2	24.2	20.6	0.7	1.2	42.7	44.8
Norway (9)	901	31.9	31.2	10.2	36.9	19.5	0.7	1.5	29.0	34.5
Oman	1179	24.6	24.4	16.4	20.7	37.5	0.2	0.9	22.3	26.8
Palestinian Nat'l Auth.	0	.	.	.	.	.	.	.	.	.
Portugal	770	37.6	37.4	8.4	32.7	21.1	0.2	0.1	38.0	37.1
Qatar	611	35.8	35.3	12.1	28.6	22.7	1.0	0.3	33.1	38.2
Romania	517	36.3	35.7	11.7	34.6	16.4	0.4	1.2	37.6	35.0
Saudi Arabia	835	24.5	24.4	17.5	21.7	35.9	0.3	0.2	26.1	23.0
Singapore	689	61.7	61.5	7.0	14.0	17.3	0.1	0.1	62.3	61.2
Sweden	0	.	.	.	.	.	.	.	.	.
Turkiye	711	31.9	31.6	12.8	33.3	21.5	0.5	0.3	31.2	32.5
United Arab Emirates	4674	41.2	40.4	16.7	23.2	17.9	0.7	1.2	41.9	40.5
United States	1147	53.3	52.4	10.2	22.3	13.3	0.2	1.6	55.0	51.6
Uzbekistan	619	25.9	25.4	15.7	29.8	27.3	0.4	1.5	23.9	27.7
International Avg. (35)	34097	37.3	36.9	12.8	27.1	22.0	0.4	0.8	37.6	37.0
Abu Dhabi, UAE	1723	33.9	32.9	21.8	24.9	17.7	0.8	1.9	36.6	31.1
Dubai, UAE	1155	52.0	51.4	8.5	22.7	16.2	0.6	0.5	52.7	51.4
Sharjah, UAE	922	43.1	42.4	14.0	22.4	19.7	0.7	0.8	41.1	44.9

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Reasoning

B_SM4_01 SE72011: Compare fish and human fields of vision - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1219	80.0	79.7	3.1	4.4	12.4	0.3	0.0	78.5	81.2
Austria	655	78.4	78.4	1.5	2.0	18.1	0.0	0.0	78.7	78.1
Azerbaijan	885	53.9	53.1	4.8	6.2	34.3	0.7	0.8	53.0	54.8
Bahrain	737	47.3	47.3	6.4	12.2	34.1	0.0	0.0	48.2	46.4
Brazil	3280	54.1	53.5	5.7	7.5	32.1	0.3	1.0	49.5	58.2
Chile	635	68.5	68.5	3.6	4.9	23.0	0.0	0.0	62.4	73.6
Chinese Taipei	797	87.1	87.1	0.8	2.6	9.5	0.0	0.0	87.8	86.4
Cyprus	594	62.8	62.5	6.2	6.8	24.0	0.2	0.4	63.9	61.7
Czech Republic	1175	73.6	73.5	1.0	3.8	21.6	0.1	0.0	71.2	75.7
England	620	75.0	74.7	1.8	4.3	18.8	0.2	0.1	70.9	79.2
Finland	836	79.3	79.1	1.7	4.6	14.3	0.3	0.0	79.2	79.4
France	634	76.1	76.0	2.3	2.2	19.3	0.2	0.0	76.8	75.3
Georgia	705	54.9	54.8	4.0	6.5	34.5	0.2	0.0	50.3	60.2
Hong Kong SAR	638	76.8	76.6	2.4	6.7	14.0	0.3	0.0	71.5	82.5
Hungary	772	69.3	69.3	1.8	4.7	24.2	0.0	0.0	66.0	72.7
Ireland	709	73.5	73.5	1.8	5.6	19.2	0.0	0.0	70.3	76.2
Israel	735	68.7	68.2	5.1	6.4	19.5	0.4	0.3	66.9	70.5
Italy	650	67.3	66.8	2.6	7.2	22.7	0.7	0.0	66.2	68.4
Japan	565	88.6	88.5	0.3	3.8	7.2	0.2	0.0	89.7	87.6
Jordan	999	29.1	29.0	11.0	15.8	43.8	0.3	0.0	30.2	28.1
Kazakhstan	904	55.3	54.9	5.3	4.4	34.7	0.2	0.4	55.7	54.9
Korea, Rep. of	617	91.8	91.8	0.6	1.2	6.3	0.0	0.0	89.7	94.0
Lithuania	776	79.2	79.2	2.8	3.0	15.0	0.0	0.0	80.0	78.4
Malaysia	1273	49.0	49.0	6.2	14.6	30.1	0.0	0.1	47.6	50.6
Malta	566	65.6	65.6	3.3	6.0	25.1	0.0	0.0	65.0	66.2
Morocco	1240	24.0	23.6	26.8	15.2	32.7	1.5	0.2	25.3	22.5
New Zealand	554	76.8	76.8	2.8	4.1	16.3	0.0	0.0	71.3	81.5
Norway (9)	896	76.1	75.8	2.9	5.1	15.8	0.0	0.4	73.3	78.5
Oman	1165	43.7	43.4	8.0	7.5	40.5	0.4	0.3	42.1	45.1
Palestinian Nat'l Auth.	923	23.4	23.3	13.2	12.0	51.2	0.1	0.2	20.0	26.8
Portugal	759	60.9	60.9	2.9	5.4	30.8	0.0	0.0	56.4	65.2
Qatar	619	55.8	55.7	4.7	7.6	31.8	0.2	0.0	55.2	56.4
Romania	539	66.5	66.0	4.1	3.9	25.2	0.0	0.7	65.2	67.6
Saudi Arabia	844	43.3	43.2	7.4	9.0	40.2	0.0	0.1	44.2	42.5
Singapore	692	85.3	85.3	1.6	1.6	11.5	0.0	0.0	84.5	86.0
Sweden	723	71.4	71.1	2.3	8.3	18.0	0.3	0.1	70.9	71.8
Turkiye	699	81.0	81.0	3.1	2.9	13.0	0.0	0.0	82.4	79.6
United Arab Emirates	4672	62.3	61.9	6.1	8.0	23.4	0.2	0.3	61.5	63.1
United States	1118	81.6	80.7	3.4	4.3	10.5	0.3	0.8	79.0	84.1
Uzbekistan	621	45.1	44.5	6.0	4.8	43.4	0.8	0.5	44.2	46.1
International Avg. (40)	38040	65.1	64.8	4.5	6.2	24.1	0.2	0.2	63.6	66.4
Abu Dhabi, UAE	1744	55.7	55.5	10.6	9.5	24.0	0.2	0.3	55.4	56.0
Dubai, UAE	1161	74.9	74.4	2.8	4.7	17.4	0.3	0.4	71.9	77.6
Sharjah, UAE	896	64.8	64.5	3.4	7.7	24.0	0.2	0.2	63.9	65.7

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Knowing

B_SM4_02 SE72905: Risk factors for disease (DERIVED) - CR - 1 Point

COUNTRY	N	DIFF %	10 %	79 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1219	69.7	69.1	30.0	69.1	30.0	0.9	0.0	72.5	67.2
Austria	655	43.7	43.6	56.1	43.6	56.1	0.3	0.0	45.3	42.2
Azerbaijan	885	24.7	23.2	70.8	23.2	70.8	5.2	0.8	30.7	18.5
Bahrain	737	56.3	56.3	43.7	56.3	43.7	0.0	0.0	63.6	49.3
Brazil	3280	71.0	69.0	28.2	69.0	28.2	1.6	1.2	71.2	70.7
Chile	635	72.6	71.4	27.0	71.4	27.0	1.6	0.0	79.5	66.9
Chinese Taipei	797	60.5	60.5	39.5	60.5	39.5	0.0	0.0	59.2	61.8
Cyprus	594	47.4	47.0	52.2	47.0	52.2	0.3	0.6	49.1	45.7
Czech Republic	1175	57.2	56.8	42.6	56.8	42.6	0.6	0.0	55.3	58.9
England	620	71.4	71.0	28.5	71.0	28.5	0.4	0.1	70.4	72.3
Finland	836	67.5	66.9	32.2	66.9	32.2	0.6	0.3	67.3	67.7
France	634	49.2	48.9	50.5	48.9	50.5	0.6	0.0	52.9	45.2
Georgia	705	30.4	30.0	68.7	30.0	68.7	1.3	0.0	29.6	31.3
Hong Kong SAR	637	51.0	51.0	48.9	51.0	48.9	0.1	0.0	49.4	52.8
Hungary	772	31.5	31.5	68.5	31.5	68.5	0.0	0.0	36.9	26.1
Ireland	709	72.9	72.7	27.0	72.7	27.0	0.2	0.0	76.7	69.7
Israel	735	58.4	58.0	41.3	58.0	41.3	0.4	0.3	63.5	53.3
Italy	650	70.5	70.5	29.4	70.5	29.4	0.1	0.0	75.0	65.9
Japan	565	81.9	81.9	18.1	81.9	18.1	0.0	0.0	86.4	77.5
Jordan	999	39.1	38.8	60.3	38.8	60.3	0.9	0.0	44.6	33.7
Kazakhstan	904	18.1	17.9	81.1	17.9	81.1	0.6	0.4	14.5	21.6
Korea, Rep. of	617	71.4	71.2	28.5	71.2	28.5	0.3	0.0	75.3	67.2
Lithuania	776	35.8	35.7	64.1	35.7	64.1	0.1	0.0	39.2	32.5
Malaysia	1273	50.0	49.9	49.9	49.9	49.9	0.1	0.1	53.9	45.7
Malta	566	69.3	68.8	30.6	68.8	30.6	0.6	0.0	73.6	64.6
Morocco	1240	11.2	10.5	83.4	10.5	83.4	5.7	0.4	12.7	9.6
New Zealand	554	65.1	64.6	34.7	64.6	34.7	0.7	0.0	70.1	60.9
Norway (9)	896	47.9	47.4	51.5	47.4	51.5	0.7	0.4	48.3	47.6
Oman	1165	49.6	49.3	50.1	49.3	50.1	0.3	0.3	57.2	42.6
Palestinian Nat'l Auth.	923	36.3	35.8	63.0	35.8	63.0	1.0	0.2	43.8	28.8
Portugal	759	71.2	71.2	28.8	71.2	28.8	0.0	0.0	76.9	65.8
Qatar	619	56.7	56.4	43.0	56.4	43.0	0.6	0.0	63.4	50.5
Romania	538	58.9	57.8	40.4	57.8	40.4	1.1	0.7	58.2	59.5
Saudi Arabia	844	51.3	51.2	48.6	51.2	48.6	0.2	0.1	61.3	42.0
Singapore	692	72.3	72.3	27.7	72.3	27.7	0.0	0.0	71.7	72.9
Sweden	723	49.0	48.8	50.8	48.8	50.8	0.2	0.1	48.6	49.3
Turkiye	699	72.2	71.9	27.7	71.9	27.7	0.3	0.0	80.4	63.6
United Arab Emirates	4672	57.8	57.4	41.9	57.4	41.9	0.4	0.3	61.8	53.9
United States	1118	69.4	68.5	30.2	68.5	30.2	0.4	0.9	72.3	66.5
Uzbekistan	621	11.3	11.0	86.1	11.0	86.1	2.0	0.9	11.7	10.9
International Avg. (40)	38038	53.8	53.4	45.6	53.4	45.6	0.8	0.2	56.9	50.8
Abu Dhabi, UAE	1744	43.8	43.5	55.8	43.5	55.8	0.4	0.3	48.5	39.1
Dubai, UAE	1161	71.5	70.9	28.3	70.9	28.3	0.5	0.4	73.0	70.2
Sharjah, UAE	896	64.4	64.0	35.4	64.0	35.4	0.4	0.2	69.7	59.1

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Knowing

B_SM4_02A SE72905A: Risk factors for disease: salt - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	C %	D %	E %	F %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1219	74.2	8.8	73.3	1.3	5.7	0.7	8.9	1.2	0.0	77.5	71.2
Austria	655	48.3	7.1	47.8	1.2	8.2	0.6	34.1	1.0	0.0	49.1	47.6
Azerbaijan	885	39.7	21.9	35.8	4.9	14.6	2.9	10.0	9.2	0.8	45.3	34.1
Bahrain	737	73.0	10.4	72.7	2.2	6.2	2.2	6.0	0.3	0.0	79.3	66.9
Brazil	3280	86.4	6.4	83.2	1.2	2.1	0.8	2.6	2.4	1.2	88.2	84.7
Chile	635	77.7	7.9	75.8	0.7	5.4	0.1	7.5	2.4	0.0	83.4	73.0
Chinese Taipei	797	65.1	4.4	65.0	1.8	2.2	0.5	26.0	0.2	0.0	62.4	67.7
Cyprus	594	66.5	14.7	65.4	3.2	7.1	1.2	6.7	1.1	0.6	68.7	64.4
Czech Republic	1175	65.1	2.3	64.0	0.5	14.1	0.7	16.7	1.7	0.0	63.3	66.8
England	620	77.6	8.7	76.9	0.4	4.6	0.0	8.5	0.7	0.1	78.1	77.0
Finland	836	77.7	6.6	76.8	0.6	5.2	0.2	9.4	1.0	0.3	77.8	77.7
France	634	57.8	9.5	57.1	0.4	11.6	0.8	19.3	1.3	0.0	61.0	54.5
Georgia	705	40.7	5.2	39.1	0.8	36.0	2.9	12.2	3.9	0.0	40.2	41.2
Hong Kong SAR	637	58.9	8.3	58.4	1.9	9.7	0.2	20.7	0.8	0.0	57.0	60.9
Hungary	772	57.8	9.6	56.9	0.4	10.9	0.7	19.9	1.6	0.0	62.1	53.5
Ireland	709	79.7	6.9	79.5	0.2	8.7	0.3	4.2	0.2	0.0	82.3	77.5
Israel	735	71.1	6.9	69.6	1.6	14.4	1.6	3.8	1.8	0.3	74.9	67.3
Italy	650	77.4	4.2	76.4	0.7	4.5	1.0	11.9	1.3	0.0	81.2	73.6
Japan	565	87.5	8.0	87.5	0.3	2.1	0.1	2.1	0.0	0.0	92.0	83.1
Jordan	999	69.8	12.5	67.4	2.8	4.4	2.5	7.0	3.4	0.0	70.9	68.6
Kazakhstan	904	36.3	9.6	35.1	7.0	26.6	7.4	11.0	2.8	0.4	32.5	40.0
Korea, Rep. of	617	78.5	5.0	78.1	0.3	3.9	1.0	11.3	0.4	0.0	80.2	76.6
Lithuania	776	42.0	6.4	41.5	0.9	18.3	1.1	30.5	1.1	0.0	45.7	38.5
Malaysia	1273	70.8	13.4	70.5	3.4	3.8	2.0	6.6	0.2	0.1	75.7	65.5
Malta	566	77.5	11.1	76.7	0.7	5.1	0.3	5.0	1.0	0.0	83.0	71.5
Morocco	1240	33.0	18.8	30.0	9.7	15.9	7.9	8.6	8.8	0.4	34.2	31.8
New Zealand	554	72.6	7.0	71.6	1.3	8.0	1.0	9.6	1.3	0.0	74.7	70.9
Norway (9)	896	58.3	7.4	57.2	2.2	9.0	0.5	21.8	1.6	0.4	58.5	58.1
Oman	1165	73.3	8.1	71.7	0.9	7.7	1.6	7.7	1.9	0.3	79.5	67.6
Palestinian Nat'l Auth.	923	57.5	14.1	55.5	4.1	7.6	3.8	11.4	3.3	0.2	65.5	49.4
Portugal	759	78.5	8.1	78.0	0.4	3.5	0.0	9.4	0.6	0.0	83.7	73.7
Qatar	619	70.6	7.6	69.5	3.3	7.2	1.8	9.2	1.6	0.0	76.7	64.9
Romania	538	69.8	5.9	68.3	0.7	8.6	0.7	13.6	1.5	0.7	70.1	69.6
Saudi Arabia	844	70.7	8.8	70.3	1.9	7.9	3.0	7.4	0.5	0.1	80.3	61.8
Singapore	692	77.8	6.2	77.7	0.4	5.0	0.1	10.4	0.1	0.0	78.0	77.6
Sweden	723	53.5	7.2	53.0	0.7	12.2	0.4	25.5	0.9	0.1	53.2	53.9
Turkiye	699	82.9	5.6	81.3	1.6	5.5	0.7	3.4	1.9	0.0	90.2	75.3
United Arab Emirates	4672	72.8	8.1	71.8	3.4	5.3	1.7	8.3	1.0	0.3	76.4	69.3
United States	1118	76.3	7.0	75.2	0.8	6.1	0.3	9.0	0.6	0.9	78.6	74.1
Uzbekistan	621	20.9	13.8	18.3	5.2	16.4	7.6	26.1	11.5	0.9	17.5	24.4
International Avg. (40)	38038	65.6	8.7	64.5	1.9	9.0	1.6	12.1	2.0	0.2	68.2	63.1
Abu Dhabi, UAE	1744	62.3	11.7	61.6	5.9	7.1	2.8	9.7	0.8	0.3	66.9	57.7
Dubai, UAE	1161	80.6	5.5	79.5	1.6	3.2	0.8	8.0	1.0	0.4	82.0	79.4
Sharjah, UAE	896	78.4	5.7	76.9	1.6	3.7	1.3	9.0	1.6	0.2	81.2	75.5

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Knowing

B_SM4_02B SE72905B: Risk factors for disease: sunscreen - MC - Key: E

COUNTRY	N	DIFF %	A %	B %	C %	D %	E %	F %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1219	93.9	1.3	1.7	1.6	1.0	92.9	0.3	1.0	0.0	95.8	92.2
Austria	655	92.2	0.5	2.4	0.7	2.7	91.7	1.5	0.6	0.0	94.7	89.8
Azerbaijan	885	71.8	4.7	10.5	2.7	6.3	64.4	1.2	9.4	0.8	82.2	61.2
Bahrain	737	74.1	2.0	6.7	3.0	9.0	73.9	5.1	0.2	0.0	81.2	67.3
Brazil	3280	90.8	1.2	2.4	1.2	2.4	87.0	1.7	3.0	1.2	91.3	90.3
Chile	635	92.5	0.8	2.8	0.8	1.6	90.6	1.3	2.0	0.0	94.3	91.0
Chinese Taipei	797	97.0	0.7	1.0	0.2	0.8	96.8	0.4	0.2	0.0	98.6	95.4
Cyprus	594	76.6	2.2	6.8	2.9	6.5	75.7	4.7	0.6	0.6	82.2	71.0
Czech Republic	1175	90.5	0.1	1.9	0.1	6.1	89.8	1.2	0.8	0.0	89.1	91.7
England	620	94.3	0.4	1.1	0.5	2.3	93.8	1.4	0.4	0.1	94.6	94.0
Finland	836	90.8	1.3	0.9	0.8	4.0	90.0	2.1	0.6	0.3	93.4	88.4
France	634	83.1	0.8	6.6	0.1	6.5	82.3	2.7	1.0	0.0	86.3	79.7
Georgia	705	75.8	1.2	18.8	0.4	2.1	73.9	1.0	2.6	0.0	77.3	74.0
Hong Kong SAR	638	93.8	1.6	1.5	0.8	1.1	92.9	1.1	0.9	0.0	94.1	93.5
Hungary	772	87.6	0.7	4.0	0.4	4.1	87.5	3.1	0.2	0.0	89.9	85.3
Ireland	709	95.6	0.8	0.8	0.3	1.9	95.3	0.7	0.2	0.0	97.6	93.8
Israel	735	82.8	1.9	4.4	1.9	4.4	81.7	4.3	1.0	0.3	88.1	77.4
Italy	650	89.8	0.8	4.5	0.4	2.0	89.4	2.6	0.4	0.0	92.4	87.0
Japan	565	95.6	0.5	0.9	0.1	2.0	95.6	0.8	0.0	0.0	97.8	93.5
Jordan	999	54.3	4.7	16.8	3.6	12.4	51.8	5.9	4.7	0.0	61.7	46.9
Kazakhstan	904	54.0	2.3	33.2	1.4	6.0	52.7	2.0	2.0	0.4	49.5	58.5
Korea, Rep. of	617	91.9	1.0	2.2	0.2	3.4	91.6	1.3	0.3	0.0	93.0	90.7
Lithuania	776	82.8	1.4	8.6	0.8	5.0	82.4	1.3	0.4	0.0	87.7	78.0
Malaysia	1273	78.3	3.4	5.5	2.4	6.3	78.0	4.0	0.2	0.1	80.3	76.1
Malta	566	92.2	1.1	1.5	1.5	2.5	91.5	1.1	0.8	0.0	93.5	90.9
Morocco	1240	35.5	12.7	15.4	10.6	11.6	31.8	7.4	10.1	0.4	40.4	30.2
New Zealand	554	92.0	2.4	2.3	0.3	1.7	90.1	1.2	2.0	0.0	95.1	89.5
Norway (9)	896	89.4	1.9	2.0	1.3	3.2	88.3	2.1	0.8	0.4	93.5	85.8
Oman	1165	70.4	2.0	9.9	2.2	10.3	68.8	4.5	2.0	0.3	77.4	64.1
Palestinian Nat'l Auth.	923	62.2	6.4	11.5	4.3	9.3	59.2	4.6	4.5	0.2	71.4	52.5
Portugal	759	93.4	0.4	1.5	0.6	2.5	93.3	1.6	0.1	0.0	95.3	91.6
Qatar	619	80.5	0.8	7.4	0.9	5.5	79.6	4.7	1.2	0.0	85.1	76.3
Romania	538	85.4	0.3	8.3	0.7	3.0	83.0	1.9	2.1	0.7	87.8	83.1
Saudi Arabia	844	68.3	3.0	8.4	2.8	11.2	67.3	5.8	1.4	0.1	76.4	60.7
Singapore	692	96.5	0.4	0.7	0.4	0.7	96.3	1.2	0.3	0.0	96.4	96.7
Sweden	723	94.6	0.8	1.0	1.4	1.2	93.7	0.9	0.8	0.1	97.5	91.7
Turkiye	699	90.9	0.5	2.8	0.2	3.6	89.9	1.8	1.1	0.0	93.7	88.1
United Arab Emirates	4672	79.9	2.9	5.2	2.9	5.0	79.0	3.8	0.9	0.3	83.9	76.0
United States	1118	93.4	1.0	1.8	1.0	1.6	92.2	1.0	0.4	0.9	94.5	92.4
Uzbekistan	621	63.0	3.6	17.8	2.3	4.0	54.7	4.4	12.3	0.9	70.8	54.8
International Avg. (40)	38039	82.9	1.9	6.1	1.5	4.4	81.5	2.5	1.8	0.2	86.1	79.8
Abu Dhabi, UAE	1744	69.7	5.7	8.8	4.5	5.8	69.0	5.1	0.8	0.3	75.1	64.3
Dubai, UAE	1161	90.1	1.1	1.5	1.8	2.8	88.9	2.6	0.9	0.4	91.6	88.7
Sharjah, UAE	896	85.3	1.4	3.7	1.3	5.2	84.2	2.8	1.0	0.2	89.9	80.7

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Biology / Knowing

B_SM4_02C SE72905C: Risk factors for disease: fat and sugar - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	C %	D %	E %	F %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1219	85.1	83.9	10.4	0.8	1.3	1.5	0.7	1.4	0.0	87.1	83.2
Austria	655	87.3	86.9	8.6	0.6	1.3	0.4	1.8	0.4	0.0	88.2	86.4
Azerbaijan	885	57.3	51.6	24.6	3.2	5.8	2.2	2.6	9.2	0.8	64.6	49.8
Bahrain	737	78.7	78.3	9.6	1.8	4.4	2.2	3.2	0.6	0.0	83.8	73.9
Brazil	3280	86.6	82.8	4.6	1.4	1.8	0.6	4.3	3.2	1.2	86.5	86.7
Chile	635	91.0	89.0	5.4	0.7	0.8	0.2	1.7	2.2	0.0	92.8	89.4
Chinese Taipei	797	91.5	91.5	7.6	0.6	0.0	0.3	0.0	0.0	0.0	93.8	89.2
Cyprus	594	66.3	65.5	15.1	2.5	8.7	2.7	4.2	0.8	0.6	68.0	64.7
Czech Republic	1175	92.3	91.6	5.3	0.0	0.6	0.1	1.7	0.8	0.0	93.9	90.9
England	620	89.0	88.2	10.1	0.4	0.1	0.2	0.1	0.8	0.1	88.0	90.0
Finland	836	87.5	86.6	7.7	0.5	1.2	0.5	2.4	0.8	0.3	86.1	88.9
France	634	87.6	87.1	4.7	0.4	3.3	0.5	3.5	0.7	0.0	89.1	86.1
Georgia	705	91.2	88.2	3.2	1.1	1.1	0.5	2.6	3.3	0.0	91.8	90.5
Hong Kong SAR	638	77.9	77.4	17.0	0.8	2.2	1.0	1.0	0.7	0.0	77.7	78.0
Hungary	772	44.9	44.5	27.3	1.0	10.4	0.9	15.1	0.9	0.0	52.1	37.7
Ireland	709	92.1	91.8	6.2	0.3	0.8	0.3	0.3	0.3	0.0	92.0	92.2
Israel	735	84.2	82.9	9.1	1.5	2.4	1.0	1.6	1.2	0.3	85.4	82.9
Italy	650	94.1	93.8	4.0	0.5	0.2	0.4	0.8	0.3	0.0	94.8	93.3
Japan	565	92.1	91.9	7.2	0.2	0.0	0.4	0.1	0.2	0.0	95.3	89.0
Jordan	999	74.3	70.7	6.5	5.3	4.8	3.1	4.8	4.8	0.0	78.3	70.2
Kazakhstan	904	81.9	79.4	10.2	0.9	2.5	1.8	2.1	2.6	0.4	82.9	80.9
Korea, Rep. of	617	89.0	88.7	6.7	0.2	0.8	0.3	2.9	0.3	0.0	93.3	84.4
Lithuania	776	85.8	85.6	6.4	1.3	1.3	0.3	5.0	0.3	0.0	87.5	84.1
Malaysia	1273	65.8	65.6	15.1	4.8	4.3	2.4	7.4	0.2	0.1	70.5	60.7
Malta	566	82.2	81.7	11.1	0.2	2.4	1.5	2.6	0.6	0.0	83.8	80.5
Morocco	1240	35.2	31.5	12.8	10.9	12.2	9.8	12.2	10.2	0.4	36.6	33.7
New Zealand	554	87.3	85.8	8.2	2.1	0.9	0.8	0.5	1.7	0.0	90.3	84.8
Norway (9)	896	81.6	80.3	11.0	1.0	1.3	1.1	3.8	1.1	0.4	81.5	81.6
Oman	1165	80.4	78.6	7.6	2.4	3.5	2.8	2.8	2.0	0.3	86.8	74.6
Palestinian Nat'l Auth.	923	68.8	65.3	10.6	5.2	5.3	4.6	3.9	4.9	0.2	77.2	60.0
Portugal	759	89.1	88.9	5.8	0.7	1.1	0.8	2.3	0.3	0.0	93.2	85.3
Qatar	619	85.1	83.9	7.7	0.9	3.1	0.8	2.1	1.5	0.0	91.1	79.6
Romania	538	90.0	87.1	4.1	1.1	1.9	0.9	1.7	2.5	0.7	93.8	86.6
Saudi Arabia	844	82.5	81.5	4.9	2.2	4.5	2.8	3.0	1.1	0.1	87.6	77.7
Singapore	692	89.9	89.7	7.3	0.3	0.9	0.3	1.3	0.1	0.0	93.1	86.7
Sweden	723	84.0	83.3	11.4	0.9	0.8	0.4	2.3	0.7	0.1	84.6	83.5
Turkiye	699	88.2	87.1	6.1	1.4	2.0	1.0	1.1	1.2	0.0	91.5	84.7
United Arab Emirates	4672	77.3	76.2	9.2	3.4	3.6	2.1	4.0	1.1	0.3	80.8	73.9
United States	1118	88.3	86.7	7.3	1.0	1.2	1.0	1.0	0.8	0.9	89.4	87.1
Uzbekistan	621	72.1	62.6	11.5	2.8	2.4	3.0	4.5	12.3	0.9	77.4	66.4
International Avg. (40)	38039	81.4	79.8	9.2	1.7	2.7	1.4	3.0	1.9	0.2	84.1	78.7
Abu Dhabi, UAE	1744	62.7	61.8	12.9	6.9	6.2	3.7	7.0	1.1	0.3	66.2	59.2
Dubai, UAE	1161	88.7	87.3	5.7	1.0	1.1	1.1	2.1	1.2	0.4	90.0	87.5
Sharjah, UAE	896	85.0	84.0	7.6	1.8	2.4	1.1	2.0	0.9	0.2	89.4	80.5

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Biology / Knowing

B_SM4_02D SE72905D: Risk factors for disease: smoking - MC - Key: C

COUNTRY	N	DIFF %	A %	B %	C %	D %	E %	F %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1219	93.6	0.8	1.5	92.7	1.4	0.5	2.1	1.0	0.0	93.8	93.5
Austria	655	93.8	1.0	1.9	93.4	0.6	0.5	2.2	0.4	0.0	94.5	93.0
Azerbaijan	885	78.6	1.1	1.9	71.9	1.8	3.1	11.7	7.8	0.8	81.3	75.8
Bahrain	737	87.0	1.2	2.6	86.4	1.6	3.7	3.9	0.7	0.0	88.5	85.5
Brazil	3280	88.9	0.9	1.2	85.1	1.5	1.4	5.6	3.1	1.2	88.9	88.9
Chile	635	96.1	0.2	0.7	93.9	0.6	0.3	2.0	2.3	0.0	95.3	96.7
Chinese Taipei	797	94.0	0.4	0.4	94.0	0.5	0.7	4.0	0.0	0.0	94.9	93.0
Cyprus	594	82.1	3.0	1.2	80.8	3.8	4.1	5.6	1.0	0.6	84.0	80.1
Czech Republic	1175	96.7	0.1	0.7	96.1	0.1	0.3	2.1	0.6	0.0	97.0	96.4
England	620	96.7	0.2	1.0	96.1	0.4	0.2	1.6	0.5	0.1	95.7	97.7
Finland	836	93.0	1.2	0.7	92.2	1.3	0.5	3.3	0.6	0.3	94.0	92.0
France	634	96.3	0.4	0.6	95.8	0.7	0.5	1.5	0.6	0.0	97.2	95.3
Georgia	705	91.5	1.1	0.4	89.5	0.8	0.9	5.2	2.2	0.0	92.9	89.8
Hong Kong SAR	638	90.3	1.3	1.8	90.0	1.6	0.6	4.4	0.3	0.0	88.5	92.2
Hungary	772	94.3	0.4	1.6	94.2	1.0	0.9	1.7	0.1	0.0	94.6	94.1
Ireland	709	92.4	0.3	1.6	91.7	0.9	0.5	4.3	0.7	0.0	93.2	91.7
Israel	735	88.0	1.0	2.0	86.4	3.2	3.0	2.6	1.5	0.3	90.6	85.4
Italy	650	96.8	0.1	0.4	96.5	0.6	0.8	1.4	0.3	0.0	95.6	98.0
Japan	565	95.8	0.2	0.6	95.8	1.3	0.2	2.0	0.0	0.0	95.3	96.2
Jordan	999	79.3	2.5	2.2	74.7	4.5	4.4	6.0	5.9	0.0	83.2	75.3
Kazakhstan	904	68.6	0.5	1.1	66.8	1.0	9.2	18.8	2.2	0.4	65.6	71.7
Korea, Rep. of	617	98.0	0.6	0.0	97.7	0.0	0.6	0.8	0.3	0.0	98.7	97.4
Lithuania	776	92.8	0.7	1.7	92.6	1.8	0.9	2.2	0.1	0.0	95.2	90.4
Malaysia	1273	85.2	2.3	2.3	84.8	2.6	2.5	5.0	0.4	0.1	86.7	83.5
Malta	566	91.5	1.4	1.2	91.0	0.5	2.0	3.3	0.6	0.0	92.5	90.5
Morocco	1240	44.9	7.7	8.6	39.6	11.1	8.2	13.0	11.4	0.4	47.4	42.2
New Zealand	554	91.3	1.8	2.2	89.4	0.8	0.8	2.8	2.1	0.0	94.8	88.5
Norway (9)	896	88.6	0.7	1.7	87.4	1.7	1.2	6.0	0.9	0.4	89.0	88.2
Oman	1165	86.4	1.6	1.6	84.9	4.0	3.0	3.1	1.5	0.3	91.4	81.9
Palestinian Nat'l Auth.	923	76.6	3.2	5.2	72.3	3.2	3.9	6.6	5.4	0.2	83.8	69.0
Portugal	759	94.2	0.2	1.3	94.2	0.5	0.7	3.0	0.0	0.0	96.4	92.1
Qatar	619	89.7	0.8	2.9	88.6	1.2	2.0	3.4	1.2	0.0	90.2	89.2
Romania	538	89.0	0.6	0.9	86.8	0.7	0.4	8.1	1.8	0.7	91.0	87.2
Saudi Arabia	844	85.6	1.2	2.1	84.6	2.9	2.5	5.5	1.0	0.1	91.8	79.6
Singapore	692	95.5	0.5	1.0	95.2	0.2	0.4	2.5	0.3	0.0	95.6	95.3
Sweden	723	91.2	1.1	1.5	90.5	1.4	0.7	4.2	0.6	0.1	92.5	89.9
Turkiye	699	94.5	0.7	0.5	93.7	0.5	1.5	2.2	0.9	0.0	95.7	93.3
United Arab Emirates	4672	82.5	2.7	3.2	81.6	3.6	2.8	5.1	0.8	0.3	85.2	79.9
United States	1118	92.3	0.5	0.8	90.8	1.6	1.0	3.7	0.6	0.9	93.6	90.9
Uzbekistan	621	85.4	1.4	2.6	76.6	1.6	1.6	5.9	9.4	0.9	86.2	84.5
International Avg. (40)	38039	88.7	1.2	1.7	87.1	1.7	1.8	4.5	1.8	0.2	90.1	87.4
Abu Dhabi, UAE	1744	70.4	4.9	5.0	69.6	5.8	5.5	8.1	0.9	0.3	73.7	67.0
Dubai, UAE	1161	92.6	1.3	1.4	91.6	1.2	0.8	2.7	0.6	0.4	92.7	92.5
Sharjah, UAE	896	88.7	0.9	2.2	87.7	2.2	1.5	4.4	0.9	0.2	92.6	84.7

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Biology / Applying

B_SM4_03 SE72049: Source of DNA making flowers pink - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1218	63.3	19.1	63.1	5.6	12.0	0.2	0.0	62.7	63.7
Austria	655	51.7	30.7	51.6	7.5	10.0	0.2	0.0	53.9	49.6
Azerbaijan	885	45.1	20.3	43.2	12.1	20.1	3.4	0.9	45.6	44.7
Bahrain	737	48.5	19.5	48.3	11.5	20.4	0.3	0.0	52.6	44.5
Brazil	3280	54.9	19.9	53.8	12.6	11.7	0.6	1.4	51.9	57.6
Chile	635	59.8	16.4	59.3	14.2	9.3	0.8	0.0	60.6	59.1
Chinese Taipei	797	65.7	21.7	65.7	4.4	8.2	0.0	0.0	68.5	62.9
Cyprus	594	41.5	25.0	41.1	16.9	16.1	0.3	0.6	47.8	35.2
Czech Republic	1175	65.3	18.3	64.8	8.3	7.8	0.7	0.1	70.2	60.8
England	620	61.3	24.0	61.1	5.6	8.9	0.3	0.1	61.4	61.3
Finland	836	55.3	20.7	54.8	15.6	7.9	0.6	0.3	58.7	52.1
France	634	63.6	15.6	63.4	9.5	11.2	0.3	0.0	69.1	57.8
Georgia	705	49.8	16.5	48.5	11.8	20.6	2.7	0.0	53.5	45.6
Hong Kong SAR	638	57.7	21.0	57.5	10.9	10.2	0.3	0.0	56.6	58.9
Hungary	772	64.8	11.6	64.8	8.8	14.7	0.1	0.0	64.5	65.2
Ireland	709	60.0	22.9	59.9	4.1	12.9	0.2	0.0	61.2	59.0
Israel	735	58.4	14.7	57.5	10.4	16.0	1.2	0.3	60.3	56.4
Italy	650	68.4	13.0	68.2	7.4	11.2	0.2	0.0	73.7	63.0
Japan	565	63.6	19.0	63.6	5.6	11.7	0.0	0.0	63.3	63.9
Jordan	999	47.4	17.0	47.3	15.5	19.9	0.3	0.0	51.0	43.9
Kazakhstan	904	51.5	19.6	51.0	12.3	16.0	0.4	0.6	54.1	48.9
Korea, Rep. of	617	56.0	26.1	55.9	7.9	9.8	0.2	0.0	56.6	55.4
Lithuania	776	59.7	23.9	59.5	7.4	8.9	0.2	0.0	66.6	53.0
Malaysia	1273	59.4	17.1	59.3	8.8	14.7	0.0	0.1	61.2	57.3
Malta	566	58.1	20.7	58.0	8.2	13.0	0.2	0.0	62.3	53.5
Morocco	1240	36.6	16.2	35.9	24.9	21.0	1.5	0.5	37.5	35.6
New Zealand	554	56.4	22.7	55.8	8.6	11.8	1.1	0.0	58.4	55.2
Norway (9)	896	54.8	24.9	53.9	10.0	9.6	1.2	0.5	56.1	53.7
Oman	1165	43.7	14.9	43.4	11.1	29.8	0.4	0.4	42.3	45.0
Palestinian Nat'l Auth.	923	44.1	14.4	43.6	18.6	22.1	0.8	0.4	45.1	43.2
Portugal	759	58.7	17.1	58.7	12.9	11.4	0.0	0.0	62.0	55.5
Qatar	619	52.2	20.7	51.8	6.9	19.8	0.4	0.4	57.3	47.5
Romania	539	54.9	22.0	54.0	7.4	15.1	0.9	0.7	58.0	52.0
Saudi Arabia	844	46.7	22.4	46.6	13.1	17.6	0.2	0.1	47.3	46.2
Singapore	692	70.0	22.6	70.0	3.3	4.0	0.0	0.0	72.5	67.6
Sweden	723	50.8	25.7	50.3	9.3	13.8	0.8	0.1	49.9	51.6
Turkiye	699	50.9	20.0	50.1	11.8	16.7	1.4	0.0	51.5	50.2
United Arab Emirates	4672	55.1	21.9	54.6	7.8	14.8	0.4	0.5	56.8	53.4
United States	1118	54.7	28.4	53.8	7.3	8.9	0.4	1.2	57.5	52.0
Uzbekistan	621	43.6	19.1	42.8	13.2	23.0	0.7	1.1	45.6	41.6
International Avg. (40)	38039	55.1	20.2	54.7	10.2	14.1	0.6	0.3	57.1	53.1
Abu Dhabi, UAE	1744	51.9	23.7	51.5	10.8	13.2	0.4	0.4	54.1	49.6
Dubai, UAE	1161	62.8	22.5	62.3	4.8	9.5	0.3	0.6	62.1	63.5
Sharjah, UAE	896	54.3	20.8	53.7	5.7	18.7	0.7	0.4	57.2	51.3

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Biology / Applying

B_SM4_04 SE72016: Gases in inhaled and exhaled air (DERIVED) - CR - 2 Points

COUNTRY	N	DIFF %	20 %	10 %	11 %	79 %	2pt %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1219	27.1	15.7	3.5	16.0	58.7	15.7	19.5	58.7	6.1	0.0	24.4	29.2
Austria	655	47.0	32.9	10.2	9.0	38.4	32.9	19.2	38.4	9.6	0.0	45.1	48.6
Azerbaijan	885	24.5	6.2	13.3	4.2	37.5	6.2	17.5	37.5	37.9	0.9	28.4	20.9
Bahrain	737	26.0	16.3	11.1	3.9	59.9	16.3	15.0	59.9	8.8	0.0	30.2	21.9
Brazil	3280	14.0	4.6	7.2	4.9	59.3	4.6	12.1	59.3	22.4	1.7	10.4	16.8
Chile	635	11.8	2.8	0.9	11.6	61.3	2.8	12.5	61.3	23.4	0.0	9.6	13.6
Chinese Taipei	797	55.1	40.0	9.1	15.7	30.3	40.0	24.8	30.3	4.8	0.0	54.1	56.1
Cyprus	594	27.2	13.3	11.2	6.3	50.4	13.3	17.5	50.4	18.2	0.6	28.1	26.1
Czech Republic	1175	38.4	17.9	10.8	22.8	38.9	17.9	33.5	38.9	9.5	0.1	37.1	39.6
England	620	48.4	35.3	9.7	9.8	38.3	35.3	19.5	38.3	6.8	0.1	46.8	50.0
Finland	836	37.5	23.7	12.3	9.4	46.7	23.7	21.7	46.7	7.6	0.3	31.2	43.5
France	634	32.6	18.0	7.7	13.9	48.9	18.0	21.7	48.9	11.5	0.0	30.4	34.8
Georgia	705	35.5	16.7	11.7	6.2	37.7	16.7	18.0	37.7	27.5	0.1	33.0	38.4
Hong Kong SAR	638	50.8	32.6	6.0	20.6	31.2	32.6	26.5	31.2	9.6	0.0	47.4	54.3
Hungary	772	40.6	26.3	11.8	11.6	43.8	26.3	23.3	43.8	6.6	0.0	36.8	44.3
Ireland	709	51.0	35.0	20.7	5.6	33.1	35.0	26.3	33.1	5.5	0.0	48.9	52.8
Israel	734	36.3	24.0	7.8	6.5	47.6	24.0	14.4	47.6	13.7	0.3	36.3	36.3
Italy	650	33.7	17.9	8.1	9.7	44.0	17.9	17.8	44.0	20.3	0.0	29.4	38.2
Japan	565	19.9	9.8	4.3	13.5	66.8	9.8	17.8	66.8	5.6	0.0	15.9	23.7
Jordan	999	14.1	6.4	6.4	5.9	70.3	6.4	12.4	70.3	10.9	0.0	17.3	11.0
Kazakhstan	904	19.7	7.6	7.4	9.8	57.2	7.6	17.2	57.2	17.4	0.6	19.3	20.2
Korea, Rep. of	617	37.7	25.8	8.7	6.0	47.4	25.8	14.8	47.4	12.0	0.0	34.8	41.0
Lithuania	776	32.8	13.1	3.7	27.9	43.4	13.1	31.5	43.4	12.0	0.0	32.6	33.0
Malaysia	1274	11.7	6.0	2.6	8.2	80.6	6.0	10.8	80.6	2.6	0.1	11.1	12.2
Malta	566	37.9	23.7	4.9	15.6	45.5	23.7	20.6	45.5	10.2	0.0	38.4	37.4
Morocco	1240	11.1	4.1	3.3	3.7	57.6	4.1	7.0	57.6	30.5	0.8	12.0	10.0
New Zealand	553	29.8	18.2	6.2	11.4	54.9	18.2	17.6	54.9	9.3	0.0	27.3	31.7
Norway (9)	896	34.9	22.5	7.3	6.8	47.9	22.5	14.1	47.9	15.1	0.5	32.1	37.3
Oman	1165	32.9	16.1	24.6	4.6	48.0	16.1	29.2	48.0	6.2	0.5	36.8	29.2
Palestinian Nat'l Auth.	923	11.5	5.0	7.1	3.5	74.0	5.0	10.6	74.0	9.9	0.5	12.6	10.4
Portugal	759	33.1	19.8	8.4	7.0	47.8	19.8	15.4	47.8	17.0	0.0	31.4	34.6
Qatar	618	34.7	21.4	10.6	12.2	50.4	21.4	22.8	50.4	4.8	0.6	35.5	33.9
Romania	539	16.4	3.9	8.9	8.7	56.5	3.9	17.7	56.5	21.1	0.8	16.0	16.7
Saudi Arabia	844	13.0	5.5	3.5	10.5	76.8	5.5	14.0	76.8	3.6	0.1	13.2	12.9
Singapore	692	66.5	54.6	10.8	11.3	22.0	54.6	22.1	22.0	1.3	0.0	65.1	67.8
Sweden	723	48.2	30.7	8.7	11.9	33.7	30.7	20.6	33.7	14.7	0.2	48.2	48.3
Turkiye	699	40.6	19.8	18.9	6.0	34.7	19.8	24.9	34.7	20.5	0.0	38.6	42.8
United Arab Emirates	4670	28.8	17.2	6.0	13.8	57.0	17.2	19.8	57.0	5.4	0.6	27.9	29.7
United States	1118	35.0	22.8	13.8	7.3	51.4	22.8	21.2	51.4	3.3	1.3	33.8	36.3
Uzbekistan	621	10.4	3.3	3.9	5.7	64.6	3.3	9.6	64.6	21.1	1.4	10.5	10.3
International Avg. (40)	38036	31.5	18.4	8.8	10.0	49.9	18.4	18.8	49.9	12.6	0.3	30.5	32.4
Abu Dhabi, UAE	1743	21.4	12.4	5.3	9.9	65.9	12.4	15.2	65.9	6.0	0.5	21.0	21.7
Dubai, UAE	1161	42.0	27.2	8.3	17.0	42.5	27.2	25.2	42.5	4.4	0.6	39.1	44.6
Sharjah, UAE	895	32.9	18.9	6.2	18.3	51.2	18.9	24.5	51.2	4.8	0.7	32.9	33.0

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Applying

B_SM4_04A SE72016A: Gases in inhaled and exhaled air - oxygen - CR - 1 Point

COUNTRY	N	DIFF %	10 %	70 %	79 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1219	20.6	19.2	2.1	71.9	19.2	74.0	6.8	0.0	17.5	23.1
Austria	655	48.2	43.1	3.1	43.2	43.1	46.4	10.6	0.0	44.3	51.8
Azerbaijan	885	32.3	19.5	1.7	39.1	19.5	40.8	38.8	0.9	39.5	25.9
Bahrain	737	30.2	27.4	0.9	62.2	27.4	63.1	9.5	0.0	36.7	24.0
Brazil	3280	15.7	11.8	7.4	55.6	11.8	63.1	23.5	1.7	12.4	18.4
Chile	635	5.0	3.8	5.0	67.1	3.8	72.1	24.1	0.0	4.7	5.1
Chinese Taipei	797	51.7	49.2	17.7	28.2	49.2	45.9	5.0	0.0	55.9	47.7
Cyprus	594	30.7	24.6	2.3	53.1	24.6	55.4	19.5	0.6	34.0	27.0
Czech Republic	1175	31.9	28.7	4.8	56.4	28.7	61.3	9.9	0.1	32.6	31.3
England	620	48.6	45.0	2.0	45.7	45.0	47.6	7.2	0.1	45.4	51.9
Finland	836	39.1	36.0	5.1	51.0	36.0	56.0	7.6	0.3	32.5	45.3
France	634	29.5	25.7	4.7	56.8	25.7	61.4	12.8	0.0	26.8	32.3
Georgia	705	39.9	28.5	2.4	40.4	28.5	42.9	28.6	0.1	40.4	39.4
Hong Kong SAR	638	43.0	38.6	2.8	48.3	38.6	51.2	10.2	0.0	40.9	45.2
Hungary	772	41.0	38.1	2.6	52.2	38.1	54.8	7.2	0.0	37.9	44.0
Ireland	709	59.2	55.7	2.5	35.9	55.7	38.4	5.9	0.0	58.6	59.7
Israel	734	37.1	31.8	2.8	51.2	31.8	54.0	13.9	0.3	37.5	36.7
Italy	650	33.0	26.0	3.5	49.3	26.0	52.8	21.2	0.0	30.2	36.0
Japan	565	15.0	14.1	4.9	75.3	14.1	80.3	5.6	0.0	11.9	17.9
Jordan	999	14.5	12.8	3.6	71.9	12.8	75.5	11.6	0.0	21.0	8.2
Kazakhstan	904	18.5	15.0	7.5	58.4	15.0	65.8	18.5	0.6	18.8	18.2
Korea, Rep. of	617	39.4	34.5	0.9	52.2	34.5	53.1	12.4	0.0	36.2	43.1
Lithuania	776	19.2	16.7	8.1	62.5	16.7	70.5	12.7	0.0	18.6	19.7
Malaysia	1274	8.8	8.6	7.7	80.8	8.6	88.6	2.8	0.1	9.0	8.6
Malta	566	31.9	28.7	11.3	49.8	28.7	61.1	10.2	0.0	32.6	31.2
Morocco	1240	10.9	7.4	6.2	54.1	7.4	60.4	31.4	0.8	12.5	9.1
New Zealand	553	27.0	24.4	5.0	60.8	24.4	65.8	9.7	0.0	27.4	27.0
Norway (9)	896	35.3	29.8	1.1	53.4	29.8	54.5	15.3	0.5	33.5	36.9
Oman	1165	43.8	40.7	5.9	46.3	40.7	52.2	6.6	0.5	49.8	37.9
Palestinian Nat'l Auth.	923	13.7	12.1	2.6	74.1	12.1	76.6	10.7	0.5	14.2	13.1
Portugal	759	34.1	28.2	3.2	51.3	28.2	54.4	17.4	0.0	34.7	33.6
Qatar	618	34.1	32.0	2.7	59.2	32.0	61.9	5.5	0.6	36.3	32.0
Romania	539	16.6	12.9	7.1	57.5	12.9	64.6	21.7	0.8	14.7	18.4
Saudi Arabia	844	9.4	9.0	3.8	82.6	9.0	86.4	4.5	0.1	8.5	10.3
Singapore	692	66.5	65.4	3.2	29.7	65.4	33.0	1.6	0.0	66.3	66.6
Sweden	723	47.4	39.4	9.8	34.0	39.4	43.8	16.6	0.2	48.2	46.6
Turkiye	699	49.7	38.8	4.0	35.2	38.8	39.2	22.0	0.0	46.7	53.1
United Arab Emirates	4670	24.8	23.2	1.9	68.6	23.2	70.6	5.6	0.6	24.4	25.1
United States	1118	38.4	36.7	2.9	55.8	36.7	58.7	3.3	1.3	38.1	38.9
Uzbekistan	621	9.4	7.2	10.5	58.6	7.2	69.1	22.4	1.4	8.8	10.1
International Avg. (40)	38036	31.1	27.3	4.7	54.5	27.3	59.2	13.3	0.3	31.0	31.3
Abu Dhabi, UAE	1743	18.9	17.6	2.0	73.6	17.6	75.6	6.2	0.5	18.6	19.3
Dubai, UAE	1161	37.5	35.5	2.3	56.9	35.5	59.2	4.7	0.6	36.0	38.8
Sharjah, UAE	895	26.6	25.1	1.5	67.8	25.1	69.3	5.0	0.7	27.5	25.7

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Applying

B_SM4_04B SE72016B: Gases in inhaled and exhaled air - nitrogen - CR - 1 Point

COUNTRY	N	DIFF %	10 %	70 %	79 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1219	35.7	31.7	0.4	56.8	31.7	57.2	11.1	0.0	33.7	37.1
Austria	655	50.6	41.8	0.5	40.2	41.8	40.8	17.4	0.0	51.0	50.3
Azerbaijan	885	21.9	10.5	1.6	35.7	10.5	37.3	51.4	0.9	23.1	20.8
Bahrain	737	24.5	20.1	1.5	60.6	20.1	62.1	17.8	0.0	27.0	22.0
Brazil	3280	14.0	9.5	0.3	57.8	9.5	58.2	30.7	1.7	10.0	17.0
Chile	635	22.4	14.4	0.0	49.7	14.4	49.7	35.9	0.0	17.7	26.1
Chinese Taipei	797	59.9	55.7	3.3	34.0	55.7	37.3	6.9	0.0	54.1	65.6
Cyprus	594	29.1	19.6	0.4	47.3	19.6	47.7	32.2	0.6	27.2	31.3
Czech Republic	1175	51.6	40.7	1.8	36.5	40.7	38.3	20.9	0.1	48.9	53.9
England	620	54.5	45.0	0.8	36.9	45.0	37.6	17.2	0.1	55.7	53.2
Finland	836	38.4	33.1	0.1	53.1	33.1	53.2	13.4	0.3	33.5	42.6
France	634	42.2	31.9	1.4	42.4	31.9	43.8	24.3	0.0	41.7	42.6
Georgia	705	42.2	23.0	0.5	31.0	23.0	31.5	45.5	0.1	36.2	48.6
Hong Kong SAR	638	61.5	53.2	2.0	31.4	53.2	33.3	13.5	0.0	56.9	66.2
Hungary	772	45.2	37.8	0.4	45.4	37.8	45.8	16.4	0.0	42.0	48.1
Ireland	709	48.7	40.6	1.2	41.6	40.6	42.8	16.5	0.0	44.4	52.4
Israel	734	39.7	30.6	0.6	45.7	30.6	46.3	22.8	0.3	40.4	39.1
Italy	650	42.1	27.6	0.1	37.9	27.6	38.0	34.4	0.0	38.1	45.8
Japan	565	26.1	23.4	16.2	49.8	23.4	66.1	10.6	0.0	21.0	31.1
Jordan	999	16.5	12.3	1.5	60.6	12.3	62.1	25.6	0.0	16.4	16.7
Kazakhstan	904	26.0	17.3	3.3	46.2	17.3	49.5	32.5	0.6	25.3	26.6
Korea, Rep. of	617	38.9	31.8	1.2	48.7	31.8	49.9	18.2	0.0	36.4	41.7
Lithuania	776	52.4	40.9	0.5	36.7	40.9	37.1	21.9	0.0	54.2	50.9
Malaysia	1274	15.1	14.1	1.1	78.5	14.1	79.5	6.3	0.1	13.9	16.4
Malta	566	46.8	39.4	2.1	42.7	39.4	44.7	15.9	0.0	47.1	46.5
Morocco	1240	15.5	7.8	2.7	39.7	7.8	42.4	49.0	0.8	16.6	14.5
New Zealand	553	35.1	29.6	0.8	54.0	29.6	54.8	15.6	0.0	29.3	39.2
Norway (9)	896	37.5	29.2	0.1	48.6	29.2	48.7	21.6	0.5	34.2	40.3
Oman	1165	24.4	20.7	2.5	61.5	20.7	64.0	14.8	0.5	25.7	23.1
Palestinian Nat'l Auth.	923	10.9	8.5	1.5	68.1	8.5	69.6	21.4	0.5	12.9	8.8
Portugal	759	37.5	26.8	0.1	44.6	26.8	44.8	28.4	0.0	33.7	40.7
Qatar	618	38.4	33.6	0.0	53.9	33.6	53.9	11.9	0.6	37.1	39.6
Romania	539	19.5	12.7	1.8	50.4	12.7	52.2	34.3	0.8	21.2	18.0
Saudi Arabia	844	18.6	16.1	0.7	69.5	16.1	70.2	13.6	0.1	20.3	17.1
Singapore	692	67.6	65.9	4.4	27.3	65.9	31.6	2.4	0.0	64.5	70.5
Sweden	723	53.0	42.6	1.1	36.8	42.6	37.8	19.4	0.2	52.5	53.5
Turkiye	699	38.0	25.8	0.3	41.9	25.8	42.2	32.0	0.0	37.4	38.6
United Arab Emirates	4671	35.0	31.0	3.3	54.2	31.0	57.5	11.0	0.6	33.5	36.5
United States	1118	32.1	30.2	0.5	63.4	30.2	63.8	4.7	1.3	30.0	34.3
Uzbekistan	621	14.7	8.9	2.3	49.6	8.9	51.8	37.8	1.4	15.6	13.7
International Avg. (40)	38037	35.6	28.4	1.6	47.8	28.4	49.4	21.9	0.3	34.0	37.0
Abu Dhabi, UAE	1744	25.3	22.3	2.5	63.3	22.3	65.8	11.4	0.5	24.9	25.7
Dubai, UAE	1161	48.9	44.2	3.5	42.7	44.2	46.2	9.0	0.6	44.5	52.8
Sharjah, UAE	895	41.8	37.2	4.3	47.4	37.2	51.7	10.5	0.7	40.3	43.4

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Reasoning

B_SM4_05 SE72451: Oldest fossils - CR - 1 Point

COUNTRY	N	DIFF %	10 %	79 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1219	69.8	69.3	29.9	69.3	29.9	0.7	0.1	72.6	67.5
Austria	655	69.7	69.2	30.1	69.2	30.1	0.7	0.0	75.5	64.0
Azerbaijan	885	25.2	23.7	70.4	23.7	70.4	4.4	1.4	23.7	26.7
Bahrain	737	33.0	33.0	67.0	33.0	67.0	0.0	0.0	39.7	26.6
Brazil	3280	37.7	36.6	60.3	36.6	60.3	1.1	2.0	35.5	39.7
Chile	635	38.3	37.5	60.4	37.5	60.4	1.8	0.3	39.6	37.3
Chinese Taipei	797	83.3	83.1	16.7	83.1	16.7	0.2	0.0	82.3	84.2
Cyprus	594	55.2	54.5	44.3	54.5	44.3	0.5	0.8	58.8	51.6
Czech Republic	1175	50.6	50.3	49.0	50.3	49.0	0.4	0.2	53.7	47.8
England	620	73.8	73.4	26.0	73.4	26.0	0.4	0.1	74.2	73.4
Finland	836	54.4	54.0	45.3	54.0	45.3	0.4	0.3	58.4	50.6
France	634	54.2	54.1	45.7	54.1	45.7	0.2	0.1	57.8	50.4
Georgia	705	44.8	44.0	54.3	44.0	54.3	0.2	1.5	50.3	38.3
Hong Kong SAR	638	66.3	66.2	33.7	66.2	33.7	0.1	0.0	70.0	62.3
Hungary	772	54.9	54.8	45.0	54.8	45.0	0.2	0.0	57.6	52.1
Ireland	709	77.9	77.6	22.0	77.6	22.0	0.4	0.0	80.5	75.6
Israel	734	59.1	58.5	40.6	58.5	40.6	0.5	0.3	58.8	59.3
Italy	650	50.1	49.8	49.5	49.8	49.5	0.8	0.0	52.9	47.3
Japan	565	72.6	72.6	27.4	72.6	27.4	0.0	0.0	76.1	69.3
Jordan	999	35.3	35.2	64.4	35.2	64.4	0.4	0.0	40.6	30.1
Kazakhstan	904	39.7	38.5	58.4	38.5	58.4	1.1	1.9	44.2	35.3
Korea, Rep. of	617	82.2	82.0	17.8	82.0	17.8	0.2	0.0	85.7	78.4
Lithuania	776	62.1	61.9	37.8	61.9	37.8	0.4	0.0	69.8	54.7
Malaysia	1274	49.1	48.9	50.8	48.9	50.8	0.1	0.3	49.7	48.4
Malta	566	69.4	69.1	30.5	69.1	30.5	0.2	0.2	72.0	66.5
Morocco	1240	15.1	14.8	82.9	14.8	82.9	0.9	1.3	17.2	12.8
New Zealand	554	68.3	67.6	31.4	67.6	31.4	1.0	0.0	72.4	65.1
Norway (9)	896	57.5	56.9	42.1	56.9	42.1	0.5	0.5	60.0	55.3
Oman	1165	49.5	48.9	49.9	48.9	49.9	0.4	0.8	53.3	46.0
Palestinian Nat'l Auth.	923	17.0	16.8	82.5	16.8	82.5	0.1	0.5	17.5	16.4
Portugal	759	61.3	61.1	38.6	61.1	38.6	0.1	0.2	60.4	62.2
Qatar	619	44.2	43.6	55.0	43.6	55.0	0.6	0.8	47.0	41.7
Romania	539	45.5	44.9	53.7	44.9	53.7	0.3	1.1	46.7	44.4
Saudi Arabia	844	20.7	20.6	78.8	20.6	78.8	0.2	0.4	25.2	16.5
Singapore	692	77.2	77.2	22.8	77.2	22.8	0.0	0.0	78.6	75.9
Sweden	723	67.0	66.2	32.7	66.2	32.7	1.0	0.2	70.5	63.5
Turkiye	699	69.9	69.7	30.0	69.7	30.0	0.3	0.0	71.5	68.3
United Arab Emirates	4672	50.2	49.5	49.1	49.5	49.1	0.6	0.8	53.3	47.1
United States	1118	72.1	70.8	27.5	70.8	27.5	0.4	1.4	72.6	71.5
Uzbekistan	621	18.9	18.3	78.6	18.3	78.6	1.4	1.8	18.8	18.9
International Avg. (40)	38040	53.6	53.1	45.8	53.1	45.8	0.6	0.5	56.1	51.1
Abu Dhabi, UAE	1744	43.9	43.2	55.2	43.2	55.2	0.7	0.8	47.7	40.1
Dubai, UAE	1161	62.3	61.3	37.1	61.3	37.1	0.7	0.9	63.9	60.9
Sharjah, UAE	896	51.5	50.8	47.8	50.8	47.8	0.6	0.7	54.8	48.3

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Knowing

B_SM4_06 SE72074: How planting trees benefits environment - CR - 1 Point

COUNTRY	N	DIFF %	10 %	70 %	79 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1219	46.5	45.3	34.7	17.5	45.3	52.2	2.4	0.1	48.6	44.4
Austria	655	39.4	36.5	32.0	24.2	36.5	56.2	7.3	0.0	41.5	37.4
Azerbaijan	885	28.2	23.9	40.4	20.4	23.9	60.8	13.6	1.8	26.1	30.7
Bahrain	737	29.3	27.5	30.5	35.7	27.5	66.3	6.3	0.0	32.5	26.2
Brazil	3280	51.3	43.8	27.8	13.6	43.8	41.5	12.8	2.0	51.2	51.5
Chile	635	29.5	26.6	37.3	26.3	26.6	63.6	9.5	0.3	24.4	33.6
Chinese Taipei	797	34.5	34.2	34.4	30.4	34.2	64.8	1.0	0.0	34.5	34.6
Cyprus	594	39.5	36.1	38.4	16.9	36.1	55.3	7.9	0.8	44.9	33.9
Czech Republic	1175	34.8	33.1	37.1	24.9	33.1	62.1	4.5	0.3	33.8	35.7
England	620	63.4	61.6	29.6	5.9	61.6	35.5	2.8	0.1	67.1	59.7
Finland	836	39.0	37.6	40.5	18.2	37.6	58.7	3.4	0.3	40.5	37.6
France	634	26.4	24.8	34.5	34.6	24.8	69.1	6.0	0.1	27.1	25.7
Georgia	705	32.8	30.3	42.3	19.8	30.3	62.1	6.0	1.5	30.0	36.1
Hong Kong SAR	638	41.9	39.2	27.4	27.0	39.2	54.5	6.3	0.0	42.1	41.6
Hungary	772	39.6	38.8	40.4	18.8	38.8	59.2	2.1	0.0	39.8	39.4
Ireland	709	64.7	63.4	19.6	15.0	63.4	34.6	2.0	0.0	67.0	62.7
Israel	734	32.3	29.0	31.0	29.9	29.0	60.9	9.7	0.3	33.0	31.5
Italy	650	31.8	26.8	37.0	20.6	26.8	57.6	15.6	0.0	28.3	35.3
Japan	565	57.2	55.7	27.2	14.4	55.7	41.7	2.7	0.0	54.6	59.8
Jordan	999	33.6	31.1	28.3	33.3	31.1	61.6	7.2	0.1	40.2	26.8
Kazakhstan	904	26.2	24.1	24.9	43.0	24.1	67.9	6.1	1.9	22.7	29.7
Korea, Rep. of	617	55.9	55.1	34.5	8.9	55.1	43.4	1.5	0.0	53.8	58.3
Lithuania	776	25.4	24.3	39.2	32.3	24.3	71.5	4.3	0.0	30.0	20.8
Malaysia	1274	13.1	12.7	28.4	55.5	12.7	83.9	3.1	0.3	11.8	14.5
Malta	566	36.3	34.6	35.3	25.4	34.6	60.7	4.4	0.2	37.2	35.4
Morocco	1240	16.7	10.3	15.0	36.5	10.3	51.5	36.7	1.5	18.2	15.1
New Zealand	554	42.5	41.5	34.6	21.5	41.5	56.1	2.2	0.2	36.1	47.1
Norway (9)	896	36.4	32.9	28.9	28.7	32.9	57.6	9.1	0.5	37.1	35.8
Oman	1165	59.2	56.6	23.2	15.8	56.6	39.0	3.4	1.0	60.8	57.7
Palestinian Nat'l Auth.	923	24.0	22.5	28.2	43.0	22.5	71.2	5.8	0.5	28.3	19.5
Portugal	759	46.0	43.5	36.4	14.5	43.5	51.0	5.3	0.2	47.6	44.6
Qatar	619	42.6	40.7	33.7	21.1	40.7	54.8	3.7	0.8	41.9	43.2
Romania	539	19.0	18.1	37.8	39.5	18.1	77.3	3.5	1.1	22.0	16.1
Saudi Arabia	844	13.8	13.3	26.6	56.6	13.3	83.2	3.1	0.4	19.1	8.8
Singapore	692	67.2	66.7	23.6	9.0	66.7	32.6	0.6	0.0	67.3	67.0
Sweden	723	48.8	46.7	29.1	19.7	46.7	48.9	4.3	0.2	48.0	49.6
Turkiye	699	49.1	47.7	37.2	12.1	47.7	49.3	3.0	0.0	41.5	57.2
United Arab Emirates	4672	41.1	39.3	29.3	27.0	39.3	56.4	3.2	1.1	43.0	39.1
United States	1118	46.3	45.0	34.0	18.2	45.0	52.2	1.3	1.4	48.5	44.2
Uzbekistan	621	20.5	19.3	31.1	43.6	19.3	74.7	3.9	2.1	18.0	23.2
International Avg. (40)	38040	38.1	36.0	32.0	25.5	36.0	57.5	5.9	0.5	38.5	37.8
Abu Dhabi, UAE	1744	34.6	32.4	24.2	37.1	32.4	61.3	5.2	1.2	37.4	31.7
Dubai, UAE	1161	54.3	52.8	31.0	13.6	52.8	44.5	1.3	1.4	53.6	54.9
Sharjah, UAE	896	41.4	40.0	33.6	23.1	40.0	56.6	2.6	0.8	46.0	36.8

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Knowing

B_SM4_07 SE72091: Function of white blood cells - MC - Key: C

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1219	53.5	17.0	18.4	53.5	11.1	0.0	0.1	44.0	61.8
Austria	655	40.7	26.0	22.6	40.7	10.6	0.1	0.0	35.6	45.6
Azerbaijan	885	38.2	23.3	17.5	36.6	18.2	2.2	2.1	38.0	38.5
Bahrain	737	37.4	40.8	11.3	37.0	9.8	0.4	0.6	33.4	41.2
Brazil	3280	33.8	32.1	17.4	31.9	13.0	2.9	2.6	30.1	37.1
Chile	635	39.3	30.4	18.0	38.6	11.2	1.5	0.3	33.9	43.8
Chinese Taipei	797	63.7	25.0	5.1	63.6	6.1	0.1	0.0	58.9	68.4
Cyprus	594	38.7	23.4	26.0	38.1	10.9	0.7	0.9	38.2	39.2
Czech Republic	1175	56.4	25.9	9.9	55.8	7.4	0.8	0.3	54.0	58.5
England	620	63.7	13.5	16.3	63.0	6.1	1.0	0.1	61.5	66.0
Finland	836	52.1	28.8	14.4	51.7	4.4	0.5	0.3	49.8	54.3
France	634	53.2	20.4	17.3	52.6	8.6	0.9	0.2	49.8	56.8
Georgia	705	32.4	32.4	15.2	31.7	18.4	0.7	1.6	29.5	35.8
Hong Kong SAR	638	64.8	17.7	10.0	64.5	7.4	0.4	0.0	60.4	69.4
Hungary	772	49.8	23.2	20.3	49.8	6.6	0.0	0.0	46.8	52.9
Ireland	709	56.4	15.8	18.8	56.3	8.9	0.3	0.0	47.0	64.6
Israel	735	47.7	25.8	16.7	47.0	9.2	0.9	0.5	43.1	52.1
Italy	650	56.0	20.0	17.3	55.2	6.0	1.5	0.0	52.6	59.4
Japan	565	62.8	28.9	4.5	62.8	3.8	0.0	0.0	59.9	65.6
Jordan	999	32.0	42.2	13.0	31.7	12.2	0.7	0.2	31.5	32.5
Kazakhstan	904	39.3	31.1	16.0	37.4	10.6	2.5	2.4	41.9	36.7
Korea, Rep. of	617	61.9	26.4	7.5	61.8	4.0	0.2	0.0	56.5	67.8
Lithuania	776	47.9	29.8	14.5	47.7	7.6	0.3	0.0	46.2	49.5
Malaysia	1273	38.2	24.3	15.9	37.9	21.0	0.3	0.6	36.1	40.5
Malta	566	62.4	19.4	11.4	62.0	6.6	0.2	0.4	60.1	64.8
Morocco	1240	27.8	22.2	36.2	26.7	11.0	1.1	2.7	27.4	28.2
New Zealand	554	53.2	16.2	19.6	52.8	10.6	0.6	0.2	47.5	57.9
Norway (9)	896	31.7	35.8	22.5	31.3	9.1	0.7	0.6	26.9	35.9
Oman	1165	55.4	28.6	11.1	54.2	4.0	0.7	1.3	60.3	50.9
Palestinian Nat'l Auth.	923	35.1	26.3	20.4	34.5	16.9	1.2	0.7	34.5	35.7
Portugal	759	47.4	26.2	21.1	46.9	4.8	0.7	0.2	39.9	54.3
Qatar	619	45.6	33.5	12.5	45.1	7.7	0.4	0.8	44.6	46.6
Romania	539	26.8	45.1	19.6	26.2	7.0	1.1	1.1	27.6	26.0
Saudi Arabia	844	37.1	46.7	10.7	36.5	4.6	1.1	0.5	36.9	37.2
Singapore	692	78.2	11.3	5.7	78.2	4.8	0.0	0.0	74.5	81.9
Sweden	723	50.4	28.7	15.0	49.8	5.5	0.7	0.3	49.1	51.6
Turkiye	699	31.6	23.9	33.1	31.1	10.2	1.7	0.0	30.4	32.8
United Arab Emirates	4672	49.3	23.8	15.8	48.1	9.9	1.0	1.4	45.2	53.2
United States	1118	56.5	17.3	17.1	55.5	8.4	0.3	1.5	52.5	60.3
Uzbekistan	621	19.9	29.0	19.3	19.1	28.3	1.9	2.5	18.4	21.4
International Avg. (40)	38040	46.7	26.5	16.4	46.1	9.6	0.8	0.7	43.9	49.4
Abu Dhabi, UAE	1744	43.7	20.9	20.6	42.7	13.3	0.8	1.6	40.3	47.2
Dubai, UAE	1161	62.4	19.5	10.3	61.0	7.0	0.7	1.4	57.4	66.8
Sharjah, UAE	896	50.8	26.9	12.9	49.3	8.0	1.7	1.3	48.6	52.9

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Chemistry / Applying

B_SM4_08 SE72109: Place elements in periodic table - CR - 1 Point

COUNTRY	N	DIFF %	10 %	11 %	79 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1219	43.8	41.5	0.2	53.5	41.7	53.5	4.8	0.1	41.5	45.7
Austria	655	47.7	45.9	0.0	50.3	45.9	50.3	3.8	0.0	48.7	46.7
Azerbaijan	885	41.8	32.5	0.4	45.9	32.9	45.9	18.3	3.0	44.9	38.5
Bahrain	737	27.7	26.5	0.2	69.8	26.7	69.8	2.6	0.9	30.8	24.7
Brazil	3280	18.4	14.3	0.8	66.9	15.1	66.9	13.9	4.1	17.0	19.6
Chile	635	34.1	29.1	0.1	56.5	29.3	56.5	13.8	0.4	31.2	36.4
Chinese Taipei	797	71.0	69.3	0.5	28.6	69.8	28.6	1.6	0.0	71.7	70.2
Cyprus	594	24.4	23.2	0.0	71.9	23.2	71.9	4.0	0.9	24.8	24.0
Czech Republic	1175	62.2	61.1	0.1	37.2	61.2	37.2	0.9	0.7	64.3	60.2
England	620	46.3	44.3	0.0	51.3	44.3	51.3	4.1	0.3	41.7	51.2
Finland	836	45.4	43.7	0.1	52.7	43.8	52.7	3.2	0.3	44.4	46.3
France	634	28.3	24.8	0.0	62.9	24.8	62.9	12.1	0.2	28.7	27.9
Georgia	705	53.8	43.6	0.7	38.1	44.3	38.1	15.9	1.7	58.2	48.9
Hong Kong SAR	637	31.2	29.3	0.3	65.3	29.6	65.3	5.1	0.0	26.7	36.1
Hungary	772	50.0	49.3	0.0	49.2	49.3	49.2	1.5	0.0	50.8	49.2
Ireland	709	44.2	42.8	0.2	54.3	43.0	54.3	2.7	0.0	42.2	45.9
Israel	734	36.6	33.4	0.1	58.1	33.5	58.1	7.4	1.0	35.1	38.1
Italy	650	32.7	29.9	0.0	61.5	29.9	61.5	8.6	0.0	28.8	36.8
Japan	565	48.4	46.0	0.0	49.1	46.0	49.1	4.9	0.0	44.5	52.0
Jordan	999	30.4	28.3	0.3	65.6	28.7	65.6	5.2	0.5	35.9	25.0
Kazakhstan	904	55.4	46.7	0.8	38.2	47.4	38.2	10.3	4.1	59.5	51.3
Korea, Rep. of	617	46.6	43.9	0.3	50.8	44.2	50.8	5.0	0.0	44.0	49.4
Lithuania	776	59.0	58.2	0.0	40.4	58.2	40.4	1.5	0.0	64.0	54.1
Malaysia	1274	19.7	19.2	0.1	78.7	19.3	78.7	1.1	0.9	20.0	19.4
Malta	566	33.8	32.4	0.0	63.4	32.4	63.4	3.7	0.5	34.3	33.3
Morocco	1240	12.0	9.6	0.2	71.7	9.8	71.7	15.2	3.3	11.8	12.2
New Zealand	554	41.3	39.5	0.1	56.2	39.6	56.2	4.0	0.2	39.9	42.6
Norway (9)	896	50.5	46.9	0.2	46.3	47.1	46.3	5.7	0.9	50.0	50.8
Oman	1165	36.1	33.5	0.3	59.6	33.7	59.6	4.7	2.0	45.1	27.7
Palestinian Nat'l Auth.	922	28.2	26.4	0.1	67.5	26.5	67.5	4.4	1.6	31.2	25.1
Portugal	759	26.6	25.2	0.0	69.5	25.2	69.5	5.1	0.2	26.4	26.8
Qatar	619	26.3	25.3	0.0	70.8	25.3	70.8	2.8	1.2	24.1	28.5
Romania	539	42.4	39.9	0.1	54.2	40.0	54.2	4.7	1.1	45.1	39.9
Saudi Arabia	844	10.1	9.3	0.5	87.0	9.8	87.0	1.9	1.4	12.1	8.2
Singapore	692	55.5	55.1	0.0	44.2	55.1	44.2	0.7	0.0	51.3	59.6
Sweden	723	33.9	31.4	0.1	61.2	31.5	61.2	6.9	0.4	31.4	36.5
Turkiye	699	69.0	66.6	0.5	30.2	67.1	30.2	2.6	0.2	73.7	64.0
United Arab Emirates	4671	45.5	43.4	0.2	52.2	43.6	52.2	2.3	1.9	46.9	44.2
United States	1118	38.3	37.0	0.3	59.9	37.2	59.9	1.2	1.6	37.5	39.3
Uzbekistan	621	47.9	42.3	0.3	46.4	42.7	46.4	7.0	3.9	52.1	43.6
International Avg. (40)	38037	39.9	37.3	0.2	55.9	37.5	55.9	5.6	1.0	40.3	39.5
Abu Dhabi, UAE	1743	36.5	34.8	0.1	60.7	34.9	60.7	2.3	2.1	35.8	37.2
Dubai, UAE	1161	57.0	54.9	0.0	41.5	54.9	41.5	2.0	1.7	58.8	55.4
Sharjah, UAE	896	52.8	50.2	0.5	45.3	50.7	45.3	2.0	2.0	55.4	50.2

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Chemistry / Reasoning

B_SM4_09 SE72140: How substances are grouped - MC - Key: C

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1219	46.8	16.6	22.8	46.3	13.2	1.0	0.1	47.4	46.5
Austria	655	49.4	15.1	19.7	49.3	15.6	0.3	0.0	51.7	47.3
Azerbaijan	885	31.0	16.4	33.6	28.5	13.5	4.6	3.4	32.6	29.3
Bahrain	737	39.2	14.7	25.1	38.7	20.2	0.2	1.0	39.8	38.6
Brazil	3280	31.5	17.1	24.4	29.4	22.6	1.8	4.8	32.3	30.7
Chile	635	33.5	23.9	21.2	32.3	19.1	3.0	0.4	34.9	32.3
Chinese Taipei	797	71.9	5.4	18.6	71.7	4.1	0.1	0.0	72.6	71.1
Cyprus	594	41.2	21.5	17.6	40.4	18.7	0.7	1.1	44.9	37.5
Czech Republic	1175	50.7	12.6	15.8	49.6	19.9	1.3	0.9	48.3	52.8
England	620	57.9	13.7	13.6	56.9	14.2	1.1	0.6	58.4	57.3
Finland	836	48.0	15.3	24.8	47.4	11.2	0.8	0.4	50.2	45.9
France	634	41.4	24.3	18.9	41.0	14.9	0.6	0.4	44.7	37.8
Georgia	705	42.2	21.1	20.9	40.3	13.2	2.3	2.3	43.8	40.3
Hong Kong SAR	638	65.0	8.4	15.7	64.8	10.8	0.3	0.0	63.7	66.3
Hungary	772	48.9	10.6	24.3	48.8	16.1	0.2	0.0	50.8	47.0
Ireland	709	57.1	17.9	14.7	57.0	10.2	0.2	0.0	58.9	55.6
Israel	735	48.3	20.4	17.2	47.2	13.0	1.3	1.1	48.8	47.8
Italy	650	44.9	18.3	19.5	44.2	16.3	1.7	0.0	43.8	46.0
Japan	565	60.5	17.2	14.8	60.5	7.5	0.0	0.0	59.9	61.2
Jordan	999	31.9	17.8	31.9	31.4	17.3	1.0	0.6	33.3	30.6
Kazakhstan	904	44.6	17.5	20.0	41.8	14.5	1.4	4.8	48.8	40.5
Korea, Rep. of	617	61.1	7.9	18.8	60.7	11.9	0.7	0.0	61.0	61.3
Lithuania	776	51.1	10.5	26.6	51.0	11.7	0.2	0.0	54.3	47.9
Malaysia	1273	45.1	15.4	23.0	44.5	15.9	0.2	1.0	48.0	41.9
Malta	566	49.7	16.9	19.6	49.0	13.1	0.9	0.5	51.3	47.9
Morocco	1240	30.0	17.2	28.6	28.4	20.3	1.6	3.9	29.9	30.1
New Zealand	554	49.1	17.0	20.2	48.5	13.1	1.1	0.2	50.2	48.6
Norway (9)	896	47.0	21.5	15.2	45.7	14.9	1.5	1.2	52.0	42.5
Oman	1165	43.8	17.8	18.1	42.0	18.1	1.7	2.2	44.4	43.2
Palestinian Nat'l Auth.	923	31.4	16.9	29.5	30.4	20.2	1.1	1.9	30.7	32.0
Portugal	759	37.9	16.5	26.0	37.5	18.9	0.7	0.4	37.2	38.6
Qatar	619	47.3	15.2	19.3	46.5	17.3	0.6	1.2	50.4	44.4
Romania	539	39.8	18.8	23.2	38.6	16.5	1.8	1.1	43.4	36.5
Saudi Arabia	844	36.5	19.3	21.9	35.8	21.0	0.2	1.8	37.4	35.7
Singapore	692	60.7	7.3	23.5	60.7	8.4	0.1	0.0	60.0	61.4
Sweden	723	58.2	13.4	15.6	57.1	11.9	1.5	0.4	60.3	56.2
Turkiye	699	64.1	9.0	14.4	63.5	12.3	0.7	0.2	68.1	59.9
United Arab Emirates	4672	48.5	12.2	19.5	47.0	18.4	0.7	2.3	48.2	48.7
United States	1118	48.2	17.8	19.7	47.2	13.2	0.3	1.7	45.3	51.0
Uzbekistan	621	37.8	20.9	23.7	35.6	14.0	0.8	5.0	39.8	35.8
International Avg. (40)	38040	46.8	15.9	21.0	45.9	14.9	1.0	1.2	48.0	45.7
Abu Dhabi, UAE	1744	41.8	12.6	21.8	40.3	21.8	0.8	2.8	40.8	42.7
Dubai, UAE	1161	59.3	10.7	16.9	57.9	12.1	0.6	1.8	58.4	60.1
Sharjah, UAE	896	51.3	10.5	18.0	49.9	18.9	0.5	2.2	53.2	49.4

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Chemistry / Reasoning

B_SM4_10 SE72132: Hydrangea colors in acidic soil - CR - 1 Point

COUNTRY	N	DIFF %	10 %	70 %	79 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1219	9.6	9.4	12.1	77.0	9.4	89.1	1.4	0.1	8.2	10.8
Austria	655	15.0	15.0	9.1	75.6	15.0	84.6	0.4	0.0	13.6	16.4
Azerbaijan	885	1.3	1.1	1.7	86.3	1.1	87.9	6.8	4.1	1.5	1.0
Bahrain	737	6.6	6.5	5.8	86.1	6.5	91.9	0.6	1.0	7.8	5.5
Brazil	3280	3.5	3.2	7.4	80.3	3.2	87.7	4.0	5.1	3.7	3.4
Chile	635	7.0	6.6	7.7	79.4	6.6	87.1	5.2	1.1	5.4	8.3
Chinese Taipei	797	24.0	23.9	0.9	74.7	23.9	75.6	0.5	0.0	24.5	23.5
Cyprus	594	5.5	5.4	3.8	88.7	5.4	92.5	1.1	1.1	6.3	4.8
Czech Republic	1175	12.8	12.5	19.2	66.5	12.5	85.7	0.9	0.9	12.8	12.7
England	620	24.6	24.1	14.3	59.7	24.1	74.0	1.3	0.6	18.5	31.0
Finland	836	21.5	21.2	11.8	65.6	21.2	77.4	1.0	0.4	20.3	22.6
France	634	9.2	9.1	9.1	80.3	9.1	89.4	1.1	0.4	9.7	8.7
Georgia	705	3.6	3.4	5.2	84.0	3.4	89.2	5.0	2.4	2.2	5.3
Hong Kong SAR	638	20.3	20.2	6.7	72.5	20.2	79.1	0.7	0.0	21.5	19.1
Hungary	772	12.9	12.9	9.4	77.6	12.9	86.9	0.2	0.0	14.5	11.4
Ireland	709	17.2	17.2	14.0	68.4	17.2	82.4	0.4	0.0	18.1	16.5
Israel	734	5.4	5.2	5.5	85.8	5.2	91.2	2.4	1.2	4.3	6.4
Italy	650	13.7	13.5	11.2	73.4	13.5	84.7	1.8	0.1	12.8	14.7
Japan	565	5.0	5.0	14.0	80.5	5.0	94.5	0.5	0.0	5.8	4.2
Jordan	999	3.2	3.1	3.0	91.9	3.1	94.8	0.8	1.2	3.2	3.2
Kazakhstan	904	1.1	1.0	5.4	84.3	1.0	89.7	3.9	5.4	1.2	1.1
Korea, Rep. of	617	3.1	3.1	4.1	91.7	3.1	95.9	1.1	0.0	1.2	5.1
Lithuania	776	6.7	6.6	11.4	81.4	6.6	92.8	0.6	0.0	8.6	4.8
Malaysia	1274	4.7	4.7	9.5	84.3	4.7	93.8	0.4	1.1	4.6	4.9
Malta	566	20.2	19.9	23.5	55.2	19.9	78.7	0.9	0.5	21.4	18.8
Morocco	1240	0.5	0.4	1.2	92.2	0.4	93.3	1.9	4.3	0.6	0.2
New Zealand	554	8.1	7.9	12.5	76.8	7.9	89.3	2.6	0.2	8.0	8.2
Norway (9)	896	19.7	18.8	8.9	68.1	18.8	76.9	2.8	1.4	20.0	19.4
Oman	1165	5.5	5.2	13.5	75.8	5.2	89.3	1.9	3.5	8.5	2.8
Palestinian Nat'l Auth.	923	0.3	0.3	2.8	94.2	0.3	96.9	0.3	2.4	0.2	0.4
Portugal	759	19.0	18.8	6.7	73.4	18.8	80.1	0.7	0.4	20.8	17.3
Qatar	619	13.1	12.9	20.7	64.8	12.9	85.5	0.5	1.2	13.0	13.1
Romania	539	7.3	7.1	16.2	73.9	7.1	90.1	1.3	1.5	8.8	6.0
Saudi Arabia	844	2.8	2.7	5.4	89.5	2.7	94.9	0.3	2.1	3.5	2.1
Singapore	692	36.8	36.8	8.7	54.4	36.8	63.1	0.2	0.0	36.3	37.3
Sweden	723	29.1	28.2	10.3	58.4	28.2	68.7	2.7	0.4	33.0	25.3
Turkiye	699	18.7	18.4	6.1	73.9	18.4	80.0	1.3	0.3	18.3	19.2
United Arab Emirates	4672	12.8	12.3	8.6	75.4	12.3	84.0	1.1	2.6	11.3	14.2
United States	1118	12.3	12.0	17.4	68.1	12.0	85.6	0.7	1.8	11.2	13.4
Uzbekistan	621	0.7	0.7	6.2	85.4	0.7	91.6	2.4	5.3	0.5	1.0
International Avg. (40)	38040	11.1	10.9	9.3	76.9	10.9	86.2	1.6	1.4	11.1	11.1
Abu Dhabi, UAE	1744	9.3	9.0	8.8	78.0	9.0	86.9	1.0	3.1	8.9	9.7
Dubai, UAE	1161	22.9	22.2	9.3	65.3	22.2	74.6	1.1	2.2	19.8	25.7
Sharjah, UAE	896	10.5	10.2	8.6	77.9	10.2	86.6	0.7	2.6	8.8	12.2

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Applying

B_SM4_11 SE72209: Process in section 2 of graph - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1219	51.7	50.9	13.6	25.2	8.8	1.5	0.1	46.8	55.8
Austria	655	44.0	43.8	13.5	27.5	14.7	0.4	0.1	39.9	48.0
Azerbaijan	885	39.0	36.1	18.6	28.5	9.4	3.1	4.2	39.0	39.1
Bahrain	737	43.5	42.9	16.5	29.6	9.6	0.0	1.3	42.8	44.1
Brazil	3280	29.5	27.3	19.0	36.6	9.6	1.9	5.7	24.3	34.2
Chile	635	43.5	42.0	16.1	32.4	6.1	1.7	1.8	37.3	48.5
Chinese Taipei	797	63.2	63.2	9.2	22.5	5.1	0.0	0.0	59.8	66.5
Cyprus	594	31.1	30.6	20.2	37.1	10.4	0.6	1.1	33.6	28.8
Czech Republic	1175	56.3	55.6	7.8	28.2	7.1	0.3	0.9	51.0	61.0
England	620	60.0	59.1	11.4	18.2	9.8	0.9	0.6	53.9	66.5
Finland	836	57.1	56.5	13.3	18.6	10.5	0.6	0.4	53.6	60.4
France	634	45.5	45.0	16.1	30.5	7.2	0.6	0.5	44.6	46.5
Georgia	705	47.7	45.3	19.9	25.7	4.1	1.6	3.4	48.1	47.2
Hong Kong SAR	638	46.8	46.6	8.1	36.1	8.6	0.3	0.3	42.6	51.3
Hungary	772	47.6	47.6	15.7	24.8	12.0	0.0	0.0	45.8	49.3
Ireland	709	50.8	50.7	9.6	27.2	12.4	0.2	0.0	44.1	56.6
Israel	735	48.1	47.1	15.1	26.4	9.4	0.8	1.2	46.7	49.4
Italy	650	46.5	46.0	12.6	29.3	11.1	0.9	0.2	43.8	49.3
Japan	565	77.3	77.3	12.7	7.8	2.2	0.0	0.0	73.9	80.6
Jordan	999	52.3	51.5	20.5	21.5	5.0	0.1	1.4	56.3	48.4
Kazakhstan	904	43.7	40.6	16.9	28.1	7.3	1.0	6.2	44.6	42.9
Korea, Rep. of	617	69.4	69.1	8.7	19.7	2.1	0.4	0.0	71.5	67.2
Lithuania	776	49.9	49.8	12.5	24.0	13.4	0.2	0.0	46.0	53.7
Malaysia	1273	38.6	37.7	18.4	32.0	9.6	0.8	1.5	38.8	38.4
Malta	566	41.8	41.3	11.4	33.8	12.3	0.7	0.5	37.1	46.8
Morocco	1240	28.2	26.4	26.4	29.1	11.8	1.8	4.4	29.6	26.6
New Zealand	554	44.0	43.6	15.7	31.9	7.8	0.7	0.4	40.2	47.2
Norway (9)	896	57.3	56.0	14.0	18.8	9.0	0.5	1.7	57.8	56.8
Oman	1165	37.9	35.8	19.7	22.6	16.4	1.6	3.8	37.5	38.3
Palestinian Nat'l Auth.	923	32.5	31.3	22.4	32.7	9.8	1.4	2.4	35.1	30.1
Portugal	759	49.6	49.2	13.7	30.8	5.6	0.3	0.5	46.3	52.7
Qatar	619	41.5	40.8	17.1	29.1	11.3	0.6	1.2	37.4	45.4
Romania	539	41.0	40.0	15.4	32.4	9.7	1.1	1.5	37.3	44.5
Saudi Arabia	844	44.5	43.2	19.5	25.7	8.6	0.9	2.1	46.1	43.0
Singapore	692	69.3	69.3	6.0	19.2	5.5	0.0	0.0	69.5	69.0
Sweden	723	54.3	53.3	16.5	18.9	9.5	1.2	0.6	47.8	60.6
Turkiye	699	64.7	64.0	9.9	20.8	4.2	0.6	0.3	65.7	63.6
United Arab Emirates	4671	47.8	45.9	16.4	23.3	10.5	1.0	2.9	43.9	51.6
United States	1118	50.4	49.1	12.7	25.0	10.7	0.5	2.0	46.8	54.0
Uzbekistan	621	32.2	29.7	24.8	26.0	11.7	1.4	6.4	31.6	32.8
International Avg. (40)	38039	48.0	47.0	15.2	26.4	9.0	0.8	1.5	46.0	49.9
Abu Dhabi, UAE	1744	40.9	38.9	21.1	23.6	11.6	1.4	3.3	37.6	44.0
Dubai, UAE	1161	58.7	56.9	10.2	19.5	10.4	0.6	2.5	53.9	62.9
Sharjah, UAE	896	49.5	47.9	13.0	26.6	9.3	0.4	2.7	45.7	53.1

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Applying

B_SM4_12 SE72210: Ice cubes that will melt faster - CR - 2 Points

COUNTRY	N	DIFF %	20 %	10 %	79 %	2pt %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1219	36.6	17.6	37.2	44.2	17.6	37.2	44.2	0.9	0.1	38.5	34.7
Austria	655	30.5	11.3	38.2	50.3	11.3	38.2	50.3	0.1	0.1	33.3	27.8
Azerbaijan	885	13.5	1.0	22.7	68.2	1.0	22.7	68.2	3.6	4.5	15.9	11.1
Bahrain	737	21.9	4.5	33.9	59.7	4.5	33.9	59.7	0.5	1.3	27.2	16.8
Brazil	3280	16.5	0.9	28.5	62.6	0.9	28.5	62.6	1.4	6.5	18.7	14.5
Chile	635	19.2	1.1	34.8	60.2	1.1	34.8	60.2	2.0	1.9	20.1	18.5
Chinese Taipei	797	63.5	55.5	15.8	28.6	55.5	15.8	28.6	0.2	0.0	62.8	64.1
Cyprus	594	20.3	2.2	35.3	60.2	2.2	35.3	60.2	1.1	1.1	25.1	15.6
Czech Republic	1175	29.6	8.6	41.1	48.7	8.6	41.1	48.7	0.6	0.9	31.8	27.7
England	620	26.8	11.2	30.3	57.0	11.2	30.3	57.0	0.9	0.6	29.4	24.0
Finland	836	37.0	12.3	48.7	38.0	12.3	48.7	38.0	0.5	0.4	38.6	35.6
France	633	27.1	5.1	43.3	50.3	5.1	43.3	50.3	0.6	0.6	28.6	25.5
Georgia	705	20.5	4.0	30.5	59.5	4.0	30.5	59.5	2.2	3.8	22.1	18.7
Hong Kong SAR	638	36.3	24.2	23.9	51.5	24.2	23.9	51.5	0.1	0.3	34.4	38.3
Hungary	772	31.7	12.4	38.5	49.1	12.4	38.5	49.1	0.0	0.0	32.7	30.7
Ireland	709	32.4	12.7	39.3	47.8	12.7	39.3	47.8	0.2	0.0	32.9	32.0
Israel	734	23.6	5.3	35.2	56.7	5.3	35.2	56.7	1.3	1.5	27.4	19.8
Italy	650	21.3	3.1	36.1	59.9	3.1	36.1	59.9	0.7	0.2	22.9	19.7
Japan	565	39.3	24.2	30.1	45.6	24.2	30.1	45.6	0.1	0.0	41.5	37.2
Jordan	999	10.1	1.5	16.7	80.0	1.5	16.7	80.0	0.3	1.5	14.0	6.3
Kazakhstan	904	23.0	1.9	38.5	51.8	1.9	38.5	51.8	1.0	6.8	26.7	19.3
Korea, Rep. of	617	32.9	17.2	30.5	51.0	17.2	30.5	51.0	1.2	0.0	35.5	30.0
Lithuania	776	27.6	7.7	39.8	52.5	7.7	39.8	52.5	0.0	0.0	30.5	24.8
Malaysia	1274	22.7	4.7	35.0	58.0	4.7	35.0	58.0	0.1	2.2	24.2	21.0
Malta	566	28.6	11.3	34.0	53.6	11.3	34.0	53.6	0.6	0.5	30.9	26.1
Morocco	1240	6.2	0.2	11.3	81.8	0.2	11.3	81.8	1.2	5.5	8.3	3.9
New Zealand	554	29.3	10.1	37.8	51.3	10.1	37.8	51.3	0.5	0.4	35.4	24.8
Norway (9)	896	35.3	12.6	43.9	41.4	12.6	43.9	41.4	0.4	1.7	38.0	32.8
Oman	1165	23.2	5.0	33.4	55.2	5.0	33.4	55.2	1.3	5.1	29.2	17.7
Palestinian Nat'l Auth.	923	13.4	0.0	25.8	70.6	0.0	25.8	70.6	0.1	3.4	17.7	9.3
Portugal	759	28.8	5.4	46.1	47.2	5.4	46.1	47.2	0.7	0.7	32.4	25.4
Qatar	619	25.8	7.8	35.2	55.3	7.8	35.2	55.3	0.4	1.4	28.7	23.1
Romania	539	20.1	1.2	37.2	60.1	1.2	37.2	60.1	0.0	1.5	20.3	20.0
Saudi Arabia	844	16.5	1.6	28.7	66.3	1.6	28.7	66.3	0.5	2.9	23.4	10.3
Singapore	692	65.9	60.2	11.4	28.4	60.2	11.4	28.4	0.0	0.0	65.0	66.8
Sweden	723	33.2	14.2	37.2	47.5	14.2	37.2	47.5	0.3	0.8	36.9	29.6
Turkiye	699	31.8	9.9	43.7	46.1	9.9	43.7	46.1	0.1	0.3	32.6	31.0
United Arab Emirates	4672	24.2	10.2	26.1	59.4	10.2	26.1	59.4	0.9	3.4	28.2	20.5
United States	1118	30.0	10.8	36.8	49.7	10.8	36.8	49.7	0.5	2.3	32.5	27.6
Uzbekistan	621	21.5	2.7	34.0	55.0	2.7	34.0	55.0	0.8	7.4	23.4	19.5
International Avg. (40)	38039	27.4	10.3	33.2	54.0	10.3	33.2	54.0	0.7	1.8	29.9	25.0
Abu Dhabi, UAE	1744	20.0	5.5	27.1	62.2	5.5	27.1	62.2	1.1	4.1	24.2	16.0
Dubai, UAE	1161	30.7	17.5	24.2	54.7	17.5	24.2	54.7	0.9	2.8	33.2	28.4
Sharjah, UAE	896	24.8	10.4	27.1	58.9	10.4	27.1	58.9	0.8	2.8	29.1	20.6

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Knowing

B_SM4_13 SE72249: Sounds made by shortest and longest bars of a xylophone - MC - Key: D

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1219	59.2	7.7	12.3	20.3	58.5	1.0	0.1	61.2	57.3
Austria	655	47.8	15.3	14.5	22.4	47.8	0.0	0.1	49.7	46.1
Azerbaijan	885	15.7	22.2	22.7	32.5	14.4	3.0	5.1	19.5	12.0
Bahrain	737	27.1	20.5	23.8	27.3	26.6	0.3	1.6	31.6	22.8
Brazil	3280	17.4	19.4	34.7	21.7	15.9	1.6	6.7	16.7	18.0
Chile	635	31.2	17.6	25.3	24.2	30.3	0.6	2.1	34.4	28.5
Chinese Taipei	797	75.4	7.6	4.1	12.9	75.3	0.1	0.0	78.7	72.3
Cyprus	594	46.4	13.8	16.9	22.0	45.6	0.7	1.1	54.3	38.6
Czech Republic	1175	48.0	10.3	10.4	30.4	47.2	0.5	1.2	51.3	45.0
England	620	54.1	8.2	12.4	24.7	53.4	0.4	0.8	56.0	52.0
Finland	836	63.0	9.0	8.5	19.1	62.3	0.6	0.4	65.6	60.5
France	634	57.2	9.7	14.0	18.5	56.3	0.5	1.0	61.9	52.2
Georgia	705	21.9	20.8	27.2	25.4	20.6	1.7	4.3	24.0	19.5
Hong Kong SAR	638	50.9	9.4	10.0	29.5	50.7	0.1	0.3	50.6	51.3
Hungary	772	47.5	7.8	13.3	31.1	47.3	0.5	0.0	49.7	45.2
Ireland	709	55.7	9.1	11.4	23.7	55.6	0.2	0.0	56.5	55.1
Israel	735	33.0	13.6	16.9	34.5	32.0	1.1	1.9	34.0	32.1
Italy	650	41.7	16.7	14.2	26.7	41.3	0.7	0.3	46.8	36.5
Japan	565	69.6	2.5	6.7	21.2	69.6	0.0	0.0	72.5	66.8
Jordan	999	10.8	22.0	30.5	34.2	10.5	1.2	1.7	13.4	8.2
Kazakhstan	904	26.5	14.0	19.2	33.9	24.1	1.4	7.4	30.3	22.6
Korea, Rep. of	617	59.8	10.7	4.5	24.7	59.4	0.6	0.0	57.7	62.0
Lithuania	776	43.4	10.4	13.4	32.6	43.2	0.4	0.0	49.3	37.6
Malaysia	1273	24.7	20.1	24.5	28.4	23.9	0.8	2.3	25.4	23.9
Malta	566	45.0	13.3	17.7	23.6	44.7	0.2	0.5	48.0	41.6
Morocco	1240	15.4	18.6	30.3	28.7	14.2	2.6	5.7	13.9	17.2
New Zealand	554	52.4	10.4	14.7	22.2	52.0	0.4	0.4	54.9	50.3
Norway (9)	896	35.6	14.0	18.8	29.4	34.4	1.6	1.8	34.8	36.3
Oman	1165	19.8	23.1	32.3	18.7	18.4	1.6	5.9	21.8	18.0
Palestinian Nat'l Auth.	923	14.9	21.6	29.8	29.8	14.2	1.2	3.5	15.4	14.3
Portugal	759	47.7	11.5	16.9	23.0	47.0	0.9	0.8	52.0	43.8
Qatar	619	25.2	19.3	27.4	26.6	24.7	0.2	1.7	30.0	20.7
Romania	539	38.5	17.5	14.7	27.4	37.3	1.7	1.5	42.5	34.8
Saudi Arabia	844	16.4	22.0	25.1	33.3	15.7	0.4	3.4	17.1	15.7
Singapore	692	62.1	7.9	7.8	22.1	62.0	0.1	0.0	67.7	56.6
Sweden	723	43.7	12.6	14.4	28.3	42.9	1.0	0.8	44.9	42.6
Turkiye	0	.	.	.	.	.	.	.	.	.
United Arab Emirates	4672	31.5	17.6	23.3	24.3	30.0	0.9	3.9	32.8	30.2
United States	1118	60.2	9.0	12.7	16.9	58.4	0.5	2.5	63.2	57.2
Uzbekistan	621	20.0	24.3	25.8	21.9	17.9	1.9	8.2	21.7	18.1
International Avg. (39)	37341	39.9	14.4	18.0	25.6	39.1	0.8	2.0	42.4	37.5
Abu Dhabi, UAE	1744	28.5	16.8	25.6	25.2	27.0	0.6	4.8	31.1	26.0
Dubai, UAE	1161	45.1	13.7	16.9	21.8	43.0	1.3	3.3	47.4	43.0
Sharjah, UAE	896	27.3	17.7	23.6	28.4	26.2	0.9	3.2	26.0	28.5

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Knowing

B_SM4_14 SE72323: Conditions where rock will weather the fastest - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1219	55.2	12.7	54.0	11.6	19.5	2.0	0.2	55.4	55.2
Austria	655	57.7	11.2	57.4	11.2	19.7	0.5	0.1	55.5	59.8
Azerbaijan	885	42.3	19.4	38.8	18.9	14.6	3.2	5.2	41.8	42.9
Bahrain	737	44.5	18.7	43.6	15.7	20.1	0.0	1.9	48.8	40.4
Brazil	3280	33.5	18.3	30.1	20.2	21.2	2.6	7.6	34.0	33.0
Chile	635	45.0	20.1	43.1	13.6	19.0	1.9	2.4	40.0	49.0
Chinese Taipei	797	74.0	13.2	73.8	4.0	8.7	0.3	0.0	72.4	75.5
Cyprus	594	38.8	23.4	37.8	20.8	15.4	1.5	1.1	38.7	38.9
Czech Republic	1175	48.6	22.9	47.7	8.0	19.6	0.5	1.4	45.8	51.1
England	620	49.8	12.6	48.8	10.6	26.1	1.1	0.8	52.8	46.7
Finland	836	55.7	25.3	54.9	7.8	10.6	0.9	0.4	54.0	57.4
France	634	59.0	12.9	57.0	12.2	14.5	2.1	1.2	58.9	59.1
Georgia	705	36.1	37.1	34.3	10.7	12.8	0.5	4.6	35.1	37.3
Hong Kong SAR	638	48.9	26.5	48.6	12.4	11.8	0.5	0.3	46.0	52.0
Hungary	772	62.6	17.4	62.6	8.3	11.8	0.0	0.0	68.5	56.6
Ireland	709	52.1	14.9	51.8	10.0	22.8	0.6	0.0	46.5	57.0
Israel	734	49.0	19.0	47.2	12.0	18.0	1.5	2.1	52.0	46.1
Italy	650	59.3	11.1	58.2	7.8	20.9	1.3	0.7	58.1	60.6
Japan	565	65.5	17.5	65.3	7.6	9.2	0.4	0.0	63.4	67.6
Jordan	999	38.8	18.0	37.3	18.6	22.3	1.0	2.8	38.2	39.4
Kazakhstan	904	47.8	17.0	43.3	15.2	15.1	1.1	8.4	49.5	46.1
Korea, Rep. of	617	64.6	11.3	64.5	11.2	12.9	0.2	0.0	63.6	65.7
Lithuania	776	54.5	23.4	54.2	9.9	11.9	0.5	0.0	53.0	56.0
Malaysia	1273	41.6	18.9	40.0	20.0	17.2	0.7	3.0	42.8	40.3
Malta	566	49.6	18.1	48.5	14.9	16.3	1.6	0.5	49.7	49.4
Morocco	1240	35.7	17.7	33.0	23.4	18.4	1.1	6.4	36.7	34.5
New Zealand	554	48.0	17.4	46.9	16.6	16.8	1.9	0.5	48.4	47.4
Norway (9)	896	55.9	16.0	53.7	10.2	16.2	1.8	2.0	57.0	54.8
Oman	1165	46.2	18.6	42.6	12.9	18.3	0.3	7.3	48.5	44.0
Palestinian Nat'l Auth.	923	40.2	22.0	38.2	16.9	17.8	0.6	4.5	43.2	37.5
Portugal	759	67.2	10.6	66.2	6.6	15.1	0.3	1.1	64.2	70.0
Qatar	619	46.0	18.9	44.8	14.4	19.3	0.9	1.7	43.7	48.1
Romania	539	49.5	17.4	47.4	13.1	17.8	1.8	2.5	48.9	50.1
Saudi Arabia	844	43.9	20.8	42.2	16.5	16.5	0.2	3.9	49.2	39.3
Singapore	692	61.2	18.9	61.1	7.0	12.7	0.3	0.0	56.2	66.1
Sweden	723	51.4	17.9	50.1	11.9	17.5	1.5	1.1	54.6	48.4
Turkiye	699	53.3	15.9	52.7	8.6	21.7	0.7	0.3	53.4	53.2
United Arab Emirates	4672	53.0	16.3	50.1	13.0	15.1	0.9	4.6	52.4	53.6
United States	1118	57.7	13.4	55.8	10.5	17.0	0.4	2.9	57.4	58.0
Uzbekistan	621	49.6	20.6	44.4	12.8	11.7	0.8	9.8	47.1	52.2
International Avg. (40)	38039	50.8	18.1	49.3	12.7	16.6	1.0	2.3	50.6	51.0
Abu Dhabi, UAE	1744	45.8	14.4	42.9	17.5	18.8	1.0	5.4	43.8	47.8
Dubai, UAE	1161	60.7	14.0	57.8	8.1	15.4	0.6	4.2	60.0	61.4
Sharjah, UAE	896	59.6	17.3	57.0	11.2	10.0	0.9	3.6	62.3	57.1

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Reasoning

B_SM4_15 SE72368: Position of Moon when Jill took her photo - MC - Key: C

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1219	77.6	10.5	9.7	76.8	2.0	0.8	0.2	75.8	79.2
Austria	655	78.4	11.5	6.4	78.3	3.6	0.1	0.1	75.9	80.8
Azerbaijan	885	45.3	28.4	15.2	42.1	7.2	1.5	5.6	42.1	48.4
Bahrain	737	57.1	21.2	13.3	55.8	7.4	0.4	1.9	55.0	59.0
Brazil	3280	53.0	19.7	14.6	48.1	8.5	1.0	8.1	48.2	57.2
Chile	635	64.0	17.7	10.2	61.4	6.6	1.5	2.5	57.2	69.4
Chinese Taipei	797	74.4	17.5	4.4	74.4	3.6	0.0	0.0	73.4	75.5
Cyprus	594	65.8	14.7	12.0	64.6	7.0	0.7	1.1	65.2	66.4
Czech Republic	1175	82.1	9.7	4.3	80.9	3.6	0.1	1.4	76.2	87.5
England	620	74.0	13.3	5.5	72.8	6.8	0.7	1.0	71.5	76.7
Finland	836	78.5	11.3	8.0	78.0	2.1	0.3	0.4	76.2	80.8
France	634	74.5	14.3	5.5	73.3	5.3	0.2	1.4	73.9	75.1
Georgia	705	56.8	20.1	13.7	53.7	7.0	0.7	4.7	51.3	63.1
Hong Kong SAR	638	70.0	18.2	6.3	69.3	5.2	0.5	0.4	65.6	74.6
Hungary	772	78.0	11.4	6.7	78.0	3.9	0.0	0.0	73.4	82.7
Ireland	709	75.1	11.2	6.1	75.0	7.6	0.1	0.0	69.9	79.6
Israel	735	55.9	20.1	14.4	54.2	8.3	0.6	2.3	52.5	59.2
Italy	650	75.1	10.1	7.1	73.8	7.3	0.1	1.5	73.8	76.3
Japan	565	81.9	13.1	3.0	81.5	1.8	0.5	0.0	78.0	85.8
Jordan	999	41.5	29.3	16.9	39.7	9.8	0.8	3.5	42.6	40.4
Kazakhstan	904	66.5	15.7	9.5	60.4	5.3	0.5	8.6	58.6	74.4
Korea, Rep. of	617	82.0	12.4	3.5	81.7	2.0	0.4	0.0	83.0	80.9
Lithuania	776	79.0	12.4	5.8	79.0	2.8	0.0	0.0	77.2	80.7
Malaysia	1273	63.2	18.6	10.3	60.8	6.5	0.3	3.5	59.6	67.0
Malta	566	70.7	14.7	8.3	70.2	6.1	0.2	0.5	66.9	74.9
Morocco	1240	41.4	26.1	18.5	38.0	9.3	1.5	6.6	41.3	41.4
New Zealand	554	74.8	12.3	8.7	74.3	4.0	0.2	0.5	73.3	76.4
Norway (9)	896	76.5	11.5	8.9	74.5	2.6	0.4	2.1	73.2	79.3
Oman	1165	54.9	20.8	14.4	50.6	6.4	0.3	7.5	54.5	55.3
Palestinian Nat'l Auth.	923	40.3	26.3	19.6	38.2	10.6	0.5	4.8	40.3	40.4
Portugal	759	72.7	13.8	7.4	71.4	5.6	0.6	1.1	69.3	75.8
Qatar	619	62.0	17.4	11.1	60.7	8.7	0.3	1.9	62.2	61.9
Romania	539	66.9	18.6	9.7	64.7	3.7	0.8	2.5	65.4	68.2
Saudi Arabia	844	44.0	27.7	17.0	42.0	8.8	0.4	4.0	43.7	44.2
Singapore	692	71.7	17.0	5.6	71.7	5.8	0.0	0.0	66.9	76.3
Sweden	723	77.9	11.6	6.8	77.0	3.3	0.1	1.2	76.6	79.3
Turkiye	699	60.4	26.0	7.6	59.8	5.7	0.6	0.3	53.8	67.1
United Arab Emirates	4670	65.6	17.8	8.8	61.9	5.8	0.7	4.9	63.1	67.9
United States	1118	75.7	12.4	7.0	73.0	4.0	0.5	3.1	72.6	78.8
Uzbekistan	621	57.8	20.0	11.8	51.0	5.4	1.3	10.5	56.6	58.9
International Avg. (40)	38038	66.6	16.9	9.6	64.8	5.7	0.5	2.5	63.9	69.2
Abu Dhabi, UAE	1743	62.3	17.5	12.0	58.3	5.7	0.6	5.9	60.8	63.8
Dubai, UAE	1161	75.0	13.7	6.0	71.3	4.2	0.5	4.4	68.6	80.6
Sharjah, UAE	895	68.3	16.9	7.0	64.9	6.2	0.8	4.1	66.7	69.8

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Earth Science / Applying

B_SM4_16 SE72303: Diagram best representing Earth - MC - Key: D

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1219	47.2	27.5	16.7	7.8	46.5	1.4	0.2	45.1	49.1
Austria	655	42.1	27.7	18.6	10.8	41.5	1.1	0.2	42.0	42.1
Azerbaijan	885	20.7	27.2	27.3	17.3	18.7	3.8	5.8	21.4	20.0
Bahrain	737	24.9	27.7	28.4	16.9	24.2	0.7	2.1	22.7	26.9
Brazil	3280	21.4	31.7	23.3	15.1	19.1	1.9	8.9	22.8	20.2
Chile	635	24.2	41.3	19.3	11.0	22.9	2.4	3.2	20.3	27.3
Chinese Taipei	797	28.9	33.1	28.6	9.1	28.8	0.4	0.0	19.9	37.7
Cyprus	594	26.5	25.7	27.4	18.4	25.8	1.1	1.6	29.7	23.4
Czech Republic	1175	30.9	27.3	28.8	11.4	30.2	0.9	1.4	27.9	33.7
England	620	51.0	31.5	9.8	6.7	49.9	1.1	1.0	55.1	46.7
Finland	836	40.5	29.9	20.6	8.2	39.9	0.9	0.4	34.1	46.6
France	634	25.8	30.9	29.1	12.4	25.2	0.9	1.4	23.9	27.9
Georgia	705	24.5	26.4	28.0	14.2	22.3	4.4	4.8	23.1	26.2
Hong Kong SAR	638	49.1	28.7	14.9	6.9	48.7	0.4	0.4	45.8	52.7
Hungary	772	33.9	22.9	29.4	13.6	33.8	0.4	0.0	30.5	37.5
Ireland	709	47.5	26.8	19.7	6.0	47.4	0.0	0.1	50.0	45.3
Israel	734	28.1	25.1	31.1	13.2	27.1	0.9	2.6	26.3	29.9
Italy	650	38.9	26.8	23.2	8.9	37.5	2.1	1.6	36.9	40.9
Japan	565	36.2	25.2	31.6	6.1	35.7	1.1	0.2	29.8	42.5
Jordan	999	19.1	32.4	28.5	16.6	18.4	0.0	4.1	18.5	19.8
Kazakhstan	904	28.9	31.0	21.6	11.1	25.8	1.7	8.8	29.7	28.0
Korea, Rep. of	617	54.4	16.2	21.3	7.8	54.0	0.7	0.0	53.0	55.9
Lithuania	776	33.8	25.4	27.0	13.6	33.7	0.5	0.0	32.8	34.7
Malaysia	1273	25.3	33.7	25.1	12.6	24.1	0.6	3.8	22.7	28.0
Malta	566	44.9	26.2	22.3	6.2	44.5	0.3	0.5	42.1	47.9
Morocco	1240	24.0	29.9	20.9	18.5	21.9	1.5	7.3	25.4	22.5
New Zealand	554	33.8	31.9	22.8	10.3	33.2	1.1	0.7	26.4	39.7
Norway (9)	896	37.2	29.9	20.3	10.1	35.6	1.8	2.3	33.2	40.7
Oman	1165	19.4	18.6	36.2	18.8	17.7	1.0	7.7	19.7	19.2
Palestinian Nat'l Auth.	923	18.0	28.1	32.2	16.9	17.0	0.7	5.1	19.4	16.6
Portugal	759	30.6	36.9	21.9	8.8	29.7	1.0	1.7	27.7	33.2
Qatar	619	30.7	30.1	25.5	12.1	29.9	0.6	1.9	34.4	27.2
Romania	539	22.1	30.4	27.8	16.9	21.3	0.9	2.8	20.3	23.7
Saudi Arabia	844	21.5	29.7	29.1	15.8	20.4	0.8	4.2	24.4	18.9
Singapore	692	25.8	44.4	20.8	8.9	25.8	0.2	0.0	22.5	29.0
Sweden	723	44.6	28.9	17.8	7.5	43.6	1.1	1.2	45.3	43.9
Turkiye	699	33.6	35.3	17.1	11.9	32.5	2.7	0.4	31.1	36.1
United Arab Emirates	4672	38.3	27.6	18.5	11.7	35.8	1.0	5.5	38.6	37.9
United States	1118	46.2	26.4	16.3	8.7	44.3	0.9	3.4	44.2	48.4
Uzbekistan	621	28.2	22.5	23.7	16.2	24.6	1.8	11.2	28.8	27.7
International Avg. (40)	38039	32.6	29.0	23.8	11.9	31.5	1.2	2.7	31.2	33.9
Abu Dhabi, UAE	1744	31.4	26.9	20.4	16.4	29.2	0.6	6.4	31.0	31.9
Dubai, UAE	1161	49.0	28.3	14.8	5.3	46.4	0.3	4.9	47.5	50.3
Sharjah, UAE	896	39.2	27.2	17.4	11.9	36.4	2.5	4.6	42.4	36.1

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Knowing

B_SE1_01 SE82020: Basic biological unit of all living things - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1169	84.8	3.0	84.7	1.4	10.8	0.0	0.0	82.4	87.0
Austria	651	72.8	6.5	72.5	1.5	19.1	0.4	0.0	69.8	75.7
Azerbaijan	854	58.6	11.9	58.2	1.9	27.2	0.8	0.0	58.1	59.1
Bahrain	736	74.9	7.3	74.9	4.8	13.0	0.0	0.0	78.3	71.7
Brazil	3205	62.8	10.3	62.5	3.1	23.6	0.5	0.0	60.8	64.7
Chile	628	74.2	8.6	73.3	0.7	16.1	1.2	0.0	72.6	75.9
Chinese Taipei	469	91.2	3.6	91.2	1.4	3.8	0.0	0.0	91.6	90.9
Cyprus	578	72.6	7.7	72.5	3.3	16.4	0.2	0.0	71.7	73.5
Czech Republic	1119	82.7	5.4	82.2	0.6	11.1	0.6	0.0	83.1	82.3
England	590	79.9	3.6	79.9	4.2	12.3	0.0	0.0	77.3	82.1
Finland	804	73.3	3.1	73.1	3.4	20.2	0.3	0.0	72.4	74.2
France	641	82.8	4.6	82.8	5.9	6.8	0.0	0.0	82.4	83.1
Georgia	679	54.4	14.0	54.1	1.5	29.7	0.6	0.0	56.7	52.1
Hong Kong SAR	621	83.8	8.1	83.8	2.4	5.7	0.0	0.0	82.7	85.0
Hungary	748	73.5	6.6	73.2	3.5	16.2	0.4	0.0	70.5	76.8
Ireland	729	84.4	2.0	84.4	1.8	11.8	0.0	0.0	84.1	84.6
Israel	724	74.8	8.0	74.2	2.1	14.9	0.9	0.0	78.0	71.6
Italy	637	85.4	3.7	85.4	2.9	8.0	0.0	0.0	84.2	86.5
Japan	327	74.0	17.5	73.4	1.3	6.9	0.8	0.0	72.1	75.5
Jordan	1387	54.5	17.4	53.9	12.6	15.1	1.0	0.0	53.5	55.4
Kazakhstan	897	67.7	10.5	67.3	2.5	19.3	0.5	0.0	69.1	66.4
Korea, Rep. of	360	88.5	9.1	88.2	0.7	1.7	0.3	0.0	86.4	90.5
Lithuania	759	73.1	6.0	73.1	5.6	15.3	0.0	0.0	73.8	72.5
Malaysia	1227	50.0	4.9	50.0	8.6	36.5	0.0	0.0	52.3	47.7
Malta	567	72.2	5.7	72.1	2.2	19.8	0.2	0.0	73.6	70.8
Morocco	1736	63.9	6.1	63.3	13.9	15.7	0.9	0.0	67.5	60.3
New Zealand	552	75.5	4.0	75.3	2.8	17.6	0.2	0.0	73.4	77.3
Norway (9)	896	87.9	2.5	87.3	1.6	7.9	0.7	0.0	87.9	87.9
Oman	1630	66.0	7.6	65.5	7.0	19.1	0.7	0.0	68.7	63.5
Palestinian Nat'l Auth.	1304	66.1	11.9	65.9	10.0	12.0	0.2	0.0	68.8	63.6
Portugal	753	80.2	5.9	80.1	4.3	9.6	0.1	0.0	80.2	80.3
Qatar	608	70.5	8.3	70.4	5.9	15.3	0.1	0.0	68.7	72.0
Romania	508	68.0	5.6	67.6	2.2	24.0	0.6	0.0	67.9	68.1
Saudi Arabia	1166	68.7	9.6	68.6	5.8	15.9	0.2	0.0	72.0	65.6
Singapore	401	92.0	2.7	91.8	0.3	4.9	0.3	0.0	89.8	94.2
Sweden	707	87.9	1.8	87.6	0.9	9.4	0.3	0.0	88.0	87.8
Turkiye	711	72.8	8.7	72.7	3.0	15.5	0.1	0.0	75.5	70.3
United Arab Emirates	5292	77.1	6.2	77.0	5.6	11.0	0.2	0.0	76.6	77.6
United States	1156	84.2	3.5	84.0	1.8	10.4	0.3	0.0	83.4	84.9
Uzbekistan	610	64.5	11.5	64.4	2.5	21.3	0.3	0.0	64.5	64.5
International Avg. (40)	39136	74.3	7.1	74.1	3.7	14.8	0.3	0.0	74.3	74.3
Abu Dhabi, UAE	2403	72.1	7.8	72.0	8.6	11.5	0.1	0.0	72.9	71.4
Dubai, UAE	1159	86.5	3.7	86.5	1.6	8.2	0.0	0.0	84.5	88.5
Sharjah, UAE	888	79.2	5.9	79.0	3.6	11.2	0.4	0.0	79.1	79.4

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Applying

B_SE1_02 SE82064: Simplified oxygen-carbon dioxide cycle (DERIVED) - CR - 1 Point

COUNTRY	N	DIFF %	1 %	0 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1169	74.6	74.4	25.3	74.4	25.3	0.2	0.0	69.6	79.6
Austria	651	71.7	71.4	28.3	71.4	28.3	0.3	0.0	65.8	77.5
Azerbaijan	854	58.8	56.5	39.6	56.5	39.6	3.9	0.0	54.6	62.9
Bahrain	736	58.3	58.2	41.6	58.2	41.6	0.2	0.0	58.1	58.4
Brazil	3205	41.2	40.5	57.8	40.5	57.8	1.7	0.0	37.5	44.7
Chile	628	55.2	54.5	44.3	54.5	44.3	1.2	0.0	48.3	62.5
Chinese Taipei	469	84.3	84.3	15.7	84.3	15.7	0.0	0.0	82.7	85.6
Cyprus	578	62.8	62.1	36.8	62.1	36.8	1.2	0.0	58.7	67.1
Czech Republic	1119	85.3	84.9	14.6	84.9	14.6	0.5	0.0	80.8	89.7
England	590	77.1	76.1	22.7	76.1	22.7	1.2	0.0	74.8	79.0
Finland	804	67.3	66.9	32.6	66.9	32.6	0.6	0.0	61.9	72.8
France	641	56.5	56.1	43.2	56.1	43.2	0.8	0.0	49.8	63.0
Georgia	679	56.1	55.4	43.3	55.4	43.3	1.3	0.0	55.2	57.1
Hong Kong SAR	621	83.2	82.9	16.8	82.9	16.8	0.3	0.0	82.0	84.3
Hungary	748	69.8	69.8	30.2	69.8	30.2	0.0	0.0	63.3	76.7
Ireland	729	80.7	80.6	19.3	80.6	19.3	0.1	0.0	77.3	84.2
Israel	724	54.0	53.7	45.7	53.7	45.7	0.5	0.0	52.4	55.7
Italy	637	66.4	66.0	33.5	66.0	33.5	0.6	0.0	57.4	75.3
Japan	327	91.9	91.9	8.1	91.9	8.1	0.0	0.0	91.6	92.1
Jordan	1387	34.6	34.2	64.6	34.2	64.6	1.2	0.0	31.5	37.6
Kazakhstan	897	56.1	55.6	43.5	55.6	43.5	0.8	0.0	53.2	58.7
Korea, Rep. of	360	81.0	80.6	18.9	80.6	18.9	0.6	0.0	77.6	84.5
Lithuania	759	67.0	66.9	33.0	66.9	33.0	0.1	0.0	67.2	66.8
Malaysia	1227	56.8	56.8	43.2	56.8	43.2	0.0	0.0	55.6	58.1
Malta	567	68.2	67.9	31.7	67.9	31.7	0.4	0.0	66.8	69.6
Morocco	1736	25.3	25.1	74.0	25.1	74.0	0.9	0.0	23.3	27.4
New Zealand	552	73.5	73.3	26.5	73.3	26.5	0.2	0.0	67.0	79.3
Norway (9)	896	60.8	60.4	38.9	60.4	38.9	0.8	0.0	55.4	66.2
Oman	1630	60.1	60.0	39.8	60.0	39.8	0.3	0.0	61.2	59.1
Palestinian Nat'l Auth.	1304	36.8	36.5	62.8	36.5	62.8	0.6	0.0	38.7	35.0
Portugal	753	78.2	78.1	21.7	78.1	21.7	0.1	0.0	75.3	81.2
Qatar	608	67.2	67.0	32.6	67.0	32.6	0.4	0.0	65.5	68.7
Romania	509	58.6	56.8	40.2	56.8	40.2	3.0	0.0	54.6	61.9
Saudi Arabia	1166	43.2	43.1	56.7	43.1	56.7	0.2	0.0	44.3	42.1
Singapore	401	92.3	92.3	7.7	92.3	7.7	0.0	0.0	90.3	94.3
Sweden	707	75.1	75.0	24.9	75.0	24.9	0.1	0.0	71.7	78.2
Turkiye	711	61.3	60.8	38.4	60.8	38.4	0.7	0.0	58.5	63.9
United Arab Emirates	5292	66.8	66.7	33.1	66.7	33.1	0.1	0.0	64.8	68.9
United States	1156	68.6	68.5	31.3	68.5	31.3	0.1	0.0	64.1	72.9
Uzbekistan	610	39.6	39.0	59.4	39.0	59.4	1.6	0.0	39.0	40.2
International Avg. (40)	39137	64.2	63.8	35.5	63.8	35.5	0.7	0.0	61.2	67.1
Abu Dhabi, UAE	2403	57.5	57.4	42.5	57.4	42.5	0.1	0.0	55.7	59.3
Dubai, UAE	1159	82.1	82.1	17.9	82.1	17.9	0.0	0.0	80.5	83.7
Sharjah, UAE	888	72.0	71.8	28.0	71.8	28.0	0.2	0.0	70.5	73.3

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Biology / Applying

B_SE1_02A SE82064A: Simplified oxygen-carbon dioxide cycle - tree out - MC - Key: D

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1169	80.6	5.1	5.0	9.2	80.1	0.5	0.0	75.2	85.5
Austria	651	81.0	5.8	4.7	8.4	80.5	0.5	0.0	77.5	84.5
Azerbaijan	854	68.2	15.2	7.9	7.1	65.0	4.8	0.0	65.6	70.8
Bahrain	736	67.6	12.9	7.8	11.6	67.1	0.6	0.0	65.9	69.1
Brazil	3205	63.4	12.6	11.9	11.4	62.1	1.9	0.0	60.9	65.7
Chile	628	69.9	7.0	8.4	14.3	69.1	1.2	0.0	64.6	75.6
Chinese Taipei	469	87.0	3.4	2.3	7.3	87.0	0.0	0.0	86.0	88.0
Cyprus	578	73.1	6.3	11.2	9.2	72.2	1.2	0.0	69.8	76.4
Czech Republic	1119	88.6	3.1	1.9	6.3	88.1	0.6	0.0	85.1	92.0
England	590	84.8	4.3	3.9	6.8	83.8	1.2	0.0	82.6	86.7
Finland	804	77.1	5.1	2.8	14.7	76.6	0.8	0.0	72.8	81.6
France	641	65.8	8.6	7.2	18.2	65.2	0.8	0.0	61.5	69.9
Georgia	679	71.7	11.2	7.7	9.0	70.7	1.3	0.0	71.7	71.6
Hong Kong SAR	621	86.7	4.5	1.7	7.0	86.4	0.3	0.0	83.5	89.9
Hungary	748	83.2	5.0	4.6	7.3	83.2	0.0	0.0	77.8	88.8
Ireland	729	86.5	3.4	1.6	8.4	86.4	0.1	0.0	82.2	90.8
Israel	724	66.0	7.4	8.1	17.7	64.5	2.3	0.0	64.8	67.3
Italy	637	72.2	10.3	6.4	10.9	71.6	0.7	0.0	64.0	80.3
Japan	327	94.1	1.9	1.0	3.0	94.1	0.0	0.0	95.4	93.1
Jordan	1387	50.3	16.6	12.7	18.6	48.7	3.3	0.0	46.7	53.9
Kazakhstan	897	65.2	10.6	8.4	15.4	64.5	1.2	0.0	63.2	67.1
Korea, Rep. of	360	84.0	5.2	2.5	8.2	83.5	0.6	0.0	79.4	88.7
Lithuania	759	78.8	7.8	4.0	9.4	78.7	0.1	0.0	75.7	81.8
Malaysia	1227	67.9	8.8	6.4	16.9	67.8	0.1	0.0	67.8	68.0
Malta	567	76.4	7.7	4.9	10.8	76.0	0.6	0.0	72.9	80.0
Morocco	1736	39.6	23.2	20.3	16.0	38.9	1.6	0.0	38.2	41.0
New Zealand	552	83.4	5.7	4.1	6.8	83.0	0.4	0.0	77.5	88.7
Norway (9)	896	73.9	7.8	10.5	7.6	73.1	1.0	0.0	70.5	77.1
Oman	1630	70.0	9.5	6.5	13.8	69.7	0.5	0.0	70.2	69.9
Palestinian Nat'l Auth.	1304	49.2	19.0	13.1	17.1	47.6	3.3	0.0	50.2	48.2
Portugal	753	87.2	3.2	2.8	6.8	87.1	0.1	0.0	86.2	88.1
Qatar	608	74.1	9.6	5.7	10.5	73.8	0.4	0.0	72.5	75.5
Romania	509	70.7	8.3	10.3	9.7	68.6	3.0	0.0	70.3	71.0
Saudi Arabia	1166	56.7	16.1	10.3	16.5	56.4	0.7	0.0	56.2	57.3
Singapore	401	94.0	2.2	0.7	3.1	94.0	0.0	0.0	93.7	94.3
Sweden	707	80.5	5.6	3.2	10.6	80.4	0.1	0.0	77.5	83.2
Turkiye	711	73.7	7.0	8.4	10.7	73.1	0.8	0.0	72.4	74.9
United Arab Emirates	5292	74.6	8.6	7.1	9.6	74.4	0.2	0.0	73.6	75.5
United States	1156	75.9	6.7	4.9	12.4	75.8	0.2	0.0	71.8	79.8
Uzbekistan	610	55.4	14.6	16.7	12.3	54.1	2.4	0.0	53.5	57.3
International Avg. (40)	39137	73.7	8.4	6.7	10.8	73.1	1.0	0.0	71.2	76.2
Abu Dhabi, UAE	2403	66.7	11.1	11.8	10.4	66.5	0.2	0.0	66.8	66.6
Dubai, UAE	1159	86.8	4.2	2.2	6.8	86.7	0.0	0.0	85.1	88.4
Sharjah, UAE	888	79.3	7.2	3.8	9.6	79.1	0.2	0.0	79.0	79.6

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Biology / Applying

B_SE1_02B SE82064B: Simplified oxygen-carbon dioxide cycle - tree in - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1169	82.1	81.7	6.7	4.7	6.4	0.5	0.0	75.7	88.4
Austria	651	78.8	78.4	12.5	6.6	2.0	0.5	0.0	72.1	85.5
Azerbaijan	854	66.3	63.2	7.4	9.9	14.7	4.8	0.0	61.9	70.6
Bahrain	736	65.6	65.2	10.5	12.2	11.4	0.7	0.0	64.6	66.5
Brazil	3205	52.3	51.3	16.8	16.4	13.7	1.9	0.0	49.8	54.7
Chile	628	67.5	66.7	7.9	15.1	9.2	1.2	0.0	63.7	71.4
Chinese Taipei	469	90.1	90.1	4.7	2.3	2.9	0.0	0.0	88.8	91.4
Cyprus	578	71.9	70.9	8.7	8.7	10.4	1.4	0.0	68.9	75.0
Czech Republic	1119	90.8	90.1	2.7	3.7	2.8	0.7	0.0	88.2	93.3
England	590	84.0	82.9	6.9	4.3	4.6	1.2	0.0	84.0	83.9
Finland	804	79.6	78.8	9.5	5.2	5.6	0.9	0.0	78.3	80.9
France	641	62.7	62.1	21.1	6.5	9.3	0.9	0.0	55.6	69.6
Georgia	679	63.3	62.0	9.3	15.1	11.6	2.0	0.0	63.6	63.0
Hong Kong SAR	621	87.8	87.6	5.7	3.2	3.3	0.3	0.0	87.4	88.2
Hungary	748	78.2	78.2	9.9	7.4	4.4	0.0	0.0	76.9	79.6
Ireland	729	85.6	85.5	8.5	3.1	2.7	0.1	0.0	84.6	86.6
Israel	724	65.4	63.9	13.7	11.1	9.0	2.3	0.0	63.7	67.2
Italy	637	74.6	74.1	8.1	10.2	6.9	0.7	0.0	65.1	84.1
Japan	327	93.9	93.9	2.2	2.6	1.4	0.0	0.0	93.6	94.1
Jordan	1387	47.3	46.0	17.0	15.7	18.6	2.6	0.0	45.6	48.9
Kazakhstan	897	66.8	66.2	13.8	8.8	10.4	0.8	0.0	65.4	67.9
Korea, Rep. of	360	86.1	85.3	6.9	2.5	4.5	0.9	0.0	81.9	90.3
Lithuania	759	73.5	73.4	7.0	11.1	8.3	0.1	0.0	73.7	73.4
Malaysia	1227	68.5	68.3	11.1	11.1	9.3	0.3	0.0	67.1	69.9
Malta	567	76.2	75.7	7.6	8.7	7.4	0.6	0.0	74.7	77.7
Morocco	1736	41.9	41.4	15.8	23.3	18.2	1.3	0.0	40.8	43.1
New Zealand	552	78.9	78.5	9.2	5.9	6.0	0.4	0.0	75.0	82.3
Norway (9)	896	70.0	69.3	14.3	8.2	7.3	1.0	0.0	67.0	72.9
Oman	1630	69.1	68.7	9.6	10.3	10.8	0.6	0.0	69.6	68.6
Palestinian Nat'l Auth.	1304	49.9	48.2	13.8	16.2	18.4	3.4	0.0	50.3	49.5
Portugal	753	84.2	84.1	7.9	5.0	2.9	0.1	0.0	82.3	85.9
Qatar	608	76.8	76.4	6.9	9.0	7.1	0.6	0.0	76.8	76.8
Romania	509	65.3	63.4	13.0	10.9	9.7	3.0	0.0	60.4	69.5
Saudi Arabia	1166	54.7	54.3	10.8	16.6	17.6	0.7	0.0	53.6	55.7
Singapore	401	95.6	95.6	1.6	1.6	1.2	0.0	0.0	94.6	96.6
Sweden	707	81.0	80.9	12.3	2.2	4.5	0.1	0.0	78.1	83.7
Turkiye	711	69.5	68.9	8.0	12.3	9.9	0.8	0.0	66.9	72.0
United Arab Emirates	5292	75.0	74.8	7.2	8.5	9.3	0.3	0.0	72.7	77.3
United States	1156	77.7	77.5	8.5	8.0	5.7	0.2	0.0	74.3	80.9
Uzbekistan	610	53.9	52.4	14.7	15.9	14.3	2.7	0.0	51.7	56.1
International Avg. (40)	39137	72.6	71.9	9.7	9.0	8.3	1.0	0.0	70.2	74.8
Abu Dhabi, UAE	2403	67.5	67.4	8.7	11.3	12.5	0.2	0.0	65.1	70.0
Dubai, UAE	1159	87.2	86.9	4.7	3.8	4.3	0.3	0.0	84.7	89.5
Sharjah, UAE	888	79.4	79.1	5.8	8.0	6.8	0.3	0.0	78.1	80.7

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Applying

B_SE1_02C SE82064C: Simplified oxygen-carbon dioxide cycle - animals in - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1169	84.6	8.2	84.4	4.0	3.1	0.3	0.0	78.9	90.3
Austria	651	79.5	11.1	79.1	3.1	6.1	0.5	0.0	75.0	84.0
Azerbaijan	854	76.6	8.8	73.3	7.7	5.9	4.2	0.0	74.5	78.5
Bahrain	736	71.0	14.5	70.8	8.1	6.4	0.2	0.0	71.0	71.0
Brazil	3205	60.2	16.1	59.1	14.5	8.4	1.9	0.0	56.1	64.1
Chile	628	77.6	11.2	76.7	5.3	5.7	1.2	0.0	76.4	78.9
Chinese Taipei	469	89.8	4.6	89.8	2.9	2.7	0.0	0.0	88.5	90.9
Cyprus	578	74.4	14.3	73.3	4.6	6.4	1.4	0.0	72.1	76.8
Czech Republic	1119	94.4	3.4	93.9	1.3	0.9	0.5	0.0	91.4	97.2
England	590	84.8	7.5	83.8	3.9	3.6	1.2	0.0	83.3	86.2
Finland	804	82.1	9.5	81.7	4.7	3.5	0.6	0.0	79.6	84.7
France	641	65.2	24.1	64.6	5.5	4.9	0.9	0.0	58.3	71.8
Georgia	679	74.0	11.0	72.6	8.3	6.2	2.0	0.0	74.2	73.8
Hong Kong SAR	621	88.4	6.4	88.1	2.6	2.5	0.3	0.0	90.4	86.5
Hungary	748	78.7	10.4	78.7	6.4	4.4	0.0	0.0	74.4	83.2
Ireland	729	86.8	8.1	86.5	3.3	1.7	0.4	0.0	85.9	87.8
Israel	724	67.0	17.7	66.3	6.1	8.8	1.1	0.0	63.2	71.0
Italy	637	80.0	7.9	79.5	3.6	8.3	0.6	0.0	72.5	87.5
Japan	327	95.3	2.4	95.3	1.3	1.0	0.0	0.0	96.8	94.1
Jordan	1387	55.1	23.2	54.4	12.2	8.9	1.3	0.0	52.3	57.7
Kazakhstan	897	69.1	15.1	68.5	8.5	7.0	0.9	0.0	64.1	73.7
Korea, Rep. of	360	88.1	6.7	87.3	3.6	1.5	0.9	0.0	82.8	93.4
Lithuania	759	81.3	9.8	81.2	5.6	3.4	0.1	0.0	80.9	81.6
Malaysia	1227	72.8	12.6	72.6	6.6	7.9	0.2	0.0	70.9	74.6
Malta	567	82.4	9.1	81.7	3.7	4.7	0.8	0.0	84.2	80.6
Morocco	1736	47.9	16.5	47.2	14.0	20.8	1.4	0.0	44.7	51.2
New Zealand	552	83.2	9.4	82.9	4.1	3.3	0.4	0.0	78.3	87.7
Norway (9)	896	69.7	14.0	69.1	9.5	6.5	0.9	0.0	64.7	74.6
Oman	1630	74.7	12.0	74.4	6.5	6.7	0.4	0.0	76.1	73.4
Palestinian Nat'l Auth.	1304	58.0	19.4	57.5	10.9	11.4	0.8	0.0	61.1	55.1
Portugal	753	86.0	5.7	85.9	5.6	2.7	0.1	0.0	83.8	88.2
Qatar	608	78.9	8.4	78.6	6.2	6.4	0.4	0.0	78.8	79.0
Romania	509	71.9	14.4	69.8	7.0	5.8	3.0	0.0	68.9	74.4
Saudi Arabia	1166	63.8	17.6	63.5	9.4	9.2	0.4	0.0	61.3	66.1
Singapore	401	95.8	1.3	95.8	1.3	1.7	0.0	0.0	94.7	96.8
Sweden	707	80.7	10.6	80.6	4.8	3.8	0.1	0.0	78.9	82.4
Turkiye	711	78.2	11.0	77.6	4.7	6.0	0.7	0.0	77.2	79.2
United Arab Emirates	5292	78.4	9.3	78.1	6.4	5.8	0.3	0.0	76.9	79.8
United States	1156	82.0	10.5	81.9	3.5	3.9	0.1	0.0	78.1	85.7
Uzbekistan	610	58.0	18.0	56.9	11.0	12.1	1.9	0.0	54.1	62.0
International Avg. (40)	39137	76.7	11.3	76.1	6.1	5.8	0.8	0.0	74.4	78.9
Abu Dhabi, UAE	2403	70.6	11.6	70.5	8.9	8.8	0.2	0.0	69.6	71.7
Dubai, UAE	1159	89.3	5.5	89.0	2.7	2.5	0.3	0.0	88.3	90.2
Sharjah, UAE	888	83.4	7.8	83.2	4.7	4.0	0.3	0.0	82.2	84.6

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Applying

B_SE1_02D SE82064D: Simplified oxygen-carbon dioxide cycle - animals out - MC - Key: C

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1169	82.2	4.5	3.4	81.8	9.8	0.5	0.0	79.7	84.6
Austria	651	81.8	4.1	3.1	81.4	10.9	0.5	0.0	77.9	85.8
Azerbaijan	854	74.1	8.4	7.0	70.5	9.2	4.8	0.0	70.6	77.4
Bahrain	736	67.7	7.1	10.3	67.4	14.8	0.4	0.0	68.3	67.1
Brazil	3205	56.9	18.1	10.4	55.8	13.9	1.9	0.0	54.7	59.0
Chile	628	64.9	14.0	5.8	64.1	14.8	1.2	0.0	58.1	72.1
Chinese Taipei	469	87.5	1.9	3.3	87.5	7.3	0.0	0.0	85.4	89.5
Cyprus	578	77.2	7.2	5.7	76.1	9.6	1.4	0.0	74.2	80.3
Czech Republic	1119	88.7	2.7	0.9	88.2	7.6	0.6	0.0	84.9	92.4
England	590	84.8	4.1	4.1	83.8	6.8	1.2	0.0	82.3	86.9
Finland	804	75.3	5.8	5.2	74.7	13.6	0.8	0.0	69.7	80.9
France	641	69.4	4.2	6.2	68.8	19.8	0.9	0.0	66.3	72.5
Georgia	679	67.1	14.0	8.5	65.8	9.8	1.8	0.0	67.6	66.6
Hong Kong SAR	621	87.2	1.2	4.1	86.9	7.5	0.3	0.0	85.5	88.9
Hungary	748	78.9	6.4	6.8	78.9	8.0	0.0	0.0	73.3	84.7
Ireland	729	85.1	2.8	3.2	85.0	8.9	0.1	0.0	81.7	88.6
Israel	724	64.3	9.4	9.9	63.7	16.0	0.9	0.0	62.9	65.8
Italy	637	75.1	6.9	5.3	74.6	12.5	0.6	0.0	68.2	81.9
Japan	327	93.2	1.8	1.5	93.2	3.5	0.0	0.0	93.1	93.2
Jordan	1387	52.2	12.3	13.7	51.5	21.1	1.4	0.0	47.8	56.3
Kazakhstan	897	67.0	7.2	8.3	66.4	17.3	0.9	0.0	65.0	68.8
Korea, Rep. of	360	85.6	1.9	2.5	85.2	9.9	0.6	0.0	81.5	89.8
Lithuania	759	73.9	8.9	7.7	73.8	9.5	0.1	0.0	74.0	73.9
Malaysia	1227	65.4	10.0	9.8	65.4	14.9	0.0	0.0	63.5	67.3
Malta	567	76.8	6.6	5.1	76.3	11.3	0.6	0.0	74.6	79.0
Morocco	1736	46.0	17.6	15.1	45.3	20.4	1.6	0.0	44.4	47.6
New Zealand	552	83.1	6.0	3.5	82.7	7.3	0.4	0.0	81.1	84.9
Norway (9)	896	74.5	8.1	5.2	73.8	12.0	1.0	0.0	70.3	78.6
Oman	1630	69.3	9.0	9.1	68.9	12.4	0.6	0.0	69.1	69.5
Palestinian Nat'l Auth.	1304	54.5	10.9	13.9	53.9	20.2	1.1	0.0	55.3	53.8
Portugal	753	82.5	6.9	3.4	82.4	7.2	0.1	0.0	80.2	84.8
Qatar	608	74.2	5.3	8.2	73.9	12.3	0.4	0.0	73.9	74.4
Romania	509	71.5	10.8	3.9	69.4	12.9	3.0	0.0	68.5	74.1
Saudi Arabia	1166	57.2	11.5	14.7	56.8	16.3	0.7	0.0	58.2	56.3
Singapore	401	94.0	1.0	1.9	94.0	3.1	0.0	0.0	91.7	96.3
Sweden	707	82.3	2.7	3.8	82.2	11.2	0.1	0.0	79.1	85.3
Turkiye	711	72.0	12.2	5.2	71.4	10.3	0.8	0.0	71.6	72.5
United Arab Emirates	5292	75.5	7.0	7.3	75.2	10.2	0.3	0.0	73.7	77.1
United States	1156	76.1	5.0	4.5	75.9	14.4	0.2	0.0	70.8	81.0
Uzbekistan	610	59.8	12.4	9.6	58.3	17.2	2.5	0.0	60.9	58.7
International Avg. (40)	39137	73.9	7.4	6.5	73.3	11.9	0.9	0.0	71.5	76.2
Abu Dhabi, UAE	2403	69.4	9.7	8.9	69.2	12.0	0.2	0.0	68.0	70.7
Dubai, UAE	1159	86.8	3.1	3.7	86.4	6.3	0.4	0.0	85.1	88.3
Sharjah, UAE	888	77.7	5.5	7.0	77.4	9.8	0.3	0.0	76.7	78.7

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Biology / Knowing

B_SE1_03 SE82001: Match human organs to their function (DERIVED) - CR - 1 Point

COUNTRY	N	DIFF %	1 %	0 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1169	75.0	74.9	24.9	74.9	24.9	0.1	0.0	69.6	80.0
Austria	651	74.9	74.6	25.0	74.6	25.0	0.4	0.0	74.5	75.3
Azerbaijan	854	53.5	52.7	45.9	52.7	45.9	1.5	0.0	55.4	51.6
Bahrain	736	58.4	58.4	41.6	58.4	41.6	0.0	0.0	64.1	53.0
Brazil	3205	54.1	53.9	45.7	53.9	45.7	0.4	0.0	50.3	57.7
Chile	628	75.1	75.1	24.9	75.1	24.9	0.0	0.0	74.4	75.8
Chinese Taipei	469	71.0	71.0	29.0	71.0	29.0	0.0	0.0	68.1	73.7
Cyprus	578	59.9	59.1	39.5	59.1	39.5	1.4	0.0	61.4	58.4
Czech Republic	1119	83.0	83.0	17.0	83.0	17.0	0.0	0.0	80.6	85.3
England	590	79.0	78.6	20.9	78.6	20.9	0.4	0.0	75.6	82.0
Finland	804	82.1	81.6	17.8	81.6	17.8	0.6	0.0	82.8	81.5
France	641	65.7	65.7	34.3	65.7	34.3	0.0	0.0	66.0	65.5
Georgia	679	51.8	51.7	48.1	51.7	48.1	0.3	0.0	50.6	53.0
Hong Kong SAR	621	75.8	75.8	24.2	75.8	24.2	0.0	0.0	74.5	77.1
Hungary	748	82.6	82.5	17.4	82.5	17.4	0.1	0.0	78.6	86.8
Ireland	729	77.3	77.2	22.6	77.2	22.6	0.2	0.0	75.9	78.8
Israel	724	66.5	66.2	33.4	66.2	33.4	0.4	0.0	67.6	65.3
Italy	637	83.7	83.5	16.3	83.5	16.3	0.2	0.0	84.9	82.4
Japan	327	81.8	81.5	18.2	81.5	18.2	0.4	0.0	76.7	85.9
Jordan	1387	42.1	41.9	57.7	41.9	57.7	0.4	0.0	39.9	44.2
Kazakhstan	897	65.1	64.9	34.8	64.9	34.8	0.2	0.0	64.7	65.4
Korea, Rep. of	360	76.3	75.9	23.5	75.9	23.5	0.3	0.3	77.2	75.4
Lithuania	759	73.6	73.6	26.4	73.6	26.4	0.0	0.0	72.4	74.7
Malaysia	1227	37.6	37.6	62.4	37.6	62.4	0.0	0.0	37.4	37.8
Malta	567	71.0	70.8	29.0	70.8	29.0	0.0	0.2	69.9	72.0
Morocco	1736	20.3	20.0	78.2	20.0	78.2	1.8	0.0	22.5	18.1
New Zealand	552	72.2	72.1	27.8	72.1	27.8	0.1	0.0	69.4	74.8
Norway (9)	896	77.6	77.0	22.2	77.0	22.2	0.9	0.0	79.1	76.4
Oman	1630	49.9	49.7	49.8	49.7	49.8	0.5	0.0	55.8	44.5
Palestinian Nat'l Auth.	1304	46.5	46.4	53.5	46.4	53.5	0.1	0.0	50.3	42.9
Portugal	753	74.4	74.4	25.6	74.4	25.6	0.0	0.0	68.3	80.3
Qatar	608	67.9	67.9	32.1	67.9	32.1	0.0	0.0	69.8	66.4
Romania	509	71.4	71.3	28.6	71.3	28.6	0.1	0.0	67.0	75.1
Saudi Arabia	1166	47.8	47.7	52.1	47.7	52.1	0.2	0.0	55.5	40.4
Singapore	401	85.8	85.8	14.2	85.8	14.2	0.0	0.0	84.9	86.6
Sweden	707	82.6	82.6	17.4	82.6	17.4	0.0	0.0	84.5	81.0
Turkiye	711	69.1	69.1	30.9	69.1	30.9	0.0	0.0	68.6	69.5
United Arab Emirates	5291	59.9	59.8	40.0	59.8	40.0	0.1	0.0	60.1	59.7
United States	1156	75.6	75.6	24.4	75.6	24.4	0.0	0.0	72.6	78.5
Uzbekistan	610	39.6	39.4	59.9	39.4	59.9	0.7	0.0	35.9	43.4
International Avg. (40)	39136	66.4	66.3	33.4	66.3	33.4	0.3	0.0	65.9	66.9
Abu Dhabi, UAE	2403	49.1	49.0	50.8	49.0	50.8	0.3	0.0	48.9	49.3
Dubai, UAE	1158	76.6	76.5	23.4	76.5	23.4	0.0	0.0	77.1	76.1
Sharjah, UAE	888	66.7	66.7	33.3	66.7	33.3	0.0	0.0	69.4	64.0

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Biology / Knowing

B_SE1_03A SE82001A: Match human organs to their function - heart - MC - Key: D

COUNTRY	N	DIFF %	A %	B %	C %	D %	E %	F %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1169	95.3	1.0	2.5	0.1	94.9	1.1	0.0	0.4	0.0	94.0	96.5
Austria	651	97.9	0.1	1.4	0.2	97.5	0.4	0.0	0.4	0.0	97.1	98.7
Azerbaijan	854	81.0	1.6	7.2	2.0	77.9	5.7	1.8	3.9	0.0	79.9	82.1
Bahrain	736	79.3	0.4	11.9	1.7	78.6	4.9	1.6	1.0	0.0	85.4	73.5
Brazil	3205	88.0	1.4	4.5	1.2	86.3	3.2	1.6	1.9	0.0	88.7	87.2
Chile	628	96.8	0.0	0.9	0.3	96.1	1.6	0.3	0.7	0.0	96.5	97.0
Chinese Taipei	469	85.0	0.4	12.7	0.0	85.0	1.7	0.2	0.0	0.0	80.5	89.0
Cyprus	578	87.6	0.7	7.2	0.7	86.2	2.1	1.6	1.6	0.0	89.7	85.5
Czech Republic	1119	98.5	0.2	0.4	0.0	98.3	0.7	0.2	0.2	0.0	98.2	98.7
England	590	97.0	0.5	0.8	0.1	96.5	1.7	0.0	0.4	0.0	96.6	97.3
Finland	804	97.2	0.5	1.4	0.0	96.0	0.6	0.2	1.2	0.0	98.0	96.4
France	641	83.5	1.3	5.2	0.9	83.4	7.7	1.3	0.2	0.0	80.6	86.4
Georgia	679	78.2	0.8	14.5	0.1	77.5	4.6	1.5	1.0	0.0	78.6	77.8
Hong Kong SAR	621	93.6	1.8	2.7	1.0	93.3	0.4	0.5	0.3	0.0	92.6	94.6
Hungary	748	96.3	0.7	1.6	0.7	96.2	0.6	0.0	0.1	0.0	96.1	96.5
Ireland	729	97.1	0.3	1.8	0.0	96.1	0.7	0.0	1.0	0.0	98.0	96.3
Israel	724	83.2	1.9	7.7	1.1	82.0	3.1	2.8	1.4	0.0	81.7	84.7
Italy	637	96.2	0.0	2.1	0.1	95.8	1.1	0.5	0.4	0.0	96.9	95.4
Japan	327	93.0	0.0	3.8	0.5	92.0	2.2	0.4	1.1	0.0	89.6	95.8
Jordan	1387	79.1	1.5	12.8	2.3	78.1	2.6	1.5	1.2	0.0	82.4	75.9
Kazakhstan	897	82.9	1.1	9.6	0.8	81.7	4.9	0.5	1.4	0.0	81.3	84.3
Korea, Rep. of	360	91.2	0.0	3.1	0.8	89.9	4.8	0.0	1.1	0.3	89.3	93.1
Lithuania	759	91.6	0.2	7.4	0.1	91.6	0.6	0.1	0.0	0.0	91.2	91.9
Malaysia	1227	64.6	2.6	10.5	3.2	64.1	17.2	1.7	0.7	0.0	65.2	63.9
Malta	567	96.2	0.5	0.6	0.4	95.7	1.4	0.8	0.4	0.2	97.3	95.2
Morocco	1736	45.0	2.6	14.8	11.2	43.6	13.0	11.6	3.1	0.0	47.5	42.5
New Zealand	552	96.1	0.3	1.5	0.1	94.4	1.9	0.0	1.7	0.0	96.0	96.1
Norway (9)	896	95.1	1.3	2.4	0.3	93.6	0.7	0.2	1.6	0.0	94.9	95.2
Oman	1630	88.0	0.6	4.4	1.5	86.0	3.7	1.6	2.3	0.0	91.7	84.6
Palestinian Nat'l Auth.	1304	77.2	1.0	13.5	1.5	76.2	4.8	1.8	1.3	0.0	78.8	75.7
Portugal	753	95.8	0.2	2.9	0.0	95.7	0.9	0.1	0.1	0.0	95.8	95.9
Qatar	608	95.1	0.4	1.2	0.9	94.6	1.9	0.5	0.5	0.0	95.4	94.8
Romania	509	92.6	1.2	2.3	0.4	91.2	2.1	1.3	1.4	0.0	90.2	94.6
Saudi Arabia	1166	85.7	1.1	7.3	1.0	84.4	3.4	1.2	1.6	0.0	91.4	80.3
Singapore	401	98.6	0.0	0.5	0.2	98.2	0.8	0.0	0.4	0.0	99.7	97.5
Sweden	707	96.3	0.7	1.4	0.6	96.0	0.7	0.3	0.3	0.0	97.6	95.0
Turkiye	711	93.3	0.9	1.2	0.4	93.0	3.7	0.5	0.2	0.0	93.2	93.3
United Arab Emirates	5291	85.1	1.0	5.4	1.8	84.5	4.5	2.0	0.7	0.0	87.3	82.9
United States	1156	93.6	0.7	2.5	0.3	92.8	2.0	0.8	0.8	0.0	93.2	94.0
Uzbekistan	610	73.9	2.4	14.4	0.9	68.5	5.8	0.7	7.4	0.0	73.9	73.9
International Avg. (40)	39136	88.5	0.8	5.3	1.0	87.6	3.1	1.0	1.1	0.0	88.8	88.2
Abu Dhabi, UAE	2403	75.5	1.8	7.3	3.4	74.8	7.8	4.1	0.8	0.0	78.0	72.8
Dubai, UAE	1158	95.2	0.2	2.6	0.3	94.9	1.6	0.1	0.4	0.0	96.1	94.4
Sharjah, UAE	888	92.3	0.3	3.8	0.7	91.7	2.1	0.8	0.6	0.0	94.3	90.3

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Knowing

B_SE1_03B SE82001B: Match human organs to their function - stomach - MC - Key: C

COUNTRY	N	DIFF %	A %	B %	C %	D %	E %	F %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1169	89.4	9.5	0.4	88.5	0.0	0.3	0.4	0.9	0.0	87.5	91.2
Austria	651	80.9	17.0	1.5	80.3	0.4	0.0	0.0	0.7	0.0	82.3	79.6
Azerbaijan	854	77.0	19.0	1.1	74.2	1.0	0.6	0.5	3.6	0.0	79.5	74.7
Bahrain	736	83.8	12.4	0.2	82.8	2.0	0.9	0.6	1.1	0.0	88.6	79.1
Brazil	3205	76.7	18.8	0.9	75.0	1.0	1.0	1.0	2.1	0.0	75.7	77.6
Chile	628	87.4	11.5	0.4	86.6	0.0	0.2	0.3	1.0	0.0	89.0	85.9
Chinese Taipei	469	91.6	8.0	0.0	91.6	0.0	0.3	0.0	0.0	0.0	93.8	89.6
Cyprus	578	80.1	15.7	2.0	78.9	0.6	0.8	0.6	1.5	0.0	82.5	77.7
Czech Republic	1119	90.1	9.2	0.3	89.8	0.0	0.3	0.0	0.4	0.0	89.1	91.2
England	590	89.7	9.2	0.3	88.8	0.1	0.2	0.5	0.9	0.0	90.2	89.2
Finland	804	90.6	7.8	0.9	89.5	0.1	0.0	0.4	1.2	0.0	90.8	90.4
France	641	82.4	16.3	0.3	82.4	0.6	0.2	0.3	0.0	0.0	85.0	79.9
Georgia	679	76.8	22.0	0.3	75.7	0.6	0.0	0.0	1.4	0.0	76.6	77.1
Hong Kong SAR	621	88.0	10.3	1.0	87.5	0.2	0.1	0.4	0.5	0.0	87.4	88.5
Hungary	748	90.0	9.2	0.4	89.9	0.0	0.3	0.1	0.1	0.0	87.2	92.9
Ireland	729	91.4	8.1	0.0	90.0	0.0	0.4	0.0	1.5	0.0	90.8	92.0
Israel	724	84.9	11.6	1.1	84.4	0.5	1.2	0.6	0.6	0.0	86.4	83.5
Italy	637	91.4	7.6	0.6	91.2	0.2	0.1	0.0	0.2	0.0	92.3	90.5
Japan	327	92.3	7.1	0.0	91.6	0.0	0.5	0.0	0.8	0.0	89.7	94.4
Jordan	1387	67.2	26.2	2.0	65.8	1.8	1.5	0.6	2.2	0.0	65.8	68.6
Kazakhstan	897	92.5	5.9	0.3	92.0	0.7	0.1	0.4	0.6	0.0	92.3	92.7
Korea, Rep. of	360	85.2	14.4	0.2	84.5	0.0	0.0	0.0	0.5	0.3	87.5	82.9
Lithuania	759	93.2	6.3	0.1	93.1	0.0	0.3	0.0	0.1	0.0	92.2	94.2
Malaysia	1227	74.0	18.9	1.7	73.3	2.3	2.0	0.9	1.0	0.0	76.7	71.3
Malta	567	85.4	12.2	0.4	84.3	0.6	0.4	0.9	1.0	0.2	84.5	86.3
Morocco	1736	46.5	22.1	4.1	44.9	9.3	8.8	7.4	3.4	0.0	49.1	43.8
New Zealand	552	88.7	10.0	0.2	86.9	0.3	0.0	0.5	2.1	0.0	88.9	88.6
Norway (9)	896	88.0	10.5	0.8	86.5	0.1	0.3	0.1	1.7	0.0	89.6	86.4
Oman	1630	68.9	26.3	1.5	67.3	0.9	1.2	0.6	2.3	0.0	73.5	64.5
Palestinian Nat'l Auth.	1304	75.4	17.3	1.2	73.8	1.5	2.4	1.5	2.2	0.0	79.9	71.3
Portugal	753	89.2	10.2	0.2	89.2	0.1	0.1	0.2	0.0	0.0	88.0	90.4
Qatar	608	85.2	13.3	0.5	84.5	0.9	0.0	0.0	0.8	0.0	84.6	85.7
Romania	509	87.5	10.9	1.4	86.5	0.0	0.0	0.0	1.2	0.0	85.3	89.3
Saudi Arabia	1166	69.7	25.9	0.4	68.3	1.5	1.0	0.7	2.1	0.0	73.4	66.3
Singapore	401	91.5	7.7	0.5	91.3	0.0	0.0	0.2	0.3	0.0	89.5	93.5
Sweden	707	91.5	7.2	0.9	91.3	0.3	0.0	0.0	0.3	0.0	92.1	91.0
Turkiye	711	82.7	16.6	0.5	82.2	0.0	0.1	0.1	0.6	0.0	82.1	83.2
United Arab Emirates	5291	76.7	17.4	1.3	76.1	1.6	1.5	1.2	0.8	0.0	78.4	75.0
United States	1156	89.8	9.2	0.4	88.8	0.1	0.1	0.2	1.1	0.0	86.6	92.8
Uzbekistan	610	77.0	18.3	1.2	71.0	1.0	0.5	0.1	7.8	0.0	78.6	75.4
International Avg. (40)	39136	83.5	13.4	0.8	82.5	0.8	0.7	0.5	1.3	0.0	84.1	82.9
Abu Dhabi, UAE	2403	70.6	18.6	2.4	70.1	2.9	2.8	2.5	0.7	0.0	74.3	66.9
Dubai, UAE	1158	87.3	11.7	0.2	86.9	0.1	0.4	0.2	0.5	0.0	87.5	87.1
Sharjah, UAE	888	80.8	17.0	0.7	80.1	0.6	0.4	0.3	0.9	0.0	82.4	79.3

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Biology / Knowing

B_SE1_03C SE82001C: Match human organs to their function - lung - MC - Key: E

COUNTRY	N	DIFF %	A %	B %	C %	D %	E %	F %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1169	95.0	1.7	0.4	0.8	1.6	94.5	0.4	0.6	0.0	94.6	95.4
Austria	651	95.8	1.6	0.9	1.3	0.4	95.3	0.0	0.5	0.0	95.2	96.4
Azerbaijan	854	83.5	8.6	2.0	0.7	2.8	80.0	1.7	4.2	0.0	84.4	82.5
Bahrain	736	84.0	7.1	1.7	1.2	4.8	83.4	1.1	0.7	0.0	89.2	78.9
Brazil	3205	85.5	5.6	2.3	1.4	3.4	83.3	1.4	2.5	0.0	83.7	87.1
Chile	628	95.7	0.2	2.1	0.6	1.0	95.1	0.3	0.7	0.0	96.3	95.2
Chinese Taipei	469	90.0	3.9	3.1	0.4	2.5	89.8	0.0	0.3	0.0	86.2	93.5
Cyprus	578	90.5	2.6	2.7	1.3	1.4	89.2	1.3	1.4	0.0	91.7	89.2
Czech Republic	1119	97.2	1.1	0.6	0.5	0.5	96.5	0.1	0.6	0.0	96.5	97.8
England	590	96.1	1.2	0.8	0.2	1.6	95.3	0.1	0.8	0.0	93.5	98.3
Finland	804	96.4	0.9	1.3	0.6	0.1	95.1	0.7	1.4	0.0	97.0	95.8
France	641	84.5	2.8	3.6	1.0	7.6	84.3	0.5	0.2	0.0	81.8	87.1
Georgia	679	90.6	3.4	1.6	0.7	3.5	89.3	0.1	1.5	0.0	90.2	91.0
Hong Kong SAR	621	92.6	3.3	1.3	0.7	1.3	92.1	0.8	0.5	0.0	90.4	94.7
Hungary	748	95.0	2.9	1.1	0.1	0.5	94.7	0.4	0.3	0.0	94.5	95.5
Ireland	729	96.2	0.8	1.1	0.3	1.0	94.9	0.5	1.4	0.0	95.5	97.0
Israel	724	86.5	5.3	1.5	1.8	3.0	85.3	1.7	1.4	0.0	86.2	86.9
Italy	637	96.1	1.3	0.6	0.2	1.5	95.7	0.2	0.4	0.0	96.2	96.1
Japan	327	94.3	2.3	1.2	0.5	1.6	93.0	0.0	1.4	0.0	94.5	94.2
Jordan	1387	77.9	8.9	2.9	4.4	4.0	76.2	1.3	2.3	0.0	77.5	78.3
Kazakhstan	897	86.4	6.6	3.5	0.3	2.5	85.2	0.4	1.4	0.0	82.7	89.7
Korea, Rep. of	360	92.0	1.0	0.9	0.7	5.0	90.4	0.3	1.5	0.3	89.5	94.6
Lithuania	759	94.2	2.1	2.9	0.2	0.3	94.1	0.2	0.1	0.0	92.7	95.7
Malaysia	1227	66.9	10.4	5.6	2.8	12.2	66.2	1.8	1.1	0.0	66.1	67.7
Malta	567	92.8	3.4	1.0	0.9	0.9	91.1	0.9	1.5	0.2	90.7	94.8
Morocco	1736	47.4	14.4	8.8	5.0	16.2	46.0	6.6	3.0	0.0	47.6	47.1
New Zealand	552	95.4	1.5	1.1	0.8	0.6	92.7	0.4	2.8	0.0	93.4	97.2
Norway (9)	896	96.4	0.9	0.6	1.0	0.8	94.7	0.3	1.7	0.0	96.4	96.4
Oman	1630	84.7	6.1	1.9	2.3	3.8	82.9	0.9	2.2	0.0	88.0	81.6
Palestinian Nat'l Auth.	1304	76.9	9.3	4.0	2.0	5.1	74.8	2.0	2.7	0.0	78.0	75.8
Portugal	753	95.2	1.8	1.0	0.1	1.6	94.7	0.3	0.4	0.0	93.3	97.0
Qatar	608	90.1	3.7	2.4	0.9	0.9	89.2	1.9	1.0	0.0	90.4	89.8
Romania	509	92.0	2.9	1.4	0.9	1.1	91.0	1.6	1.1	0.0	89.9	93.7
Saudi Arabia	1166	81.9	7.1	2.8	2.8	4.4	80.5	0.6	1.8	0.0	84.8	79.3
Singapore	401	97.4	1.5	0.0	0.8	0.4	96.7	0.0	0.7	0.0	98.2	96.6
Sweden	707	94.2	1.7	1.6	1.4	1.0	93.9	0.2	0.3	0.0	96.5	92.0
Turkiye	711	87.6	6.5	0.4	1.4	3.4	87.2	0.7	0.4	0.0	88.0	87.2
United Arab Emirates	5291	82.4	5.4	4.0	2.7	3.3	81.7	2.1	0.8	0.0	82.8	82.0
United States	1156	93.6	2.6	0.7	1.4	1.2	92.9	0.5	0.8	0.0	91.9	95.2
Uzbekistan	610	75.9	8.5	5.6	2.7	3.6	68.1	1.2	10.3	0.0	74.5	77.4
International Avg. (40)	39136	88.7	4.1	2.1	1.2	2.8	87.4	0.9	1.5	0.0	88.3	89.0
Abu Dhabi, UAE	2403	72.2	7.9	6.7	4.2	4.7	71.5	4.0	0.9	0.0	73.0	71.3
Dubai, UAE	1158	93.5	2.7	1.1	0.9	1.2	93.1	0.6	0.4	0.0	93.0	93.9
Sharjah, UAE	888	90.9	3.1	2.0	1.1	2.1	90.3	0.8	0.6	0.0	92.2	89.5

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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COUNTRY	N	DIFF %	A %	B %	C %	D %	E %	F %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1169	87.4	3.2	86.7	0.9	1.7	0.6	6.2	0.8	0.0	82.6	91.9
Austria	651	94.0	1.9	93.5	0.8	0.7	0.5	2.2	0.5	0.0	95.8	92.1
Azerbaijan	854	80.5	4.2	76.8	2.9	3.7	1.0	6.8	4.6	0.0	82.2	78.8
Bahrain	736	77.5	5.0	76.0	1.2	6.7	2.4	6.7	1.9	0.0	81.1	74.0
Brazil	3205	79.6	3.2	77.5	2.3	1.9	1.3	11.2	2.6	0.0	79.9	79.3
Chile	628	88.5	2.8	87.0	0.9	0.4	0.6	6.5	1.8	0.0	88.2	88.9
Chinese Taipei	469	81.3	1.9	80.9	0.3	10.5	0.5	5.5	0.5	0.0	76.5	85.6
Cyprus	578	74.9	6.7	73.2	3.1	4.9	1.4	8.4	2.2	0.0	76.1	73.6
Czech Republic	1119	95.2	2.3	94.5	0.2	0.3	0.3	1.7	0.7	0.0	94.3	96.1
England	590	91.5	1.8	90.6	0.6	0.4	0.1	5.5	1.0	0.0	89.7	93.1
Finland	804	91.2	3.6	89.9	1.0	1.1	0.6	2.3	1.5	0.0	91.8	90.7
France	641	87.8	1.8	87.8	1.5	4.3	0.9	3.6	0.1	0.0	88.2	87.5
Georgia	679	78.0	5.2	76.8	0.6	10.4	0.9	4.6	1.6	0.0	79.0	76.8
Hong Kong SAR	621	89.4	1.2	88.8	1.4	2.1	1.3	4.6	0.7	0.0	90.7	88.1
Hungary	748	93.7	1.8	93.6	0.8	2.1	0.8	0.8	0.1	0.0	93.1	94.3
Ireland	729	86.8	4.7	85.1	1.0	0.8	0.3	6.3	1.9	0.0	86.5	87.0
Israel	724	84.3	3.0	83.3	1.9	7.0	1.1	2.4	1.3	0.0	85.8	82.8
Italy	637	94.5	0.8	93.8	0.7	1.2	0.7	2.1	0.8	0.0	95.3	93.8
Japan	327	94.0	1.1	92.9	0.0	2.4	1.3	1.2	1.1	0.0	93.2	94.5
Jordan	1387	73.0	5.8	70.4	4.6	8.3	2.7	4.7	3.5	0.0	75.9	70.2
Kazakhstan	897	76.8	6.1	75.8	1.4	8.9	1.4	5.1	1.3	0.0	78.0	75.8
Korea, Rep. of	360	94.8	0.7	93.7	0.7	2.6	0.2	0.9	0.9	0.3	94.8	94.8
Lithuania	759	82.4	6.3	81.9	0.5	6.3	0.5	3.9	0.6	0.0	82.1	82.7
Malaysia	1227	66.0	5.2	65.3	3.5	10.0	3.2	11.7	1.1	0.0	67.7	64.3
Malta	567	86.7	3.0	85.4	1.4	0.7	0.4	7.6	1.2	0.2	87.8	85.5
Morocco	1736	49.7	11.3	47.7	12.2	5.0	8.1	11.6	4.0	0.0	53.2	46.0
New Zealand	552	86.4	3.5	84.6	0.8	2.0	0.0	7.0	2.1	0.0	85.0	87.7
Norway (9)	896	89.0	3.7	87.1	1.3	2.1	0.4	3.3	2.1	0.0	89.5	88.7
Oman	1630	81.5	5.1	79.1	3.3	2.1	1.5	5.9	3.0	0.0	87.7	75.7
Palestinian Nat'l Auth.	1304	66.1	10.3	64.3	3.7	7.4	3.9	7.7	2.7	0.0	69.5	62.9
Portugal	753	89.6	1.1	89.5	0.4	0.9	0.1	7.9	0.1	0.0	88.1	91.1
Qatar	608	83.4	2.8	82.8	1.9	1.5	2.6	7.6	0.8	0.0	88.7	79.0
Romania	509	87.8	3.7	86.2	1.5	3.1	0.2	3.5	1.8	0.0	85.5	89.8
Saudi Arabia	1166	81.1	4.7	78.5	3.9	2.9	2.0	4.9	3.2	0.0	87.1	75.3
Singapore	401	95.7	0.2	95.3	0.5	0.6	0.5	2.5	0.4	0.0	96.9	94.5
Sweden	707	90.5	2.3	90.2	1.1	1.6	0.8	3.6	0.3	0.0	92.7	88.5
Turkiye	711	94.8	1.2	94.4	0.8	0.9	0.3	2.0	0.4	0.0	96.8	92.9
United Arab Emirates	5291	77.7	3.8	76.9	3.9	3.7	2.9	7.8	1.0	0.0	79.3	76.2
United States	1156	87.3	4.0	86.4	0.9	2.6	0.4	4.6	1.0	0.0	87.6	87.0
Uzbekistan	610	64.5	6.2	57.1	2.9	9.7	2.9	9.7	11.5	0.0	63.6	65.5
International Avg. (40)	39136	83.9	3.7	82.5	1.8	3.6	1.3	5.3	1.7	0.0	84.7	83.1
Abu Dhabi, UAE	2403	67.6	5.8	66.9	5.7	5.9	4.9	9.6	1.1	0.0	70.1	65.0
Dubai, UAE	1158	90.5	1.9	90.0	1.4	1.2	0.4	4.5	0.6	0.0	92.0	89.1
Sharjah, UAE	888	83.9	2.4	83.0	2.3	2.0	1.4	7.9	1.1	0.0	84.5	83.3

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Biology / Knowing

B_SE1_03E SE82001E: Match human organs to their function - skin - MC - Key: F

COUNTRY	N	DIFF %	A %	B %	C %	D %	E %	F %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1169	89.2	3.9	4.2	0.6	1.0	1.0	88.5	0.9	0.0	86.6	91.8
Austria	651	95.5	2.1	0.7	0.4	0.0	1.3	95.1	0.4	0.0	95.3	95.7
Azerbaijan	854	84.3	2.9	4.5	1.4	4.0	2.2	80.6	4.4	0.0	84.1	84.4
Bahrain	736	86.3	4.6	3.9	0.4	3.4	1.3	85.4	1.1	0.0	91.3	81.4
Brazil	3205	78.7	7.2	7.3	1.8	2.5	1.9	76.4	2.8	0.0	78.2	79.1
Chile	628	89.4	4.0	4.4	0.2	0.8	1.1	88.2	1.3	0.0	87.6	91.2
Chinese Taipei	469	94.2	1.3	0.9	0.0	0.0	3.5	93.7	0.6	0.0	91.9	96.4
Cyprus	578	84.3	4.6	4.4	1.7	1.5	3.2	82.6	2.0	0.0	87.0	81.5
Czech Republic	1119	96.2	2.0	1.1	0.1	0.2	0.5	95.7	0.5	0.0	95.5	96.8
England	590	92.3	3.2	2.8	0.0	0.6	1.0	91.6	0.8	0.0	89.7	94.6
Finland	804	94.8	1.9	0.8	0.6	0.4	1.4	93.3	1.5	0.0	95.9	93.5
France	641	89.5	3.8	1.7	0.9	1.6	2.4	89.3	0.3	0.0	90.2	88.9
Georgia	679	92.7	2.2	1.5	0.1	2.0	1.4	91.3	1.4	0.0	93.1	92.2
Hong Kong SAR	621	90.5	2.0	3.1	0.2	1.3	2.9	90.1	0.4	0.0	89.7	91.2
Hungary	748	97.4	1.0	0.5	0.3	0.5	0.4	97.3	0.1	0.0	97.4	97.4
Ireland	729	91.8	1.7	4.6	0.2	0.0	1.5	90.3	1.6	0.0	90.3	93.3
Israel	724	88.8	2.6	1.9	1.5	3.3	1.7	87.7	1.2	0.0	91.5	86.1
Italy	637	94.6	2.5	1.3	0.2	0.4	0.9	94.2	0.4	0.0	95.1	94.2
Japan	327	96.6	1.8	0.0	0.3	0.7	0.5	95.6	1.1	0.0	93.2	99.4
Jordan	1387	84.1	5.0	2.5	1.7	3.0	3.4	82.1	2.3	0.0	87.1	81.2
Kazakhstan	897	90.9	2.4	3.7	0.4	1.2	1.4	90.3	0.6	0.0	93.2	88.8
Korea, Rep. of	360	98.8	0.0	0.9	0.0	0.0	0.3	97.7	0.9	0.3	99.3	98.3
Lithuania	759	94.2	2.9	1.2	0.4	0.3	1.1	94.2	0.0	0.0	95.4	93.0
Malaysia	1227	76.7	7.4	6.2	1.5	4.1	3.7	76.0	0.9	0.0	79.1	74.4
Malta	567	87.1	4.5	4.8	1.1	0.4	1.9	85.7	1.3	0.2	88.1	86.1
Morocco	1736	40.4	16.3	10.9	10.7	11.0	8.5	39.0	3.6	0.0	42.1	38.7
New Zealand	552	89.1	4.1	4.8	1.0	0.3	0.4	86.9	2.5	0.0	87.6	90.5
Norway (9)	896	94.7	2.1	0.8	0.5	0.7	1.1	93.1	1.7	0.0	95.6	94.0
Oman	1630	84.0	4.1	5.1	2.4	1.7	2.2	82.3	2.1	0.0	89.6	78.7
Palestinian Nat'l Auth.	1304	82.6	4.9	4.5	2.0	2.8	2.9	80.9	2.1	0.0	88.3	77.4
Portugal	753	87.1	6.8	4.1	0.3	0.7	1.0	87.1	0.0	0.0	82.9	91.3
Qatar	608	86.8	3.0	6.5	0.9	0.9	1.9	86.4	0.5	0.0	91.3	82.9
Romania	509	87.6	5.7	1.7	1.5	0.8	2.6	86.2	1.6	0.0	87.0	88.2
Saudi Arabia	1166	84.4	4.9	2.9	1.6	3.4	2.5	82.8	1.8	0.0	89.8	79.2
Singapore	401	96.0	0.7	2.5	0.0	0.3	0.4	96.0	0.0	0.0	97.3	94.7
Sweden	707	93.5	1.6	2.7	0.3	0.4	1.5	93.2	0.3	0.0	94.8	92.2
Turkiye	711	94.0	2.2	1.7	0.6	0.2	1.2	93.6	0.4	0.0	95.4	92.7
United Arab Emirates	5291	80.1	5.3	6.0	2.0	3.5	2.9	79.4	0.9	0.0	81.3	78.9
United States	1156	91.4	2.4	3.5	0.3	1.1	1.2	90.3	1.2	0.0	90.2	92.4
Uzbekistan	610	79.2	4.8	3.0	0.9	2.3	7.6	71.0	10.3	0.0	82.5	75.8
International Avg. (40)	39136	88.2	3.7	3.2	1.0	1.6	2.0	87.0	1.4	0.0	89.0	87.5
Abu Dhabi, UAE	2403	68.4	7.9	8.6	3.7	6.4	4.8	67.8	1.0	0.0	71.2	65.6
Dubai, UAE	1158	92.0	2.8	2.6	0.5	1.0	1.1	91.4	0.6	0.0	92.0	92.0
Sharjah, UAE	888	87.0	3.9	5.1	1.0	1.8	1.1	86.0	1.1	0.0	87.2	86.8

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Knowing

B_SE1_04 SE82050: Purpose of colorful flowers on plants - MC - Key: C

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1169	68.4	27.7	2.3	68.2	1.6	0.3	0.0	68.5	68.3
Austria	651	72.4	22.9	3.6	72.0	0.9	0.6	0.0	74.4	70.4
Azerbaijan	854	41.4	40.9	8.5	40.5	8.0	2.1	0.0	47.4	35.7
Bahrain	736	58.0	26.7	11.4	57.7	3.8	0.4	0.0	63.6	52.6
Brazil	3205	49.2	34.9	9.0	48.9	6.4	0.7	0.0	47.8	50.6
Chile	628	59.5	31.0	7.0	58.9	2.2	0.9	0.0	59.0	59.9
Chinese Taipei	469	87.9	11.6	0.4	87.7	0.0	0.3	0.0	87.0	88.7
Cyprus	578	41.2	38.2	14.2	40.9	5.9	0.8	0.0	41.8	40.5
Czech Republic	1119	79.3	18.5	1.3	79.0	0.8	0.2	0.1	80.0	78.5
England	590	81.4	16.1	2.0	81.3	0.5	0.1	0.0	81.0	81.8
Finland	804	85.5	8.7	4.0	84.6	1.7	1.0	0.0	88.0	82.9
France	641	59.4	30.9	6.5	59.3	3.1	0.1	0.0	59.6	59.1
Georgia	679	55.5	35.5	6.3	55.1	2.4	0.7	0.0	54.5	56.6
Hong Kong SAR	621	78.9	16.0	4.2	78.9	0.8	0.1	0.0	80.8	77.1
Hungary	748	81.6	15.5	2.1	81.6	0.7	0.0	0.0	81.8	81.4
Ireland	729	71.7	25.7	1.5	71.7	1.2	0.0	0.0	74.7	68.6
Israel	724	51.4	35.6	10.1	51.1	2.6	0.4	0.2	54.8	47.9
Italy	637	63.2	30.8	4.2	63.2	1.7	0.1	0.0	60.3	66.2
Japan	327	73.6	22.8	2.2	73.3	1.3	0.4	0.0	72.8	74.3
Jordan	1387	51.2	32.1	11.8	50.8	4.6	0.8	0.0	50.7	51.6
Kazakhstan	897	44.5	42.9	6.9	44.2	5.3	0.6	0.0	43.5	45.3
Korea, Rep. of	360	77.3	18.9	1.5	76.7	2.0	0.5	0.3	78.2	76.5
Lithuania	759	73.2	20.6	3.6	73.2	2.7	0.0	0.0	77.0	69.5
Malaysia	1227	59.4	26.7	7.8	59.4	6.0	0.0	0.0	64.8	54.0
Malta	567	72.3	22.1	2.6	72.1	2.9	0.0	0.2	75.7	68.9
Morocco	1736	34.3	30.1	22.9	34.1	12.2	0.7	0.0	33.9	34.7
New Zealand	552	70.2	25.0	2.8	69.9	1.8	0.4	0.0	72.4	68.3
Norway (9)	896	63.0	28.3	5.7	62.6	2.8	0.4	0.3	64.7	61.1
Oman	1630	73.4	18.5	6.0	73.3	2.1	0.1	0.0	80.4	66.7
Palestinian Nat'l Auth.	1304	36.7	45.0	11.9	36.3	5.8	1.0	0.1	36.9	36.6
Portugal	753	64.0	28.8	4.8	63.9	2.4	0.1	0.0	63.0	64.9
Qatar	608	66.5	26.8	3.4	65.9	3.1	0.8	0.0	69.5	63.9
Romania	508	56.0	33.0	6.5	55.7	4.2	0.6	0.0	56.3	55.8
Saudi Arabia	1166	49.3	34.7	10.3	49.2	5.5	0.2	0.1	57.0	42.1
Singapore	401	94.4	4.6	0.9	94.4	0.0	0.0	0.0	95.7	93.2
Sweden	707	73.4	20.3	4.5	72.6	1.5	1.1	0.0	74.2	72.5
Turkiye	711	56.4	31.2	8.9	56.3	3.4	0.1	0.0	62.2	50.8
United Arab Emirates	5292	65.1	26.2	5.5	65.0	3.1	0.3	0.0	67.2	63.1
United States	1156	66.1	28.8	3.6	66.0	1.5	0.1	0.0	66.8	65.4
Uzbekistan	610	50.3	38.3	5.3	50.2	5.9	0.2	0.2	46.8	53.8
International Avg. (40)	39136	63.9	26.8	6.0	63.6	3.1	0.4	0.0	65.4	62.5
Abu Dhabi, UAE	2403	55.0	32.2	7.6	54.9	5.0	0.3	0.0	57.2	52.8
Dubai, UAE	1159	77.9	18.6	2.4	77.9	1.0	0.0	0.0	79.2	76.7
Sharjah, UAE	888	73.2	20.2	4.4	72.8	2.0	0.5	0.0	74.7	71.7

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Applying

B_SE1_05 SE82040: Tree Features inherited by offspring (DERIVED) - CR - 1 Point

COUNTRY	N	DIFF %	1 %	0 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1169	51.0	50.3	48.3	50.3	48.3	1.2	0.1	47.7	54.3
Austria	651	65.7	65.6	34.2	65.6	34.2	0.3	0.0	72.0	59.5
Azerbaijan	854	32.8	31.3	64.2	31.3	64.2	4.5	0.0	39.8	26.2
Bahrain	736	43.3	42.9	56.2	42.9	56.2	0.9	0.0	50.2	36.7
Brazil	3205	42.5	41.9	56.8	41.9	56.8	1.3	0.0	42.7	42.3
Chile	628	57.5	56.7	41.9	56.7	41.9	1.4	0.0	59.1	55.9
Chinese Taipei	469	42.9	42.9	57.1	42.9	57.1	0.0	0.0	43.7	42.1
Cyprus	578	48.6	47.6	50.3	47.6	50.3	2.0	0.2	53.4	43.8
Czech Republic	1119	76.8	76.2	23.0	76.2	23.0	0.7	0.1	79.3	74.4
England	590	64.3	62.8	34.8	62.8	34.8	2.3	0.1	61.4	66.8
Finland	804	73.9	72.9	25.7	72.9	25.7	1.3	0.0	79.5	68.2
France	641	48.3	47.6	50.9	47.6	50.9	1.5	0.0	51.2	45.6
Georgia	679	47.6	47.0	51.7	47.0	51.7	1.2	0.0	54.4	40.4
Hong Kong SAR	621	39.8	39.8	60.2	39.8	60.2	0.0	0.0	40.6	39.1
Hungary	748	56.1	56.1	43.9	56.1	43.9	0.0	0.0	60.2	51.9
Ireland	729	49.6	49.3	50.1	49.3	50.1	0.7	0.0	50.8	48.4
Israel	724	62.9	62.3	36.8	62.3	36.8	0.7	0.2	69.4	56.3
Italy	637	72.2	72.0	27.8	72.0	27.8	0.3	0.0	73.1	71.2
Japan	327	67.5	67.3	32.4	67.3	32.4	0.4	0.0	70.9	64.8
Jordan	1387	31.1	30.9	68.4	30.9	68.4	0.8	0.0	31.5	30.8
Kazakhstan	897	51.7	51.4	47.9	51.4	47.9	0.7	0.0	52.9	50.7
Korea, Rep. of	360	61.4	60.9	38.3	60.9	38.3	0.5	0.3	60.3	62.5
Lithuania	759	71.1	71.0	28.9	71.0	28.9	0.1	0.0	77.3	65.0
Malaysia	1227	37.8	37.8	62.2	37.8	62.2	0.0	0.0	43.4	32.1
Malta	567	40.6	40.1	58.7	40.1	58.7	0.9	0.2	38.1	43.1
Morocco	1736	13.8	13.5	84.6	13.5	84.6	1.9	0.0	14.1	13.4
New Zealand	552	50.2	49.1	48.7	49.1	48.7	2.1	0.1	50.4	50.0
Norway (9)	896	44.7	43.2	53.4	43.2	53.4	2.9	0.5	44.3	45.1
Oman	1630	39.2	39.0	60.4	39.0	60.4	0.5	0.0	44.5	34.3
Palestinian Nat'l Auth.	1304	23.4	23.3	76.1	23.3	76.1	0.5	0.1	29.6	17.7
Portugal	753	52.6	52.6	47.4	52.6	47.4	0.0	0.0	56.2	49.2
Qatar	608	40.1	39.6	59.2	39.6	59.2	1.2	0.0	41.4	38.9
Romania	509	62.4	61.6	37.1	61.6	37.1	1.3	0.0	62.9	62.0
Saudi Arabia	1166	43.0	42.8	56.7	42.8	56.7	0.3	0.1	50.5	35.9
Singapore	401	60.0	59.8	39.9	59.8	39.9	0.3	0.0	61.8	58.2
Sweden	707	54.5	53.0	44.3	53.0	44.3	2.5	0.2	59.4	49.8
Turkiye	711	62.6	62.4	37.2	62.4	37.2	0.4	0.0	66.0	59.4
United Arab Emirates	5292	46.5	46.3	53.2	46.3	53.2	0.5	0.0	48.8	44.3
United States	1156	61.9	61.6	37.9	61.6	37.9	0.4	0.1	61.7	62.1
Uzbekistan	610	19.1	18.8	79.7	18.8	79.7	1.2	0.2	22.2	16.0
International Avg. (40)	39137	50.3	49.8	49.2	49.8	49.2	1.0	0.1	52.9	47.7
Abu Dhabi, UAE	2403	36.7	36.5	63.0	36.5	63.0	0.4	0.0	38.4	35.0
Dubai, UAE	1159	62.7	62.5	37.1	62.5	37.1	0.4	0.0	63.2	62.3
Sharjah, UAE	888	52.1	51.7	47.5	51.7	47.5	0.7	0.0	56.9	47.5

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Applying

B_SE1_05A SE82040A: Tree Features inherited by offspring - lobed leaves - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1169	82.6	80.2	16.8	2.8	0.1	81.6	83.6
Austria	651	88.3	87.8	11.6	0.6	0.0	91.9	84.7
Azerbaijan	854	73.7	64.6	23.1	12.3	0.0	76.5	70.9
Bahrain	736	79.1	77.5	20.5	1.9	0.0	83.6	74.7
Brazil	3205	80.2	73.6	18.2	8.2	0.0	81.1	79.3
Chile	628	83.4	80.5	16.0	3.5	0.0	84.9	81.8
Chinese Taipei	469	56.0	55.9	44.0	0.1	0.0	50.9	60.6
Cyprus	578	82.5	80.6	17.1	2.2	0.2	84.7	80.2
Czech Republic	1119	91.9	90.8	8.0	1.1	0.1	93.4	90.5
England	590	88.2	84.9	11.3	3.7	0.1	88.1	88.4
Finland	804	90.5	89.0	9.4	1.7	0.0	91.2	89.7
France	641	78.8	76.7	20.7	2.6	0.0	81.3	76.3
Georgia	679	80.0	73.5	18.4	8.2	0.0	80.5	79.5
Hong Kong SAR	621	62.8	62.6	37.1	0.3	0.0	63.3	62.3
Hungary	748	93.4	93.1	6.6	0.3	0.0	93.6	93.1
Ireland	729	83.6	80.1	15.7	4.2	0.0	87.9	79.3
Israel	724	84.2	82.0	15.4	2.3	0.3	84.9	83.6
Italy	637	91.6	91.1	8.3	0.5	0.0	90.7	92.6
Japan	327	88.9	86.7	10.8	2.5	0.0	89.5	88.4
Jordan	1387	68.4	65.9	30.4	3.8	0.0	67.2	69.7
Kazakhstan	897	83.4	81.0	16.1	2.9	0.0	85.9	81.2
Korea, Rep. of	360	86.7	82.5	12.7	4.5	0.3	85.6	87.8
Lithuania	759	90.4	90.1	9.5	0.4	0.0	93.8	87.2
Malaysia	1227	77.3	76.5	22.5	1.0	0.0	79.2	75.3
Malta	567	77.2	75.1	22.2	2.4	0.2	73.4	81.0
Morocco	1736	66.9	62.5	31.0	6.5	0.0	66.5	67.3
New Zealand	552	82.0	78.5	17.2	4.3	0.1	80.4	83.5
Norway (9)	896	75.8	72.5	23.2	3.8	0.5	72.5	78.9
Oman	1630	78.7	77.1	20.9	2.1	0.0	81.2	76.3
Palestinian Nat'l Auth.	1304	69.6	66.7	29.1	4.2	0.1	71.0	68.3
Portugal	753	70.8	70.7	29.1	0.2	0.0	73.8	67.9
Qatar	608	79.8	78.2	19.8	2.0	0.0	82.0	78.0
Romania	509	87.8	83.6	11.6	4.7	0.0	87.0	88.4
Saudi Arabia	1166	84.4	82.3	15.2	2.5	0.1	86.2	82.7
Singapore	401	87.4	86.7	12.5	0.8	0.0	85.5	89.3
Sweden	707	86.2	83.0	13.3	3.4	0.2	87.4	85.0
Turkiye	711	84.6	83.6	15.2	1.1	0.0	85.0	84.2
United Arab Emirates	5292	83.9	82.6	15.8	1.5	0.0	83.7	84.1
United States	1156	86.8	85.8	13.0	1.1	0.1	85.9	87.7
Uzbekistan	610	53.6	43.8	37.9	18.1	0.2	58.0	49.1
International Avg. (40)	39137	80.5	78.0	18.7	3.3	0.1	81.3	79.8
Abu Dhabi, UAE	2403	81.7	80.4	18.0	1.6	0.0	81.7	81.8
Dubai, UAE	1159	89.3	88.4	10.5	1.1	0.0	89.4	89.3
Sharjah, UAE	888	84.2	82.8	15.5	1.6	0.0	83.4	85.0

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Applying

B_SE1_05B SE82040B: Tree Features inherited by offspring - heart - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1169	80.9	18.5	78.1	3.3	0.1	81.1	80.6
Austria	651	87.2	12.6	85.9	1.5	0.0	91.6	82.8
Azerbaijan	854	65.9	29.7	57.2	13.1	0.0	68.4	63.3
Bahrain	736	74.0	25.5	72.5	2.0	0.0	78.7	69.5
Brazil	3205	72.9	24.7	66.5	8.8	0.0	71.9	73.9
Chile	628	78.8	20.3	75.4	4.4	0.0	78.8	78.8
Chinese Taipei	469	81.8	18.2	81.5	0.3	0.0	85.0	78.9
Cyprus	578	76.0	23.4	73.9	2.5	0.2	79.9	71.9
Czech Republic	1119	90.7	9.1	89.2	1.5	0.1	91.9	89.5
England	590	86.5	13.0	83.3	3.6	0.1	85.6	87.3
Finland	804	87.2	12.5	85.4	2.1	0.0	90.6	83.8
France	641	75.9	23.5	74.0	2.5	0.0	78.3	73.6
Georgia	679	80.4	18.1	74.2	7.8	0.0	79.4	81.5
Hong Kong SAR	621	75.3	24.6	75.1	0.3	0.0	76.6	74.1
Hungary	748	90.9	9.0	90.1	0.9	0.0	91.9	89.8
Ireland	729	80.8	18.6	78.5	2.8	0.0	82.3	79.3
Israel	724	84.5	14.9	81.4	3.3	0.3	88.8	80.2
Italy	637	91.7	8.3	90.7	1.0	0.0	91.6	91.7
Japan	327	88.7	11.1	87.4	1.5	0.0	91.6	86.4
Jordan	1387	66.7	31.3	62.9	5.8	0.0	67.6	65.9
Kazakhstan	897	77.9	21.4	75.5	3.1	0.0	79.8	76.3
Korea, Rep. of	360	86.5	13.0	83.2	3.5	0.3	85.6	87.4
Lithuania	759	88.8	11.2	88.6	0.2	0.0	92.8	84.9
Malaysia	1227	72.5	27.2	71.9	0.9	0.0	76.3	68.7
Malta	567	77.3	22.0	75.1	2.6	0.2	75.6	79.0
Morocco	1736	57.1	39.7	52.8	7.5	0.0	56.2	57.9
New Zealand	552	83.8	15.3	79.1	5.5	0.1	85.5	82.3
Norway (9)	896	81.0	18.0	76.9	4.6	0.5	79.7	82.3
Oman	1630	76.8	22.2	73.8	4.0	0.0	79.9	73.9
Palestinian Nat'l Auth.	1304	63.1	34.6	59.3	6.0	0.1	65.6	60.8
Portugal	753	76.5	23.3	76.1	0.6	0.0	76.4	76.6
Qatar	608	74.0	25.2	71.6	3.3	0.0	74.1	73.9
Romania	509	82.5	16.6	78.5	4.8	0.0	78.8	85.6
Saudi Arabia	1166	72.0	26.9	69.3	3.7	0.1	76.2	67.9
Singapore	401	80.2	19.5	78.9	1.6	0.0	83.8	76.7
Sweden	707	85.7	13.6	81.9	4.3	0.2	88.2	83.3
Turkiye	711	83.6	16.2	82.8	1.0	0.0	86.0	81.3
United Arab Emirates	5292	76.7	22.8	75.1	2.0	0.0	78.6	74.8
United States	1156	84.6	15.2	83.5	1.2	0.1	83.0	86.2
Uzbekistan	610	59.4	32.4	47.3	20.1	0.2	63.9	54.5
International Avg. (40)	39137	78.9	20.1	76.1	3.7	0.1	80.4	77.4
Abu Dhabi, UAE	2403	71.9	27.4	70.3	2.3	0.0	74.0	69.8
Dubai, UAE	1159	85.9	13.9	84.9	1.3	0.0	86.0	85.9
Sharjah, UAE	888	79.2	20.4	77.6	2.0	0.0	83.0	75.4

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Applying

B_SE1_05C SE82040C: Tree Features inherited by offspring - branch - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1169	76.5	22.4	73.2	4.3	0.1	73.9	79.3
Austria	651	88.0	11.8	86.0	2.2	0.0	90.5	85.4
Azerbaijan	854	80.6	16.8	69.8	13.4	0.0	85.8	75.4
Bahrain	736	75.7	23.6	73.8	2.6	0.0	79.4	72.2
Brazil	3205	72.7	24.4	65.0	10.6	0.0	75.0	70.5
Chile	628	83.2	15.9	78.5	5.6	0.0	85.1	81.2
Chinese Taipei	469	94.1	5.9	93.8	0.3	0.0	94.6	93.6
Cyprus	578	79.6	19.7	77.0	3.2	0.2	81.0	78.2
Czech Republic	1119	91.0	8.8	89.3	1.8	0.1	92.3	89.8
England	590	85.0	14.4	81.5	4.0	0.1	82.0	87.6
Finland	804	86.5	13.2	84.3	2.5	0.0	89.1	83.8
France	641	71.5	27.6	69.4	2.9	0.0	72.8	70.3
Georgia	679	90.0	9.2	82.1	8.8	0.0	93.7	85.7
Hong Kong SAR	621	79.6	20.3	79.3	0.3	0.0	80.0	79.2
Hungary	748	90.5	9.4	89.7	0.9	0.0	92.9	88.0
Ireland	729	76.4	22.6	73.1	4.3	0.0	79.5	73.4
Israel	724	87.1	12.3	82.5	4.9	0.3	90.3	83.7
Italy	637	91.7	8.2	90.6	1.2	0.0	93.9	89.5
Japan	327	88.8	10.9	86.3	2.8	0.0	89.8	88.0
Jordan	1387	70.0	28.2	65.9	5.9	0.0	71.6	68.4
Kazakhstan	897	85.1	14.4	82.7	2.9	0.0	84.0	86.1
Korea, Rep. of	360	87.4	12.1	83.7	3.9	0.3	88.4	86.4
Lithuania	759	88.6	11.3	88.0	0.7	0.0	91.9	85.3
Malaysia	1227	72.2	27.4	71.4	1.1	0.0	73.6	70.9
Malta	567	67.5	31.6	65.7	2.5	0.2	69.5	65.6
Morocco	1736	55.7	40.8	51.2	8.1	0.0	56.2	55.1
New Zealand	552	71.0	27.2	66.7	6.0	0.1	68.4	73.4
Norway (9)	896	76.3	22.5	72.3	4.7	0.5	76.0	76.5
Oman	1630	65.2	33.4	62.6	4.0	0.0	68.7	61.9
Palestinian Nat'l Auth.	1304	60.4	37.0	56.6	6.4	0.1	63.9	57.0
Portugal	753	80.7	19.2	80.1	0.7	0.0	83.1	78.3
Qatar	608	71.7	27.3	69.3	3.3	0.0	73.9	69.8
Romania	509	84.7	14.3	78.8	7.0	0.0	88.7	81.5
Saudi Arabia	1166	77.0	21.9	73.3	4.7	0.1	81.5	72.4
Singapore	401	88.4	11.5	87.5	1.0	0.0	88.9	87.9
Sweden	707	74.1	24.7	70.7	4.4	0.2	74.3	74.0
Turkiye	711	88.0	11.9	86.9	1.2	0.0	89.2	86.8
United Arab Emirates	5292	76.0	23.5	74.4	2.1	0.0	76.2	75.8
United States	1156	83.9	15.8	82.6	1.5	0.1	84.2	83.6
Uzbekistan	610	77.6	17.7	61.2	21.0	0.2	81.1	73.9
International Avg. (40)	39137	79.8	19.3	76.4	4.2	0.1	81.4	78.1
Abu Dhabi, UAE	2403	69.6	29.7	68.1	2.2	0.0	68.8	70.4
Dubai, UAE	1159	85.8	13.9	84.4	1.7	0.0	86.1	85.7
Sharjah, UAE	888	80.5	19.1	79.0	1.9	0.0	81.2	79.8

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Applying

B_SE1_05D SE82040D: Tree Features inherited by offspring - acorns - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1169	84.7	82.3	14.9	2.7	0.1	84.7	84.7
Austria	651	93.0	91.8	6.9	1.3	0.0	94.7	91.3
Azerbaijan	854	81.4	70.1	16.0	13.9	0.0	85.6	77.1
Bahrain	736	81.3	79.4	18.3	2.3	0.0	88.6	74.3
Brazil	3205	80.9	72.0	17.1	10.9	0.0	82.1	79.7
Chile	628	89.3	85.4	10.2	4.4	0.0	90.5	88.1
Chinese Taipei	469	95.9	95.8	4.1	0.2	0.0	97.4	94.6
Cyprus	578	83.8	81.3	15.8	2.8	0.2	87.3	80.1
Czech Republic	1119	94.5	93.5	5.4	1.0	0.1	95.2	93.9
England	590	87.1	83.9	12.5	3.4	0.1	86.8	87.3
Finland	804	92.2	90.5	7.6	1.8	0.0	92.8	91.6
France	641	77.1	74.7	22.2	3.1	0.0	78.0	76.2
Georgia	679	91.4	84.5	8.0	7.5	0.0	92.2	90.4
Hong Kong SAR	621	87.7	87.1	12.2	0.7	0.0	90.6	84.8
Hungary	748	95.4	94.9	4.5	0.6	0.0	97.5	93.3
Ireland	729	83.7	80.6	15.7	3.7	0.0	86.0	81.4
Israel	724	90.6	87.3	9.1	3.2	0.3	93.1	88.0
Italy	637	94.5	93.8	5.4	0.8	0.0	96.1	92.9
Japan	327	93.1	91.2	6.8	2.0	0.0	94.0	92.3
Jordan	1387	80.3	75.5	18.5	6.0	0.0	82.1	78.6
Kazakhstan	897	84.9	81.5	14.5	4.0	0.0	85.1	84.7
Korea, Rep. of	360	91.5	89.1	8.3	2.3	0.3	92.1	90.8
Lithuania	759	92.4	92.3	7.6	0.1	0.0	95.5	89.4
Malaysia	1227	82.0	81.1	17.8	1.1	0.0	84.4	79.5
Malta	567	78.0	75.7	21.3	2.8	0.2	78.1	77.9
Morocco	1736	63.5	58.0	33.3	8.7	0.0	64.7	62.4
New Zealand	552	85.3	80.8	13.9	5.2	0.1	86.5	84.2
Norway (9)	896	86.0	81.7	13.3	4.5	0.5	87.4	84.6
Oman	1630	77.3	73.9	21.8	4.3	0.0	81.2	73.4
Palestinian Nat'l Auth.	1304	69.3	64.3	28.4	7.2	0.1	75.0	64.0
Portugal	753	88.9	88.9	11.1	0.0	0.0	91.0	86.8
Qatar	608	78.2	76.2	21.2	2.6	0.0	81.5	75.4
Romania	509	90.9	86.0	8.6	5.4	0.0	89.2	92.2
Saudi Arabia	1166	79.6	75.6	19.4	5.0	0.1	82.1	77.0
Singapore	401	85.5	85.0	14.5	0.5	0.0	85.5	85.4
Sweden	707	84.6	81.6	14.8	3.4	0.2	85.6	83.7
Turkiye	711	92.0	91.0	7.9	1.1	0.0	93.1	91.0
United Arab Emirates	5292	81.9	80.0	17.7	2.2	0.0	84.8	78.9
United States	1156	88.2	87.1	11.7	1.1	0.1	89.3	87.1
Uzbekistan	610	78.2	62.8	17.5	19.5	0.2	81.3	74.8
International Avg. (40)	39137	85.4	82.2	13.9	3.8	0.1	87.2	83.6
Abu Dhabi, UAE	2403	77.0	75.2	22.5	2.3	0.0	80.5	73.4
Dubai, UAE	1159	88.0	86.6	11.8	1.6	0.0	90.0	86.0
Sharjah, UAE	888	84.9	82.9	14.7	2.3	0.0	87.5	82.3

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Applying

B_SE1_05E SE82040E: Tree Features inherited by offspring - bark - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1169	75.0	72.4	24.1	3.4	0.1	70.8	78.8
Austria	651	86.5	85.5	13.4	1.1	0.0	87.6	85.4
Azerbaijan	854	62.8	53.8	31.9	14.3	0.0	66.6	59.0
Bahrain	736	73.9	72.1	25.4	2.5	0.0	76.5	71.5
Brazil	3205	79.3	71.0	18.5	10.6	0.0	80.0	78.8
Chile	628	85.4	81.0	13.9	5.2	0.0	87.4	83.3
Chinese Taipei	469	87.8	87.4	12.1	0.5	0.0	92.1	83.9
Cyprus	578	70.9	69.3	28.4	2.1	0.2	72.4	69.3
Czech Republic	1119	91.4	90.1	8.5	1.4	0.1	92.6	90.2
England	590	83.5	80.2	15.9	3.8	0.1	80.9	85.7
Finland	804	89.5	87.9	10.3	1.8	0.0	90.4	88.6
France	641	74.8	72.3	24.3	3.4	0.0	79.0	70.8
Georgia	679	74.7	67.3	22.8	10.0	0.0	77.1	71.9
Hong Kong SAR	621	81.4	80.8	18.4	0.7	0.0	80.9	82.0
Hungary	748	68.2	67.4	31.4	1.1	0.0	70.2	66.1
Ireland	729	76.6	73.2	22.3	4.4	0.0	77.1	76.1
Israel	724	83.6	80.7	15.9	3.1	0.3	87.3	79.7
Italy	637	84.5	83.0	15.2	1.8	0.0	84.3	84.8
Japan	327	84.9	83.2	14.7	2.1	0.0	88.5	82.1
Jordan	1387	66.5	62.1	31.2	6.7	0.0	70.3	62.8
Kazakhstan	897	78.2	74.4	20.7	4.9	0.0	78.9	77.6
Korea, Rep. of	360	86.8	83.0	12.7	4.1	0.3	86.2	87.3
Lithuania	759	88.4	87.9	11.5	0.5	0.0	90.9	86.0
Malaysia	1227	70.7	70.2	29.1	0.6	0.0	74.1	67.2
Malta	567	68.3	65.8	30.5	3.4	0.2	71.5	65.1
Morocco	1736	50.9	45.9	44.2	9.9	0.0	51.0	50.9
New Zealand	552	79.2	74.7	19.6	5.6	0.1	78.5	79.8
Norway (9)	896	71.3	67.8	27.3	4.4	0.5	72.1	70.4
Oman	1630	74.7	70.9	24.0	5.0	0.0	77.7	71.8
Palestinian Nat'l Auth.	1304	64.2	59.7	33.3	7.0	0.1	65.6	62.9
Portugal	753	83.9	83.8	16.1	0.1	0.0	85.0	82.9
Qatar	608	73.2	71.0	26.0	2.9	0.0	72.5	73.7
Romania	509	85.2	82.0	14.3	3.8	0.0	87.0	83.7
Saudi Arabia	1166	74.9	71.3	23.9	4.7	0.1	80.1	69.7
Singapore	401	86.7	85.9	13.2	0.9	0.0	85.5	87.8
Sweden	707	78.2	74.6	20.9	4.3	0.2	80.0	76.4
Turkiye	711	89.1	88.3	10.8	0.9	0.0	89.8	88.4
United Arab Emirates	5292	74.9	73.0	24.5	2.5	0.0	75.8	73.9
United States	1156	84.0	82.9	15.7	1.3	0.1	85.4	82.7
Uzbekistan	610	68.7	53.6	24.4	21.8	0.2	69.4	68.0
International Avg. (40)	39137	77.8	74.7	21.0	4.2	0.1	79.2	76.4
Abu Dhabi, UAE	2403	68.0	66.1	31.2	2.8	0.0	68.3	67.7
Dubai, UAE	1159	85.2	83.7	14.6	1.7	0.0	85.3	85.0
Sharjah, UAE	888	78.6	77.2	21.0	1.8	0.0	82.2	75.1

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Reasoning

B_SE1_06 SE82060: Predator-prey cycle: prey outcome (DERIVED) - CR - 2 Points

COUNTRY	N	DIFF %	2 %	1 %	0 %	2pt %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1169	61.9	44.1	30.4	21.3	44.1	30.4	21.3	4.0	0.1	59.2	64.5
Austria	651	65.3	44.3	30.2	16.5	44.3	30.2	16.5	8.9	0.0	63.8	66.7
Azerbaijan	854	44.7	11.1	40.0	18.4	11.1	40.0	18.4	30.5	0.0	44.0	45.5
Bahrain	736	43.5	25.0	31.7	37.2	25.0	31.7	37.2	6.0	0.0	46.7	40.2
Brazil	3205	42.2	19.6	32.6	32.9	19.6	32.6	32.9	14.9	0.0	39.0	45.0
Chile	628	62.6	43.3	21.7	21.5	43.3	21.7	21.5	13.4	0.0	61.7	63.5
Chinese Taipei	468	80.4	65.5	26.5	6.0	65.5	26.5	6.0	2.1	0.0	81.4	79.5
Cyprus	578	57.4	35.4	28.7	22.7	35.4	28.7	22.7	13.1	0.2	57.6	57.1
Czech Republic	1119	61.5	41.7	31.6	20.2	41.7	31.6	20.2	6.5	0.1	61.0	62.0
England	590	83.4	72.0	13.7	8.8	72.0	13.7	8.8	5.4	0.1	83.0	83.8
Finland	804	83.0	72.9	15.0	8.9	72.9	15.0	8.9	3.1	0.2	83.2	82.9
France	641	56.4	36.0	31.4	24.3	36.0	31.4	24.3	8.3	0.0	57.8	55.0
Georgia	0	.	.	.	.	.	.	.	.	.	.	.
Hong Kong SAR	621	64.2	42.0	40.4	14.5	42.0	40.4	14.5	3.1	0.0	65.4	63.1
Hungary	748	80.0	68.2	18.8	10.0	68.2	18.8	10.0	3.0	0.0	78.1	82.1
Ireland	729	76.0	65.8	15.6	15.5	65.8	15.6	15.5	3.1	0.0	74.7	77.2
Israel	723	68.1	51.4	21.9	18.2	51.4	21.9	18.2	8.0	0.5	73.0	63.2
Italy	637	68.0	52.0	20.7	19.0	52.0	20.7	19.0	8.3	0.0	64.9	70.9
Japan	327	77.6	57.7	35.2	4.2	57.7	35.2	4.2	2.9	0.0	77.7	77.5
Jordan	1376	36.9	16.3	36.4	40.8	16.3	36.4	40.8	6.5	0.0	38.3	35.5
Kazakhstan	895	60.9	41.2	26.4	21.7	41.2	26.4	21.7	10.7	0.0	60.5	61.3
Korea, Rep. of	360	75.7	58.6	28.6	9.1	58.6	28.6	9.1	3.4	0.3	76.3	75.1
Lithuania	759	54.8	32.6	38.2	23.5	32.6	38.2	23.5	5.6	0.0	55.0	54.7
Malaysia	1227	48.0	25.9	43.2	29.8	25.9	43.2	29.8	1.2	0.0	53.1	42.8
Malta	566	69.8	56.5	16.1	19.9	56.5	16.1	19.9	7.3	0.2	67.2	72.3
Morocco	1735	21.7	8.0	16.3	50.2	8.0	16.3	50.2	25.5	0.0	21.9	21.4
New Zealand	552	65.7	49.9	25.4	20.0	49.9	25.4	20.0	4.6	0.1	65.0	66.4
Norway (9)	896	68.7	52.4	20.0	18.4	52.4	20.0	18.4	8.5	0.8	69.2	68.3
Oman	1630	41.4	21.5	36.0	37.8	21.5	36.0	37.8	4.8	0.0	46.2	36.9
Palestinian Nat'l Auth.	1175	34.1	16.3	31.1	45.9	16.3	31.1	45.9	6.7	0.0	38.6	29.7
Portugal	753	76.5	63.8	21.0	12.3	63.8	21.0	12.3	2.8	0.0	77.7	75.4
Qatar	608	53.5	28.2	44.9	21.6	28.2	44.9	21.6	5.3	0.0	54.9	52.3
Romania	509	53.5	29.6	36.3	23.4	29.6	36.3	23.4	10.1	0.7	52.4	54.4
Saudi Arabia	1166	38.2	20.6	32.8	43.5	20.6	32.8	43.5	2.9	0.1	43.3	33.4
Singapore	401	82.9	73.0	19.4	7.3	73.0	19.4	7.3	0.3	0.0	82.8	83.1
Sweden	707	75.5	60.9	15.1	14.7	60.9	15.1	14.7	9.1	0.2	78.5	72.6
Turkiye	711	72.0	47.9	40.0	6.4	47.9	40.0	6.4	5.7	0.0	74.0	70.1
United Arab Emirates	5292	49.7	28.5	39.0	29.2	28.5	39.0	29.2	3.3	0.0	51.0	48.3
United States	1155	76.4	67.1	15.5	15.4	67.1	15.5	15.4	1.8	0.2	73.8	78.8
Uzbekistan	610	37.7	21.0	20.4	41.3	21.0	20.4	41.3	17.2	0.2	37.3	38.1
International Avg. (39)	38311	60.8	42.8	27.9	21.9	42.8	27.9	21.9	7.4	0.1	61.3	60.3
Abu Dhabi, UAE	2403	41.8	23.6	33.0	39.3	23.6	33.0	39.3	4.1	0.0	42.7	40.8
Dubai, UAE	1159	63.9	40.2	44.1	13.1	40.2	44.1	13.1	2.6	0.0	65.9	61.9
Sharjah, UAE	888	52.0	27.9	45.3	24.0	27.9	45.3	24.0	2.7	0.0	51.9	52.2

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Reasoning

B_SE1_06A SE82060A: A - What happens to the number of prey animals? - CR - 1 Point

COUNTRY	N	DIFF %	1 %	0 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1169	76.2	73.0	22.9	73.0	22.9	4.0	0.1	73.3	78.9
Austria	651	79.3	72.2	18.9	72.2	18.9	8.9	0.0	76.3	82.1
Azerbaijan	854	72.8	50.5	18.9	50.5	18.9	30.6	0.0	70.2	75.4
Bahrain	736	59.9	56.3	37.7	56.3	37.7	6.0	0.0	64.9	54.8
Brazil	3205	59.8	50.9	34.2	50.9	34.2	14.9	0.0	56.8	62.6
Chile	628	71.9	62.2	24.3	62.2	24.3	13.4	0.0	73.1	70.8
Chinese Taipei	469	93.8	91.8	6.1	91.8	6.1	2.1	0.0	93.9	93.6
Cyprus	578	71.1	61.7	25.1	61.7	25.1	13.1	0.2	70.4	71.8
Czech Republic	1119	73.4	68.6	24.9	68.6	24.9	6.5	0.1	72.6	74.1
England	590	88.9	84.1	10.5	84.1	10.5	5.4	0.1	89.5	88.5
Finland	804	86.2	83.4	13.4	83.4	13.4	3.1	0.2	86.2	86.1
France	641	72.7	66.6	25.1	66.6	25.1	8.3	0.0	73.1	72.2
Georgia	0	.	.	.	.	.	.	.	.	.
Hong Kong SAR	621	83.6	81.0	15.9	81.0	15.9	3.1	0.0	85.2	82.0
Hungary	748	87.8	85.2	11.8	85.2	11.8	3.0	0.0	86.3	89.4
Ireland	729	76.9	74.5	22.4	74.5	22.4	3.1	0.0	76.9	76.8
Israel	723	77.3	70.7	20.8	70.7	20.8	8.0	0.5	81.8	72.7
Italy	637	74.2	68.1	23.6	68.1	23.6	8.3	0.0	69.9	78.4
Japan	327	95.1	92.3	4.8	92.3	4.8	2.9	0.0	94.7	95.4
Jordan	1387	49.7	46.5	47.1	46.5	47.1	6.4	0.0	50.8	48.6
Kazakhstan	895	69.6	62.2	27.1	62.2	27.1	10.7	0.0	68.8	70.4
Korea, Rep. of	360	89.0	85.7	10.6	85.7	10.6	3.4	0.3	90.1	88.0
Lithuania	759	63.0	59.5	34.9	59.5	34.9	5.6	0.0	60.7	65.3
Malaysia	1227	66.5	65.7	33.2	65.7	33.2	1.2	0.0	70.6	62.2
Malta	566	74.8	69.1	23.3	69.1	23.3	7.3	0.2	71.5	78.0
Morocco	1735	30.4	22.6	51.8	22.6	51.8	25.6	0.0	31.9	28.8
New Zealand	552	73.5	70.1	25.2	70.1	25.2	4.6	0.1	73.1	73.8
Norway (9)	896	73.5	66.6	24.1	66.6	24.1	8.5	0.8	74.4	72.6
Oman	1630	52.7	50.2	45.0	50.2	45.0	4.8	0.0	58.5	47.2
Palestinian Nat'l Auth.	1293	44.7	42.0	51.9	42.0	51.9	6.1	0.0	49.6	40.2
Portugal	753	86.1	83.7	13.5	83.7	13.5	2.8	0.0	86.8	85.4
Qatar	608	75.6	71.6	23.1	71.6	23.1	5.3	0.0	74.0	76.9
Romania	509	70.2	62.6	26.6	62.6	26.6	10.1	0.7	68.0	72.0
Saudi Arabia	1166	48.2	46.7	50.3	46.7	50.3	2.9	0.1	53.2	43.3
Singapore	401	92.1	91.9	7.9	91.9	7.9	0.3	0.0	91.1	93.1
Sweden	707	80.2	72.8	18.0	72.8	18.0	9.1	0.2	83.2	77.4
Turkiye	711	92.1	86.8	7.5	86.8	7.5	5.7	0.0	93.9	90.4
United Arab Emirates	5292	67.0	64.8	31.9	64.8	31.9	3.3	0.0	67.9	66.1
United States	1155	83.2	81.5	16.5	81.5	16.5	1.8	0.2	80.1	86.0
Uzbekistan	610	43.3	35.7	46.8	35.7	46.8	17.4	0.2	41.9	44.7
International Avg. (39)	38441	72.5	67.5	25.1	67.5	25.1	7.4	0.1	72.7	72.2
Abu Dhabi, UAE	2403	56.2	53.9	42.0	53.9	42.0	4.1	0.0	58.2	54.2
Dubai, UAE	1159	84.8	82.6	14.8	82.6	14.8	2.6	0.0	84.4	85.2
Sharjah, UAE	888	71.9	69.9	27.4	69.9	27.4	2.7	0.0	70.6	73.1

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Reasoning

B_SE1_06B SE82060B: B - Explain why this happens - CR - 1 Point

COUNTRY	N	DIFF %	1 %	0 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1169	47.7	45.6	50.1	45.6	50.1	4.1	0.1	45.1	50.1
Austria	651	51.3	46.7	44.4	46.7	44.4	8.9	0.0	51.2	51.4
Azerbaijan	854	16.8	11.7	57.6	11.7	57.6	30.8	0.0	17.9	15.8
Bahrain	736	27.1	25.5	68.5	25.5	68.5	6.0	0.0	28.5	25.7
Brazil	3205	24.6	20.8	63.8	20.8	63.8	15.4	0.0	21.4	27.6
Chile	628	53.4	46.2	40.2	46.2	40.2	13.6	0.0	50.5	56.2
Chinese Taipei	468	67.0	65.6	32.3	65.6	32.3	2.1	0.0	68.8	65.3
Cyprus	578	43.8	37.8	48.6	37.8	48.6	13.5	0.2	44.8	42.8
Czech Republic	1119	49.7	46.4	47.0	46.4	47.0	6.5	0.1	49.5	49.9
England	590	78.3	73.7	20.4	73.7	20.4	5.8	0.1	77.2	79.2
Finland	804	80.0	77.3	19.4	77.3	19.4	3.2	0.2	80.3	79.7
France	641	40.2	36.8	54.7	36.8	54.7	8.6	0.0	42.6	38.0
Georgia	0	.	.	.	.	.	.	.	.	.
Hong Kong SAR	621	44.9	43.5	53.4	43.5	53.4	3.1	0.0	45.6	44.1
Hungary	748	72.2	70.1	27.0	70.1	27.0	3.0	0.0	69.8	74.7
Ireland	729	75.2	72.7	24.0	72.7	24.0	3.2	0.0	72.8	77.5
Israel	724	58.9	53.9	37.6	53.9	37.6	8.0	0.5	64.1	53.6
Italy	637	62.1	56.6	34.5	56.6	34.5	8.9	0.0	60.5	63.7
Japan	327	60.3	58.3	38.5	58.3	38.5	3.2	0.0	60.7	59.9
Jordan	1376	24.2	22.5	70.7	22.5	70.7	6.7	0.0	25.9	22.4
Kazakhstan	895	52.2	46.7	42.7	46.7	42.7	10.7	0.0	52.2	52.3
Korea, Rep. of	360	62.6	60.1	35.9	60.1	35.9	3.7	0.3	62.6	62.7
Lithuania	759	46.8	44.0	50.0	44.0	50.0	6.0	0.0	49.6	44.1
Malaysia	1227	29.6	29.2	69.5	29.2	69.5	1.2	0.0	35.7	23.4
Malta	566	65.0	59.9	32.3	59.9	32.3	7.5	0.2	63.0	66.9
Morocco	1736	13.1	9.7	64.2	9.7	64.2	26.2	0.0	11.9	14.3
New Zealand	552	58.1	55.2	39.8	55.2	39.8	4.9	0.1	56.9	59.2
Norway (9)	896	64.1	58.0	32.4	58.0	32.4	8.7	0.8	64.3	64.0
Oman	1630	30.3	28.7	66.2	28.7	66.2	5.1	0.0	33.9	26.7
Palestinian Nat'l Auth.	1184	21.0	19.6	73.7	19.6	73.7	6.7	0.0	25.8	16.4
Portugal	753	67.0	65.0	32.0	65.0	32.0	3.0	0.0	68.6	65.5
Qatar	608	31.4	29.8	64.9	29.8	64.9	5.3	0.0	35.8	27.7
Romania	509	36.8	32.8	56.4	32.8	56.4	10.1	0.7	36.8	36.8
Saudi Arabia	1166	28.2	27.4	69.6	27.4	69.6	2.9	0.1	33.3	23.4
Singapore	401	73.7	73.5	26.2	73.5	26.2	0.3	0.0	74.4	73.0
Sweden	707	71.0	64.2	26.2	64.2	26.2	9.5	0.2	73.9	68.3
Turkiye	711	52.1	49.0	45.0	49.0	45.0	6.0	0.0	54.5	49.9
United Arab Emirates	5292	32.4	31.2	65.3	31.2	65.3	3.5	0.0	34.2	30.6
United States	1155	69.6	68.2	29.7	68.2	29.7	1.8	0.2	67.6	71.5
Uzbekistan	610	32.3	26.6	55.7	26.6	55.7	17.5	0.2	33.0	31.7
International Avg. (39)	38322	49.1	45.9	46.4	45.9	46.4	7.6	0.1	49.9	48.4
Abu Dhabi, UAE	2403	27.5	26.2	69.2	26.2	69.2	4.5	0.0	27.4	27.5
Dubai, UAE	1159	42.9	41.8	55.6	41.8	55.6	2.6	0.0	47.3	38.6
Sharjah, UAE	888	32.2	31.3	65.9	31.3	65.9	2.7	0.0	33.1	31.3

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Chemistry / Applying

B_SE1_07 SE82143: Type of material best for a spoon used to stir hot liquids - MC - Key: D

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1169	78.1	4.5	8.9	8.5	77.8	0.3	0.1	74.8	81.1
Austria	651	78.2	8.2	4.0	9.4	77.8	0.6	0.0	73.5	83.0
Azerbaijan	854	67.4	14.4	7.6	10.0	66.1	1.3	0.7	67.3	67.5
Bahrain	736	67.1	12.4	10.0	10.4	67.0	0.1	0.0	69.5	64.7
Brazil	3205	62.7	18.6	7.8	10.6	62.3	0.7	0.0	59.9	65.5
Chile	628	66.2	8.0	15.3	10.2	65.8	0.5	0.0	64.1	68.4
Chinese Taipei	469	93.1	0.8	2.2	3.8	93.1	0.0	0.0	93.2	93.0
Cyprus	578	61.6	14.0	11.9	12.1	60.9	1.0	0.2	63.7	59.4
Czech Republic	1119	83.0	5.7	4.4	6.9	82.6	0.4	0.1	81.0	85.0
England	590	82.4	3.4	5.3	8.9	82.2	0.1	0.1	83.5	81.4
Finland	804	82.4	4.6	3.8	9.2	81.9	0.3	0.3	80.7	84.1
France	641	67.5	10.3	12.0	10.2	67.5	0.0	0.0	67.6	67.3
Georgia	679	66.1	10.8	7.8	15.2	66.1	0.1	0.0	69.4	62.7
Hong Kong SAR	621	79.0	4.8	9.8	6.4	78.8	0.3	0.0	77.3	80.7
Hungary	748	78.6	5.4	8.2	7.8	78.6	0.0	0.0	76.5	80.9
Ireland	729	75.6	7.6	7.2	9.6	75.5	0.0	0.2	75.9	75.4
Israel	724	74.3	6.2	11.5	7.8	73.7	0.3	0.5	77.1	71.4
Italy	637	77.9	3.9	8.5	9.7	77.7	0.2	0.0	75.0	80.7
Japan	327	91.0	1.5	3.2	4.3	90.6	0.4	0.0	90.3	91.5
Jordan	1387	61.0	15.5	10.5	12.9	60.8	0.3	0.0	59.8	62.2
Kazakhstan	897	73.3	11.3	5.6	9.7	73.2	0.2	0.0	72.0	74.4
Korea, Rep. of	360	92.4	2.6	2.4	2.5	91.7	0.5	0.3	92.3	92.5
Lithuania	759	81.4	8.1	3.7	6.9	81.4	0.0	0.0	82.0	80.7
Malaysia	1227	53.2	16.6	20.4	9.8	53.2	0.0	0.0	52.9	53.5
Malta	567	70.2	7.7	10.9	11.1	70.1	0.0	0.2	69.1	71.4
Morocco	1736	33.5	14.8	24.1	26.9	33.3	0.8	0.0	35.3	31.7
New Zealand	552	75.0	5.3	10.7	9.0	74.9	0.0	0.1	72.3	77.4
Norway (9)	896	68.7	10.9	7.4	12.6	67.9	0.4	0.8	68.6	69.0
Oman	1629	68.2	9.9	9.5	12.3	68.0	0.2	0.1	71.0	65.6
Palestinian Nat'l Auth.	1304	58.9	13.6	11.4	15.8	58.6	0.5	0.1	62.6	55.5
Portugal	753	48.2	11.1	28.2	12.6	48.2	0.0	0.0	44.2	52.0
Qatar	608	75.9	8.3	9.0	6.7	75.4	0.3	0.3	75.9	75.9
Romania	509	66.7	13.4	9.1	10.2	65.7	0.8	0.7	60.4	72.1
Saudi Arabia	1166	61.7	13.5	13.3	11.4	61.6	0.0	0.1	68.5	55.3
Singapore	401	93.3	2.7	1.8	2.2	93.3	0.0	0.0	93.5	93.0
Sweden	707	76.3	9.3	5.2	8.9	75.4	0.3	0.9	78.4	74.3
Turkiye	711	81.6	5.9	5.5	7.0	81.3	0.3	0.0	82.6	80.6
United Arab Emirates	5292	69.7	8.2	10.0	12.0	69.5	0.2	0.1	72.4	66.9
United States	1156	73.9	5.5	9.9	10.6	73.3	0.4	0.3	72.3	75.3
Uzbekistan	610	65.9	15.5	10.2	8.3	65.4	0.5	0.2	67.6	64.1
International Avg. (40)	39136	72.0	8.9	9.2	9.8	71.7	0.3	0.2	71.8	72.2
Abu Dhabi, UAE	2403	58.7	10.4	13.8	17.1	58.6	0.1	0.1	62.1	55.3
Dubai, UAE	1159	81.2	5.3	6.4	7.1	80.9	0.3	0.0	82.9	79.5
Sharjah, UAE	888	77.6	6.4	7.9	8.1	77.4	0.2	0.0	79.5	75.6

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Chemistry / Reasoning

B_SE1_08 SE82147: Design an experiment comparing sugar dissolving - CR - 1 Point

COUNTRY	N	DIFF %	1 %	7 %	0 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1169	63.0	62.0	4.6	31.7	62.0	36.4	1.5	0.1	62.1	63.8
Austria	651	60.7	59.7	8.8	29.9	59.7	38.7	1.6	0.0	61.7	59.7
Azerbaijan	854	35.1	30.8	8.3	48.7	30.8	57.0	11.5	0.7	38.3	32.0
Bahrain	736	37.6	37.3	9.9	51.8	37.3	61.8	0.9	0.0	42.1	33.3
Brazil	3205	28.7	27.8	11.7	57.3	27.8	69.1	2.9	0.1	30.0	27.5
Chile	628	43.8	42.7	8.3	46.4	42.7	54.7	2.7	0.0	47.5	39.9
Chinese Taipei	469	78.8	78.7	2.1	19.0	78.7	21.1	0.2	0.0	84.6	73.6
Cyprus	578	52.5	50.7	5.2	40.6	50.7	45.8	3.2	0.3	58.5	46.5
Czech Republic	1119	55.7	55.4	5.8	38.2	55.4	44.0	0.4	0.1	54.2	57.2
England	590	64.8	63.3	3.0	31.4	63.3	34.4	2.1	0.1	64.5	65.1
Finland	804	52.7	51.2	8.2	37.7	51.2	45.9	2.7	0.3	53.7	51.8
France	641	66.8	65.4	6.4	26.1	65.4	32.5	2.2	0.0	69.3	64.4
Georgia	679	36.8	35.5	6.9	54.1	35.5	60.9	3.6	0.0	37.0	36.6
Hong Kong SAR	621	75.2	74.5	2.0	22.6	74.5	24.5	1.0	0.0	78.0	72.4
Hungary	748	62.5	62.3	6.1	31.4	62.3	37.5	0.2	0.0	60.9	64.1
Ireland	729	66.3	65.6	5.9	27.5	65.6	33.4	0.9	0.2	67.7	64.8
Israel	723	53.6	52.6	6.2	39.3	52.6	45.5	1.4	0.5	57.6	49.5
Italy	637	44.9	44.6	10.9	43.8	44.6	54.7	0.6	0.0	43.4	46.5
Japan	327	82.3	80.9	0.9	16.5	80.9	17.4	1.6	0.0	84.4	80.6
Jordan	1387	22.9	22.6	12.1	64.1	22.6	76.2	1.2	0.0	24.6	21.3
Kazakhstan	897	38.3	38.0	9.1	52.1	38.0	61.2	0.8	0.0	39.7	37.0
Korea, Rep. of	360	75.4	74.5	1.5	22.7	74.5	24.3	0.9	0.3	83.3	67.6
Lithuania	759	61.3	60.6	6.4	31.9	60.6	38.2	1.1	0.0	64.1	58.6
Malaysia	1227	36.6	36.6	8.1	55.3	36.6	63.3	0.1	0.0	37.7	35.5
Malta	567	53.1	52.2	6.6	39.5	52.2	46.2	1.4	0.2	55.9	50.3
Morocco	1736	15.7	15.1	14.8	65.9	15.1	80.7	4.2	0.0	18.0	13.5
New Zealand	552	61.0	60.0	7.4	30.9	60.0	38.3	1.6	0.1	64.9	57.6
Norway (9)	896	61.3	59.0	6.2	31.0	59.0	37.2	3.0	0.8	64.4	58.3
Oman	1630	40.1	39.7	8.6	50.6	39.7	59.1	1.1	0.1	50.5	30.3
Palestinian Nat'l Auth.	1304	23.1	22.8	12.6	63.6	22.8	76.2	0.9	0.1	29.3	17.3
Portugal	753	50.5	50.1	9.7	39.5	50.1	49.2	0.7	0.0	52.6	48.4
Qatar	608	48.4	47.8	8.0	42.9	47.8	50.9	1.1	0.3	51.6	45.7
Romania	509	37.1	35.3	7.2	52.6	35.3	59.8	4.1	0.7	35.4	38.5
Saudi Arabia	1166	30.2	30.1	14.5	55.0	30.1	69.5	0.3	0.1	35.7	24.9
Singapore	401	84.1	84.1	0.5	15.4	84.1	15.9	0.0	0.0	84.4	83.7
Sweden	707	60.5	58.5	5.5	32.8	58.5	38.2	2.4	0.9	64.0	57.1
Turkiye	711	68.8	68.0	2.9	27.9	68.0	30.8	1.2	0.0	73.8	64.1
United Arab Emirates	5292	49.6	49.2	8.0	42.1	49.2	50.1	0.7	0.1	52.8	46.3
United States	1156	55.5	55.0	7.2	36.9	55.0	44.1	0.6	0.4	58.5	52.7
Uzbekistan	610	38.5	37.9	7.5	53.1	37.9	60.6	1.3	0.2	42.0	35.0
International Avg. (40)	39136	51.8	50.9	7.1	40.0	50.9	47.1	1.7	0.2	54.5	49.3
Abu Dhabi, UAE	2403	41.1	40.9	9.7	49.0	40.9	58.7	0.4	0.1	44.8	37.3
Dubai, UAE	1159	67.5	66.8	3.7	28.4	66.8	32.1	1.0	0.0	69.2	66.0
Sharjah, UAE	888	54.4	54.0	8.7	36.5	54.0	45.3	0.7	0.0	59.6	49.4

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Knowing

B_SE1_09 SE82224: Change in state associated with adding heat to liquid water - MC - Key: C

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1169	75.4	8.8	3.5	75.1	12.2	0.3	0.1	73.4	77.6
Austria	651	79.8	5.2	2.9	79.5	12.0	0.3	0.0	77.9	81.8
Azerbaijan	854	77.0	10.5	4.1	75.2	8.0	1.6	0.7	80.1	74.0
Bahrain	736	73.0	14.1	6.0	72.8	6.9	0.2	0.0	79.6	66.7
Brazil	3205	71.0	13.1	6.6	70.7	9.0	0.3	0.2	69.5	72.5
Chile	628	79.7	8.3	4.6	79.5	7.4	0.2	0.0	81.1	78.3
Chinese Taipei	469	68.8	24.5	1.8	68.8	5.0	0.0	0.0	71.9	66.0
Cyprus	578	80.5	5.1	8.2	79.8	6.1	0.5	0.3	80.1	80.8
Czech Republic	1119	85.8	8.1	2.1	85.7	4.0	0.0	0.1	86.3	85.3
England	590	78.4	6.9	2.3	78.3	12.3	0.0	0.1	75.0	81.5
Finland	804	88.4	5.5	1.6	87.5	4.3	0.7	0.4	89.9	86.9
France	641	67.1	11.8	6.3	66.7	14.6	0.6	0.0	67.7	66.6
Georgia	679	76.4	7.5	4.3	76.1	11.7	0.3	0.0	76.6	76.1
Hong Kong SAR	621	86.9	7.1	2.5	86.7	3.4	0.3	0.0	85.4	88.4
Hungary	748	79.2	8.0	3.3	79.2	9.5	0.0	0.0	77.9	80.6
Ireland	729	75.8	6.9	3.5	75.6	13.8	0.0	0.2	71.6	79.9
Israel	724	75.7	14.8	4.0	75.1	5.4	0.3	0.5	75.7	75.6
Italy	637	83.0	8.5	3.4	83.0	5.1	0.1	0.0	82.1	83.9
Japan	327	72.6	17.0	4.5	72.2	5.8	0.5	0.0	70.8	74.0
Jordan	1387	60.5	20.1	10.0	60.2	9.2	0.6	0.0	62.3	58.8
Kazakhstan	897	60.1	11.3	4.6	59.9	23.8	0.4	0.0	57.8	62.1
Korea, Rep. of	360	76.8	6.3	5.5	76.2	11.2	0.5	0.3	75.6	78.1
Lithuania	759	80.9	6.3	1.7	80.9	11.1	0.0	0.0	79.7	82.0
Malaysia	1227	34.8	26.0	12.8	34.8	26.3	0.1	0.0	34.6	34.9
Malta	567	70.6	13.0	4.3	70.4	12.1	0.0	0.2	67.5	73.6
Morocco	1736	51.1	14.3	19.7	50.8	14.7	0.6	0.0	51.9	50.3
New Zealand	552	68.3	9.7	2.4	68.0	19.4	0.4	0.1	59.6	76.2
Norway (9)	896	73.8	13.2	4.1	72.7	8.5	0.6	0.9	73.5	74.2
Oman	1630	73.4	14.1	5.6	73.1	6.9	0.2	0.1	77.0	70.0
Palestinian Nat'l Auth.	1304	71.6	12.0	7.6	71.4	8.7	0.2	0.1	75.5	68.0
Portugal	753	81.1	7.7	3.8	81.1	7.4	0.0	0.0	79.7	82.5
Qatar	608	78.2	10.3	4.2	78.0	7.3	0.0	0.3	76.6	79.6
Romania	509	75.4	8.6	3.7	74.8	12.0	0.1	0.7	74.7	76.0
Saudi Arabia	1166	69.4	14.5	7.0	69.3	8.9	0.1	0.1	73.0	66.1
Singapore	401	91.1	3.6	0.5	91.1	4.8	0.0	0.0	90.9	91.3
Sweden	707	59.4	11.2	5.6	58.7	23.2	0.4	0.9	60.0	58.9
Turkiye	711	65.8	20.1	8.4	65.6	5.5	0.4	0.0	64.5	67.1
United Arab Emirates	5292	75.3	10.9	7.1	75.1	6.7	0.2	0.1	77.3	73.2
United States	1156	77.0	8.8	3.0	76.6	11.1	0.1	0.5	75.8	78.2
Uzbekistan	610	57.1	15.7	6.7	57.0	20.5	0.0	0.2	57.2	56.9
International Avg. (40)	39137	73.2	11.2	5.1	72.8	10.4	0.3	0.2	72.9	73.4
Abu Dhabi, UAE	2403	65.3	13.2	12.3	65.1	9.0	0.2	0.1	67.9	62.8
Dubai, UAE	1159	86.5	5.7	2.3	86.1	5.5	0.4	0.0	87.4	85.6
Sharjah, UAE	888	81.6	10.5	3.2	81.5	4.7	0.0	0.0	83.9	79.4

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Applying

B_SE1_10 SE82203: Arrangement of gas particles in a container - MC - Key: C

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1169	86.8	6.9	3.3	86.4	2.9	0.3	0.1	86.2	87.3
Austria	651	56.8	26.0	10.1	56.3	6.7	0.9	0.0	60.5	53.1
Azerbaijan	854	58.3	22.0	10.6	56.5	7.7	2.5	0.7	62.7	54.4
Bahrain	736	70.3	11.9	9.8	70.0	7.9	0.5	0.0	76.2	64.5
Brazil	3205	52.4	24.3	12.9	51.5	9.6	1.6	0.2	51.6	53.3
Chile	628	75.9	11.6	5.7	75.7	6.7	0.3	0.0	77.8	73.9
Chinese Taipei	469	83.7	9.2	5.2	83.6	1.8	0.1	0.0	84.7	82.9
Cyprus	578	67.4	9.2	18.4	66.3	4.5	1.2	0.3	71.8	62.9
Czech Republic	1119	67.0	20.9	6.3	66.8	5.7	0.2	0.1	67.8	66.3
England	590	94.8	2.5	1.3	94.7	1.4	0.0	0.1	96.1	93.7
Finland	804	49.2	32.3	8.1	48.7	10.0	0.5	0.4	49.3	49.1
France	641	82.0	10.0	4.3	81.8	3.6	0.2	0.0	82.1	81.9
Georgia	679	71.2	14.8	7.0	70.9	7.0	0.4	0.0	71.8	70.5
Hong Kong SAR	621	88.2	4.3	4.8	87.7	2.6	0.6	0.0	91.1	85.3
Hungary	748	60.1	26.3	7.6	60.0	5.9	0.2	0.0	63.0	57.1
Ireland	729	81.8	10.1	3.9	81.6	4.2	0.1	0.2	84.7	78.9
Israel	724	77.5	8.8	6.8	76.7	6.6	0.6	0.5	79.4	75.6
Italy	637	69.6	18.5	6.9	69.6	5.0	0.0	0.0	71.4	67.8
Japan	327	87.1	6.7	3.0	86.6	3.2	0.5	0.0	86.2	87.7
Jordan	1387	47.9	21.3	16.9	47.4	13.4	1.0	0.0	52.9	43.1
Kazakhstan	897	62.0	21.0	9.5	61.8	7.4	0.4	0.0	62.4	61.6
Korea, Rep. of	360	85.0	7.2	3.8	84.2	3.9	0.5	0.3	85.6	84.3
Lithuania	759	74.5	17.7	3.2	74.5	4.6	0.0	0.0	77.8	71.3
Malaysia	1227	63.6	14.7	12.4	63.6	9.2	0.1	0.0	67.6	59.6
Malta	567	87.2	4.8	4.3	86.7	3.6	0.4	0.2	87.9	86.5
Morocco	1736	62.1	10.8	17.1	61.3	9.5	1.3	0.1	65.1	59.1
New Zealand	552	80.6	11.9	4.2	79.8	3.2	0.8	0.1	83.8	77.6
Norway (9)	896	48.0	30.3	14.1	47.3	6.8	0.7	0.9	52.1	43.9
Oman	1630	71.4	7.5	9.2	71.1	11.7	0.4	0.1	80.0	63.3
Palestinian Nat'l Auth.	1304	53.1	14.3	18.9	52.5	13.2	1.0	0.1	57.2	49.2
Portugal	753	82.8	7.2	4.6	82.8	5.4	0.0	0.0	85.4	80.3
Qatar	608	81.1	9.2	4.8	80.6	4.8	0.4	0.3	79.5	82.5
Romania	509	53.3	24.0	12.9	52.6	9.2	0.4	0.8	50.3	55.8
Saudi Arabia	1166	59.9	12.2	14.2	59.8	13.5	0.2	0.1	70.5	49.9
Singapore	401	94.8	1.3	2.1	94.8	1.8	0.0	0.0	94.1	95.5
Sweden	707	57.4	26.2	9.2	56.5	6.6	0.6	0.9	57.9	56.8
Turkiye	711	86.9	5.7	2.9	86.9	4.5	0.0	0.0	89.8	84.1
United Arab Emirates	5292	82.0	7.2	6.0	81.7	4.7	0.3	0.1	85.0	79.1
United States	1156	81.0	11.6	4.4	80.4	2.8	0.3	0.5	83.9	78.3
Uzbekistan	610	44.4	35.0	11.3	44.2	9.1	0.1	0.2	44.5	44.3
International Avg. (40)	39137	71.0	14.4	8.1	70.5	6.3	0.5	0.2	73.2	68.8
Abu Dhabi, UAE	2403	78.7	8.4	8.4	78.4	4.5	0.3	0.1	82.6	74.8
Dubai, UAE	1159	88.1	5.5	2.9	87.7	3.4	0.5	0.0	88.1	88.1
Sharjah, UAE	888	83.6	6.6	3.9	83.4	5.7	0.3	0.0	88.4	79.0

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Reasoning

B_SE1_11 SE82223: Thermal conductivity of copper and steel - CR - 1 Point

COUNTRY	N	DIFF %	1 %	0 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1169	69.6	67.2	29.4	67.2	29.4	3.2	0.1	67.1	71.7
Austria	651	76.7	72.5	22.0	72.5	22.0	5.5	0.0	74.9	78.5
Azerbaijan	854	46.1	35.2	41.1	35.2	41.1	23.1	0.7	47.4	45.0
Bahrain	735	39.8	38.1	57.5	38.1	57.5	4.4	0.0	41.0	38.6
Brazil	3204	44.8	40.6	50.1	40.6	50.1	9.2	0.2	41.8	47.5
Chile	628	46.3	42.7	49.5	42.7	49.5	7.9	0.0	48.3	44.3
Chinese Taipei	468	75.9	75.1	23.8	75.1	23.8	1.1	0.0	78.4	73.6
Cyprus	578	49.1	45.2	46.8	45.2	46.8	7.7	0.3	49.0	49.3
Czech Republic	1119	76.3	73.4	22.8	73.4	22.8	3.7	0.1	74.3	78.1
England	590	66.1	63.1	32.4	63.1	32.4	4.4	0.1	63.5	68.2
Finland	804	78.4	74.6	20.6	74.6	20.6	4.4	0.4	78.7	78.1
France	641	69.4	64.9	28.5	64.9	28.5	6.6	0.0	69.6	69.3
Georgia	0	.	.	.	.	.	.	.	.	.
Hong Kong SAR	621	71.4	68.8	27.5	68.8	27.5	3.7	0.0	74.2	68.6
Hungary	748	78.2	75.5	21.0	75.5	21.0	3.4	0.0	74.5	82.0
Ireland	729	65.9	64.5	33.3	64.5	33.3	2.0	0.2	63.2	68.7
Israel	722	72.6	67.8	25.7	67.8	25.7	6.0	0.5	72.9	72.3
Italy	637	56.3	53.9	41.8	53.9	41.8	4.3	0.0	48.1	64.6
Japan	327	85.5	83.6	14.2	83.6	14.2	2.2	0.0	87.6	83.8
Jordan	1387	37.4	35.6	59.8	35.6	59.8	4.6	0.0	36.3	38.4
Kazakhstan	895	64.2	60.3	33.6	60.3	33.6	6.1	0.0	61.2	66.8
Korea, Rep. of	360	85.3	82.7	14.2	82.7	14.2	2.8	0.3	86.7	84.0
Lithuania	759	79.2	75.9	20.0	75.9	20.0	4.2	0.0	82.4	76.0
Malaysia	1227	40.5	40.0	58.8	40.0	58.8	1.2	0.0	40.2	40.8
Malta	567	60.2	56.9	37.6	56.9	37.6	5.2	0.2	57.8	62.7
Morocco	1736	12.7	10.1	69.0	10.1	69.0	20.9	0.1	11.8	13.7
New Zealand	552	69.5	67.7	29.7	67.7	29.7	2.4	0.1	67.3	71.5
Norway (9)	896	72.1	66.2	25.6	66.2	25.6	7.3	1.0	74.9	69.4
Oman	1630	48.7	47.4	50.0	47.4	50.0	2.6	0.1	50.5	46.9
Palestinian Nat'l Auth.	1303	32.8	31.8	65.1	31.8	65.1	3.1	0.0	34.4	31.4
Portugal	753	50.8	47.6	46.0	47.6	46.0	6.3	0.0	45.7	55.7
Qatar	608	51.3	49.3	46.8	49.3	46.8	3.7	0.3	53.7	49.3
Romania	508	62.3	57.8	35.0	57.8	35.0	6.2	1.0	60.4	63.7
Saudi Arabia	1165	36.7	36.0	61.9	36.0	61.9	2.0	0.1	43.5	30.2
Singapore	401	81.7	81.5	18.2	81.5	18.2	0.3	0.0	79.7	83.7
Sweden	707	77.8	72.1	20.6	72.1	20.6	6.3	0.9	81.4	74.5
Turkiye	711	79.6	75.7	19.4	75.7	19.4	4.9	0.0	81.4	78.0
United Arab Emirates	5288	50.8	49.4	47.8	49.4	47.8	2.7	0.1	52.6	49.0
United States	1156	65.9	64.6	33.4	64.6	33.4	1.6	0.5	66.0	65.8
Uzbekistan	610	54.5	49.4	41.4	49.4	41.4	9.0	0.2	52.8	56.1
International Avg. (39)	38444	61.1	58.1	36.5	58.1	36.5	5.3	0.2	60.9	61.3
Abu Dhabi, UAE	2402	41.6	40.1	56.3	40.1	56.3	3.4	0.1	44.7	38.5
Dubai, UAE	1159	65.1	63.8	34.1	63.8	34.1	2.1	0.0	65.2	65.0
Sharjah, UAE	888	55.5	54.5	43.7	54.5	43.7	1.8	0.0	56.6	54.4

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Applying

B_SE1_12 SE82264: Magnetic attraction weakens over distance - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1169	69.7	69.0	8.7	17.4	3.9	0.9	0.1	69.0	70.3
Austria	651	71.1	69.9	7.8	9.4	11.3	1.6	0.0	72.1	70.0
Azerbaijan	854	55.9	53.6	14.6	18.6	9.1	2.8	1.3	59.5	52.4
Bahrain	736	60.2	60.0	12.6	18.4	8.6	0.2	0.1	65.5	55.2
Brazil	3205	52.3	51.4	18.2	20.5	8.3	1.4	0.2	53.7	51.0
Chile	628	43.8	43.4	13.1	32.5	10.0	1.1	0.0	47.7	39.8
Chinese Taipei	469	87.2	87.2	4.5	4.2	4.0	0.0	0.0	89.5	85.2
Cyprus	578	47.1	46.5	13.8	22.6	15.8	0.9	0.3	48.8	45.4
Czech Republic	1119	80.2	79.9	5.1	10.4	4.3	0.2	0.1	77.9	82.4
England	590	71.4	70.8	6.8	17.3	4.2	0.6	0.4	70.0	72.7
Finland	804	77.8	76.8	6.4	7.6	7.9	0.9	0.4	80.8	74.8
France	641	64.5	63.7	10.0	18.8	6.2	1.2	0.0	62.6	66.3
Georgia	679	53.7	52.8	10.2	13.0	22.3	1.7	0.1	54.2	53.2
Hong Kong SAR	621	69.1	68.6	10.7	13.3	6.6	0.5	0.3	70.2	68.0
Hungary	748	77.1	77.1	8.9	8.5	5.5	0.0	0.0	76.3	78.0
Ireland	729	68.4	67.9	6.2	20.0	5.2	0.7	0.2	69.9	66.9
Israel	724	47.2	46.6	10.4	33.3	8.4	0.9	0.5	48.6	45.8
Italy	637	52.1	52.0	12.5	26.7	8.5	0.3	0.0	47.7	56.5
Japan	327	78.8	78.4	5.7	10.4	5.0	0.5	0.0	79.1	78.6
Jordan	1387	50.7	50.1	22.8	14.5	11.5	1.2	0.0	50.1	51.2
Kazakhstan	897	68.7	68.1	11.9	10.1	8.9	0.9	0.1	67.2	70.0
Korea, Rep. of	360	83.7	83.0	4.3	7.1	4.7	0.5	0.3	84.7	82.7
Lithuania	759	75.9	75.8	6.3	14.8	3.0	0.1	0.0	81.1	70.8
Malaysia	1227	56.3	56.3	17.1	18.1	8.5	0.0	0.0	56.1	56.5
Malta	567	64.1	63.9	9.0	21.3	5.6	0.0	0.2	64.0	64.1
Morocco	1736	24.1	23.6	26.9	34.6	12.6	2.3	0.1	24.8	23.5
New Zealand	552	65.5	64.6	10.3	18.8	4.9	1.2	0.1	63.3	67.5
Norway (9)	896	69.7	67.8	8.7	12.8	8.0	1.6	1.0	72.6	66.8
Oman	1630	54.4	54.1	11.3	18.3	15.7	0.6	0.1	59.8	49.4
Palestinian Nat'l Auth.	1304	48.0	47.5	18.2	25.1	8.2	0.9	0.1	54.6	41.9
Portugal	753	58.7	58.4	12.6	19.6	8.8	0.6	0.0	58.3	59.1
Qatar	608	66.3	65.6	8.4	16.9	8.0	0.8	0.3	66.8	65.9
Romania	509	62.9	62.2	9.7	16.6	10.4	0.1	1.0	61.7	63.9
Saudi Arabia	1166	44.9	44.7	15.9	30.0	8.9	0.4	0.1	48.8	41.3
Singapore	401	84.6	84.6	4.3	7.3	3.8	0.0	0.0	82.4	86.7
Sweden	707	68.5	66.3	7.9	14.9	7.5	2.4	0.9	72.8	64.5
Turkiye	711	72.2	71.3	7.5	11.3	8.7	1.3	0.0	74.0	70.4
United Arab Emirates	5292	59.6	59.3	12.0	19.7	8.4	0.5	0.1	62.0	57.4
United States	1156	62.7	62.3	10.1	22.0	5.0	0.1	0.6	63.4	62.0
Uzbekistan	610	53.5	52.8	20.9	15.7	9.3	1.1	0.2	58.8	48.3
International Avg. (40)	39137	63.1	62.4	11.1	17.3	8.1	0.8	0.2	64.3	61.9
Abu Dhabi, UAE	2403	51.9	51.7	16.1	23.1	8.7	0.3	0.1	53.0	50.7
Dubai, UAE	1159	71.4	71.1	6.4	15.7	6.4	0.4	0.0	74.5	68.5
Sharjah, UAE	888	65.2	64.7	10.4	17.1	7.0	0.7	0.0	69.0	61.5

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Knowing

B_SE1_13 SE82340: Examples of renewable energy sources (DERIVED) - CR - 1 Point

COUNTRY	N	DIFF %	1 %	0 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1169	75.8	75.5	24.1	75.5	24.1	0.2	0.2	71.6	80.0
Austria	651	70.4	70.3	29.6	70.3	29.6	0.1	0.0	66.3	74.3
Azerbaijan	854	28.9	28.2	69.2	28.2	69.2	1.3	1.3	26.2	31.5
Bahrain	736	34.6	34.5	65.3	34.5	65.3	0.0	0.2	35.1	34.1
Brazil	3205	48.4	48.0	51.1	48.0	51.1	0.5	0.3	44.6	52.0
Chile	628	61.0	60.8	38.9	60.8	38.9	0.3	0.0	52.3	70.0
Chinese Taipei	469	80.9	80.9	19.1	80.9	19.1	0.0	0.0	76.7	84.8
Cyprus	578	66.0	65.6	33.7	65.6	33.7	0.3	0.3	67.3	64.8
Czech Republic	1119	68.5	68.2	31.4	68.2	31.4	0.3	0.1	62.2	74.6
England	590	71.6	71.4	28.3	71.4	28.3	0.0	0.4	65.9	76.6
Finland	804	80.4	79.9	19.4	79.9	19.4	0.3	0.4	75.6	85.3
France	641	73.2	73.2	26.8	73.2	26.8	0.0	0.0	71.3	75.1
Georgia	679	36.4	36.0	62.8	36.0	62.8	1.1	0.1	36.1	36.7
Hong Kong SAR	621	77.6	77.4	22.3	77.4	22.3	0.1	0.3	74.5	80.7
Hungary	748	72.0	72.0	28.0	72.0	28.0	0.0	0.0	67.9	76.3
Ireland	729	84.6	84.4	15.4	84.4	15.4	0.0	0.2	82.4	86.8
Israel	724	50.5	49.9	48.8	49.9	48.8	0.8	0.5	52.7	48.3
Italy	637	80.5	80.5	19.5	80.5	19.5	0.0	0.0	76.2	84.8
Japan	327	71.9	71.5	28.0	71.5	28.0	0.5	0.0	71.6	72.1
Jordan	1387	40.0	39.9	59.9	39.9	59.9	0.3	0.0	39.3	40.6
Kazakhstan	897	33.6	33.5	66.2	33.5	66.2	0.1	0.2	30.1	36.7
Korea, Rep. of	360	68.2	67.6	31.6	67.6	31.6	0.5	0.3	61.5	74.9
Lithuania	759	61.9	61.9	38.1	61.9	38.1	0.0	0.0	54.3	69.3
Malaysia	1227	36.4	36.4	63.6	36.4	63.6	0.0	0.0	35.0	37.9
Malta	567	64.4	64.1	35.5	64.1	35.5	0.2	0.2	58.4	70.4
Morocco	1736	30.5	30.4	69.2	30.4	69.2	0.2	0.2	27.4	33.7
New Zealand	552	77.1	77.0	22.9	77.0	22.9	0.0	0.1	72.3	81.4
Norway (9)	896	82.6	81.7	17.2	81.7	17.2	0.1	1.0	81.6	83.8
Oman	1630	40.1	40.1	59.7	40.1	59.7	0.1	0.1	37.8	42.3
Palestinian Nat'l Auth.	1304	34.6	34.5	65.1	34.5	65.1	0.3	0.1	37.4	32.1
Portugal	753	71.4	71.2	28.5	71.2	28.5	0.2	0.0	65.2	77.5
Qatar	608	49.5	49.3	50.3	49.3	50.3	0.1	0.3	45.9	52.5
Romania	509	62.9	62.3	36.7	62.3	36.7	0.0	1.0	60.9	64.6
Saudi Arabia	1166	49.7	49.6	50.2	49.6	50.2	0.0	0.1	55.7	44.0
Singapore	401	79.5	79.3	20.5	79.3	20.5	0.3	0.0	73.8	85.0
Sweden	707	79.5	78.7	20.3	78.7	20.3	0.1	0.9	76.0	82.7
Turkiye	711	57.1	57.1	42.8	57.1	42.8	0.1	0.0	55.1	59.1
United Arab Emirates	5292	56.8	56.7	43.1	56.7	43.1	0.1	0.2	53.3	60.3
United States	1156	67.6	67.2	32.2	67.2	32.2	0.1	0.6	65.4	69.8
Uzbekistan	610	26.7	26.5	72.7	26.5	72.7	0.5	0.3	25.0	28.4
International Avg. (40)	39137	60.1	59.8	39.7	59.8	39.7	0.2	0.2	57.2	62.9
Abu Dhabi, UAE	2403	48.7	48.5	51.2	48.5	51.2	0.1	0.2	46.6	50.8
Dubai, UAE	1159	72.4	72.4	27.6	72.4	27.6	0.0	0.0	68.9	75.8
Sharjah, UAE	888	59.7	59.6	40.3	59.6	40.3	0.0	0.0	55.4	63.9

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Earth Science / Knowing

B_SE1_13A SE82340A: Examples of renewable energy sources - oil - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1169	93.6	6.4	93.2	0.2	0.2	92.8	94.6
Austria	651	88.6	11.4	88.5	0.1	0.0	85.4	91.9
Azerbaijan	854	76.4	23.0	74.3	1.4	1.3	72.1	80.4
Bahrain	736	74.8	25.1	74.7	0.0	0.2	72.3	77.3
Brazil	3205	81.3	18.5	80.5	0.6	0.3	76.7	85.6
Chile	628	90.9	9.1	90.5	0.4	0.0	88.9	93.0
Chinese Taipei	469	94.0	6.0	94.0	0.0	0.0	93.2	94.7
Cyprus	578	88.9	11.0	88.3	0.3	0.3	88.7	89.1
Czech Republic	1119	88.7	11.2	88.3	0.4	0.1	84.9	92.4
England	590	91.7	8.3	91.4	0.0	0.4	89.5	93.6
Finland	804	93.7	6.3	93.0	0.3	0.4	93.2	94.2
France	641	90.5	9.5	90.5	0.0	0.0	89.9	91.1
Georgia	679	74.1	25.5	73.1	1.3	0.1	68.3	80.2
Hong Kong SAR	621	93.9	6.1	93.3	0.3	0.3	91.8	95.9
Hungary	748	89.8	10.2	89.8	0.0	0.0	87.7	92.0
Ireland	729	97.0	3.0	96.8	0.0	0.2	96.2	97.7
Israel	724	79.9	19.8	78.9	0.8	0.5	77.2	82.7
Italy	637	95.7	4.3	95.7	0.0	0.0	94.5	96.9
Japan	327	93.4	6.6	92.9	0.5	0.0	91.6	94.8
Jordan	1387	79.8	20.1	79.6	0.4	0.0	79.6	80.1
Kazakhstan	897	69.1	30.8	68.9	0.1	0.2	65.7	72.1
Korea, Rep. of	360	90.6	9.3	89.8	0.5	0.3	87.4	93.8
Lithuania	759	86.6	13.4	86.6	0.0	0.0	82.1	91.0
Malaysia	1227	64.8	35.2	64.8	0.0	0.0	60.9	68.8
Malta	567	92.1	7.8	91.7	0.2	0.2	90.8	93.5
Morocco	1736	75.5	24.3	75.0	0.4	0.2	74.0	77.1
New Zealand	552	90.1	9.9	89.7	0.3	0.1	87.5	92.3
Norway (9)	896	91.8	8.1	90.7	0.1	1.0	90.3	93.2
Oman	1630	85.4	14.6	85.1	0.3	0.1	81.3	89.2
Palestinian Nat'l Auth.	1304	71.8	28.1	71.5	0.3	0.1	70.0	73.4
Portugal	753	92.8	7.2	92.6	0.2	0.0	91.8	93.8
Qatar	608	82.3	17.6	82.0	0.1	0.3	79.6	84.6
Romania	509	85.9	13.9	85.1	0.0	1.0	85.4	86.4
Saudi Arabia	1166	82.5	17.5	82.3	0.1	0.1	84.4	80.6
Singapore	401	93.0	7.0	92.7	0.3	0.0	91.3	94.6
Sweden	707	93.3	6.6	92.4	0.1	0.9	92.4	94.1
Turkiye	711	85.6	14.3	85.5	0.2	0.0	82.5	88.6
United Arab Emirates	5292	84.8	15.1	84.6	0.1	0.2	83.1	86.5
United States	1156	86.2	13.7	85.6	0.1	0.6	83.7	88.5
Uzbekistan	610	69.2	30.6	68.7	0.5	0.3	65.2	73.1
International Avg. (40)	39137	85.8	14.2	85.3	0.3	0.2	83.6	87.8
Abu Dhabi, UAE	2403	81.4	18.5	81.1	0.2	0.2	81.4	81.5
Dubai, UAE	1159	91.4	8.6	91.4	0.0	0.0	89.1	93.6
Sharjah, UAE	888	84.8	15.2	84.7	0.1	0.0	81.3	88.2

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Earth Science / Knowing

B_SE1_13B SE82340B: Examples of renewable energy sources - wind - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1169	94.8	94.4	5.2	0.2	0.2	94.4	95.5
Austria	651	92.8	92.7	7.2	0.1	0.0	89.4	96.2
Azerbaijan	854	72.6	70.6	26.7	1.4	1.3	69.2	75.7
Bahrain	736	66.3	66.1	33.6	0.0	0.2	67.4	65.3
Brazil	3205	85.4	84.6	14.4	0.6	0.3	82.0	88.8
Chile	628	93.0	92.7	7.0	0.4	0.0	91.9	94.1
Chinese Taipei	469	94.2	94.2	5.8	0.0	0.0	92.6	95.5
Cyprus	578	94.0	93.3	6.0	0.3	0.3	94.2	93.7
Czech Republic	1119	92.0	91.5	8.0	0.4	0.1	87.9	95.9
England	590	94.8	94.5	5.1	0.0	0.4	92.6	96.8
Finland	804	95.9	95.2	4.1	0.3	0.4	94.4	97.3
France	641	93.2	93.2	6.8	0.0	0.0	92.8	93.6
Georgia	679	66.8	65.9	32.7	1.3	0.1	65.4	68.3
Hong Kong SAR	621	93.6	93.0	6.3	0.3	0.3	92.8	94.4
Hungary	748	94.8	94.8	5.2	0.0	0.0	93.3	96.4
Ireland	729	97.8	97.7	2.2	0.0	0.2	98.7	96.9
Israel	724	78.6	77.6	21.1	0.8	0.5	78.0	79.3
Italy	637	94.6	94.6	5.4	0.0	0.0	94.6	94.6
Japan	327	92.2	91.7	7.7	0.5	0.0	90.7	93.5
Jordan	1387	81.4	81.1	18.5	0.4	0.0	83.1	79.8
Kazakhstan	897	75.0	74.8	24.9	0.1	0.2	70.9	78.7
Korea, Rep. of	360	91.0	90.3	8.9	0.5	0.3	88.5	93.6
Lithuania	759	90.6	90.6	9.4	0.0	0.0	87.9	93.3
Malaysia	1227	70.0	70.0	30.0	0.0	0.0	68.0	72.1
Malta	567	91.9	91.5	8.1	0.2	0.2	90.6	93.1
Morocco	1736	69.5	69.0	30.3	0.4	0.2	69.0	70.0
New Zealand	552	96.1	95.7	3.9	0.3	0.1	94.9	97.1
Norway (9)	896	94.1	93.1	5.8	0.1	1.0	94.1	94.2
Oman	1630	70.4	70.2	29.5	0.3	0.1	73.0	68.0
Palestinian Nat'l Auth.	1304	73.0	72.7	26.9	0.3	0.1	73.1	72.8
Portugal	753	95.5	95.3	4.5	0.2	0.0	94.7	96.3
Qatar	608	84.9	84.6	15.0	0.1	0.3	85.3	84.6
Romania	509	86.2	85.4	13.6	0.0	1.0	86.4	86.1
Saudi Arabia	1166	79.6	79.4	20.4	0.1	0.1	83.5	75.8
Singapore	401	93.9	93.7	6.1	0.3	0.0	94.5	93.3
Sweden	707	94.9	93.9	5.1	0.1	0.9	94.7	95.0
Turkiye	711	88.7	88.5	11.3	0.2	0.0	85.6	91.6
United Arab Emirates	5292	86.2	86.0	13.7	0.1	0.2	86.1	86.3
United States	1156	92.3	91.7	7.7	0.1	0.6	89.9	94.5
Uzbekistan	610	68.8	68.3	31.0	0.5	0.3	63.6	73.9
International Avg. (40)	39137	86.5	86.1	13.4	0.3	0.2	85.5	87.6
Abu Dhabi, UAE	2403	81.4	81.1	18.5	0.2	0.2	82.2	80.6
Dubai, UAE	1159	93.3	93.3	6.7	0.0	0.0	93.5	93.2
Sharjah, UAE	888	89.1	88.9	10.9	0.1	0.0	87.4	90.6

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Earth Science / Knowing

B_SE1_13C SE82340C: Examples of renewable energy sources - coal - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1169	92.7	7.3	92.3	0.2	0.2	91.2	94.4
Austria	651	91.8	8.2	91.6	0.1	0.0	89.2	94.3
Azerbaijan	854	78.6	20.8	76.5	1.4	1.3	76.5	80.6
Bahrain	736	78.9	21.0	78.7	0.0	0.2	76.4	81.4
Brazil	3205	81.9	18.0	81.1	0.6	0.3	77.0	86.5
Chile	628	91.5	8.5	91.1	0.4	0.0	89.1	93.9
Chinese Taipei	469	94.6	5.4	94.6	0.0	0.0	93.8	95.4
Cyprus	578	91.6	8.3	91.0	0.3	0.3	92.7	90.5
Czech Republic	1119	87.6	12.4	87.2	0.4	0.1	85.1	90.0
England	590	92.4	7.6	92.0	0.0	0.4	89.6	94.8
Finland	804	93.7	6.3	93.1	0.3	0.4	92.3	95.1
France	641	91.9	8.1	91.9	0.0	0.0	91.2	92.5
Georgia	679	77.8	21.9	76.7	1.3	0.1	74.7	81.0
Hong Kong SAR	621	93.8	6.2	93.2	0.3	0.3	91.8	95.8
Hungary	748	93.7	6.3	93.7	0.0	0.0	91.3	96.1
Ireland	729	97.3	2.7	97.1	0.0	0.2	96.9	97.6
Israel	724	78.9	20.8	77.9	0.8	0.5	75.3	82.6
Italy	637	96.2	3.8	96.2	0.0	0.0	95.0	97.3
Japan	327	93.9	6.0	93.4	0.5	0.0	93.8	94.0
Jordan	1387	83.2	16.7	82.9	0.4	0.0	83.8	82.6
Kazakhstan	897	70.5	29.4	70.3	0.1	0.2	67.8	73.0
Korea, Rep. of	360	93.9	6.0	93.2	0.5	0.3	91.9	96.0
Lithuania	759	87.0	13.0	87.0	0.0	0.0	85.2	88.7
Malaysia	1227	68.0	32.0	68.0	0.0	0.0	66.3	69.7
Malta	567	91.3	8.7	90.9	0.2	0.2	90.0	92.6
Morocco	1736	79.9	20.0	79.3	0.4	0.2	79.1	80.7
New Zealand	552	88.7	11.2	88.4	0.3	0.1	85.3	91.8
Norway (9)	896	93.8	6.1	92.8	0.1	1.0	93.1	94.6
Oman	1630	87.0	13.0	86.7	0.3	0.1	84.7	89.0
Palestinian Nat'l Auth.	1304	78.2	21.7	77.8	0.3	0.1	78.6	77.7
Portugal	753	93.0	7.0	92.8	0.2	0.0	90.7	95.3
Qatar	608	83.3	16.7	83.0	0.1	0.3	81.9	84.4
Romania	509	85.6	14.2	84.8	0.0	1.0	80.8	89.7
Saudi Arabia	1166	84.4	15.5	84.2	0.1	0.1	86.4	82.5
Singapore	401	92.6	7.4	92.3	0.3	0.0	91.3	93.8
Sweden	707	93.5	6.5	92.5	0.1	0.9	91.8	95.0
Turkiye	711	87.6	12.4	87.5	0.2	0.0	83.8	91.3
United Arab Emirates	5292	86.2	13.7	86.0	0.1	0.2	85.2	87.3
United States	1156	86.6	13.3	86.1	0.1	0.6	83.2	89.9
Uzbekistan	610	73.1	26.7	72.6	0.5	0.3	67.9	78.2
International Avg. (40)	39137	87.2	12.8	86.7	0.3	0.2	85.3	88.9
Abu Dhabi, UAE	2403	81.7	18.2	81.4	0.2	0.2	81.8	81.6
Dubai, UAE	1159	91.6	8.4	91.6	0.0	0.0	89.6	93.5
Sharjah, UAE	888	89.8	10.2	89.6	0.1	0.0	88.5	91.0

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Knowing

B_SE1_13D SE82340D: Examples of renewable energy sources - sunlight - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1169	93.8	93.5	6.1	0.2	0.2	94.0	93.7
Austria	651	92.7	92.5	7.3	0.1	0.0	90.8	94.5
Azerbaijan	854	74.3	72.3	25.0	1.4	1.3	70.9	77.5
Bahrain	736	79.2	79.1	20.7	0.0	0.2	73.7	84.6
Brazil	3205	87.3	86.4	12.6	0.6	0.3	84.1	90.2
Chile	628	92.3	92.0	7.7	0.4	0.0	90.3	94.4
Chinese Taipei	469	94.7	94.7	5.3	0.0	0.0	94.5	95.0
Cyprus	578	91.9	91.2	8.1	0.3	0.3	93.5	90.2
Czech Republic	1119	92.6	92.1	7.4	0.4	0.1	91.0	94.1
England	590	94.2	93.9	5.8	0.0	0.4	92.3	95.9
Finland	804	97.0	96.3	3.0	0.3	0.4	95.7	98.2
France	641	94.1	94.1	5.9	0.0	0.0	93.0	95.2
Georgia	679	76.9	75.9	22.8	1.3	0.1	74.4	79.5
Hong Kong SAR	621	92.6	92.0	7.4	0.3	0.3	92.7	92.5
Hungary	748	96.7	96.7	3.3	0.0	0.0	96.0	97.5
Ireland	729	96.9	96.8	3.1	0.0	0.2	97.2	96.6
Israel	724	85.2	84.1	14.6	0.8	0.5	84.1	86.4
Italy	637	95.0	95.0	5.0	0.0	0.0	93.7	96.3
Japan	327	96.1	95.6	3.9	0.5	0.0	96.6	95.7
Jordan	1387	85.1	84.8	14.8	0.4	0.0	83.1	87.1
Kazakhstan	897	81.1	80.9	18.9	0.1	0.2	76.3	85.3
Korea, Rep. of	360	93.7	92.9	6.2	0.5	0.3	90.8	96.6
Lithuania	759	95.3	95.3	4.7	0.0	0.0	94.4	96.1
Malaysia	1227	74.7	74.7	25.3	0.0	0.0	71.5	77.9
Malta	567	92.0	91.6	8.0	0.2	0.2	90.7	93.3
Morocco	1736	73.4	72.9	26.4	0.4	0.2	70.7	76.1
New Zealand	552	95.8	95.4	4.2	0.3	0.1	95.0	96.5
Norway (9)	896	93.6	92.5	6.4	0.1	1.0	94.5	92.8
Oman	1630	77.2	76.9	22.8	0.3	0.1	75.2	79.0
Palestinian Nat'l Auth.	1304	82.0	81.7	17.9	0.3	0.1	79.2	84.7
Portugal	753	96.1	95.9	3.9	0.2	0.0	95.3	96.9
Qatar	608	88.0	87.7	12.0	0.1	0.3	85.6	90.0
Romania	509	87.5	86.7	12.3	0.0	1.0	84.8	89.8
Saudi Arabia	1166	88.3	88.1	11.6	0.1	0.1	89.4	87.3
Singapore	401	95.1	94.9	4.9	0.3	0.0	94.2	96.0
Sweden	707	95.4	94.5	4.5	0.1	0.9	96.0	94.9
Turkiye	711	89.9	89.8	10.0	0.2	0.0	88.4	91.4
United Arab Emirates	5292	89.0	88.7	11.0	0.1	0.2	88.5	89.3
United States	1156	92.2	91.5	7.8	0.1	0.6	90.6	93.6
Uzbekistan	610	76.2	75.7	23.6	0.5	0.3	74.6	77.8
International Avg. (40)	39137	89.1	88.7	10.8	0.3	0.2	87.7	90.5
Abu Dhabi, UAE	2403	83.6	83.2	16.4	0.2	0.2	84.3	82.8
Dubai, UAE	1159	95.8	95.8	4.2	0.0	0.0	94.7	96.8
Sharjah, UAE	888	91.7	91.5	8.3	0.1	0.0	90.0	93.3

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Knowing

B_SE1_13E SE82340E: Examples of renewable energy sources - moving water - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1169	81.0	80.7	18.9	0.2	0.2	76.8	85.3
Austria	651	78.0	77.9	22.0	0.1	0.0	76.4	79.6
Azerbaijan	854	48.9	47.6	49.8	1.4	1.3	49.7	48.1
Bahrain	736	54.2	54.1	45.7	0.0	0.2	56.0	52.5
Brazil	3205	63.3	62.7	36.3	0.6	0.3	60.7	65.8
Chile	628	68.1	67.8	31.8	0.4	0.0	62.3	74.1
Chinese Taipei	469	86.6	86.6	13.4	0.0	0.0	82.6	90.2
Cyprus	578	75.6	75.0	24.3	0.3	0.3	76.2	74.9
Czech Republic	1119	77.9	77.6	22.0	0.4	0.1	73.7	82.0
England	590	75.0	74.7	24.9	0.0	0.4	69.1	80.0
Finland	804	85.3	84.7	14.6	0.3	0.4	80.0	90.7
France	641	80.5	80.5	19.5	0.0	0.0	79.4	81.5
Georgia	679	58.2	57.4	41.3	1.3	0.1	57.9	58.4
Hong Kong SAR	621	85.2	84.7	14.7	0.3	0.3	82.5	87.8
Hungary	748	75.3	75.3	24.7	0.0	0.0	71.7	79.1
Ireland	729	86.4	86.3	13.6	0.0	0.2	84.5	88.3
Israel	724	66.9	66.0	32.7	0.8	0.5	67.7	66.1
Italy	637	84.8	84.8	15.2	0.0	0.0	81.2	88.4
Japan	327	78.7	78.3	21.1	0.5	0.0	78.4	79.1
Jordan	1387	55.5	55.3	44.4	0.4	0.0	55.4	55.5
Kazakhstan	897	53.9	53.7	46.0	0.1	0.2	52.1	55.5
Korea, Rep. of	360	73.4	72.8	26.3	0.5	0.3	69.3	77.6
Lithuania	759	70.8	70.8	29.2	0.0	0.0	63.7	77.8
Malaysia	1227	61.3	61.3	38.7	0.0	0.0	59.1	63.5
Malta	567	69.6	69.3	30.3	0.2	0.2	63.7	75.5
Morocco	1736	47.4	47.1	52.3	0.4	0.2	44.8	50.0
New Zealand	552	85.1	84.8	14.8	0.3	0.1	82.6	87.3
Norway (9)	896	89.0	88.0	10.9	0.1	1.0	89.0	89.2
Oman	1630	58.5	58.3	41.3	0.3	0.1	54.8	62.0
Palestinian Nat'l Auth.	1304	57.0	56.8	42.8	0.3	0.1	58.4	55.8
Portugal	753	75.9	75.7	24.0	0.2	0.0	70.7	81.0
Qatar	608	61.0	60.8	38.9	0.1	0.3	55.4	65.7
Romania	509	75.6	74.9	24.2	0.0	1.0	74.4	76.6
Saudi Arabia	1166	64.3	64.1	35.7	0.1	0.1	68.1	60.6
Singapore	401	86.6	86.3	13.4	0.3	0.0	83.5	89.6
Sweden	707	84.4	83.6	15.4	0.1	0.9	81.5	87.2
Turkiye	711	66.9	66.8	33.1	0.2	0.0	64.9	68.8
United Arab Emirates	5292	67.6	67.4	32.4	0.1	0.2	65.0	70.0
United States	1156	76.9	76.4	22.9	0.1	0.6	77.5	76.4
Uzbekistan	610	50.0	49.6	49.6	0.5	0.3	49.9	50.1
International Avg. (40)	39137	71.0	70.7	28.8	0.3	0.2	68.8	73.2
Abu Dhabi, UAE	2403	62.0	61.7	37.9	0.2	0.2	61.1	62.9
Dubai, UAE	1159	78.7	78.7	21.3	0.0	0.0	75.4	82.0
Sharjah, UAE	888	68.7	68.5	31.3	0.1	0.0	65.8	71.4

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Knowing

B_SE1_14 SE82327: Evidence for global climate change (DERIVED) - CR - 1 Point

COUNTRY	N	DIFF %	1 %	0 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1169	54.6	54.3	45.1	54.3	45.1	0.4	0.2	45.7	63.3
Austria	651	55.1	54.8	44.7	54.8	44.7	0.4	0.0	48.6	61.6
Azerbaijan	854	11.1	10.2	81.7	10.2	81.7	6.4	1.7	8.9	13.1
Bahrain	736	16.1	16.0	83.1	16.0	83.1	0.7	0.2	15.7	16.5
Brazil	3205	20.1	19.4	77.4	19.4	77.4	2.8	0.4	17.3	22.7
Chile	628	35.2	34.4	63.3	34.4	63.3	2.3	0.0	25.3	45.6
Chinese Taipei	469	70.2	70.0	29.7	70.0	29.7	0.3	0.0	64.5	75.4
Cyprus	578	43.2	42.7	56.0	42.7	56.0	0.8	0.5	41.5	45.1
Czech Republic	1119	38.2	38.1	61.6	38.1	61.6	0.2	0.1	29.0	47.2
England	590	66.8	66.0	32.7	66.0	32.7	0.9	0.4	63.3	69.9
Finland	804	58.8	58.1	40.7	58.1	40.7	0.8	0.4	56.4	61.2
France	641	45.9	45.7	53.9	45.7	53.9	0.5	0.0	35.9	55.5
Georgia	679	28.5	27.3	68.7	27.3	68.7	3.8	0.1	29.6	27.2
Hong Kong SAR	621	62.4	62.3	37.5	62.3	37.5	0.0	0.3	60.1	64.7
Hungary	748	33.6	33.6	66.4	33.6	66.4	0.0	0.0	26.6	40.9
Ireland	729	73.8	73.6	26.1	73.6	26.1	0.2	0.2	71.5	76.2
Israel	724	26.2	25.6	72.2	25.6	72.2	1.7	0.5	22.3	30.1
Italy	637	42.5	42.3	57.3	42.3	57.3	0.4	0.0	35.7	49.2
Japan	327	59.7	58.9	39.7	58.9	39.7	1.4	0.0	52.5	65.5
Jordan	1387	7.4	7.3	91.1	7.3	91.1	1.6	0.0	6.0	8.8
Kazakhstan	897	16.9	16.8	82.7	16.8	82.7	0.4	0.2	12.3	21.0
Korea, Rep. of	360	79.0	78.6	20.9	78.6	20.9	0.3	0.3	78.5	79.5
Lithuania	758	48.2	48.1	51.7	48.1	51.7	0.2	0.0	46.6	49.7
Malaysia	1227	22.0	22.0	78.0	22.0	78.0	0.0	0.0	21.8	22.1
Malta	567	59.2	58.9	40.7	58.9	40.7	0.2	0.2	56.3	62.0
Morocco	1736	4.6	4.4	92.1	4.4	92.1	3.2	0.2	4.9	4.2
New Zealand	552	63.2	62.3	36.3	62.3	36.3	1.3	0.1	59.2	66.8
Norway (9)	896	59.8	58.0	39.0	58.0	39.0	2.0	1.0	57.6	62.0
Oman	1630	10.9	10.9	88.8	10.9	88.8	0.2	0.1	9.8	12.0
Palestinian Nat'l Auth.	1304	6.9	6.7	91.4	6.7	91.4	1.7	0.1	6.6	7.1
Portugal	753	48.2	48.2	51.8	48.2	51.8	0.0	0.0	41.2	55.0
Qatar	608	31.3	31.0	67.9	31.0	67.9	0.9	0.3	27.5	34.5
Romania	509	28.0	27.5	70.9	27.5	70.9	0.6	1.0	24.4	31.0
Saudi Arabia	1166	10.9	10.9	88.5	10.9	88.5	0.5	0.1	12.0	9.9
Singapore	401	76.6	76.4	23.3	76.4	23.3	0.3	0.0	75.3	77.9
Sweden	707	66.4	65.2	33.0	65.2	33.0	0.8	0.9	63.5	69.1
Turkiye	711	32.0	31.9	67.8	31.9	67.8	0.3	0.0	31.8	32.2
United Arab Emirates	5292	32.2	32.0	67.5	32.0	67.5	0.4	0.2	29.4	34.9
United States	1156	41.4	41.0	58.1	41.0	58.1	0.3	0.6	34.9	47.5
Uzbekistan	610	11.9	11.6	85.5	11.6	85.5	2.6	0.3	8.8	14.9
International Avg. (40)	39136	40.0	39.6	59.1	39.6	59.1	1.0	0.3	36.5	43.3
Abu Dhabi, UAE	2403	25.2	25.1	74.4	25.1	74.4	0.3	0.2	23.9	26.5
Dubai, UAE	1159	50.3	50.1	49.6	50.1	49.6	0.2	0.0	44.4	55.9
Sharjah, UAE	888	34.1	33.9	65.6	33.9	65.6	0.5	0.0	33.9	34.3

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Knowing

B_SE1_14A SE82327A: Evidence for global climate change - temperature - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	C %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1169	87.3	86.7	9.6	3.0	0.6	0.2	84.7	89.8
Austria	651	87.9	87.4	5.4	6.6	0.5	0.0	85.4	90.4
Azerbaijan	854	65.1	56.7	22.4	8.1	11.2	1.7	64.0	66.0
Bahrain	736	61.0	59.4	25.8	12.3	2.3	0.2	59.6	62.3
Brazil	3205	77.4	73.6	11.5	10.0	4.5	0.4	74.2	80.4
Chile	628	86.1	83.5	8.5	5.0	3.0	0.0	82.9	89.6
Chinese Taipei	469	92.8	92.3	4.5	2.7	0.6	0.0	92.6	92.9
Cyprus	578	86.5	85.0	8.5	4.8	1.2	0.5	83.1	90.0
Czech Republic	1119	85.4	85.0	7.6	6.9	0.5	0.1	81.1	89.6
England	590	92.3	90.8	4.4	3.1	1.3	0.4	90.2	94.2
Finland	804	91.3	90.0	5.3	3.2	1.1	0.4	91.5	91.1
France	641	87.6	86.5	7.3	5.0	1.2	0.0	86.6	88.6
Georgia	679	71.6	67.9	14.4	12.6	5.1	0.1	71.3	71.8
Hong Kong SAR	621	90.5	90.1	5.6	3.8	0.2	0.3	89.7	91.3
Hungary	748	85.6	85.5	7.9	6.5	0.2	0.0	81.5	89.8
Ireland	729	94.3	93.7	2.8	2.9	0.4	0.2	92.2	96.3
Israel	724	86.0	83.2	8.7	4.8	2.8	0.5	86.4	85.6
Italy	637	87.9	87.6	6.7	5.4	0.4	0.0	86.0	89.7
Japan	327	95.8	94.5	2.1	2.0	1.4	0.0	94.3	97.1
Jordan	1387	70.9	68.1	17.5	10.5	4.0	0.0	73.5	68.4
Kazakhstan	897	63.3	61.8	26.6	9.2	2.2	0.2	62.8	63.8
Korea, Rep. of	360	96.0	94.8	3.2	0.8	0.9	0.3	95.1	96.9
Lithuania	758	84.2	83.8	10.0	5.6	0.6	0.0	84.1	84.3
Malaysia	1227	73.3	72.8	16.9	9.7	0.6	0.0	72.7	73.9
Malta	567	88.1	87.6	6.8	5.0	0.4	0.2	86.4	89.8
Morocco	1736	54.3	49.6	26.1	15.6	8.4	0.2	56.5	52.2
New Zealand	552	87.0	85.4	7.2	5.6	1.7	0.1	86.0	87.9
Norway (9)	896	92.9	89.9	4.2	2.7	2.3	1.0	93.8	92.0
Oman	1630	58.3	57.0	20.2	20.5	2.2	0.1	61.3	55.5
Palestinian Nat'l Auth.	1304	58.2	54.8	25.8	13.6	5.6	0.1	58.7	57.7
Portugal	753	88.7	88.7	6.8	4.5	0.0	0.0	85.1	92.3
Qatar	608	71.5	70.2	17.4	10.6	1.6	0.3	70.3	72.4
Romania	509	77.6	74.1	13.1	8.2	3.6	1.0	76.7	78.4
Saudi Arabia	1166	60.6	59.4	27.8	10.9	1.7	0.1	64.3	56.9
Singapore	401	91.0	90.7	6.2	2.8	0.3	0.0	88.6	93.3
Sweden	707	93.0	91.2	4.8	2.0	1.0	0.9	92.0	94.0
Turkiye	711	86.2	85.9	7.9	5.9	0.4	0.0	87.3	85.3
United Arab Emirates	5292	75.4	74.4	15.1	9.1	1.2	0.2	75.0	75.8
United States	1156	76.0	75.0	15.0	8.7	0.8	0.6	71.3	80.5
Uzbekistan	610	70.4	59.3	11.5	13.3	15.5	0.3	71.9	69.0
International Avg. (40)	39136	80.7	78.8	11.5	7.1	2.3	0.3	79.8	81.7
Abu Dhabi, UAE	2403	71.6	70.5	17.8	10.2	1.3	0.2	72.1	71.0
Dubai, UAE	1159	85.0	84.5	9.5	5.4	0.6	0.0	82.2	87.6
Sharjah, UAE	888	76.1	75.2	14.2	9.4	1.1	0.0	77.2	75.0

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Knowing

B_SE1_14B SE82327B: Evidence for global climate change - sea levels - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	C %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1169	71.6	71.2	10.9	17.3	0.4	0.2	66.9	75.9
Austria	651	65.7	65.2	9.1	24.9	0.8	0.0	59.0	72.4
Azerbaijan	854	35.7	30.8	11.4	44.3	11.9	1.7	30.8	40.4
Bahrain	736	48.0	46.7	22.8	27.8	2.5	0.2	50.1	45.9
Brazil	3205	52.1	49.8	18.5	27.2	4.1	0.4	49.5	54.6
Chile	628	50.2	48.6	21.2	27.0	3.2	0.0	41.1	60.0
Chinese Taipei	469	86.8	86.5	3.9	9.3	0.3	0.0	83.7	89.6
Cyprus	578	60.3	59.4	16.9	22.3	0.9	0.5	59.7	60.9
Czech Republic	1119	51.9	51.5	10.8	37.0	0.6	0.1	44.6	59.0
England	590	83.7	82.5	5.6	10.5	1.1	0.4	82.9	84.4
Finland	804	77.2	76.0	7.2	15.2	1.2	0.4	74.7	79.8
France	641	59.0	58.4	10.5	30.0	1.1	0.0	48.7	69.0
Georgia	679	59.9	56.4	12.5	25.2	5.8	0.1	59.7	60.0
Hong Kong SAR	621	80.3	79.9	9.4	10.2	0.2	0.3	76.0	84.5
Hungary	748	48.0	48.0	10.2	41.6	0.2	0.0	40.2	56.2
Ireland	729	88.8	88.1	4.7	6.4	0.7	0.2	86.7	91.0
Israel	724	44.8	43.6	15.3	38.5	2.2	0.5	41.0	48.6
Italy	637	56.0	55.4	14.1	29.4	1.1	0.0	49.4	62.6
Japan	327	70.9	69.9	5.5	23.1	1.4	0.0	68.2	73.0
Jordan	1387	32.3	30.5	30.0	34.0	5.5	0.0	26.8	37.5
Kazakhstan	897	39.7	38.6	15.3	43.4	2.6	0.2	31.9	46.5
Korea, Rep. of	360	86.7	85.5	5.2	7.9	1.2	0.3	84.1	89.5
Lithuania	758	71.7	71.2	10.6	17.6	0.7	0.0	66.8	76.5
Malaysia	1227	56.5	56.1	24.0	19.1	0.7	0.0	54.7	58.4
Malta	567	74.9	74.2	8.0	16.9	0.7	0.2	72.0	77.9
Morocco	1736	39.2	35.4	30.3	24.6	9.3	0.2	38.0	40.5
New Zealand	552	81.7	80.5	6.5	11.6	1.3	0.1	77.7	85.2
Norway (9)	896	75.5	72.4	11.1	12.4	3.0	1.0	71.7	79.3
Oman	1630	42.6	41.3	34.0	21.7	2.9	0.1	37.4	47.6
Palestinian Nat'l Auth.	1304	38.9	36.7	32.1	25.6	5.4	0.1	39.9	37.9
Portugal	753	65.4	65.0	15.3	19.1	0.6	0.0	60.4	70.3
Qatar	608	58.5	57.1	19.0	21.6	2.1	0.3	57.3	59.5
Romania	509	53.0	50.8	14.9	30.1	3.2	1.0	50.0	55.6
Saudi Arabia	1166	48.2	47.2	30.4	20.3	1.9	0.1	45.5	50.7
Singapore	401	88.6	88.2	3.5	7.9	0.5	0.0	88.0	89.2
Sweden	707	81.3	79.8	6.6	11.8	0.9	0.9	77.9	84.5
Turkiye	711	44.3	43.9	10.5	44.7	0.9	0.0	42.0	46.5
United Arab Emirates	5292	57.0	55.9	17.8	24.5	1.7	0.2	54.3	59.6
United States	1156	64.3	62.8	11.7	23.2	1.7	0.6	59.0	69.2
Uzbekistan	610	43.6	36.3	10.8	36.2	16.4	0.3	39.9	46.9
International Avg. (40)	39136	60.9	59.4	14.2	23.5	2.6	0.3	57.2	64.4
Abu Dhabi, UAE	2403	51.7	50.6	21.1	26.2	1.9	0.2	49.3	54.2
Dubai, UAE	1159	69.1	68.4	9.1	21.6	0.9	0.0	64.3	73.6
Sharjah, UAE	888	58.8	57.8	17.3	23.2	1.7	0.0	59.2	58.4

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Knowing

B_SE1_14C SE82327C: Evidence for global climate change - ice cover - MC - Key: C

COUNTRY	N	DIFF %	A %	B %	C %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1169	88.6	5.6	5.6	87.3	1.3	0.2	86.2	90.9
Austria	651	90.7	5.4	3.7	89.1	1.8	0.0	89.8	91.6
Azerbaijan	854	71.8	10.9	13.5	62.2	11.7	1.7	72.2	71.4
Bahrain	736	61.1	16.7	20.9	59.0	3.2	0.2	61.8	60.4
Brazil	3205	60.2	18.5	18.6	56.2	6.3	0.4	58.5	61.9
Chile	628	86.4	5.6	7.4	82.4	4.6	0.0	82.8	90.1
Chinese Taipei	469	90.5	5.9	3.6	90.2	0.3	0.0	88.7	92.1
Cyprus	578	84.6	8.4	6.5	82.2	2.4	0.5	82.6	86.8
Czech Republic	1119	90.3	4.1	5.5	89.2	1.1	0.1	88.7	91.8
England	590	92.5	2.8	4.4	90.0	2.4	0.4	91.4	93.5
Finland	804	89.9	4.6	5.2	87.4	2.4	0.4	89.1	90.7
France	641	86.0	5.6	8.1	83.9	2.4	0.0	84.0	87.9
Georgia	679	74.0	13.9	10.3	69.0	6.7	0.1	72.9	75.1
Hong Kong SAR	621	90.0	6.0	3.8	89.4	0.5	0.3	92.1	88.0
Hungary	748	87.3	6.9	5.7	86.5	1.0	0.0	84.0	90.9
Ireland	729	95.4	3.0	1.5	93.3	2.1	0.2	95.0	95.8
Israel	724	76.6	11.4	11.1	73.5	3.6	0.5	76.3	76.8
Italy	637	91.8	4.6	3.4	90.6	1.3	0.0	90.6	93.0
Japan	327	85.2	8.8	5.8	84.0	1.4	0.0	82.2	87.6
Jordan	1387	50.2	20.4	24.5	45.2	10.0	0.0	47.1	53.2
Kazakhstan	897	64.9	18.9	15.4	63.3	2.3	0.2	62.5	67.0
Korea, Rep. of	360	93.0	5.1	1.8	92.0	0.8	0.3	94.0	92.0
Lithuania	758	89.5	6.1	4.3	89.2	0.3	0.0	89.2	89.8
Malaysia	1227	70.3	13.8	15.5	69.6	1.0	0.0	70.2	70.5
Malta	567	87.6	7.2	5.0	86.3	1.3	0.2	89.2	86.1
Morocco	1736	44.2	22.3	26.9	39.0	11.5	0.2	43.3	45.1
New Zealand	552	92.1	4.7	3.0	89.4	2.8	0.1	91.3	92.8
Norway (9)	896	88.1	7.2	4.1	84.0	3.6	1.0	88.9	87.2
Oman	1630	59.9	21.7	16.7	57.5	4.1	0.1	62.8	57.2
Palestinian Nat'l Auth.	1304	56.7	19.4	19.1	50.5	10.8	0.1	58.3	55.2
Portugal	753	91.2	3.3	5.5	90.3	0.9	0.0	91.6	90.7
Qatar	608	69.4	13.3	16.3	67.0	3.2	0.3	68.6	70.0
Romania	509	70.5	10.0	17.4	65.4	6.2	1.0	72.0	69.2
Saudi Arabia	1166	57.2	21.1	19.9	54.9	4.0	0.1	57.0	57.5
Singapore	401	96.0	2.1	1.9	94.8	1.3	0.0	95.9	96.1
Sweden	707	89.3	5.0	5.4	87.0	1.6	0.9	89.1	89.5
Turkiye	711	84.7	6.0	9.0	83.2	1.7	0.0	87.0	82.6
United Arab Emirates	5292	73.2	12.5	13.5	70.8	3.0	0.2	72.6	73.8
United States	1156	85.2	7.0	7.4	82.9	2.2	0.6	84.0	86.3
Uzbekistan	610	64.7	16.7	10.8	50.4	21.8	0.3	64.7	64.6
International Avg. (40)	39136	79.3	9.8	9.7	76.5	3.8	0.3	78.7	79.8
Abu Dhabi, UAE	2403	68.7	15.5	14.7	66.2	3.3	0.2	69.2	68.1
Dubai, UAE	1159	84.6	6.7	8.4	82.9	2.0	0.0	82.1	86.9
Sharjah, UAE	888	74.9	11.8	12.6	72.7	2.9	0.0	74.5	75.4

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Knowing

B_SE1_14D SE82327D: Evidence for global climate change - natural disasters - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	C %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1169	84.4	83.8	12.1	3.4	0.6	0.2	82.0	87.0
Austria	651	87.9	87.3	9.1	2.9	0.6	0.0	86.2	89.6
Azerbaijan	854	80.5	70.4	9.9	7.2	10.9	1.7	84.3	76.9
Bahrain	736	62.9	61.2	21.2	15.0	2.4	0.2	65.8	60.1
Brazil	3205	73.8	69.8	16.2	8.6	5.0	0.4	75.8	71.9
Chile	628	82.0	79.1	11.4	6.0	3.5	0.0	79.5	84.6
Chinese Taipei	469	85.2	84.7	10.4	4.4	0.6	0.0	85.2	85.2
Cyprus	578	76.0	74.4	15.6	8.0	1.5	0.5	76.1	75.9
Czech Republic	1119	86.3	85.8	9.4	4.3	0.4	0.1	83.1	89.4
England	590	87.0	85.4	10.1	2.7	1.5	0.4	86.1	87.9
Finland	804	83.8	82.2	12.4	3.5	1.5	0.4	85.4	82.2
France	641	88.2	86.8	7.9	3.6	1.7	0.0	89.5	87.0
Georgia	679	79.2	74.7	12.6	7.1	5.5	0.1	82.9	75.2
Hong Kong SAR	621	86.3	85.7	10.2	3.3	0.5	0.3	86.6	86.0
Hungary	748	82.4	82.3	13.2	4.4	0.1	0.0	81.1	83.8
Ireland	729	87.7	86.9	8.9	3.2	0.8	0.2	87.2	88.3
Israel	724	81.0	78.7	11.8	6.6	2.3	0.5	82.5	79.5
Italy	637	84.1	83.1	12.0	3.7	1.2	0.0	85.8	82.5
Japan	327	93.3	91.8	3.4	3.1	1.6	0.0	91.4	94.8
Jordan	1387	61.9	57.8	16.3	19.3	6.6	0.0	64.6	59.1
Kazakhstan	897	73.0	71.2	10.8	15.6	2.3	0.2	74.8	71.3
Korea, Rep. of	360	94.7	93.4	3.1	2.1	1.1	0.3	96.6	92.8
Lithuania	758	77.1	76.9	17.4	5.4	0.2	0.0	81.6	72.7
Malaysia	1227	56.3	55.8	24.4	19.0	0.9	0.0	57.1	55.5
Malta	567	85.2	84.3	11.3	3.3	0.9	0.2	87.6	82.9
Morocco	1736	47.1	39.0	26.1	17.7	17.0	0.2	44.5	49.8
New Zealand	552	85.3	83.7	12.2	2.3	1.7	0.1	86.2	84.4
Norway (9)	896	87.4	84.1	8.9	3.2	2.7	1.0	89.3	85.4
Oman	1630	60.1	58.0	15.8	22.6	3.5	0.1	62.3	58.0
Palestinian Nat'l Auth.	1304	52.3	48.7	20.9	23.6	6.7	0.1	53.1	51.4
Portugal	753	86.0	85.7	11.0	2.9	0.4	0.0	87.2	84.9
Qatar	608	77.3	74.9	9.1	12.9	2.8	0.3	73.2	80.9
Romania	509	82.1	79.2	12.7	4.6	2.5	1.0	84.4	80.3
Saudi Arabia	1166	52.0	50.0	19.1	27.0	3.8	0.1	54.6	49.6
Singapore	401	92.3	92.0	5.8	1.9	0.3	0.0	94.2	90.4
Sweden	707	86.8	85.2	9.3	3.6	1.0	0.9	89.0	84.7
Turkiye	711	83.4	83.1	12.8	3.8	0.3	0.0	89.6	77.5
United Arab Emirates	5292	70.7	68.7	17.1	11.4	2.7	0.2	71.1	70.3
United States	1156	81.0	79.7	13.7	4.9	1.1	0.6	78.3	83.6
Uzbekistan	610	65.8	56.8	12.9	16.6	13.4	0.3	62.7	68.8
International Avg. (40)	39136	78.2	76.1	12.7	8.1	2.9	0.3	79.0	77.6
Abu Dhabi, UAE	2403	63.7	61.3	21.6	13.3	3.7	0.2	63.3	64.1
Dubai, UAE	1159	82.8	82.1	11.8	5.3	0.8	0.0	84.1	81.5
Sharjah, UAE	888	75.2	74.0	13.7	10.7	1.6	0.0	75.1	75.2

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Knowing

B_SE1_15 SE82233: Water source for desalinization - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1169	62.6	6.9	62.2	27.3	2.9	0.5	0.2	60.3	65.0
Austria	651	59.8	17.3	59.2	18.3	4.3	0.7	0.3	53.9	65.5
Azerbaijan	854	47.6	11.9	46.1	30.3	8.6	1.2	1.8	44.7	50.2
Bahrain	736	53.0	18.0	52.8	22.4	6.5	0.1	0.2	51.6	54.4
Brazil	3205	58.8	15.2	57.6	19.5	5.7	1.3	0.6	54.9	62.5
Chile	628	49.9	13.6	49.3	25.5	10.4	1.2	0.0	47.1	52.7
Chinese Taipei	469	85.1	1.0	85.1	10.1	3.8	0.0	0.0	82.3	87.7
Cyprus	578	62.4	8.4	61.7	20.1	8.7	0.4	0.7	62.6	62.3
Czech Republic	1119	61.6	13.8	61.5	22.4	2.2	0.1	0.1	57.4	65.6
England	590	62.2	8.8	61.7	27.0	1.7	0.1	0.7	63.3	61.3
Finland	804	56.7	10.7	56.2	30.6	1.7	0.4	0.4	53.7	59.7
France	641	68.4	8.6	68.2	17.6	5.4	0.2	0.0	64.9	71.8
Georgia	679	55.4	6.8	54.9	31.0	6.5	0.8	0.1	54.7	56.1
Hong Kong SAR	621	61.0	13.4	60.7	22.1	3.3	0.3	0.3	59.4	62.6
Hungary	748	66.1	9.4	66.0	21.4	3.0	0.2	0.0	59.9	72.6
Ireland	729	62.1	10.4	61.7	24.9	2.5	0.4	0.2	57.6	66.6
Israel	724	58.7	12.6	57.8	22.2	5.9	1.0	0.5	55.6	61.8
Italy	637	53.4	13.6	53.4	28.8	4.3	0.0	0.0	45.9	60.8
Japan	327	72.8	4.5	72.3	19.3	3.2	0.8	0.0	69.4	75.6
Jordan	1387	44.5	19.1	44.1	22.8	13.2	0.8	0.0	47.3	41.8
Kazakhstan	897	51.7	12.1	51.2	30.6	5.2	0.7	0.2	46.4	56.3
Korea, Rep. of	360	45.3	5.0	45.1	45.6	3.7	0.0	0.6	42.3	48.3
Lithuania	759	43.1	7.5	43.1	46.7	2.7	0.1	0.0	40.7	45.5
Malaysia	1227	43.5	16.0	43.5	31.5	8.9	0.1	0.0	42.8	44.2
Malta	567	57.1	6.1	56.9	32.5	4.2	0.0	0.2	54.8	59.3
Morocco	1736	43.6	14.2	43.3	24.9	17.0	0.3	0.4	45.5	41.6
New Zealand	552	59.1	9.4	58.9	27.6	3.8	0.2	0.1	59.1	59.1
Norway (9)	896	52.0	10.7	51.1	25.3	11.1	0.7	1.1	46.9	57.1
Oman	1630	55.1	8.5	54.9	32.4	3.8	0.2	0.2	54.3	55.8
Palestinian Nat'l Auth.	1304	41.5	12.1	41.3	39.9	6.2	0.3	0.2	43.8	39.5
Portugal	753	62.5	13.6	62.4	21.3	2.5	0.3	0.0	61.4	63.7
Qatar	608	60.4	16.6	60.1	17.5	5.4	0.2	0.3	61.5	59.4
Romania	509	48.3	13.6	47.3	30.1	7.0	1.0	1.0	43.1	52.7
Saudi Arabia	1166	37.5	8.2	37.3	49.5	4.6	0.3	0.1	34.5	40.4
Singapore	401	74.1	5.7	73.8	18.7	1.4	0.5	0.0	74.9	73.4
Sweden	707	55.5	16.1	54.5	23.9	3.7	0.9	0.9	50.6	60.3
Turkiye	711	52.6	6.7	52.4	34.7	5.8	0.3	0.0	50.2	54.8
United Arab Emirates	5292	53.8	8.5	53.5	31.1	6.5	0.2	0.2	51.6	55.8
United States	1156	59.0	9.2	58.4	26.8	4.5	0.2	0.8	55.6	62.2
Uzbekistan	610	39.7	9.4	39.4	37.3	13.1	0.3	0.5	35.4	43.9
International Avg. (40)	39137	55.9	10.8	55.5	27.3	5.6	0.4	0.3	53.5	58.2
Abu Dhabi, UAE	2403	50.9	9.4	50.7	29.9	9.5	0.2	0.2	51.2	50.7
Dubai, UAE	1159	63.3	4.9	63.3	28.2	3.5	0.0	0.1	58.4	68.1
Sharjah, UAE	888	53.5	9.3	53.3	32.1	5.0	0.3	0.0	49.8	57.0

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Knowing

B_SE2_01 SE72078: Plant part that releases water - CR - 1 Point

COUNTRY	N	DIFF %	10 %	11 %	70 %	79 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1173	33.4	29.9	1.9	21.4	42.0	31.8	63.4	4.7	0.1	32.7	34.2
Austria	646	38.3	33.2	2.2	16.9	40.2	35.5	57.1	7.5	0.0	42.6	33.9
Azerbaijan	856	28.0	19.0	1.0	8.6	42.8	20.0	51.4	27.5	1.1	30.3	25.9
Bahrain	734	37.1	33.0	0.5	9.9	46.9	33.5	56.8	9.5	0.2	44.8	29.0
Brazil	3228	13.0	10.9	0.2	7.4	67.0	11.1	74.4	14.2	0.3	13.7	12.2
Chile	631	38.5	30.4	1.7	15.1	36.2	32.1	51.3	16.6	0.0	41.4	35.7
Chinese Taipei	475	56.1	54.4	0.0	10.8	31.8	54.4	42.6	3.0	0.0	59.4	52.7
Cyprus	583	34.9	30.3	0.2	16.0	40.8	30.5	56.7	12.4	0.4	31.5	38.4
Czech Republic	1120	61.2	49.8	7.9	18.1	18.6	57.7	36.7	5.6	0.0	60.2	62.0
England	583	42.4	39.7	0.5	23.9	30.8	40.2	54.7	4.8	0.2	39.4	45.3
Finland	806	50.2	46.7	1.7	13.9	34.1	48.3	47.9	3.4	0.4	54.9	45.2
France	642	27.6	23.2	0.5	16.9	45.2	23.7	62.1	14.2	0.0	29.3	25.9
Georgia	676	44.8	30.2	4.2	13.6	28.7	34.4	42.4	23.2	0.1	52.0	37.4
Hong Kong SAR	620	43.7	40.5	0.5	13.2	39.7	41.1	52.9	5.8	0.3	38.6	49.0
Hungary	747	55.8	50.3	1.3	19.2	21.6	51.5	40.8	7.7	0.0	59.8	51.5
Ireland	727	34.6	29.6	2.3	27.3	32.9	31.8	60.2	8.0	0.0	37.2	32.3
Israel	723	28.2	24.1	0.5	22.0	40.8	24.6	62.8	12.1	0.5	27.2	29.2
Italy	638	55.5	49.5	0.2	10.3	29.5	49.8	39.9	10.4	0.0	58.5	52.3
Japan	326	74.5	73.1	0.0	10.9	14.2	73.1	25.1	1.9	0.0	70.7	77.9
Jordan	1369	24.1	20.9	1.7	10.7	60.4	22.6	71.1	6.3	0.0	25.9	22.4
Kazakhstan	897	21.5	16.7	1.3	3.1	62.6	18.0	65.7	16.3	0.0	24.1	19.4
Korea, Rep. of	358	65.8	63.1	0.3	8.1	24.8	63.4	33.0	3.3	0.3	64.0	67.6
Lithuania	768	58.9	51.8	1.6	13.5	23.7	53.4	37.3	9.4	0.0	66.0	51.8
Malaysia	1230	24.7	23.6	0.7	7.2	66.7	24.3	73.9	1.8	0.0	26.9	22.4
Malta	572	32.0	27.0	2.5	14.8	47.7	29.5	62.5	7.8	0.2	31.0	33.0
Morocco	1745	10.5	6.6	1.3	7.2	59.9	7.9	67.1	24.8	0.2	10.4	10.5
New Zealand	533	32.7	30.3	0.8	22.5	41.5	31.1	64.0	4.8	0.1	32.9	32.6
Norway (9)	887	32.4	27.6	0.7	16.7	42.2	28.2	58.9	12.2	0.6	38.7	26.9
Oman	1629	42.7	38.3	1.7	6.1	47.7	40.0	53.8	6.0	0.2	49.3	36.4
Palestinian Nat'l Auth.	1309	25.2	22.3	1.4	15.8	54.1	23.6	70.0	6.2	0.1	31.6	19.2
Portugal	756	50.5	45.5	0.5	15.7	29.3	46.0	45.0	9.0	0.0	51.1	50.1
Qatar	599	42.2	35.6	2.7	7.4	45.1	38.4	52.6	8.8	0.3	42.0	42.3
Romania	522	60.3	52.7	0.2	12.4	22.4	52.9	34.9	12.1	0.1	56.7	63.5
Saudi Arabia	1172	25.3	23.1	1.2	12.0	59.6	24.3	71.6	3.9	0.1	32.2	18.7
Singapore	401	82.0	81.7	0.0	1.3	16.7	81.7	18.0	0.3	0.0	84.6	79.4
Sweden	692	40.1	35.0	1.5	12.1	42.5	36.5	54.6	8.1	0.8	45.3	34.9
Turkiye	705	46.9	36.8	3.0	9.6	35.5	39.8	45.1	15.0	0.0	51.7	41.4
United Arab Emirates	5321	44.8	41.5	0.8	9.3	42.9	42.3	52.2	5.4	0.1	48.0	41.7
United States	1153	36.6	34.1	1.4	19.6	42.0	35.5	61.5	2.5	0.5	36.4	36.7
Uzbekistan	612	32.7	27.8	1.9	11.6	49.7	29.7	61.3	8.5	0.5	35.7	30.0
International Avg. (40)	39164	40.7	36.0	1.4	13.3	40.0	37.4	53.3	9.1	0.2	42.7	38.8
Abu Dhabi, UAE	2422	34.7	31.6	1.0	8.3	52.8	32.5	61.1	6.2	0.2	38.0	31.6
Dubai, UAE	1161	61.0	57.5	0.6	10.6	26.6	58.1	37.2	4.7	0.0	63.0	59.1
Sharjah, UAE	893	50.7	48.0	0.8	11.0	36.4	48.8	47.5	3.6	0.0	55.0	46.5

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Applying

B_SE2_02 SE72460: Human activity that can cause algal blooms - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1173	55.5	55.4	16.7	4.6	23.1	0.1	0.1	58.3	52.9
Austria	646	48.7	48.6	19.1	6.0	26.1	0.2	0.0	52.6	44.5
Azerbaijan	856	46.1	44.1	20.8	9.0	21.9	2.9	1.2	49.4	43.2
Bahrain	734	44.3	44.0	15.1	7.2	33.0	0.5	0.2	46.5	42.1
Brazil	3229	44.2	43.5	15.3	4.9	34.6	1.2	0.5	47.1	41.2
Chile	631	50.4	49.1	13.9	4.0	30.5	2.6	0.0	50.4	50.4
Chinese Taipei	475	73.3	73.3	11.8	4.5	10.4	0.0	0.0	71.8	74.9
Cyprus	583	40.2	39.9	18.6	8.4	32.2	0.5	0.4	42.3	38.2
Czech Republic	1120	53.3	53.2	12.4	8.8	25.3	0.2	0.1	50.1	56.2
England	583	56.4	56.1	16.8	4.5	22.1	0.1	0.3	51.1	61.4
Finland	806	60.7	59.7	22.8	5.1	10.8	1.0	0.5	58.4	63.1
France	642	48.7	48.3	16.2	4.8	29.9	0.8	0.0	42.6	55.0
Georgia	676	49.4	48.9	19.3	7.4	23.5	0.8	0.1	54.3	44.3
Hong Kong SAR	620	67.9	67.8	16.3	4.5	11.2	0.0	0.3	67.0	68.9
Hungary	748	55.6	55.6	17.8	8.6	18.1	0.0	0.0	55.6	55.6
Ireland	727	57.6	57.5	14.9	3.3	24.2	0.1	0.0	55.7	59.1
Israel	723	48.4	47.9	17.6	11.2	22.2	0.7	0.5	48.5	48.4
Italy	638	61.5	61.3	12.9	4.4	21.0	0.3	0.0	58.5	64.8
Japan	326	64.7	64.6	18.1	1.1	16.0	0.2	0.0	63.3	65.9
Jordan	1369	37.0	36.8	17.1	8.1	37.5	0.5	0.0	39.4	34.8
Kazakhstan	898	55.2	54.5	14.1	5.6	24.5	1.3	0.0	53.5	56.7
Korea, Rep. of	358	62.0	61.8	18.5	6.0	13.5	0.0	0.3	59.2	64.8
Lithuania	768	57.6	57.6	11.6	7.9	22.9	0.0	0.0	55.4	59.9
Malaysia	1230	45.3	45.2	12.6	10.9	31.2	0.1	0.0	46.1	44.4
Malta	572	56.5	56.2	20.0	6.0	17.2	0.4	0.2	58.1	55.1
Morocco	1745	27.8	27.5	27.7	16.9	26.7	1.0	0.2	26.4	29.2
New Zealand	533	52.3	52.2	16.7	4.5	26.3	0.2	0.1	50.7	53.7
Norway (9)	887	48.5	47.6	21.4	9.8	19.2	1.2	0.7	48.2	49.0
Oman	1629	42.2	42.1	9.9	5.5	42.1	0.2	0.2	40.3	44.1
Palestinian Nat'l Auth.	1310	28.7	28.4	18.4	13.0	39.4	0.6	0.2	23.4	33.6
Portugal	756	56.1	56.0	16.9	5.0	22.0	0.1	0.0	55.7	56.4
Qatar	600	47.5	47.2	15.2	5.9	31.1	0.3	0.3	46.6	48.3
Romania	522	49.6	49.2	13.7	6.4	29.8	0.7	0.1	52.0	47.5
Saudi Arabia	1172	40.7	40.7	11.9	9.8	37.5	0.0	0.1	42.6	39.0
Singapore	401	75.9	75.9	7.6	3.8	12.6	0.0	0.0	75.7	76.2
Sweden	692	55.3	54.0	24.1	6.1	13.6	1.1	1.1	54.9	55.6
Turkiye	706	49.5	49.2	16.8	5.4	28.0	0.6	0.0	47.9	51.3
United Arab Emirates	5322	51.8	51.5	14.9	6.7	26.2	0.4	0.2	50.1	53.5
United States	1153	56.0	55.6	15.8	5.2	22.7	0.2	0.5	55.3	56.7
Uzbekistan	612	50.0	49.4	15.4	8.5	25.5	0.7	0.5	52.7	47.5
International Avg. (40)	39171	51.8	51.4	16.4	6.7	24.7	0.5	0.2	51.4	52.2
Abu Dhabi, UAE	2423	44.1	43.8	19.5	8.1	27.9	0.4	0.3	40.9	47.1
Dubai, UAE	1161	67.3	67.3	9.2	5.3	18.2	0.1	0.0	67.4	67.3
Sharjah, UAE	893	55.1	54.9	13.3	5.4	26.0	0.4	0.0	54.0	56.3

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Applying

B_SE2_03 SE72000: Characteristics of organisms (DERIVED) - CR - 2 Points

COUNTRY	N	DIFF %	20 %	10 %	79 %	2pt %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1173	60.1	50.6	18.4	30.5	50.6	18.4	30.5	0.4	0.1	57.4	62.7
Austria	646	45.6	29.2	32.5	37.9	29.2	32.5	37.9	0.4	0.0	47.0	44.3
Azerbaijan	856	28.2	18.8	14.0	58.7	18.8	14.0	58.7	7.3	1.2	31.7	25.1
Bahrain	734	28.1	18.6	18.3	61.9	18.6	18.3	61.9	1.0	0.2	32.7	23.5
Brazil	3229	33.7	22.4	20.9	54.2	22.4	20.9	54.2	2.0	0.6	31.5	35.9
Chile	631	47.1	33.9	23.8	39.5	33.9	23.8	39.5	2.6	0.1	45.8	48.4
Chinese Taipei	475	62.3	49.3	26.1	24.6	49.3	26.1	24.6	0.0	0.0	66.9	57.8
Cyprus	583	36.3	24.3	23.5	51.5	24.3	23.5	51.5	0.3	0.4	37.5	35.1
Czech Republic	1120	53.0	36.4	33.0	30.5	36.4	33.0	30.5	0.0	0.1	54.0	52.1
England	583	57.4	48.5	17.2	33.8	48.5	17.2	33.8	0.2	0.3	60.2	54.7
Finland	806	39.0	26.7	24.0	48.5	26.7	24.0	48.5	0.4	0.5	40.9	37.0
France	642	36.4	27.1	17.5	54.1	27.1	17.5	54.1	1.3	0.0	34.7	38.0
Georgia	676	27.4	15.6	22.4	59.9	15.6	22.4	59.9	2.0	0.1	31.2	23.4
Hong Kong SAR	620	54.1	46.2	15.2	38.0	46.2	15.2	38.0	0.4	0.3	51.8	56.5
Hungary	748	62.0	51.6	20.7	27.5	51.6	20.7	27.5	0.1	0.0	63.7	60.3
Ireland	727	54.8	44.7	19.5	35.1	44.7	19.5	35.1	0.6	0.0	55.7	54.1
Israel	723	22.1	14.3	15.0	69.4	14.3	15.0	69.4	0.8	0.5	20.8	23.5
Italy	638	55.4	44.9	20.8	34.2	44.9	20.8	34.2	0.1	0.0	56.3	54.3
Japan	326	65.5	53.2	24.6	22.2	53.2	24.6	22.2	0.0	0.0	63.2	67.6
Jordan	1369	18.0	10.3	14.9	73.3	10.3	14.9	73.3	1.6	0.0	17.6	18.4
Kazakhstan	898	21.2	15.6	10.8	72.4	15.6	10.8	72.4	1.3	0.0	20.2	22.1
Korea, Rep. of	358	40.0	24.4	31.1	44.2	24.4	31.1	44.2	0.0	0.3	36.8	43.2
Lithuania	768	54.4	43.4	21.6	34.7	43.4	21.6	34.7	0.3	0.0	58.1	50.6
Malaysia	1230	19.8	12.9	13.7	73.0	12.9	13.7	73.0	0.4	0.0	21.3	18.2
Malta	572	45.7	35.9	18.6	44.4	35.9	18.6	44.4	0.8	0.2	47.4	44.2
Morocco	1745	4.9	2.3	4.7	89.7	2.3	4.7	89.7	2.9	0.4	4.8	4.9
New Zealand	533	52.7	44.4	15.8	39.1	44.4	15.8	39.1	0.5	0.2	56.6	49.5
Norway (9)	887	33.6	27.9	9.6	59.8	27.9	9.6	59.8	2.0	0.7	35.0	32.5
Oman	1629	26.4	19.3	13.9	66.3	19.3	13.9	66.3	0.2	0.3	28.3	24.6
Palestinian Nat'l Auth.	1310	16.6	8.2	16.3	74.0	8.2	16.3	74.0	1.2	0.3	19.7	13.7
Portugal	756	54.0	43.5	21.0	35.5	43.5	21.0	35.5	0.0	0.0	55.2	52.8
Qatar	600	34.3	25.3	17.0	56.2	25.3	17.0	56.2	1.2	0.4	33.1	35.5
Romania	522	47.3	36.0	21.2	41.2	36.0	21.2	41.2	1.3	0.3	49.5	45.5
Saudi Arabia	1172	22.5	14.7	15.4	69.6	14.7	15.4	69.6	0.2	0.1	25.5	19.6
Singapore	401	80.8	72.4	16.8	10.8	72.4	16.8	10.8	0.0	0.0	80.3	81.3
Sweden	692	40.2	29.6	18.8	48.7	29.6	18.8	48.7	1.7	1.1	42.8	37.6
Turkiye	706	36.0	22.4	26.9	50.4	22.4	26.9	50.4	0.3	0.0	38.7	32.8
United Arab Emirates	5322	40.4	33.3	13.5	52.4	33.3	13.5	52.4	0.6	0.2	40.8	40.0
United States	1153	55.2	45.5	18.5	35.2	45.5	18.5	35.2	0.4	0.5	53.9	56.3
Uzbekistan	612	20.8	9.5	21.5	66.3	9.5	21.5	66.3	2.2	0.5	22.7	19.1
International Avg. (40)	39171	40.8	30.8	19.2	48.7	30.8	19.2	48.7	1.0	0.3	41.8	39.9
Abu Dhabi, UAE	2423	30.4	24.6	10.7	63.5	24.6	10.7	63.5	0.9	0.4	30.5	30.2
Dubai, UAE	1161	60.8	53.1	14.6	31.7	53.1	14.6	31.7	0.6	0.0	60.2	61.3
Sharjah, UAE	893	42.9	33.9	17.4	48.1	33.9	17.4	48.1	0.5	0.1	44.6	41.1

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Applying

B_SE2_03A SE72000A: Characteristics of organisms - seeds, photosynthesis - MC - Key: E

COUNTRY	N	DIFF %	A %	B %	C %	D %	E %	F %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1173	84.5	5.6	4.2	3.0	2.2	84.1	0.4	0.5	0.1	82.0	86.7
Austria	646	83.0	4.7	5.2	3.8	0.8	82.1	2.3	1.0	0.0	83.9	82.0
Azerbaijan	856	70.8	7.5	7.8	3.8	3.9	61.9	2.6	11.3	1.2	80.5	62.4
Bahrain	734	79.7	5.8	5.9	3.4	2.4	78.5	2.4	1.3	0.2	86.3	72.9
Brazil	3229	73.7	10.3	7.1	4.0	2.2	71.0	1.8	3.0	0.6	75.3	72.0
Chile	631	88.8	3.9	3.2	2.4	1.0	85.9	0.3	3.1	0.1	87.8	89.7
Chinese Taipei	475	93.6	1.8	1.9	1.3	1.0	93.6	0.5	0.0	0.0	96.1	91.1
Cyprus	583	84.8	4.6	5.2	3.1	2.0	84.0	0.3	0.5	0.4	87.1	82.5
Czech Republic	1120	89.0	1.8	6.7	1.9	0.3	88.6	0.3	0.3	0.1	89.9	88.2
England	583	88.7	3.8	3.9	2.2	1.0	87.7	0.4	0.8	0.3	88.2	89.2
Finland	806	83.6	5.4	5.8	2.5	1.6	82.7	0.9	0.6	0.5	87.6	79.3
France	642	74.7	9.6	8.5	3.4	2.0	73.2	1.3	2.0	0.0	74.1	75.3
Georgia	676	85.4	1.8	6.8	2.4	1.8	82.4	1.3	3.4	0.1	90.2	80.3
Hong Kong SAR	620	88.8	4.9	2.9	2.2	0.7	88.1	0.4	0.6	0.3	89.1	88.6
Hungary	748	79.4	10.9	5.0	2.8	1.4	78.7	0.3	0.8	0.0	80.5	78.2
Ireland	727	88.4	4.3	4.9	1.3	0.3	86.6	0.5	2.0	0.0	88.6	88.2
Israel	723	74.1	8.2	6.2	5.0	3.4	72.1	2.5	2.3	0.5	78.2	69.8
Italy	638	91.1	1.8	4.4	1.4	0.6	90.7	0.6	0.4	0.0	92.5	89.6
Japan	326	96.3	0.0	1.4	0.2	1.9	96.3	0.2	0.0	0.0	93.0	99.1
Jordan	1369	71.9	10.4	7.7	4.6	2.1	70.0	2.4	2.7	0.0	76.5	67.6
Kazakhstan	898	72.3	6.4	8.8	3.9	4.9	70.6	2.9	2.4	0.0	74.2	70.7
Korea, Rep. of	358	95.8	1.5	0.9	0.7	1.1	95.3	0.0	0.3	0.3	95.7	95.9
Lithuania	768	90.3	3.5	3.0	2.1	0.6	89.4	0.3	1.0	0.0	92.3	88.2
Malaysia	1230	66.3	3.6	14.7	7.6	4.2	65.4	3.1	1.4	0.0	69.8	62.5
Malta	572	83.5	6.1	4.5	3.3	1.4	82.4	0.9	1.1	0.2	84.3	82.7
Morocco	1745	37.8	16.6	15.6	11.9	8.4	35.2	5.5	6.5	0.4	43.8	32.1
New Zealand	533	83.4	9.2	3.9	2.1	0.7	82.6	0.6	0.7	0.2	85.1	81.9
Norway (9)	887	71.6	12.1	7.4	6.0	1.6	69.1	0.3	2.7	0.7	74.4	69.2
Oman	1629	77.2	8.6	4.2	6.3	2.2	76.3	1.3	0.9	0.3	82.4	72.5
Palestinian Nat'l Auth.	1310	74.1	7.9	9.4	3.8	2.1	71.9	1.9	2.6	0.3	80.9	67.5
Portugal	756	90.0	2.8	3.7	2.1	1.2	89.9	0.2	0.1	0.0	92.9	87.3
Qatar	600	87.9	3.3	3.6	2.6	1.4	86.1	1.0	1.7	0.4	89.9	86.0
Romania	522	90.2	3.0	3.8	1.4	1.2	88.5	0.3	1.6	0.3	92.8	88.0
Saudi Arabia	1172	75.1	7.6	7.5	4.3	3.2	74.4	2.1	0.8	0.1	80.1	70.4
Singapore	401	96.6	1.0	1.3	0.4	0.2	96.6	0.5	0.0	0.0	97.5	95.8
Sweden	692	70.4	14.4	8.0	2.6	2.3	67.7	1.2	2.8	1.1	72.0	68.8
Turkiye	706	92.5	2.1	2.3	1.3	0.0	92.2	1.7	0.4	0.0	95.8	88.8
United Arab Emirates	5322	79.3	5.6	5.2	4.3	3.8	78.2	1.5	1.2	0.2	82.9	75.9
United States	1153	84.3	6.2	4.5	2.5	1.2	83.4	1.1	0.6	0.5	84.6	84.1
Uzbekistan	612	72.8	7.8	5.9	5.8	3.6	66.8	1.9	7.7	0.5	80.6	65.9
International Avg. (40)	39171	81.5	5.9	5.6	3.2	1.9	80.0	1.2	1.8	0.3	84.0	79.2
Abu Dhabi, UAE	2423	68.6	8.5	7.8	6.2	6.1	67.2	2.3	1.7	0.4	74.4	62.9
Dubai, UAE	1161	91.1	2.3	2.3	2.1	1.7	90.3	0.4	0.9	0.0	90.3	91.9
Sharjah, UAE	893	86.4	4.0	3.7	2.9	1.8	85.7	1.1	0.7	0.1	90.1	82.7

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Applying

B_SE2_03B SE72000B: Characteristics of organisms - cold-blooded, exoskeleton - MC - Key: C

COUNTRY	N	DIFF %	A %	B %	C %	D %	E %	F %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1173	65.3	13.3	3.4	64.8	10.1	1.0	6.7	0.8	0.1	62.4	67.7
Austria	646	40.6	34.6	4.7	39.9	5.9	1.5	11.7	1.7	0.0	43.9	37.1
Azerbaijan	856	41.2	21.6	4.4	35.7	7.4	2.7	14.7	12.2	1.2	42.3	40.4
Bahrain	734	30.1	27.2	7.7	29.1	12.8	1.7	18.0	3.2	0.2	32.1	28.1
Brazil	3229	39.9	20.2	8.3	38.3	12.2	2.3	14.6	3.5	0.6	39.9	39.9
Chile	631	51.5	16.8	3.4	49.2	14.4	1.1	10.6	4.3	0.1	50.2	52.7
Chinese Taipei	475	55.4	20.5	1.4	55.4	4.5	0.4	17.8	0.0	0.0	61.0	50.0
Cyprus	583	45.3	20.7	8.9	43.9	7.5	1.1	14.8	2.7	0.4	47.2	43.5
Czech Republic	1120	45.1	39.2	3.2	44.2	4.5	0.5	6.5	1.9	0.1	46.7	43.6
England	583	61.6	9.7	5.4	60.6	12.7	0.7	9.4	1.3	0.3	65.9	57.4
Finland	806	36.5	27.6	4.5	35.8	18.2	2.0	10.0	1.4	0.5	37.9	34.8
France	642	54.4	13.2	6.4	52.6	15.2	2.7	6.5	3.3	0.0	55.0	53.9
Georgia	676	25.2	15.5	2.5	23.9	15.5	1.1	36.2	5.2	0.1	28.2	22.2
Hong Kong SAR	620	52.5	17.4	9.4	51.8	5.7	0.4	13.8	1.2	0.3	50.5	54.6
Hungary	748	69.2	7.7	2.2	68.5	6.0	1.9	12.8	1.0	0.0	73.8	64.1
Ireland	727	57.7	18.6	2.8	57.1	13.0	0.3	7.2	1.1	0.0	57.5	57.9
Israel	723	34.4	23.9	8.2	33.3	13.9	3.0	14.6	2.7	0.5	33.1	35.8
Italy	638	58.6	15.5	3.5	57.5	7.6	1.3	12.8	1.8	0.0	61.8	55.2
Japan	326	65.9	19.2	2.0	65.7	2.4	0.0	10.4	0.3	0.0	63.2	68.2
Jordan	1369	24.4	20.5	10.2	23.3	13.3	3.4	24.9	4.3	0.0	22.8	25.8
Kazakhstan	898	32.5	19.7	7.3	30.5	15.6	2.2	18.5	6.2	0.0	32.4	32.7
Korea, Rep. of	358	29.1	39.9	3.2	28.8	16.7	0.9	9.4	0.9	0.3	25.8	32.5
Lithuania	768	54.4	19.5	1.2	53.5	8.9	1.0	14.4	1.5	0.0	57.9	50.8
Malaysia	1230	30.2	19.2	12.5	30.0	16.4	2.6	18.5	0.8	0.0	30.5	29.9
Malta	572	49.4	17.5	4.5	48.6	10.8	1.5	15.6	1.3	0.2	50.5	48.3
Morocco	1745	22.8	18.5	17.4	20.9	12.5	9.5	12.6	8.1	0.4	23.2	22.5
New Zealand	533	55.3	13.1	5.3	54.8	11.4	2.6	11.8	0.7	0.2	59.5	52.0
Norway (9)	887	43.2	13.4	9.4	41.3	6.1	2.5	22.9	3.7	0.7	44.1	42.6
Oman	1629	35.6	17.5	8.7	34.4	14.0	3.3	18.8	3.0	0.3	37.0	34.3
Palestinian Nat'l Auth.	1310	22.0	23.7	8.6	20.9	13.9	2.4	25.5	4.8	0.3	22.6	21.4
Portugal	756	58.1	17.7	5.4	57.7	9.3	0.5	8.8	0.7	0.0	57.0	59.2
Qatar	600	41.9	17.1	8.2	40.8	14.9	1.5	14.7	2.3	0.4	40.9	42.9
Romania	522	47.6	19.3	7.2	46.2	7.9	1.2	15.4	2.5	0.3	48.2	47.1
Saudi Arabia	1172	31.4	23.3	12.3	30.6	13.3	3.5	14.6	2.3	0.1	32.9	29.9
Singapore	401	77.3	9.6	0.6	77.3	2.1	0.5	10.0	0.0	0.0	75.5	79.0
Sweden	692	53.1	14.5	3.8	50.9	8.5	1.1	17.0	3.1	1.1	56.3	50.1
Turkiye	706	33.8	37.2	8.8	33.0	7.3	1.1	10.2	2.2	0.0	35.9	31.3
United Arab Emirates	5322	46.6	15.9	8.9	45.3	10.5	1.9	14.7	2.7	0.2	47.3	46.0
United States	1153	57.1	16.3	4.8	56.5	11.0	1.3	9.0	0.5	0.5	54.9	59.1
Uzbekistan	612	24.6	20.8	6.2	21.6	11.4	3.4	24.6	11.6	0.5	24.9	24.3
International Avg. (40)	39171	45.0	19.9	6.2	43.9	10.6	1.8	14.5	2.8	0.3	45.8	44.2
Abu Dhabi, UAE	2423	38.7	16.9	11.6	37.5	12.7	2.2	15.8	3.0	0.4	39.5	38.0
Dubai, UAE	1161	63.4	12.8	5.2	62.5	6.9	0.8	10.3	1.4	0.0	62.8	64.0
Sharjah, UAE	893	47.3	16.7	6.6	46.0	9.8	2.6	15.5	2.6	0.1	49.3	45.2

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Applying

B_SE2_03C SE72000C: Characteristics of organisms - spores, decomp org for energy - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	C %	D %	E %	F %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1173	78.6	5.8	77.9	7.7	2.6	3.5	1.5	0.9	0.1	78.3	79.2
Austria	646	71.3	4.9	70.1	10.9	4.0	6.1	2.2	1.6	0.0	71.1	71.5
Azerbaijan	856	50.9	5.2	42.7	15.0	9.0	6.6	5.5	14.8	1.2	58.2	44.6
Bahrain	734	57.4	5.0	55.1	16.7	7.0	7.1	5.1	3.8	0.2	65.5	48.9
Brazil	3229	65.4	5.2	62.0	12.1	5.4	6.5	3.5	4.7	0.6	64.9	66.0
Chile	631	78.2	2.8	74.4	10.0	2.5	2.9	2.5	4.7	0.1	78.9	77.6
Chinese Taipei	475	93.1	0.7	92.7	1.9	0.1	3.9	0.4	0.5	0.0	96.5	89.7
Cyprus	583	53.5	13.8	52.3	12.0	2.6	11.5	5.5	1.9	0.4	54.4	52.7
Czech Republic	1120	73.4	4.0	72.8	14.9	1.1	5.5	0.8	0.7	0.1	72.2	74.5
England	583	73.0	5.7	71.3	11.7	3.5	4.7	0.8	2.0	0.3	70.2	75.7
Finland	806	66.9	3.9	65.7	17.1	2.8	3.9	4.7	1.3	0.5	70.9	62.6
France	642	58.2	8.3	55.6	10.6	8.0	9.3	3.8	4.4	0.0	56.1	60.4
Georgia	676	64.9	5.1	59.2	13.7	3.8	4.2	5.2	8.7	0.1	67.0	62.7
Hong Kong SAR	620	74.7	4.3	73.4	11.2	3.1	2.5	3.7	1.5	0.3	72.5	76.9
Hungary	748	82.0	1.3	81.0	6.1	1.9	8.0	0.6	1.2	0.0	81.6	82.4
Ireland	727	76.2	5.0	75.0	10.2	2.3	5.0	0.9	1.6	0.0	76.4	76.0
Israel	723	46.9	14.0	45.1	18.2	4.3	6.7	7.9	3.4	0.5	47.3	46.4
Italy	638	72.3	5.1	70.9	14.9	2.2	3.6	1.3	1.9	0.0	71.7	73.0
Japan	326	80.9	2.2	80.2	6.4	1.7	7.5	1.0	0.9	0.0	77.3	84.1
Jordan	1369	49.1	6.7	45.9	20.7	8.0	7.9	4.3	6.4	0.0	50.2	48.0
Kazakhstan	898	53.2	3.3	50.0	12.5	8.2	12.9	6.9	6.1	0.0	52.3	54.1
Korea, Rep. of	358	79.2	3.6	78.0	9.3	2.3	2.4	2.8	1.2	0.3	75.0	83.4
Lithuania	768	75.8	4.1	73.9	11.4	3.0	3.4	1.7	2.5	0.0	78.2	73.3
Malaysia	1230	36.5	13.2	36.1	11.1	6.8	25.7	6.1	1.1	0.0	36.6	36.3
Malta	572	66.5	5.7	64.5	15.5	4.5	3.7	3.1	2.8	0.2	67.2	65.9
Morocco	1745	27.0	13.8	24.0	15.8	13.7	14.2	7.2	11.0	0.4	27.6	26.5
New Zealand	533	76.7	4.6	74.6	10.4	4.7	2.4	0.5	2.5	0.2	79.5	74.4
Norway (9)	887	58.8	6.4	55.9	20.2	4.8	5.1	2.7	4.1	0.7	57.1	60.2
Oman	1629	58.7	7.8	55.8	14.2	6.7	4.5	6.1	4.7	0.3	62.1	55.5
Palestinian Nat'l Auth.	1310	49.4	8.2	46.5	16.2	9.8	6.7	6.8	5.5	0.3	54.4	44.6
Portugal	756	76.2	5.5	75.1	10.0	4.8	1.7	1.5	1.4	0.0	75.0	77.2
Qatar	600	58.4	8.2	56.1	16.3	6.3	2.8	6.4	3.6	0.4	52.9	63.7
Romania	522	63.1	6.9	60.7	18.7	5.5	3.3	1.0	3.5	0.3	64.0	62.4
Saudi Arabia	1172	47.6	7.1	45.9	16.7	9.3	10.7	6.9	3.3	0.1	50.6	44.7
Singapore	401	95.3	0.7	94.7	0.6	1.5	1.5	0.3	0.7	0.0	96.5	94.3
Sweden	692	64.9	3.4	62.5	16.8	3.0	7.3	3.3	2.6	1.1	66.7	63.2
Turkiye	706	54.2	9.2	53.3	27.5	2.7	2.5	3.2	1.6	0.0	55.6	52.6
United Arab Emirates	5322	62.4	6.4	60.5	12.8	7.3	5.1	4.8	2.8	0.2	61.9	62.8
United States	1153	76.1	4.7	75.1	9.9	3.2	4.1	1.7	0.9	0.5	73.3	78.7
Uzbekistan	612	55.8	7.8	48.7	12.5	5.9	7.3	5.1	12.3	0.5	58.5	53.4
International Avg. (40)	39171	65.1	6.0	62.9	13.0	4.8	6.1	3.5	3.5	0.3	65.7	64.5
Abu Dhabi, UAE	2423	53.0	7.8	51.3	14.6	10.1	6.8	6.0	3.0	0.4	52.1	53.9
Dubai, UAE	1161	77.1	3.5	75.8	10.5	3.8	2.7	2.0	1.7	0.0	75.8	78.4
Sharjah, UAE	893	67.6	6.8	65.8	11.0	4.5	4.8	4.4	2.6	0.1	69.5	65.7

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Applying

B_SE2_03D SE72000D: Characteristics of organisms - cold-blooded, scales - MC - Key: F

COUNTRY	N	DIFF %	A %	B %	C %	D %	E %	F %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1173	86.5	1.6	2.0	4.7	3.4	1.6	85.9	0.7	0.1	87.4	85.7
Austria	646	82.2	3.2	2.4	7.8	3.3	0.9	81.5	0.9	0.0	83.4	81.0
Azerbaijan	856	61.1	5.6	4.1	10.9	9.2	3.3	51.9	13.8	1.2	63.0	59.5
Bahrain	734	62.8	6.5	5.1	12.0	9.5	2.9	60.7	3.1	0.2	71.0	54.3
Brazil	3229	70.0	4.4	3.2	9.4	9.2	2.2	66.4	4.7	0.6	70.7	69.4
Chile	631	83.4	2.1	1.3	4.3	6.8	1.5	79.6	4.4	0.1	82.9	83.8
Chinese Taipei	475	78.3	3.0	2.2	12.5	3.8	0.1	78.0	0.4	0.0	81.6	75.1
Cyprus	583	65.0	7.5	5.9	7.2	12.1	1.4	63.4	2.1	0.4	66.7	63.4
Czech Republic	1120	94.9	0.8	0.6	1.6	1.5	0.5	94.2	0.7	0.1	95.6	94.3
England	583	87.1	2.1	2.1	3.9	2.9	1.7	85.6	1.4	0.3	88.5	85.7
Finland	806	78.6	5.9	3.5	5.8	4.2	1.6	77.2	1.2	0.5	81.5	75.4
France	642	82.3	3.6	2.1	4.1	4.7	2.7	80.5	2.2	0.0	86.9	77.6
Georgia	676	66.8	7.9	2.1	11.1	8.0	1.6	61.6	7.6	0.1	70.1	63.1
Hong Kong SAR	620	75.7	3.9	3.8	10.1	4.9	1.3	74.7	1.1	0.3	74.2	77.2
Hungary	748	91.5	0.8	0.6	2.9	3.2	1.0	90.8	0.8	0.0	92.0	91.0
Ireland	727	86.9	1.1	1.7	5.4	3.9	0.7	85.5	1.6	0.0	89.1	85.0
Israel	723	56.2	9.9	4.5	13.4	12.3	2.0	54.0	3.4	0.5	57.9	54.3
Italy	638	82.8	5.0	1.2	2.6	6.4	1.8	82.2	0.7	0.0	83.9	81.5
Japan	326	82.6	6.3	1.7	5.8	2.7	0.8	82.4	0.3	0.0	81.1	84.0
Jordan	1369	59.3	5.7	5.8	12.8	12.2	2.1	56.2	5.1	0.0	61.3	57.3
Kazakhstan	898	56.4	6.7	3.6	17.3	11.2	2.1	52.9	6.3	0.0	56.4	56.4
Korea, Rep. of	358	78.2	3.0	1.5	10.4	6.4	0.4	77.3	0.9	0.3	78.1	78.2
Lithuania	768	85.6	0.9	1.5	5.2	6.2	0.6	84.9	0.9	0.0	87.2	83.9
Malaysia	1230	61.3	5.3	8.7	8.0	13.9	2.3	60.3	1.6	0.0	64.5	57.7
Malta	572	79.9	4.6	2.4	7.2	4.1	1.3	78.2	1.9	0.2	84.0	76.2
Morocco	1745	32.7	10.7	11.2	14.9	12.7	9.1	28.4	12.6	0.4	32.8	32.5
New Zealand	533	84.0	2.3	0.9	6.0	6.0	0.5	82.7	1.3	0.2	89.6	79.5
Norway (9)	887	59.7	4.3	3.4	18.9	9.0	2.7	56.6	4.4	0.7	63.6	56.4
Oman	1629	59.0	6.8	6.0	12.3	11.5	2.5	56.3	4.2	0.3	60.1	58.0
Palestinian Nat'l Auth.	1310	51.7	10.0	5.0	16.1	10.8	3.0	48.0	6.8	0.3	56.6	46.8
Portugal	756	85.6	1.8	1.1	3.9	5.5	2.0	84.8	0.9	0.0	86.8	84.4
Qatar	600	67.2	5.9	4.0	10.2	10.8	1.0	65.6	2.0	0.4	66.5	67.8
Romania	522	86.4	2.0	4.2	2.4	3.9	0.7	84.0	2.6	0.3	88.1	85.0
Saudi Arabia	1172	64.6	7.4	5.9	10.2	9.1	1.5	62.4	3.3	0.1	68.9	60.5
Singapore	401	92.9	1.1	1.4	2.5	1.3	0.8	92.7	0.3	0.0	94.1	91.9
Sweden	692	61.7	16.7	3.6	6.8	7.5	2.2	59.3	2.7	1.1	64.6	58.9
Turkiye	706	79.3	7.0	2.0	6.8	3.5	1.1	78.2	1.4	0.0	81.4	77.0
United Arab Emirates	5322	64.8	5.4	6.2	11.2	8.5	2.9	62.8	2.9	0.2	66.6	63.0
United States	1153	85.7	2.0	1.9	4.2	4.7	1.3	84.1	1.3	0.5	86.9	84.6
Uzbekistan	612	62.4	6.1	6.0	10.7	8.1	1.3	53.2	14.2	0.5	60.9	63.6
International Avg. (40)	39171	73.3	4.9	3.4	8.3	7.0	1.8	71.1	3.2	0.3	75.2	71.5
Abu Dhabi, UAE	2423	54.7	6.9	7.8	13.1	11.4	4.5	52.8	3.1	0.4	56.3	53.2
Dubai, UAE	1161	83.9	2.7	3.1	5.3	3.7	1.0	82.4	1.7	0.0	85.7	82.1
Sharjah, UAE	893	66.8	4.9	5.1	13.2	7.1	1.9	64.8	2.8	0.1	69.0	64.5

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Applying

B_SE2_03E SE72000E: Characteristics of organisms - breathe air, bear live young - MC - Key: D

COUNTRY	N	DIFF %	A %	B %	C %	D %	E %	F %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1173	77.1	11.0	1.6	3.8	76.6	3.1	3.3	0.5	0.1	77.4	77.0
Austria	646	80.5	9.8	1.1	3.3	79.8	2.9	2.1	0.9	0.0	83.0	77.9
Azerbaijan	856	65.9	14.0	1.7	2.7	57.9	4.7	6.9	10.8	1.2	68.8	63.2
Bahrain	734	55.6	18.6	6.6	7.5	54.3	4.4	6.3	2.0	0.2	60.9	50.1
Brazil	3229	59.8	20.7	1.9	4.0	57.2	4.4	7.4	3.8	0.6	59.0	60.6
Chile	631	59.2	27.1	1.4	4.0	56.5	2.7	3.7	4.4	0.1	59.5	58.9
Chinese Taipei	475	89.4	3.5	2.2	2.4	89.1	0.9	1.6	0.3	0.0	92.8	86.0
Cyprus	583	73.7	11.2	2.6	5.4	72.6	2.1	4.7	1.1	0.4	77.0	70.4
Czech Republic	1120	91.0	5.4	0.4	1.6	90.8	0.8	0.9	0.2	0.1	91.5	90.6
England	583	74.4	12.0	2.2	4.3	73.2	1.8	4.9	1.2	0.3	75.7	73.1
Finland	806	72.4	19.4	1.2	3.0	71.4	1.1	2.6	0.9	0.5	73.4	71.3
France	642	51.7	22.1	7.0	10.5	50.3	5.0	2.3	2.8	0.0	50.3	53.2
Georgia	676	62.7	18.3	4.3	4.6	59.6	4.2	4.1	4.9	0.1	68.8	56.2
Hong Kong SAR	620	81.7	5.8	3.5	2.3	80.8	3.9	2.7	0.8	0.3	80.3	83.1
Hungary	748	84.6	7.4	1.6	2.4	83.9	2.6	1.4	0.8	0.0	85.9	83.1
Ireland	727	71.1	14.5	1.9	4.2	70.2	1.9	5.9	1.3	0.0	72.2	70.2
Israel	723	57.7	12.9	5.3	5.7	56.0	6.9	10.2	2.5	0.5	57.5	58.0
Italy	638	77.8	11.7	2.0	4.2	77.6	0.7	3.4	0.3	0.0	79.2	76.3
Japan	326	90.8	4.5	0.2	1.4	90.6	1.2	1.8	0.2	0.0	90.1	91.5
Jordan	1369	39.3	25.1	6.9	10.2	37.4	5.6	10.1	4.7	0.0	38.2	40.2
Kazakhstan	898	45.1	26.0	4.2	7.5	42.3	7.4	6.3	6.3	0.0	42.1	47.9
Korea, Rep. of	358	69.9	13.4	6.2	4.0	68.8	1.6	4.4	1.3	0.3	67.8	72.1
Lithuania	768	79.8	13.6	1.8	1.9	79.4	1.2	1.5	0.5	0.0	81.3	78.2
Malaysia	1230	60.2	16.7	6.0	4.4	59.7	4.0	8.3	0.8	0.0	65.8	54.0
Malta	572	71.1	11.5	2.8	4.3	70.0	4.3	5.6	1.3	0.2	76.4	66.2
Morocco	1745	23.1	21.8	9.2	11.2	20.9	11.4	16.0	9.1	0.4	23.3	22.9
New Zealand	533	70.4	14.0	3.2	4.6	69.3	4.1	3.1	1.4	0.2	73.6	67.8
Norway (9)	887	73.1	10.1	2.9	4.2	70.0	4.3	4.3	3.5	0.7	77.7	69.1
Oman	1629	47.5	21.8	6.9	9.5	46.1	4.8	7.8	2.7	0.3	50.7	44.5
Palestinian Nat'l Auth.	1310	41.9	21.3	6.9	8.5	40.1	7.5	11.3	4.0	0.3	44.4	39.5
Portugal	756	69.2	19.5	2.2	3.3	68.7	2.4	3.2	0.7	0.0	72.1	66.4
Qatar	600	53.6	23.6	5.4	7.4	52.6	3.4	5.7	1.5	0.4	52.3	54.8
Romania	522	75.9	14.2	2.9	1.9	74.1	1.5	3.1	2.2	0.3	79.9	72.6
Saudi Arabia	1172	45.1	23.3	5.2	10.3	43.9	4.4	10.3	2.6	0.1	49.4	40.9
Singapore	401	91.5	2.8	0.2	3.3	91.5	0.3	2.0	0.0	0.0	92.4	90.7
Sweden	692	77.5	8.4	1.2	3.3	74.7	2.8	6.0	2.5	1.1	83.2	72.0
Turkiye	706	88.3	4.9	1.1	1.7	88.0	2.0	1.9	0.4	0.0	93.4	82.4
United Arab Emirates	5322	63.2	13.4	4.6	5.0	61.7	5.9	7.0	2.2	0.2	65.0	61.5
United States	1153	71.9	13.4	1.7	4.7	70.7	3.2	4.5	1.2	0.5	73.5	70.5
Uzbekistan	612	61.0	15.8	3.4	6.1	54.2	4.2	5.2	10.6	0.5	62.9	59.2
International Avg. (40)	39171	67.4	14.6	3.3	4.9	65.8	3.5	5.1	2.5	0.3	69.2	65.6
Abu Dhabi, UAE	2423	52.4	15.3	5.7	6.8	50.9	9.4	9.0	2.5	0.4	52.7	52.2
Dubai, UAE	1161	78.4	10.0	2.8	2.9	76.9	1.9	3.6	1.9	0.0	80.4	76.5
Sharjah, UAE	893	69.1	11.7	4.0	3.7	67.7	3.5	7.3	2.0	0.1	72.6	65.7

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Reasoning

B_SE2_05 SE72901: Snakes sharing physical and behavioral traits - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1173	58.4	12.9	58.1	21.5	7.0	0.3	0.2	57.1	59.4
Austria	646	56.0	12.1	55.6	18.6	13.1	0.6	0.0	56.8	55.1
Azerbaijan	856	39.0	26.6	36.7	17.1	13.7	4.1	1.8	40.6	37.6
Bahrain	734	48.7	16.3	48.5	18.8	15.8	0.3	0.2	55.1	42.3
Brazil	3229	43.6	17.3	42.4	17.4	20.1	1.6	1.2	41.7	45.5
Chile	631	48.5	18.5	47.0	18.3	13.2	2.5	0.6	51.3	46.0
Chinese Taipei	475	63.7	10.3	63.7	13.4	12.7	0.0	0.0	67.4	60.0
Cyprus	583	52.6	15.0	51.6	15.7	15.9	1.2	0.6	55.7	49.5
Czech Republic	1120	64.0	21.1	63.9	10.7	4.0	0.1	0.1	63.5	64.5
England	583	64.4	12.4	63.6	14.4	8.4	0.8	0.4	60.5	68.1
Finland	806	52.5	12.7	52.0	20.4	13.8	0.5	0.6	51.4	53.8
France	642	59.2	14.4	58.7	11.9	14.2	0.8	0.0	61.0	57.3
Georgia	676	40.0	26.1	38.9	19.3	13.0	1.7	1.0	40.1	39.9
Hong Kong SAR	620	58.2	9.4	57.8	22.5	9.6	0.4	0.3	57.8	58.6
Hungary	748	61.9	13.8	61.7	11.4	12.7	0.4	0.0	64.8	58.8
Ireland	727	53.2	12.5	53.2	18.1	16.1	0.1	0.0	58.7	48.6
Israel	723	34.4	19.6	33.8	22.3	22.5	1.3	0.6	35.4	33.3
Italy	638	52.0	14.4	51.9	16.0	17.4	0.3	0.0	50.5	53.7
Japan	326	64.8	11.2	64.6	11.5	12.4	0.2	0.0	67.2	62.7
Jordan	1369	41.9	22.7	41.6	14.1	20.8	0.6	0.1	46.2	38.0
Kazakhstan	898	50.3	27.8	49.8	13.1	8.4	0.6	0.3	51.0	49.7
Korea, Rep. of	358	50.0	7.7	49.9	26.9	15.3	0.0	0.3	52.0	47.9
Lithuania	768	58.8	9.3	58.8	16.9	15.0	0.0	0.0	59.4	58.2
Malaysia	1230	52.3	13.7	52.1	21.4	12.4	0.0	0.4	56.5	47.7
Malta	572	58.5	12.1	57.9	16.5	12.6	0.7	0.2	54.7	61.8
Morocco	1745	29.7	26.4	29.1	25.1	17.5	1.2	0.7	30.1	29.3
New Zealand	533	56.2	17.1	55.9	17.9	8.6	0.3	0.2	58.3	54.5
Norway (9)	887	55.4	17.7	53.6	15.6	9.9	2.1	1.2	54.5	56.3
Oman	1629	41.6	23.0	41.2	19.7	15.2	0.4	0.6	40.9	42.2
Palestinian Nat'l Auth.	1310	39.8	24.6	39.4	20.5	14.5	0.4	0.6	41.7	38.0
Portugal	756	51.6	14.9	51.4	21.3	12.0	0.4	0.0	51.2	52.0
Qatar	600	50.6	20.8	49.9	14.4	13.6	0.9	0.4	53.1	48.2
Romania	522	49.6	26.0	49.0	16.4	7.5	0.8	0.3	52.4	47.1
Saudi Arabia	1172	43.6	18.7	43.4	19.4	18.1	0.2	0.1	46.1	41.2
Singapore	401	68.0	8.0	68.0	8.6	15.5	0.0	0.0	70.3	65.8
Sweden	692	57.6	11.4	56.3	19.2	10.8	1.2	1.1	63.2	52.1
Turkiye	706	45.7	13.6	45.0	13.1	26.8	1.5	0.1	46.0	45.3
United Arab Emirates	5322	52.9	16.5	52.3	18.8	11.4	0.7	0.4	54.1	51.7
United States	1153	59.6	11.6	58.8	17.5	10.8	0.6	0.8	59.6	59.6
Uzbekistan	612	30.3	25.9	29.6	14.5	27.9	1.2	0.9	32.4	28.3
International Avg. (40)	39171	51.5	16.6	50.9	17.3	14.0	0.8	0.4	52.8	50.2
Abu Dhabi, UAE	2423	49.5	19.3	48.9	21.1	9.6	0.7	0.5	49.5	49.5
Dubai, UAE	1161	60.3	10.5	59.7	15.7	13.2	0.8	0.2	59.0	61.5
Sharjah, UAE	893	53.4	15.1	52.8	18.1	12.8	0.7	0.5	59.2	47.7

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Applying

B_SE2_06 SE72038: What makes fermentation unique - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1173	56.0	55.7	10.9	20.2	12.8	0.2	0.2	57.1	54.9
Austria	646	48.2	47.8	12.7	27.4	11.2	0.9	0.0	52.9	43.5
Azerbaijan	856	44.6	41.6	16.4	23.7	11.6	4.8	1.8	47.2	42.3
Bahrain	734	39.7	39.5	17.2	20.5	22.4	0.1	0.2	41.3	38.0
Brazil	3229	40.6	39.5	14.9	26.4	16.6	1.3	1.4	41.1	40.1
Chile	631	37.2	36.2	16.5	27.8	16.7	2.1	0.7	34.3	39.9
Chinese Taipei	475	49.5	49.5	23.0	12.6	15.0	0.0	0.0	52.4	46.6
Cyprus	583	41.7	41.0	14.6	28.0	14.6	0.8	0.9	41.6	41.9
Czech Republic	1120	49.7	49.4	12.9	22.2	14.9	0.5	0.1	48.4	50.9
England	583	57.9	57.5	13.2	14.7	13.9	0.3	0.4	57.3	58.5
Finland	806	47.7	47.1	13.3	23.1	15.2	0.7	0.6	45.5	50.1
France	642	40.3	39.6	16.3	27.4	15.0	1.7	0.0	40.4	40.1
Georgia	676	33.2	32.1	30.4	17.7	16.4	2.4	1.0	34.0	32.4
Hong Kong SAR	620	50.4	50.1	16.2	19.1	14.0	0.2	0.4	51.6	49.1
Hungary	748	39.1	38.9	18.1	19.7	22.9	0.3	0.0	38.7	39.5
Ireland	727	60.1	60.1	13.7	15.0	11.2	0.0	0.0	59.4	60.8
Israel	723	50.3	49.7	13.0	22.0	14.0	0.7	0.6	51.6	49.0
Italy	638	42.4	42.3	13.0	29.7	14.8	0.3	0.0	41.7	43.2
Japan	326	41.9	41.7	13.2	21.2	23.4	0.5	0.0	38.5	44.8
Jordan	1369	41.3	41.0	14.8	24.2	19.2	0.6	0.2	43.2	39.7
Kazakhstan	898	43.3	42.4	17.2	26.4	11.9	1.7	0.4	48.2	39.0
Korea, Rep. of	358	48.2	47.9	17.4	13.0	21.1	0.4	0.3	45.1	51.2
Lithuania	768	46.3	46.3	11.8	27.7	14.3	0.0	0.0	44.8	47.8
Malaysia	1230	35.3	35.1	24.4	25.7	14.2	0.1	0.4	35.1	35.5
Malta	572	49.3	48.8	16.1	20.7	13.5	0.7	0.2	51.0	47.8
Morocco	1745	29.9	29.3	17.6	32.8	18.3	1.1	0.8	30.7	29.1
New Zealand	533	57.2	56.5	12.2	17.9	12.1	1.0	0.2	53.3	60.4
Norway (9)	887	45.6	44.1	16.3	20.4	15.9	2.0	1.3	46.0	45.3
Oman	1629	36.7	36.3	17.6	19.8	25.2	0.4	0.7	36.7	36.7
Palestinian Nat'l Auth.	1310	39.8	39.5	18.1	18.8	22.9	0.1	0.6	39.2	40.3
Portugal	756	39.6	39.5	16.9	26.6	16.8	0.2	0.0	39.4	39.8
Qatar	600	48.1	47.8	13.7	21.8	16.2	0.2	0.4	46.7	49.4
Romania	522	49.1	48.5	13.9	19.7	16.6	1.0	0.3	56.6	42.9
Saudi Arabia	1172	47.1	46.8	12.3	23.3	16.9	0.5	0.1	49.7	44.7
Singapore	401	61.7	61.7	9.8	11.2	17.2	0.0	0.0	61.2	62.3
Sweden	692	37.1	35.7	18.3	25.4	16.7	2.8	1.1	40.4	33.9
Turkiye	706	64.7	63.5	12.9	12.0	9.8	1.8	0.1	66.1	63.0
United Arab Emirates	5322	51.7	51.0	15.3	19.3	13.1	0.8	0.6	52.6	50.8
United States	1153	53.9	52.9	12.8	22.2	10.2	1.1	0.8	55.8	52.2
Uzbekistan	612	38.0	37.0	12.7	28.9	18.8	1.7	0.9	37.9	38.1
International Avg. (40)	39171	45.9	45.3	15.5	21.9	15.9	0.9	0.4	46.4	45.4
Abu Dhabi, UAE	2423	45.8	45.0	17.7	22.4	13.2	1.0	0.7	45.6	46.0
Dubai, UAE	1161	65.1	64.4	9.7	13.7	11.1	0.9	0.2	63.7	66.5
Sharjah, UAE	893	52.4	51.7	14.7	19.4	13.0	0.5	0.7	59.9	44.9

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Chemistry / Knowing

B_SE2_07 SE72120: Identify a chemical property - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1173	59.2	5.5	59.0	20.8	14.3	0.0	0.2	55.4	62.4
Austria	646	43.8	14.4	43.8	16.8	25.0	0.0	0.0	45.5	42.0
Azerbaijan	856	41.7	11.3	40.7	18.5	27.0	0.7	1.9	41.3	42.1
Bahrain	734	64.7	6.2	64.4	18.4	10.5	0.3	0.2	67.8	61.6
Brazil	3229	30.3	11.7	29.5	26.1	30.2	0.8	1.7	28.6	32.0
Chile	631	57.2	5.7	56.5	12.0	24.5	0.6	0.7	52.6	61.5
Chinese Taipei	475	73.0	5.8	73.0	10.8	10.3	0.0	0.0	73.4	72.6
Cyprus	583	25.8	14.1	25.5	34.8	24.4	0.1	1.1	26.2	25.5
Czech Republic	1120	62.7	1.7	62.5	13.5	22.0	0.2	0.1	59.6	65.5
England	583	78.2	2.5	77.8	9.6	9.6	0.1	0.4	76.1	80.3
Finland	806	55.5	4.7	55.1	13.3	26.0	0.2	0.6	53.9	57.3
France	642	32.1	6.2	31.9	17.7	43.4	0.8	0.0	31.9	32.4
Georgia	676	40.9	4.0	40.1	31.5	22.4	1.0	1.0	38.3	43.6
Hong Kong SAR	620	50.4	8.0	50.2	15.4	26.0	0.0	0.4	50.1	50.7
Hungary	748	65.4	2.6	65.4	7.2	24.9	0.0	0.0	65.0	65.8
Ireland	727	61.5	4.7	61.5	15.0	18.8	0.0	0.0	60.5	62.3
Israel	723	46.1	16.0	45.7	19.9	17.7	0.1	0.6	48.9	43.0
Italy	638	44.0	3.7	43.9	20.2	32.0	0.3	0.0	49.8	37.8
Japan	326	62.0	3.2	61.8	8.3	26.4	0.2	0.0	60.6	63.1
Jordan	1369	67.8	6.3	67.0	12.1	13.4	0.8	0.3	68.6	67.0
Kazakhstan	898	56.9	5.9	56.4	25.1	11.8	0.4	0.4	57.9	56.0
Korea, Rep. of	358	43.4	5.3	43.3	14.8	36.4	0.0	0.3	42.9	43.9
Lithuania	768	60.9	5.5	60.7	21.3	12.2	0.2	0.0	59.9	61.9
Malaysia	1230	25.7	22.0	25.5	21.2	30.8	0.0	0.4	23.1	28.4
Malta	572	50.8	11.3	50.6	14.1	23.6	0.2	0.2	49.2	52.2
Morocco	1745	43.2	9.5	41.9	30.0	15.4	2.1	1.0	45.3	41.3
New Zealand	533	59.1	5.8	59.0	18.6	16.5	0.0	0.2	56.0	61.6
Norway (9)	887	41.8	4.2	40.7	34.5	17.9	1.3	1.4	36.3	46.8
Oman	1629	73.6	9.2	72.6	10.4	6.3	0.6	0.9	80.9	66.9
Palestinian Nat'l Auth.	1310	51.5	9.4	51.0	17.7	20.9	0.4	0.6	56.7	46.7
Portugal	756	29.5	4.8	29.4	30.3	35.2	0.2	0.0	24.0	34.7
Qatar	600	44.0	4.5	43.7	29.4	21.7	0.4	0.4	42.5	45.4
Romania	522	58.7	3.2	58.4	14.2	23.8	0.1	0.4	59.7	57.8
Saudi Arabia	1172	60.3	7.8	59.8	19.7	11.9	0.5	0.3	64.6	56.2
Singapore	401	75.0	6.3	74.8	8.4	10.3	0.3	0.0	72.7	77.2
Sweden	692	41.4	3.0	40.4	20.0	34.2	1.1	1.4	38.6	44.1
Turkiye	706	72.9	5.5	72.7	9.6	11.9	0.1	0.2	76.8	68.3
United Arab Emirates	5322	64.9	9.2	64.2	16.6	9.0	0.2	0.7	63.8	65.9
United States	1153	59.3	6.6	58.6	16.9	16.8	0.2	0.9	59.0	59.5
Uzbekistan	612	36.6	6.2	35.9	26.8	29.3	0.6	1.3	37.0	36.2
International Avg. (40)	39171	52.8	7.1	52.4	18.5	21.1	0.4	0.5	52.5	53.0
Abu Dhabi, UAE	2423	55.5	12.2	54.8	20.3	11.5	0.4	0.8	53.5	57.4
Dubai, UAE	1161	79.8	5.2	79.2	8.2	6.6	0.2	0.7	76.2	83.3
Sharjah, UAE	893	67.8	7.8	67.2	16.7	7.5	0.1	0.7	70.8	64.8

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Chemistry / Reasoning

B_SE2_08 SE72143: Equipment Tom should use (DERIVED) - CR - 1 Point

COUNTRY	N	DIFF %	10 %	70 %	79 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1172	31.7	31.6	17.5	50.4	31.6	68.0	0.2	0.2	29.9	33.4
Austria	646	26.0	25.9	16.7	57.0	25.9	73.7	0.4	0.0	27.5	24.5
Azerbaijan	856	22.4	19.9	14.5	54.6	19.9	69.1	8.9	2.0	27.4	18.0
Bahrain	734	31.6	31.3	15.1	52.6	31.3	67.7	0.6	0.3	40.1	22.9
Brazil	3229	10.9	10.4	24.4	60.8	10.4	85.2	2.4	2.0	7.6	14.3
Chile	631	11.3	10.7	16.4	67.3	10.7	83.7	4.9	0.7	10.9	11.7
Chinese Taipei	475	49.1	49.1	15.9	35.0	49.1	50.9	0.0	0.0	50.7	47.6
Cyprus	583	22.2	21.9	20.5	56.1	21.9	76.6	0.4	1.1	24.2	20.3
Czech Republic	1120	25.2	25.2	15.0	59.6	25.2	74.6	0.1	0.1	20.3	29.7
England	583	34.3	33.9	16.0	49.0	33.9	65.0	0.7	0.4	33.1	35.4
Finland	806	38.6	38.1	16.4	44.0	38.1	60.4	0.9	0.6	38.5	38.8
France	642	23.7	23.4	16.9	58.3	23.4	75.2	1.3	0.0	24.2	23.3
Georgia	676	21.4	19.7	17.9	54.3	19.7	72.3	6.2	1.9	21.3	21.5
Hong Kong SAR	620	38.6	38.3	18.7	42.2	38.3	60.9	0.4	0.4	34.4	42.8
Hungary	748	35.4	35.3	17.7	46.9	35.3	64.6	0.1	0.0	31.8	39.2
Ireland	727	36.6	36.6	23.1	40.1	36.6	63.3	0.2	0.0	36.5	36.7
Israel	723	24.9	24.5	16.2	57.7	24.5	73.9	0.8	0.7	28.6	20.9
Italy	638	18.4	18.3	20.7	60.4	18.3	81.1	0.5	0.0	19.8	17.0
Japan	326	48.8	48.8	15.3	35.9	48.8	51.2	0.0	0.0	46.2	51.1
Jordan	1369	20.5	20.3	16.9	62.0	20.3	78.8	0.4	0.4	18.3	22.5
Kazakhstan	898	21.5	20.8	15.1	61.1	20.8	76.2	2.4	0.6	19.0	23.7
Korea, Rep. of	358	56.5	56.2	13.7	29.6	56.2	43.3	0.3	0.3	60.2	52.7
Lithuania	768	41.3	41.0	19.4	39.0	41.0	58.4	0.5	0.0	40.4	42.2
Malaysia	1230	11.8	11.7	15.5	72.2	11.7	87.8	0.1	0.4	12.6	10.8
Malta	572	31.0	30.8	15.2	53.3	30.8	68.6	0.4	0.2	31.1	30.9
Morocco	1745	9.5	9.0	8.7	76.9	9.0	85.6	3.2	2.2	11.1	8.0
New Zealand	533	23.7	23.5	16.7	59.0	23.5	75.7	0.6	0.2	20.4	26.4
Norway (9)	887	22.8	21.6	16.9	56.5	21.6	73.4	3.3	1.6	21.3	24.1
Oman	1629	30.3	29.8	15.7	52.9	29.8	68.5	0.5	1.2	35.6	25.4
Palestinian Nat'l Auth.	1310	27.7	27.3	15.7	55.3	27.3	71.0	1.0	0.7	32.5	23.2
Portugal	756	23.5	23.5	23.9	52.4	23.5	76.4	0.2	0.0	24.6	22.5
Qatar	600	32.3	31.9	14.7	52.0	31.9	66.8	1.0	0.4	33.1	31.6
Romania	522	18.2	17.9	15.2	65.3	17.9	80.5	1.3	0.4	17.7	18.6
Saudi Arabia	1172	22.1	21.9	13.2	63.9	21.9	77.2	0.1	0.8	27.4	17.2
Singapore	401	55.0	55.0	15.7	29.3	55.0	45.0	0.0	0.0	59.3	51.0
Sweden	692	33.3	32.0	15.1	49.2	32.0	64.3	2.2	1.4	33.9	32.6
Turkiye	706	38.4	38.2	21.4	39.8	38.2	61.2	0.3	0.2	40.4	36.1
United Arab Emirates	5322	31.4	31.0	16.1	51.6	31.0	67.6	0.6	0.8	33.0	29.9
United States	1153	19.7	19.5	17.7	61.4	19.5	79.1	0.5	0.9	17.5	21.8
Uzbekistan	612	9.8	9.5	14.9	71.8	9.5	86.7	2.0	1.9	9.2	10.4
International Avg. (40)	39170	28.3	27.9	16.8	53.4	27.9	70.2	1.3	0.6	28.8	27.8
Abu Dhabi, UAE	2423	22.7	22.4	14.5	61.4	22.4	75.9	0.9	0.9	23.3	22.2
Dubai, UAE	1161	44.1	43.6	17.9	37.5	43.6	55.3	0.4	0.7	44.1	44.0
Sharjah, UAE	893	36.0	35.5	16.6	46.5	35.5	63.1	0.6	0.7	40.8	31.3

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Chemistry / Reasoning

B_SE2_08A SE72143A: Equipment Tom should use - water and salt/salt - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	C %	D %	E %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1172	56.8	56.4	1.5	20.7	11.8	9.0	0.5	0.2	49.2	63.6
Austria	646	59.5	59.1	3.1	19.9	12.0	5.1	0.8	0.0	59.0	60.1
Azerbaijan	856	55.1	48.0	5.5	15.4	7.5	10.6	10.9	2.0	57.5	53.1
Bahrain	734	63.4	62.5	6.1	10.3	13.0	6.7	1.1	0.3	70.2	56.4
Brazil	3229	29.5	27.8	4.2	20.6	12.2	29.4	3.7	2.0	26.8	32.2
Chile	631	31.1	29.2	4.0	23.1	19.1	18.3	5.5	0.7	29.9	32.4
Chinese Taipei	475	71.4	71.4	1.8	14.2	7.5	5.0	0.0	0.0	74.2	68.7
Cyprus	583	54.4	53.0	4.8	21.8	8.6	9.2	1.6	1.1	53.2	55.7
Czech Republic	1120	45.7	45.3	1.7	32.9	11.4	7.9	0.8	0.1	41.0	49.8
England	583	50.8	50.0	1.9	29.4	10.8	6.5	1.0	0.4	46.0	55.3
Finland	806	63.1	62.0	3.1	21.5	6.4	5.2	1.2	0.6	61.4	65.0
France	642	44.9	44.0	2.3	27.3	14.6	9.9	1.9	0.0	43.7	46.1
Georgia	676	42.6	39.0	4.6	29.6	13.2	5.1	6.7	1.9	41.8	43.5
Hong Kong SAR	620	62.9	62.3	3.9	15.9	11.1	5.9	0.4	0.4	59.3	66.5
Hungary	748	61.4	60.9	1.8	20.6	10.0	6.0	0.8	0.0	59.9	62.9
Ireland	727	63.4	63.1	1.3	22.1	5.5	7.6	0.4	0.0	61.9	64.6
Israel	723	47.9	47.0	3.1	19.3	19.5	9.1	1.2	0.7	50.2	45.5
Italy	638	38.2	38.0	3.4	26.7	18.7	12.8	0.5	0.0	36.9	39.5
Japan	326	59.2	59.2	0.7	35.9	3.0	1.1	0.0	0.0	58.4	59.9
Jordan	1369	48.4	47.1	4.5	14.5	11.6	19.5	2.3	0.4	46.3	50.3
Kazakhstan	898	44.6	42.7	3.5	19.6	12.1	17.8	3.8	0.6	46.7	42.8
Korea, Rep. of	358	79.8	79.4	2.2	11.5	4.5	1.9	0.3	0.3	76.9	82.7
Lithuania	768	60.5	60.1	2.5	21.4	6.7	8.6	0.8	0.0	58.7	62.4
Malaysia	1230	42.6	42.4	3.1	20.4	14.6	18.9	0.2	0.4	42.3	43.0
Malta	572	51.1	50.6	1.9	24.4	12.9	9.1	0.7	0.2	49.2	52.8
Morocco	1745	39.1	36.5	12.9	20.7	11.8	11.3	4.6	2.2	40.3	38.1
New Zealand	533	45.8	45.3	3.1	23.9	18.2	8.4	0.9	0.2	46.9	45.0
Norway (9)	887	47.1	44.5	5.9	21.9	9.6	12.5	4.0	1.6	45.3	49.0
Oman	1629	58.1	56.8	3.4	18.7	10.5	8.2	1.2	1.2	61.4	55.1
Palestinian Nat'l Auth.	1310	59.0	57.1	4.5	18.8	6.8	9.7	2.4	0.7	59.2	58.8
Portugal	756	42.4	42.2	2.6	21.7	14.0	19.0	0.5	0.0	41.2	43.5
Qatar	600	57.9	56.9	4.9	18.8	10.0	7.7	1.3	0.4	59.6	56.3
Romania	522	36.9	35.9	3.8	32.4	12.7	12.5	2.3	0.4	36.1	37.5
Saudi Arabia	1172	52.0	51.2	5.6	17.1	10.3	14.3	0.7	0.8	58.1	46.2
Singapore	401	74.5	74.5	1.9	15.4	5.6	2.6	0.0	0.0	79.2	70.0
Sweden	692	56.9	54.5	4.6	24.3	7.4	5.1	2.8	1.4	54.4	59.2
Turkiye	706	73.8	73.2	2.2	12.7	8.3	2.7	0.7	0.2	78.9	67.9
United Arab Emirates	5322	56.4	55.2	4.7	19.9	9.4	8.8	1.2	0.8	56.9	55.8
United States	1153	44.0	43.2	3.4	24.2	15.4	12.2	0.7	0.9	40.5	47.1
Uzbekistan	612	34.1	31.3	5.2	28.4	12.9	13.9	6.4	1.9	33.5	34.6
International Avg. (40)	39170	52.7	51.5	3.6	21.4	11.0	9.9	1.9	0.6	52.3	53.0
Abu Dhabi, UAE	2423	49.9	48.6	6.5	20.0	11.1	11.2	1.7	0.9	48.1	51.6
Dubai, UAE	1161	66.0	65.1	2.4	19.4	6.3	5.4	0.6	0.7	66.8	65.3
Sharjah, UAE	893	58.3	57.4	3.9	19.3	8.4	9.4	0.8	0.7	60.9	55.8

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Chemistry / Reasoning

B_SE2_08B SE72143B: Equipment Tom should use - water and sand/water - MC - Key: C

COUNTRY	N	DIFF %	A %	B %	C %	D %	E %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1172	58.0	11.2	3.6	57.6	18.4	8.6	0.4	0.2	57.2	58.5
Austria	646	43.0	14.4	3.0	42.4	25.3	13.6	1.4	0.0	41.7	44.4
Azerbaijan	856	47.2	16.1	7.8	40.6	15.2	6.5	11.9	2.0	51.5	43.4
Bahrain	734	49.1	12.2	6.6	47.9	18.0	12.8	2.1	0.3	56.9	41.2
Brazil	3229	48.6	15.0	4.3	45.8	20.1	9.1	3.7	2.0	45.5	51.9
Chile	631	47.1	13.9	4.3	43.8	18.7	12.5	6.2	0.7	47.9	46.3
Chinese Taipei	475	70.1	7.2	2.2	69.8	15.5	4.9	0.5	0.0	70.6	69.6
Cyprus	583	53.7	10.0	4.3	52.3	23.4	7.3	1.5	1.1	57.9	49.5
Czech Republic	1120	49.9	7.7	1.3	49.7	33.8	7.1	0.3	0.1	46.9	52.5
England	583	63.3	11.3	1.4	62.2	18.3	5.0	1.4	0.4	61.9	64.7
Finland	806	57.4	9.2	3.4	56.2	19.9	9.1	1.5	0.6	57.6	57.2
France	642	53.9	10.5	1.4	52.7	24.2	9.0	2.2	0.0	52.7	55.3
Georgia	676	49.5	11.8	5.3	45.1	20.8	8.3	6.9	1.9	48.3	50.6
Hong Kong SAR	620	70.3	8.4	3.0	69.7	14.4	3.6	0.4	0.4	70.8	69.8
Hungary	748	52.4	12.1	3.3	52.0	17.9	14.1	0.7	0.0	47.4	57.7
Ireland	727	65.9	8.1	1.3	65.5	17.4	7.1	0.6	0.0	67.3	64.7
Israel	723	47.3	13.6	4.3	46.2	25.0	8.5	1.6	0.7	49.6	44.9
Italy	638	49.1	12.3	1.4	48.4	22.4	14.1	1.4	0.0	54.6	43.3
Japan	326	68.6	10.8	3.4	68.6	10.9	6.3	0.0	0.0	68.6	68.7
Jordan	1369	41.1	19.9	4.4	40.0	20.2	12.9	2.2	0.4	38.4	43.6
Kazakhstan	898	48.5	15.1	5.6	46.3	21.2	7.2	4.1	0.6	44.1	52.4
Korea, Rep. of	358	64.7	9.9	2.7	64.3	13.0	9.5	0.3	0.3	69.1	60.1
Lithuania	768	63.3	10.3	1.7	62.6	14.2	10.0	1.1	0.0	61.0	65.6
Malaysia	1230	36.9	17.9	5.4	36.6	24.2	15.1	0.4	0.4	38.8	34.8
Malta	572	60.2	11.1	4.2	59.7	17.0	7.0	0.7	0.2	61.9	58.8
Morocco	1745	34.2	17.4	14.3	31.6	18.8	10.3	5.2	2.2	35.4	33.0
New Zealand	533	53.1	13.2	3.3	52.1	20.2	9.2	1.8	0.2	51.2	54.8
Norway (9)	887	41.7	17.1	6.3	39.2	19.4	12.0	4.4	1.6	38.3	45.0
Oman	1629	55.6	12.7	5.4	54.2	15.7	9.5	1.4	1.2	61.5	50.1
Palestinian Nat'l Auth.	1310	44.3	17.8	6.1	42.2	18.2	11.0	4.0	0.7	49.5	39.3
Portugal	756	55.0	11.0	2.7	54.7	21.3	9.9	0.5	0.0	57.2	52.8
Qatar	600	57.6	8.4	2.7	56.6	23.4	7.2	1.4	0.4	56.2	59.0
Romania	522	43.2	6.0	3.5	42.3	32.4	13.8	1.7	0.4	49.9	37.6
Saudi Arabia	1172	45.6	14.9	7.0	44.8	21.6	9.9	1.1	0.8	48.6	42.8
Singapore	401	75.8	7.9	1.7	75.6	12.2	2.4	0.3	0.0	79.4	72.3
Sweden	692	58.1	11.9	5.0	55.7	13.4	9.9	2.7	1.4	59.8	56.5
Turkiye	706	51.7	15.1	1.6	51.0	21.5	9.3	1.2	0.2	53.5	49.6
United Arab Emirates	5322	55.7	13.1	5.7	54.6	17.1	7.5	1.3	0.8	57.7	53.9
United States	1153	47.2	13.2	5.4	46.4	22.2	11.2	0.8	0.9	46.1	48.1
Uzbekistan	612	45.3	17.5	6.5	40.6	14.3	10.9	8.3	1.9	47.6	43.3
International Avg. (40)	39170	53.1	12.4	4.2	51.7	19.5	9.3	2.2	0.6	54.0	52.2
Abu Dhabi, UAE	2423	48.1	16.2	8.9	47.0	17.2	8.3	1.5	0.9	49.9	46.5
Dubai, UAE	1161	67.2	8.6	2.0	66.3	16.7	5.1	0.6	0.7	67.5	66.9
Sharjah, UAE	893	60.4	10.1	4.2	59.4	16.9	7.6	1.0	0.7	64.3	56.6

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Chemistry / Reasoning

B_SE2_08C SE72143C: Equipment Tom should use - sand and pebbles/pebbles - MC - Key: D

COUNTRY	N	DIFF %	A %	B %	C %	D %	E %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1172	58.8	4.3	4.0	11.5	58.1	20.9	0.9	0.2	61.4	56.7
Austria	646	57.3	3.2	4.5	15.3	56.8	19.3	0.8	0.0	61.3	53.1
Azerbaijan	856	48.9	4.8	6.5	13.3	41.2	18.4	13.9	2.0	52.6	45.8
Bahrain	734	55.1	5.2	6.3	14.9	53.8	17.6	1.9	0.3	64.2	45.7
Brazil	3229	59.5	5.7	6.2	10.0	55.8	16.1	4.2	2.0	57.4	61.5
Chile	631	48.5	8.5	5.7	14.3	45.2	19.4	6.2	0.7	50.5	46.7
Chinese Taipei	475	67.9	3.6	1.4	7.2	67.9	19.9	0.0	0.0	68.5	67.4
Cyprus	583	47.4	7.9	4.3	11.3	45.8	27.4	2.2	1.1	50.2	44.5
Czech Republic	1120	49.2	7.7	3.6	8.9	48.6	29.8	1.3	0.1	46.6	51.7
England	583	59.1	3.7	2.5	6.2	57.9	27.7	1.6	0.4	63.7	54.6
Finland	806	71.7	1.7	4.0	10.8	70.4	11.2	1.2	0.6	74.6	68.6
France	642	55.3	4.2	2.6	12.2	54.3	25.0	1.7	0.0	54.5	56.1
Georgia	676	58.4	5.9	5.5	11.3	52.5	14.7	8.2	1.9	63.7	52.9
Hong Kong SAR	620	57.9	5.4	2.7	11.6	57.3	22.0	0.5	0.4	57.5	58.3
Hungary	748	70.0	1.6	1.7	11.4	69.7	15.1	0.5	0.0	67.6	72.6
Ireland	727	64.1	2.3	2.1	8.8	63.8	22.5	0.5	0.0	66.1	62.4
Israel	723	58.2	4.8	3.2	18.3	56.4	14.2	2.4	0.7	58.8	57.5
Italy	638	58.8	2.7	3.2	11.4	58.1	23.4	1.2	0.0	59.3	58.2
Japan	326	82.8	1.0	1.6	2.4	82.8	12.2	0.0	0.0	80.1	85.2
Jordan	1369	52.7	6.1	4.2	22.7	50.6	12.4	3.6	0.4	53.4	52.1
Kazakhstan	898	51.4	7.9	8.7	18.8	49.1	10.9	4.0	0.6	50.6	52.1
Korea, Rep. of	358	79.0	2.3	2.9	4.1	78.5	11.6	0.3	0.3	82.5	75.4
Lithuania	768	74.9	2.3	2.4	9.2	74.3	10.9	0.9	0.0	76.6	73.2
Malaysia	1230	39.9	9.5	11.3	17.2	39.4	21.5	0.6	0.4	40.9	38.7
Malta	572	54.8	5.4	2.9	9.5	53.9	26.7	1.3	0.2	53.8	55.7
Morocco	1745	34.2	10.7	15.8	18.8	31.5	15.2	5.8	2.2	37.8	31.0
New Zealand	533	50.2	4.2	5.0	10.9	49.5	28.9	1.3	0.2	47.3	52.6
Norway (9)	887	64.8	4.3	4.5	11.2	61.0	13.2	4.2	1.6	69.9	60.3
Oman	1629	56.3	4.8	4.8	10.7	54.3	21.8	2.4	1.2	59.6	53.2
Palestinian Nat'l Auth.	1310	57.2	5.7	4.8	12.5	54.4	17.8	4.1	0.7	61.3	53.2
Portugal	756	61.4	3.9	3.6	10.9	60.6	19.7	1.3	0.0	64.3	58.7
Qatar	600	53.5	5.1	4.3	14.7	52.3	21.3	1.8	0.4	57.1	50.0
Romania	522	52.0	4.1	5.4	8.0	50.4	29.0	2.7	0.4	56.9	48.0
Saudi Arabia	1172	47.0	5.5	5.6	20.1	45.8	20.4	1.8	0.8	50.8	43.3
Singapore	401	69.9	1.9	1.2	7.4	69.7	19.6	0.2	0.0	71.9	68.0
Sweden	692	57.8	5.1	2.9	12.5	55.4	19.9	2.7	1.4	60.5	55.3
Turkiye	706	68.8	0.9	4.8	14.8	67.8	10.2	1.2	0.2	71.1	66.0
United Arab Emirates	5322	54.6	5.4	6.5	12.3	53.3	20.1	1.7	0.8	57.4	51.9
United States	1153	50.8	3.2	2.4	14.0	50.0	28.7	0.7	0.9	49.6	51.9
Uzbekistan	612	42.7	5.3	8.8	10.9	37.9	25.9	9.3	1.9	42.2	43.1
International Avg. (40)	39170	57.6	4.7	4.6	12.1	55.9	19.6	2.5	0.6	59.4	55.8
Abu Dhabi, UAE	2423	46.2	7.6	9.1	14.8	44.8	20.6	2.2	0.9	47.9	44.6
Dubai, UAE	1161	65.6	2.8	3.1	7.3	64.4	20.6	1.1	0.7	67.7	63.5
Sharjah, UAE	893	59.1	3.3	5.3	11.9	57.9	19.4	1.3	0.7	63.8	54.5

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Chemistry / Reasoning

B_SE2_08D SE72143D: Equipment Tom should use - copper and iron filings/iron - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	C %	D %	E %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1172	80.0	5.3	79.4	3.1	5.8	5.7	0.4	0.2	81.9	78.3
Austria	646	81.4	3.0	81.1	5.5	4.0	6.0	0.4	0.0	82.5	80.3
Azerbaijan	856	70.3	3.5	60.3	4.7	6.1	11.1	12.2	2.0	74.4	66.7
Bahrain	734	74.4	4.6	73.2	5.4	7.7	7.5	1.2	0.3	83.3	65.3
Brazil	3229	68.9	9.3	64.7	4.4	4.6	10.9	4.2	2.0	71.0	66.8
Chile	631	62.8	11.7	58.5	4.8	7.1	10.9	6.3	0.7	61.6	64.0
Chinese Taipei	475	84.5	3.4	84.1	4.6	5.3	2.1	0.5	0.0	85.4	83.6
Cyprus	583	64.5	10.8	62.7	5.3	9.5	8.9	1.8	1.1	69.7	59.5
Czech Republic	1120	83.0	5.9	82.6	1.8	4.2	5.0	0.3	0.1	80.9	84.9
England	583	83.4	5.8	82.0	2.1	4.2	4.2	1.2	0.4	87.6	79.4
Finland	806	80.0	4.0	78.5	3.9	4.8	6.9	1.3	0.6	82.4	77.4
France	642	77.4	9.8	75.4	1.5	4.1	6.6	2.5	0.0	77.1	77.6
Georgia	676	71.8	10.4	64.8	3.0	6.3	5.7	7.8	1.9	74.9	68.7
Hong Kong SAR	620	77.0	5.1	75.9	3.3	8.2	6.0	1.0	0.4	77.0	77.0
Hungary	748	85.5	3.8	85.2	2.0	2.9	5.8	0.3	0.0	86.7	84.2
Ireland	727	83.6	4.6	83.2	2.3	4.1	5.3	0.4	0.0	86.7	81.0
Israel	723	79.5	7.1	77.5	4.4	4.1	4.4	1.9	0.7	81.1	77.8
Italy	638	76.8	10.9	75.3	3.5	3.0	5.4	1.9	0.0	77.1	76.4
Japan	326	86.0	9.4	86.0	0.8	0.7	3.0	0.0	0.0	85.2	86.8
Jordan	1369	77.5	6.2	74.8	3.9	6.2	5.5	3.0	0.4	83.2	72.2
Kazakhstan	898	74.2	8.7	71.3	3.3	5.1	7.6	3.3	0.6	76.6	72.1
Korea, Rep. of	358	88.7	2.0	88.2	3.0	3.6	2.6	0.3	0.3	91.1	86.3
Lithuania	768	86.0	3.1	85.3	2.0	2.6	6.1	0.8	0.0	86.8	85.1
Malaysia	1230	64.1	7.7	61.5	8.2	9.7	8.9	3.6	0.4	68.4	59.4
Malta	572	80.7	5.9	79.6	3.1	5.3	4.8	1.1	0.2	83.5	78.1
Morocco	1745	38.9	15.2	35.6	10.1	12.5	18.1	6.3	2.2	42.4	35.7
New Zealand	533	76.4	8.2	75.3	1.4	6.2	7.4	1.2	0.2	77.5	75.5
Norway (9)	887	73.8	4.6	69.2	4.8	4.5	10.7	4.6	1.6	79.1	69.2
Oman	1629	75.3	7.3	73.0	4.2	5.0	7.5	1.8	1.2	81.8	69.2
Palestinian Nat'l Auth.	1310	77.4	4.5	74.7	4.7	6.2	6.5	2.8	0.7	83.2	71.9
Portugal	756	81.2	6.9	80.3	2.0	4.7	5.0	1.1	0.0	84.8	77.8
Qatar	600	78.2	7.8	76.5	4.1	4.5	4.9	1.8	0.4	79.8	76.7
Romania	522	67.3	18.6	65.0	5.2	1.9	5.9	3.0	0.4	72.7	62.9
Saudi Arabia	1172	66.5	11.4	65.0	5.0	6.3	10.0	1.5	0.8	74.2	59.2
Singapore	401	89.9	1.9	89.9	1.8	3.5	3.0	0.0	0.0	93.5	86.4
Sweden	692	75.4	4.0	72.3	2.9	7.6	9.0	2.7	1.4	78.9	72.1
Turkiye	706	85.7	2.8	84.7	1.8	3.4	6.1	0.9	0.2	85.6	85.8
United Arab Emirates	5322	73.7	7.0	72.1	4.7	6.8	7.2	1.4	0.8	78.1	69.5
United States	1153	77.6	6.0	76.4	3.5	6.7	5.9	0.5	0.9	80.9	74.6
Uzbekistan	612	61.4	9.5	55.2	5.1	11.5	8.6	8.2	1.9	57.5	64.8
International Avg. (40)	39170	76.0	6.9	73.9	3.8	5.5	6.8	2.4	0.6	78.7	73.5
Abu Dhabi, UAE	2423	64.8	7.5	63.0	7.1	10.2	9.4	1.9	0.9	68.9	60.9
Dubai, UAE	1161	84.9	5.2	83.6	2.3	3.9	3.5	0.8	0.7	86.8	83.1
Sharjah, UAE	893	77.9	7.8	76.6	3.6	3.7	6.7	0.9	0.7	82.9	72.9

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Chemistry / Applying

B_SE2_09 SE72523: Higher sugar concentration in tea - CR - 2 Points

COUNTRY	N	DIFF %	20 %	10 %	79 %	2pt %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1173	47.0	30.3	32.8	36.2	30.3	32.8	36.2	0.5	0.2	46.8	47.3
Austria	646	55.0	32.5	44.2	22.6	32.5	44.2	22.6	0.7	0.0	58.4	51.4
Azerbaijan	856	15.5	4.7	18.7	67.2	4.7	18.7	67.2	6.7	2.7	16.8	14.5
Bahrain	734	38.5	27.3	21.5	50.0	27.3	21.5	50.0	0.8	0.4	47.5	29.4
Brazil	3228	42.7	32.1	16.9	46.0	32.1	16.9	46.0	2.6	2.4	43.4	42.0
Chile	631	46.0	33.0	21.1	40.5	33.0	21.1	40.5	4.2	1.2	51.2	41.2
Chinese Taipei	475	59.9	43.9	32.1	24.0	43.9	32.1	24.0	0.0	0.0	70.8	49.3
Cyprus	583	38.8	18.9	37.6	40.8	18.9	37.6	40.8	1.1	1.6	43.2	34.5
Czech Republic	1119	45.8	22.7	45.8	31.1	22.7	45.8	31.1	0.2	0.1	44.3	47.1
England	582	49.4	27.9	42.5	29.1	27.9	42.5	29.1	0.1	0.4	51.2	47.6
Finland	806	55.4	34.3	40.6	23.7	34.3	40.6	23.7	0.7	0.8	55.7	55.1
France	642	41.9	22.6	37.4	38.7	22.6	37.4	38.7	1.2	0.1	45.8	37.7
Georgia	676	26.7	8.8	33.6	53.4	8.8	33.6	53.4	2.2	2.1	31.0	22.3
Hong Kong SAR	620	53.6	36.3	33.8	29.2	36.3	33.8	29.2	0.3	0.4	56.9	50.2
Hungary	748	43.9	24.4	38.1	36.6	24.4	38.1	36.6	0.9	0.0	42.8	45.1
Ireland	727	56.2	36.2	40.1	23.7	36.2	40.1	23.7	0.0	0.0	55.9	56.5
Israel	723	46.3	26.4	37.1	33.6	26.4	37.1	33.6	2.2	0.7	50.6	41.7
Italy	638	45.4	24.6	41.1	33.8	24.6	41.1	33.8	0.5	0.0	49.0	41.5
Japan	326	62.4	50.4	23.9	25.6	50.4	23.9	25.6	0.2	0.0	65.6	59.6
Jordan	1369	23.9	6.6	34.3	58.2	6.6	34.3	58.2	0.3	0.8	28.1	20.1
Kazakhstan	897	30.5	9.7	39.5	47.3	9.7	39.5	47.3	2.8	0.7	31.0	30.2
Korea, Rep. of	358	50.7	40.2	20.2	38.7	40.2	20.2	38.7	0.7	0.3	57.3	44.2
Lithuania	768	45.5	23.1	44.3	32.0	23.1	44.3	32.0	0.6	0.0	48.9	42.0
Malaysia	1230	14.2	2.5	23.3	73.6	2.5	23.3	73.6	0.1	0.6	14.8	13.5
Malta	572	45.2	22.7	44.0	32.3	22.7	44.0	32.3	0.8	0.2	51.0	39.9
Morocco	1745	7.0	2.4	8.4	83.6	2.4	8.4	83.6	2.7	2.9	7.6	6.5
New Zealand	533	46.1	24.1	42.8	31.8	24.1	42.8	31.8	0.9	0.4	50.5	42.6
Norway (9)	887	49.6	35.7	24.6	36.5	35.7	24.6	36.5	1.3	1.9	52.7	46.9
Oman	1629	33.4	10.6	44.2	43.3	10.6	44.2	43.3	0.5	1.4	38.7	28.5
Palestinian Nat'l Auth.	1309	26.9	15.3	22.5	60.9	15.3	22.5	60.9	0.6	0.7	32.5	21.7
Portugal	756	45.4	23.2	43.7	32.3	23.2	43.7	32.3	0.8	0.1	47.9	43.0
Qatar	600	30.8	3.2	54.2	41.0	3.2	54.2	41.0	1.2	0.4	33.0	28.8
Romania	522	41.8	18.9	44.6	34.9	18.9	44.6	34.9	1.1	0.5	37.9	45.2
Saudi Arabia	1172	24.8	9.1	30.9	59.0	9.1	30.9	59.0	0.1	1.0	28.5	21.2
Singapore	401	60.1	39.8	40.5	19.7	39.8	40.5	19.7	0.0	0.0	59.3	60.9
Sweden	692	53.0	37.2	28.1	31.4	37.2	28.1	31.4	1.7	1.5	58.2	47.9
Turkiye	705	47.8	22.8	48.2	27.2	22.8	48.2	27.2	1.6	0.2	50.2	45.0
United Arab Emirates	5322	34.7	18.7	30.8	48.9	18.7	30.8	48.9	0.7	1.0	37.5	31.9
United States	1153	44.2	29.8	27.8	41.2	29.8	27.8	41.2	0.3	1.0	46.9	41.8
Uzbekistan	612	14.7	0.4	27.2	68.0	0.4	27.2	68.0	1.8	2.7	17.0	12.6
International Avg. (40)	39165	41.0	23.3	34.1	40.7	23.3	34.1	40.7	1.1	0.8	43.9	38.2
Abu Dhabi, UAE	2423	29.0	15.4	25.9	56.6	15.4	25.9	56.6	0.9	1.2	31.7	26.4
Dubai, UAE	1161	47.6	29.5	35.1	34.2	29.5	35.1	34.2	0.3	0.8	49.5	45.8
Sharjah, UAE	893	37.1	18.3	36.6	43.8	18.3	36.6	43.8	0.3	1.0	40.5	33.8

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Chemistry / Knowing

B_SE2_10 SE72168: Formation of iron sulfide - MC - Key: D

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1173	44.1	25.2	11.8	18.6	43.8	0.3	0.2	40.6	47.3
Austria	646	47.3	25.6	11.0	15.2	46.6	1.6	0.0	48.3	46.3
Azerbaijan	856	35.5	26.3	19.6	14.0	33.0	4.2	2.8	42.6	29.5
Bahrain	734	38.7	29.3	16.9	14.6	38.4	0.4	0.4	45.9	31.5
Brazil	3229	28.3	38.9	11.5	17.7	26.8	2.4	2.8	27.4	29.2
Chile	631	33.3	37.4	11.8	15.0	32.0	2.4	1.4	32.5	34.0
Chinese Taipei	475	59.3	16.1	18.2	6.3	59.1	0.3	0.0	61.8	56.9
Cyprus	583	43.2	21.6	14.2	19.4	42.1	0.9	1.7	50.4	36.3
Czech Republic	1120	58.5	21.3	11.8	8.1	58.1	0.6	0.1	62.0	55.4
England	583	51.4	26.1	8.4	13.7	51.1	0.3	0.4	50.7	52.1
Finland	806	60.0	18.9	13.0	7.4	59.0	0.9	0.8	61.3	58.7
France	642	41.3	32.9	12.2	12.2	40.4	2.1	0.1	41.3	41.4
Georgia	676	44.9	28.5	10.0	13.9	42.6	2.9	2.1	54.1	35.4
Hong Kong SAR	620	35.1	30.3	16.9	17.3	35.0	0.1	0.4	31.1	39.3
Hungary	748	48.5	22.3	19.7	9.4	48.4	0.3	0.0	49.4	47.5
Ireland	727	49.3	25.4	11.9	13.3	49.1	0.4	0.0	53.8	45.4
Israel	723	51.1	25.3	11.4	11.3	50.2	0.9	1.0	53.9	48.2
Italy	638	38.4	22.2	18.7	19.8	37.9	1.2	0.1	38.7	38.1
Japan	326	76.0	11.1	6.0	6.7	75.6	0.5	0.0	71.9	79.7
Jordan	1369	36.5	28.1	19.9	14.7	36.1	0.2	0.9	41.2	32.3
Kazakhstan	898	45.5	31.1	11.3	10.6	44.3	1.9	0.8	49.5	42.1
Korea, Rep. of	358	59.3	20.3	7.5	12.7	58.9	0.4	0.3	61.6	56.9
Lithuania	768	56.0	20.7	11.6	11.6	55.8	0.3	0.0	57.1	54.8
Malaysia	1230	25.5	40.3	15.4	18.1	25.2	0.3	0.7	27.4	23.4
Malta	572	41.8	29.2	12.3	16.0	41.3	0.9	0.2	43.2	40.6
Morocco	1745	19.1	30.1	25.8	21.7	18.4	1.1	2.9	19.3	19.0
New Zealand	533	45.4	26.8	10.4	17.0	45.2	0.0	0.5	48.9	42.6
Norway (9)	887	46.6	21.0	17.6	12.9	44.9	1.8	1.9	50.0	43.7
Oman	1629	38.4	38.5	13.0	8.8	37.7	0.5	1.5	44.4	32.9
Palestinian Nat'l Auth.	1310	33.5	34.1	16.8	14.4	33.0	0.7	1.0	41.0	26.5
Portugal	756	33.4	32.9	11.6	22.0	33.3	0.1	0.1	32.2	34.5
Qatar	600	41.0	34.2	11.3	13.0	40.7	0.3	0.6	40.6	41.4
Romania	522	45.6	25.2	15.5	12.6	44.7	1.4	0.5	49.5	42.3
Saudi Arabia	1172	28.9	36.4	20.8	12.9	28.6	0.2	1.0	35.7	22.6
Singapore	401	72.0	11.7	10.7	5.6	72.0	0.0	0.0	74.6	69.6
Sweden	692	52.3	18.2	13.3	14.1	50.1	2.7	1.5	55.2	49.6
Turkiye	706	65.2	11.1	9.3	13.9	64.5	0.9	0.2	72.4	56.9
United Arab Emirates	5322	45.5	27.2	11.0	15.2	44.6	0.8	1.2	49.3	41.8
United States	1153	46.4	28.2	9.4	15.3	45.9	0.2	1.0	45.9	46.9
Uzbekistan	612	34.3	28.4	20.5	14.0	32.8	1.3	3.0	39.1	30.1
International Avg. (40)	39171	44.9	26.5	13.7	13.8	44.2	1.0	0.9	47.4	42.6
Abu Dhabi, UAE	2423	35.6	31.0	13.5	18.7	35.0	0.5	1.3	39.0	32.5
Dubai, UAE	1161	60.5	23.0	6.3	9.5	59.5	0.8	0.9	61.6	59.5
Sharjah, UAE	893	50.6	23.1	10.7	14.7	49.6	0.7	1.2	55.6	45.7

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Knowing

B_SE2_11 SE72205: Water molecules in a melting ice cube - MC - Key: C

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1173	55.8	13.7	17.8	55.7	12.6	0.0	0.2	53.2	58.2
Austria	646	55.6	15.5	17.6	55.4	11.2	0.3	0.0	55.4	55.7
Azerbaijan	856	40.5	31.4	17.5	38.5	7.6	1.6	3.3	43.0	38.4
Bahrain	734	48.9	20.6	15.8	48.5	14.2	0.3	0.6	54.6	43.2
Brazil	3229	28.9	32.2	24.9	27.7	11.1	0.4	3.6	27.4	30.4
Chile	631	45.4	17.4	23.9	44.7	12.4	0.3	1.4	44.5	46.3
Chinese Taipei	475	36.8	30.7	29.3	36.8	3.2	0.0	0.0	34.4	39.1
Cyprus	583	32.1	27.5	25.6	31.4	13.2	0.6	1.7	34.5	29.7
Czech Republic	1120	45.6	18.9	24.5	45.6	10.9	0.0	0.1	44.9	46.3
England	583	56.7	17.2	16.4	56.4	9.4	0.1	0.4	54.8	58.6
Finland	806	58.3	15.6	18.6	57.7	7.0	0.3	0.8	52.9	64.2
France	641	48.8	19.1	17.9	48.5	13.8	0.5	0.2	48.6	49.1
Georgia	676	46.6	24.2	20.2	45.1	7.3	0.5	2.6	47.2	45.9
Hong Kong SAR	620	52.5	17.2	17.8	52.3	12.3	0.0	0.4	52.0	53.1
Hungary	748	44.9	26.9	16.4	44.9	11.9	0.0	0.0	44.2	45.6
Ireland	727	41.0	26.9	26.7	41.0	5.4	0.0	0.0	42.7	39.6
Israel	723	58.8	10.6	14.1	58.0	15.9	0.2	1.2	61.3	56.1
Italy	638	48.7	21.7	14.8	48.5	14.6	0.0	0.4	50.5	46.7
Japan	326	39.7	27.2	28.2	39.7	4.9	0.0	0.0	36.1	42.9
Jordan	1369	36.8	31.4	15.3	36.3	15.6	0.3	1.0	37.1	36.6
Kazakhstan	898	32.8	31.1	23.8	32.2	11.1	0.3	1.4	36.7	29.4
Korea, Rep. of	358	59.4	12.2	17.3	59.2	11.0	0.0	0.3	61.1	57.7
Lithuania	768	51.2	21.9	14.1	51.2	12.7	0.0	0.0	54.5	47.9
Malaysia	1230	29.5	37.4	20.9	29.2	11.6	0.0	1.0	30.3	28.7
Malta	572	51.9	16.9	16.2	51.4	14.5	0.7	0.2	51.5	52.3
Morocco	1745	28.9	26.2	24.3	27.6	17.4	1.2	3.2	29.5	28.3
New Zealand	533	53.2	17.0	19.8	52.9	9.7	0.0	0.5	53.9	52.6
Norway (9)	887	54.9	14.4	14.2	53.5	15.4	0.4	2.1	56.8	53.3
Oman	1629	44.4	25.7	16.5	43.6	12.4	0.2	1.7	45.6	43.4
Palestinian Nat'l Auth.	1310	28.8	37.0	22.9	28.4	10.2	0.3	1.3	27.1	30.4
Portugal	756	51.2	14.5	18.4	51.1	15.8	0.1	0.1	52.5	50.0
Qatar	600	50.6	18.3	19.5	50.2	11.2	0.3	0.6	54.8	46.6
Romania	522	30.0	33.7	28.4	29.7	7.0	0.7	0.5	26.5	33.1
Saudi Arabia	1172	42.2	25.5	17.3	41.7	14.4	0.2	1.0	48.0	36.6
Singapore	401	71.1	7.0	7.9	71.1	14.1	0.0	0.0	71.4	70.9
Sweden	692	71.2	7.3	8.5	69.4	12.3	1.0	1.5	73.6	68.8
Turkiye	706	56.8	15.4	16.7	56.6	11.0	0.1	0.2	59.3	54.0
United Arab Emirates	5322	53.5	17.2	16.5	52.6	11.9	0.3	1.5	53.9	53.2
United States	1153	57.9	14.6	15.2	57.3	11.8	0.0	1.0	56.9	58.9
Uzbekistan	611	33.9	36.2	19.8	32.8	7.9	0.1	3.3	33.8	34.0
International Avg. (40)	39169	46.9	21.9	19.0	46.4	11.4	0.3	1.0	47.4	46.4
Abu Dhabi, UAE	2423	46.5	17.4	20.2	45.7	15.0	0.3	1.4	47.1	45.9
Dubai, UAE	1161	66.8	13.5	11.2	65.8	7.9	0.4	1.2	66.6	67.1
Sharjah, UAE	893	54.4	18.6	16.3	53.5	9.9	0.1	1.6	54.0	54.8

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Physics / Applying

B_SE2_12 SE72293: Why Ben slides faster when the water is on - CR - 1 Point

COUNTRY	N	DIFF %	10 %	70 %	79 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1173	38.8	38.3	26.1	34.3	38.3	60.4	1.0	0.2	30.4	46.2
Austria	646	21.1	20.5	22.6	54.2	20.5	76.8	2.7	0.0	17.6	24.6
Azerbaijan	856	9.2	7.1	11.2	59.0	7.1	70.2	19.1	3.6	8.6	9.7
Bahrain	734	14.8	14.0	21.1	59.8	14.0	80.9	4.2	0.8	14.7	14.9
Brazil	3228	4.2	3.8	35.4	49.1	3.8	84.5	8.0	3.7	3.4	5.2
Chile	631	6.6	6.1	37.2	49.6	6.1	86.9	5.6	1.4	2.3	10.6
Chinese Taipei	475	58.6	58.2	11.8	29.4	58.2	41.2	0.6	0.0	56.5	60.5
Cyprus	583	19.4	17.7	21.4	52.5	17.7	73.9	6.7	1.7	16.1	22.5
Czech Republic	1120	21.6	21.1	35.7	40.5	21.1	76.3	2.5	0.1	15.1	27.3
England	582	45.0	44.0	20.8	33.0	44.0	53.8	1.8	0.4	39.9	50.0
Finland	806	36.5	35.6	31.3	30.7	35.6	62.0	1.6	0.8	29.0	44.6
France	642	13.1	12.3	36.2	45.3	12.3	81.4	6.2	0.2	11.7	14.6
Georgia	676	19.2	16.9	14.9	56.1	16.9	71.0	9.2	2.9	16.3	22.2
Hong Kong SAR	620	59.6	57.1	6.0	32.6	57.1	38.6	3.9	0.4	57.7	61.6
Hungary	747	21.9	21.3	26.2	49.8	21.3	76.0	2.7	0.0	17.9	26.2
Ireland	727	42.0	41.6	21.5	36.0	41.6	57.5	0.9	0.0	35.5	47.6
Israel	723	15.8	14.6	26.8	51.1	14.6	77.9	6.1	1.4	11.7	20.4
Italy	638	18.1	17.4	24.7	54.0	17.4	78.8	3.4	0.4	14.7	21.8
Japan	326	29.1	28.4	8.1	61.2	28.4	69.3	2.3	0.0	21.2	36.2
Jordan	1369	8.3	7.9	26.4	60.9	7.9	87.3	3.8	1.1	5.7	10.6
Kazakhstan	897	9.7	9.0	26.6	57.5	9.0	84.1	5.5	1.4	6.6	12.4
Korea, Rep. of	358	56.7	54.8	18.6	23.2	54.8	41.8	3.1	0.3	49.9	63.6
Lithuania	768	28.1	26.8	24.3	44.3	26.8	68.6	4.6	0.0	21.4	35.0
Malaysia	1230	5.5	5.4	36.3	56.6	5.4	92.9	0.7	1.0	4.4	6.7
Malta	572	37.2	36.4	30.0	31.5	36.4	61.5	1.7	0.4	31.9	41.9
Morocco	1745	1.7	1.3	10.1	62.2	1.3	72.4	22.8	3.5	1.5	1.9
New Zealand	533	28.4	27.6	36.4	33.3	27.6	69.8	2.1	0.5	13.8	40.7
Norway (9)	887	18.7	17.5	36.5	39.5	17.5	76.0	4.4	2.1	14.0	23.0
Oman	1629	23.7	22.6	28.3	44.6	22.6	72.9	2.7	1.8	22.1	25.2
Palestinian Nat'l Auth.	1309	3.2	3.1	23.2	68.6	3.1	91.8	3.9	1.2	2.1	4.3
Portugal	756	6.7	6.4	14.4	74.0	6.4	88.4	5.1	0.1	7.2	6.3
Qatar	599	26.0	24.7	6.2	64.0	24.7	70.2	4.3	0.9	21.9	30.0
Romania	522	13.2	12.7	56.5	26.5	12.7	83.0	3.9	0.5	9.7	16.2
Saudi Arabia	1172	14.1	13.7	31.9	51.5	13.7	83.4	1.8	1.0	13.3	14.9
Singapore	401	78.3	78.3	6.4	15.3	78.3	21.7	0.0	0.0	74.5	81.8
Sweden	692	28.8	27.3	25.0	42.6	27.3	67.6	3.6	1.5	20.9	36.5
Turkiye	705	52.2	50.1	7.4	38.5	50.1	45.9	3.8	0.2	47.1	57.9
United Arab Emirates	5321	33.0	31.5	13.6	50.4	31.5	64.0	3.0	1.5	29.5	36.3
United States	1153	34.3	33.8	24.2	40.4	33.8	64.7	0.6	1.0	28.8	39.3
Uzbekistan	612	4.3	3.9	20.0	66.7	3.9	86.7	6.1	3.3	1.0	7.2
International Avg. (40)	39163	25.2	24.3	23.5	46.8	24.3	70.3	4.4	1.0	21.2	29.0
Abu Dhabi, UAE	2423	23.8	22.6	14.4	57.9	22.6	72.3	3.7	1.4	21.8	25.8
Dubai, UAE	1160	51.1	49.4	14.2	33.1	49.4	47.2	2.1	1.3	46.4	55.7
Sharjah, UAE	893	38.0	36.6	13.0	46.7	36.6	59.7	2.0	1.6	33.6	42.3

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Reasoning

B_SE2_13A SE72280A: Movement of motorbike in chronophotograph A - CR - 1 Point

COUNTRY	N	DIFF %	10 %	70 %	79 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1173	38.7	38.4	38.7	22.2	38.4	60.9	0.4	0.2	36.4	40.8
Austria	646	37.2	36.7	26.6	35.4	36.7	62.0	1.3	0.0	36.6	37.8
Azerbaijan	856	7.1	6.4	23.6	60.1	6.4	83.7	5.0	4.8	6.6	7.7
Bahrain	734	16.7	16.4	40.2	41.5	16.4	81.7	1.1	0.9	20.3	13.1
Brazil	3229	7.0	6.6	20.7	66.6	6.6	87.4	1.9	4.2	4.5	9.5
Chile	631	16.1	15.4	32.6	47.2	15.4	79.8	3.4	1.4	13.5	18.6
Chinese Taipei	475	35.8	35.8	31.2	33.0	35.8	64.2	0.0	0.0	41.4	30.4
Cyprus	583	16.9	16.4	48.0	32.6	16.4	80.6	1.1	1.9	14.7	19.1
Czech Republic	1120	30.5	30.3	37.9	31.4	30.3	69.2	0.3	0.1	25.5	34.9
England	582	42.7	42.4	33.1	23.7	42.4	56.8	0.4	0.4	41.2	44.2
Finland	806	42.9	42.4	33.8	22.6	42.4	56.4	0.4	0.8	44.5	41.3
France	642	41.5	41.0	28.5	29.3	41.0	57.7	0.7	0.6	40.4	42.7
Georgia	676	12.7	11.7	27.6	53.0	11.7	80.5	4.6	3.2	13.9	11.4
Hong Kong SAR	620	34.1	33.9	29.0	36.6	33.9	65.6	0.0	0.4	30.8	37.4
Hungary	748	35.4	35.3	37.9	26.3	35.3	64.2	0.5	0.0	33.7	37.4
Ireland	727	37.2	37.1	41.5	21.3	37.1	62.7	0.2	0.0	38.8	35.7
Israel	723	25.0	24.2	35.4	37.5	24.2	72.9	1.2	1.7	24.1	25.8
Italy	638	30.6	30.2	35.8	32.8	30.2	68.5	0.7	0.5	31.4	29.7
Japan	326	58.1	57.6	29.4	12.1	57.6	41.5	0.9	0.0	56.3	59.7
Jordan	1367	9.3	9.2	29.6	59.5	9.2	89.1	0.6	1.2	10.3	8.5
Kazakhstan	897	13.1	12.4	22.5	60.1	12.4	82.6	3.4	1.7	14.2	12.1
Korea, Rep. of	358	46.9	46.5	17.4	35.2	46.5	52.6	0.6	0.3	45.6	48.2
Lithuania	768	30.1	30.1	42.0	27.9	30.1	69.8	0.1	0.0	26.9	33.3
Malaysia	1230	29.5	29.2	22.7	46.9	29.2	69.6	0.1	1.1	31.7	27.1
Malta	572	32.6	32.4	27.3	39.7	32.4	67.0	0.2	0.4	30.6	34.3
Morocco	1745	3.6	3.4	9.2	80.6	3.4	89.8	2.9	4.0	3.2	4.0
New Zealand	533	41.3	40.9	27.9	30.2	40.9	58.1	0.5	0.5	43.6	39.5
Norway (9)	887	35.4	33.9	29.7	32.2	33.9	61.9	2.0	2.2	35.7	35.1
Oman	1629	26.5	25.8	29.4	42.2	25.8	71.7	0.7	1.8	28.3	24.8
Palestinian Nat'l Auth.	1309	6.4	6.2	41.3	50.5	6.2	91.8	0.7	1.3	6.4	6.4
Portugal	756	24.6	24.4	37.5	37.4	24.4	74.9	0.6	0.1	21.9	27.2
Qatar	600	18.1	17.8	41.6	39.1	17.8	80.7	0.7	0.9	16.6	19.4
Romania	521	15.3	15.0	27.1	56.1	15.0	83.2	1.2	0.6	15.4	15.2
Saudi Arabia	1172	8.9	8.7	35.2	54.5	8.7	89.6	0.6	1.0	10.5	7.3
Singapore	401	51.8	51.8	31.0	17.2	51.8	48.2	0.0	0.0	49.3	54.2
Sweden	692	43.8	42.2	25.7	28.5	42.2	54.2	2.1	1.5	43.5	44.0
Turkiye	705	38.7	37.8	27.9	32.0	37.8	59.9	2.1	0.2	41.1	35.9
United Arab Emirates	5322	22.7	22.0	40.3	34.5	22.0	74.9	1.3	1.8	21.6	23.7
United States	1153	33.0	32.4	44.3	21.5	32.4	65.9	0.5	1.2	31.6	34.3
Uzbekistan	612	4.0	3.6	26.2	60.4	3.6	86.7	5.3	4.4	1.6	6.0
International Avg. (40)	39164	27.5	27.1	31.7	38.8	27.1	70.5	1.3	1.2	27.1	27.9
Abu Dhabi, UAE	2423	17.0	16.5	39.2	41.3	16.5	80.5	1.2	1.8	16.2	17.8
Dubai, UAE	1161	39.5	38.4	35.7	23.1	38.4	58.8	1.4	1.4	38.4	40.5
Sharjah, UAE	893	20.2	19.6	42.7	34.7	19.6	77.4	1.1	2.0	17.6	22.7

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Reasoning

B_SE2_13B SE72280B: Movement of motorbike in chronophotograph B - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1173	88.5	7.3	81.8	2.6	0.7	7.3	0.2	89.5	87.7
Austria	646	84.6	8.7	82.8	5.3	1.0	2.1	0.0	84.6	84.6
Azerbaijan	856	57.1	22.3	43.2	7.1	3.0	19.2	5.3	57.7	56.6
Bahrain	734	73.3	12.2	56.0	5.2	3.0	22.6	0.9	79.6	65.7
Brazil	3229	57.5	22.5	45.3	6.5	4.6	16.5	4.6	57.6	57.3
Chile	631	70.9	18.6	62.7	4.9	2.1	9.7	1.9	72.2	69.8
Chinese Taipei	475	86.7	6.8	85.7	2.3	4.0	1.1	0.0	87.9	85.5
Cyprus	583	83.0	9.1	74.4	4.1	2.1	8.2	2.1	86.5	79.4
Czech Republic	1120	85.8	7.1	83.6	4.0	2.7	2.4	0.1	84.6	86.9
England	583	91.4	4.7	82.9	2.5	0.6	8.9	0.4	90.2	92.8
Finland	806	90.3	4.8	86.2	2.5	2.0	3.8	0.8	90.1	90.6
France	642	86.6	6.0	81.3	4.2	2.4	5.4	0.7	85.9	87.4
Georgia	676	73.3	14.5	60.0	5.1	2.2	14.7	3.5	76.7	69.6
Hong Kong SAR	620	89.8	5.3	83.4	2.4	1.8	6.7	0.4	87.9	91.8
Hungary	748	87.8	7.5	85.0	2.7	1.6	3.2	0.0	86.7	89.1
Ireland	727	90.2	7.3	87.6	1.0	1.2	2.9	0.0	91.6	89.0
Israel	723	82.2	9.2	75.0	4.5	2.6	6.9	1.8	82.5	81.8
Italy	638	82.5	10.1	77.3	3.4	2.8	5.7	0.6	81.2	84.0
Japan	326	96.4	2.3	93.7	0.5	0.8	2.8	0.0	94.8	97.7
Jordan	1369	57.8	23.1	48.1	7.2	4.8	15.4	1.4	60.4	55.5
Kazakhstan	898	68.2	17.8	54.6	4.9	2.8	17.9	2.1	66.4	69.7
Korea, Rep. of	358	92.0	5.8	90.3	1.2	0.8	1.6	0.3	90.7	93.4
Lithuania	768	86.3	9.6	84.7	2.6	1.2	1.9	0.0	86.3	86.3
Malaysia	1230	61.9	21.0	59.1	7.8	7.6	3.3	1.2	63.2	60.4
Malta	572	83.0	10.3	78.6	3.6	2.1	5.0	0.4	82.0	84.0
Morocco	1745	47.9	20.2	39.4	15.3	7.2	13.4	4.5	48.1	47.8
New Zealand	533	83.2	10.2	77.1	2.9	2.4	6.8	0.5	83.5	83.0
Norway (9)	887	83.1	8.6	72.3	3.9	2.2	10.7	2.3	83.3	83.0
Oman	1629	74.9	14.4	60.1	4.4	1.4	17.5	2.2	78.8	71.0
Palestinian Nat'l Auth.	1310	57.6	23.9	45.0	6.5	2.8	20.2	1.6	62.6	52.7
Portugal	756	80.8	11.7	77.1	3.2	3.4	4.5	0.1	80.0	81.6
Qatar	600	78.2	13.3	71.7	4.2	2.5	7.4	0.9	77.1	79.4
Romania	522	79.9	10.6	69.0	3.9	2.9	11.9	1.6	79.9	79.8
Saudi Arabia	1172	63.8	23.4	52.0	4.2	1.8	17.2	1.3	68.4	59.5
Singapore	401	92.3	5.0	91.7	0.5	2.1	0.6	0.0	93.0	91.6
Sweden	692	87.6	7.2	79.4	3.2	0.8	7.4	1.9	88.2	86.9
Turkiye	706	78.7	15.8	74.6	2.3	2.1	5.0	0.2	79.9	77.3
United Arab Emirates	5322	77.2	13.5	66.5	4.2	1.9	11.7	2.2	79.2	75.2
United States	1153	84.1	9.9	79.6	3.6	1.5	4.1	1.3	84.8	83.6
Uzbekistan	612	45.4	28.8	36.2	7.5	7.4	14.6	5.5	45.1	45.5
International Avg. (40)	39171	78.0	12.3	70.9	4.2	2.6	8.7	1.4	78.7	77.4
Abu Dhabi, UAE	2423	73.3	15.9	63.3	5.0	2.2	11.6	2.1	77.1	69.6
Dubai, UAE	1161	87.4	7.7	77.7	2.7	0.8	9.4	1.8	89.2	85.6
Sharjah, UAE	893	75.8	13.3	64.3	4.7	2.5	12.9	2.4	73.5	78.2

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Earth Science / Applying

B_SE2_14 SE72370: What makes Saturn visible - MC - Key: C

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1173	64.8	13.8	9.7	64.7	11.6	0.0	0.3	56.6	72.2
Austria	646	68.8	13.7	7.1	68.7	10.4	0.1	0.0	66.9	70.7
Azerbaijan	856	38.3	22.0	21.6	35.7	13.9	1.2	5.6	37.2	39.2
Bahrain	734	49.0	15.5	22.8	48.1	11.7	0.5	1.4	49.8	48.2
Brazil	3229	40.6	21.8	23.2	37.9	10.5	1.6	5.0	35.8	45.3
Chile	631	48.4	22.4	15.7	46.8	11.8	1.2	2.2	42.0	54.3
Chinese Taipei	475	78.1	9.3	6.3	78.1	6.3	0.0	0.0	80.5	75.8
Cyprus	583	59.5	17.7	10.6	58.0	11.2	0.3	2.1	59.3	59.7
Czech Republic	1120	69.9	10.7	8.8	69.6	10.5	0.3	0.1	64.9	74.3
England	583	64.1	12.3	10.4	63.8	12.9	0.1	0.4	58.4	69.6
Finland	806	68.3	10.0	6.4	67.5	14.9	0.4	0.8	61.5	75.7
France	642	49.9	23.4	13.6	48.8	12.0	1.0	1.2	45.5	54.3
Georgia	676	48.4	24.0	12.4	45.8	12.5	1.4	3.9	49.8	47.0
Hong Kong SAR	620	70.6	7.4	12.5	70.2	9.3	0.1	0.4	62.5	78.8
Hungary	748	63.4	17.6	8.7	63.3	10.2	0.2	0.0	58.7	68.6
Ireland	727	61.4	17.4	7.1	61.3	14.0	0.1	0.1	55.7	66.5
Israel	723	47.7	22.2	15.2	46.4	13.6	0.8	1.8	44.1	51.4
Italy	638	53.8	21.9	15.4	53.4	8.5	0.1	0.6	50.5	57.4
Japan	326	76.4	10.1	3.8	76.2	9.7	0.2	0.0	68.7	83.1
Jordan	1369	44.0	19.3	23.2	43.0	12.3	0.1	2.0	47.2	41.1
Kazakhstan	898	37.9	19.6	25.0	36.4	15.0	1.1	3.0	34.7	40.7
Korea, Rep. of	358	78.7	13.6	4.1	78.5	3.5	0.0	0.3	80.4	77.1
Lithuania	768	66.1	10.4	9.0	66.0	14.5	0.2	0.0	64.6	67.6
Malaysia	1230	42.7	16.9	22.8	42.0	16.7	0.2	1.4	42.3	43.2
Malta	572	62.0	12.3	13.5	61.4	11.9	0.4	0.6	61.9	62.1
Morocco	1745	34.5	20.2	26.5	32.6	15.1	0.8	4.9	36.1	33.1
New Zealand	533	61.6	14.6	13.3	60.8	10.0	0.8	0.5	56.7	65.6
Norway (9)	887	61.0	14.6	10.9	59.0	12.3	0.5	2.6	53.8	67.6
Oman	1629	47.1	15.8	20.2	45.8	15.4	0.1	2.7	45.6	48.6
Palestinian Nat'l Auth.	1310	37.7	16.4	29.2	36.7	15.2	0.7	1.8	36.0	39.3
Portugal	756	53.8	21.5	15.5	53.6	9.0	0.3	0.1	51.8	55.8
Qatar	600	51.0	17.5	15.5	50.0	15.0	0.2	1.7	47.0	54.8
Romania	522	55.5	17.5	15.8	54.3	10.2	0.4	1.9	50.7	59.6
Saudi Arabia	1172	38.9	24.2	23.7	38.3	12.1	0.3	1.4	40.2	37.8
Singapore	401	84.7	4.8	5.1	84.7	5.4	0.0	0.0	81.9	87.3
Sweden	692	72.2	7.6	10.6	70.0	8.7	1.1	2.0	71.4	73.1
Turkiye	706	67.4	13.4	7.4	66.7	11.5	0.7	0.2	66.0	69.0
United Arab Emirates	5322	60.4	12.2	16.6	58.4	9.6	0.6	2.7	59.6	61.1
United States	1153	62.1	13.8	13.9	60.8	9.5	0.6	1.4	56.6	67.0
Uzbekistan	612	37.7	19.2	23.5	35.0	15.2	1.2	5.9	37.9	37.5
International Avg. (40)	39171	57.0	16.0	14.4	56.0	11.6	0.5	1.6	54.3	59.5
Abu Dhabi, UAE	2423	53.3	13.5	20.9	51.7	10.9	0.6	2.5	51.3	55.2
Dubai, UAE	1161	72.4	9.3	10.4	70.7	7.3	0.5	1.9	71.8	73.0
Sharjah, UAE	893	64.2	10.4	14.4	62.1	9.9	0.1	3.1	65.0	63.3

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Earth Science / Knowing

B_SE2_15 SE72329: How aquifers form - MC - Key: D

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1173	37.1	15.1	20.4	27.1	36.9	0.2	0.3	33.9	40.0
Austria	646	51.5	14.1	19.5	14.7	51.3	0.3	0.0	49.6	53.5
Azerbaijan	856	37.1	16.7	22.1	18.8	34.0	2.4	6.0	38.1	36.3
Bahrain	734	45.9	18.9	21.4	12.6	44.9	0.8	1.4	50.6	41.2
Brazil	3229	27.4	21.4	22.7	23.6	25.6	0.9	5.8	24.8	30.1
Chile	631	34.0	15.7	24.3	22.8	32.3	2.2	2.7	28.9	38.7
Chinese Taipei	475	65.0	5.8	14.3	15.0	65.0	0.0	0.0	66.0	64.0
Cyprus	583	34.7	11.7	28.1	23.2	33.5	1.3	2.2	35.7	33.7
Czech Republic	1120	50.0	13.5	17.2	18.9	49.6	0.5	0.2	51.1	48.9
England	583	40.6	12.1	20.3	26.6	40.4	0.1	0.4	37.4	43.8
Finland	806	55.5	10.8	16.7	16.2	54.6	0.6	1.0	56.3	54.7
France	642	37.8	16.5	16.2	28.0	36.9	1.1	1.4	33.6	42.2
Georgia	676	31.4	19.6	27.2	17.8	29.5	1.6	4.4	35.5	27.1
Hong Kong SAR	620	52.6	11.8	14.8	20.4	52.1	0.4	0.4	51.2	53.9
Hungary	748	42.5	15.7	21.7	19.6	42.1	0.8	0.0	41.6	43.5
Ireland	727	40.3	11.7	27.2	20.7	40.1	0.1	0.2	41.9	38.9
Israel	723	52.6	11.2	15.2	19.8	51.4	0.4	1.9	53.5	51.7
Italy	638	53.5	12.0	20.3	13.7	52.8	0.6	0.6	57.3	49.3
Japan	326	58.9	16.3	15.9	8.8	58.7	0.3	0.0	56.0	61.4
Jordan	1369	51.4	18.0	15.8	13.6	50.0	0.5	2.1	52.1	50.6
Kazakhstan	898	29.0	15.0	27.6	25.0	27.7	1.1	3.6	31.8	26.6
Korea, Rep. of	358	67.6	6.2	8.6	17.4	67.3	0.2	0.3	66.3	69.0
Lithuania	768	42.0	9.9	26.5	21.3	41.8	0.4	0.2	41.3	42.7
Malaysia	1230	36.4	13.0	26.0	23.3	35.7	0.3	1.6	38.1	34.6
Malta	572	45.6	11.5	20.5	21.6	44.9	1.0	0.6	49.4	42.2
Morocco	1745	28.9	17.2	26.3	23.0	27.1	1.2	5.1	28.7	29.1
New Zealand	533	36.9	15.8	21.3	25.5	36.6	0.4	0.5	38.1	35.9
Norway (9)	887	25.9	16.1	33.3	21.2	24.6	2.0	2.7	26.2	25.6
Oman	1629	67.5	8.6	14.2	8.8	65.4	0.3	2.8	74.4	61.0
Palestinian Nat'l Auth.	1310	47.2	16.1	20.9	14.4	45.9	0.7	2.1	51.7	42.9
Portugal	756	53.3	13.4	14.4	18.7	53.1	0.3	0.1	52.9	53.7
Qatar	600	42.4	17.6	19.2	19.4	41.4	0.8	1.7	46.4	38.5
Romania	522	41.8	19.6	16.9	19.7	40.3	1.5	2.0	35.6	46.9
Saudi Arabia	1172	41.1	23.2	20.7	14.0	40.3	0.2	1.5	44.7	37.6
Singapore	401	59.5	9.8	10.6	20.2	59.5	0.0	0.0	55.9	62.8
Sweden	692	49.3	12.7	20.8	15.3	47.4	1.7	2.0	52.4	46.2
Turkiye	706	37.9	23.6	18.4	18.7	37.1	2.1	0.2	43.0	32.0
United Arab Emirates	5322	43.8	14.1	20.5	19.5	42.3	0.6	3.0	45.5	42.2
United States	1153	46.3	11.0	18.3	23.3	45.3	0.3	1.7	46.7	45.9
Uzbekistan	612	52.6	11.5	15.6	16.6	48.6	0.8	6.9	56.6	49.3
International Avg. (40)	39171	44.9	14.4	20.0	19.2	43.8	0.8	1.7	45.5	44.2
Abu Dhabi, UAE	2423	37.2	16.5	23.4	20.6	35.8	0.8	2.9	39.0	35.5
Dubai, UAE	1161	50.4	10.6	17.8	19.9	49.1	0.6	2.0	49.7	51.1
Sharjah, UAE	893	52.3	12.6	15.9	17.3	50.3	0.5	3.2	54.5	50.2

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Knowing

B_SE3_01 SE82042: A pair of animals that lays eggs - MC - Key: D

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1193	92.8	2.4	1.7	3.1	92.6	0.3	0.0	92.3	93.5
Austria	651	88.3	4.7	3.0	3.9	88.3	0.0	0.0	91.7	85.2
Azerbaijan	874	76.5	9.4	7.0	7.0	76.4	0.1	0.0	75.3	77.7
Bahrain	719	63.4	12.8	9.7	14.2	63.4	0.0	0.0	62.3	64.4
Brazil	3169	79.0	5.1	3.8	12.1	78.8	0.3	0.0	76.0	82.3
Chile	631	85.2	5.9	2.5	6.3	85.2	0.0	0.0	84.4	86.0
Chinese Taipei	474	84.4	4.1	6.6	4.8	84.4	0.0	0.0	84.3	84.5
Cyprus	578	78.0	5.1	5.9	10.9	77.8	0.3	0.0	75.2	81.0
Czech Republic	1137	93.4	2.4	1.1	3.2	93.3	0.1	0.0	94.6	92.2
England	604	89.0	4.3	3.4	3.4	88.7	0.3	0.0	88.9	89.1
Finland	809	86.0	4.9	3.2	5.8	85.8	0.2	0.0	88.3	83.7
France	633	79.0	3.2	4.6	13.1	78.6	0.5	0.0	79.1	78.9
Georgia	677	80.7	6.5	3.9	8.8	80.5	0.3	0.0	76.0	85.4
Hong Kong SAR	637	80.9	4.6	7.3	7.2	80.8	0.2	0.0	80.5	81.4
Hungary	758	93.2	1.0	1.0	4.8	93.2	0.0	0.0	93.0	93.4
Ireland	715	90.8	4.4	1.9	2.8	90.8	0.0	0.0	90.3	91.3
Israel	726	66.6	11.4	8.8	13.0	66.2	0.6	0.0	64.3	68.8
Italy	639	86.5	3.9	0.9	8.8	86.4	0.1	0.0	86.3	86.6
Japan	334	85.6	1.9	4.7	7.9	85.3	0.3	0.0	83.5	87.6
Jordan	1398	52.6	13.7	10.8	22.8	52.5	0.1	0.0	48.5	56.5
Kazakhstan	892	59.0	16.3	13.1	11.4	58.5	0.7	0.0	56.9	60.6
Korea, Rep. of	366	95.6	1.0	1.9	1.5	95.3	0.3	0.0	98.0	93.5
Lithuania	748	81.5	6.8	5.2	6.5	81.5	0.0	0.0	80.8	82.2
Malaysia	1229	81.5	5.7	6.3	6.6	81.5	0.0	0.0	83.0	79.7
Malta	551	83.9	3.8	4.5	7.7	83.8	0.2	0.0	83.3	84.6
Morocco	1730	38.4	16.9	22.3	22.1	38.3	0.4	0.0	39.1	37.7
New Zealand	554	85.1	4.8	3.8	6.3	85.1	0.0	0.0	83.4	86.5
Norway (9)	885	82.2	4.1	4.3	9.3	82.1	0.2	0.0	84.5	80.2
Oman	1646	64.8	7.4	9.2	18.5	64.5	0.4	0.0	67.4	62.2
Palestinian Nat'l Auth.	1302	55.8	13.2	11.9	19.0	55.6	0.4	0.0	56.0	55.5
Portugal	757	81.8	3.9	2.6	11.7	81.8	0.0	0.0	80.6	83.0
Qatar	598	74.8	9.4	5.3	10.5	74.6	0.2	0.0	73.9	75.5
Romania	518	91.0	1.8	1.9	5.3	91.0	0.0	0.0	89.3	92.7
Saudi Arabia	1164	55.0	15.1	12.8	17.1	55.0	0.0	0.0	53.1	56.8
Singapore	407	94.8	1.6	1.2	2.4	94.8	0.0	0.0	95.7	94.1
Sweden	712	79.0	4.5	7.0	9.4	78.7	0.5	0.0	79.2	78.9
Turkiye	702	81.1	5.4	3.7	9.7	80.7	0.5	0.0	79.7	82.8
United Arab Emirates	5314	78.3	6.8	5.5	9.4	78.1	0.3	0.0	77.7	79.0
United States	1158	86.4	2.8	2.8	7.9	86.4	0.1	0.0	87.6	85.4
Uzbekistan	607	62.8	13.4	11.0	12.4	62.1	1.1	0.0	58.5	67.3
International Avg. (40)	39196	78.6	6.4	5.7	9.2	78.5	0.2	0.0	78.1	79.2
Abu Dhabi, UAE	2407	72.2	8.5	7.6	11.6	72.0	0.3	0.0	71.6	72.8
Dubai, UAE	1152	87.9	3.5	3.3	5.3	87.8	0.1	0.0	87.9	88.1
Sharjah, UAE	899	81.4	6.6	4.3	7.7	81.1	0.3	0.0	79.2	83.6

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Applying

B_SE3_02 SE82043: The offspring of two cats has features like its parents - MC - Key: D

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1193	70.8	1.6	19.4	8.0	70.5	0.4	0.0	72.4	69.4
Austria	651	72.2	2.0	19.7	6.1	72.2	0.0	0.0	75.8	68.9
Azerbaijan	874	63.3	5.4	20.8	10.1	62.6	1.0	0.0	68.4	58.3
Bahrain	719	62.0	6.6	18.9	12.5	62.0	0.0	0.0	66.8	57.3
Brazil	3169	60.2	4.9	23.0	11.7	60.1	0.2	0.0	64.6	55.4
Chile	631	65.8	1.5	24.8	7.7	65.5	0.5	0.0	70.4	61.7
Chinese Taipei	474	84.4	0.0	10.9	4.7	84.4	0.0	0.0	86.6	82.3
Cyprus	578	66.1	3.4	22.0	8.6	66.0	0.1	0.0	71.7	60.1
Czech Republic	1137	70.5	1.6	21.4	6.5	70.5	0.0	0.0	72.4	68.6
England	604	80.8	2.3	12.9	4.0	80.7	0.2	0.0	79.9	81.9
Finland	809	72.5	2.8	18.6	6.1	72.4	0.1	0.0	79.2	65.7
France	633	79.5	1.2	11.3	8.0	79.2	0.3	0.0	83.3	76.1
Georgia	677	68.3	3.3	21.4	6.9	68.2	0.1	0.0	70.4	66.2
Hong Kong SAR	637	65.6	1.7	21.5	11.2	65.4	0.2	0.0	72.5	58.9
Hungary	758	84.2	1.1	10.6	4.1	84.1	0.1	0.0	86.4	81.9
Ireland	715	77.6	2.1	14.5	5.8	77.6	0.0	0.0	75.4	79.7
Israel	727	75.3	3.2	11.2	10.3	75.3	0.0	0.0	77.6	73.0
Italy	639	85.9	0.9	9.3	3.9	85.9	0.0	0.0	88.9	83.4
Japan	334	69.1	1.0	13.8	16.0	68.8	0.3	0.0	70.5	67.6
Jordan	1398	56.0	6.5	23.5	13.9	56.0	0.1	0.0	61.4	51.0
Kazakhstan	892	63.6	3.0	24.8	8.5	63.5	0.1	0.0	65.5	62.2
Korea, Rep. of	366	73.6	0.6	15.5	10.2	73.1	0.7	0.0	75.2	72.2
Lithuania	748	81.3	1.1	14.1	3.6	81.3	0.0	0.0	88.1	74.8
Malaysia	1229	52.7	4.4	20.5	22.3	52.6	0.2	0.0	54.0	51.3
Malta	551	58.5	2.6	27.4	11.4	58.4	0.2	0.0	58.7	58.3
Morocco	1730	28.4	16.2	29.3	25.5	28.1	0.8	0.0	29.9	26.8
New Zealand	554	69.1	2.5	18.6	9.8	69.0	0.2	0.0	68.0	69.9
Norway (9)	885	63.9	3.3	20.6	12.1	63.7	0.2	0.0	69.4	58.8
Oman	1647	52.8	7.5	25.6	13.8	52.5	0.5	0.0	60.0	45.9
Palestinian Nat'l Auth.	1302	45.2	12.2	29.0	13.3	45.0	0.5	0.0	51.6	38.7
Portugal	757	55.9	1.9	29.1	13.1	55.9	0.0	0.0	58.2	53.6
Qatar	598	60.9	4.4	22.2	12.3	60.8	0.3	0.0	67.8	55.0
Romania	518	73.4	4.0	13.5	9.0	73.1	0.4	0.0	79.7	67.0
Saudi Arabia	1164	55.6	7.7	23.0	13.7	55.6	0.1	0.0	62.8	48.9
Singapore	407	83.9	0.7	9.5	5.9	83.9	0.0	0.0	88.0	80.6
Sweden	712	73.9	1.8	17.1	7.2	73.8	0.1	0.0	80.6	68.1
Turkiye	702	89.2	0.8	7.5	2.5	89.0	0.2	0.0	94.1	83.4
United Arab Emirates	5314	69.2	3.5	17.9	9.3	69.0	0.3	0.0	71.7	66.6
United States	1158	81.9	1.3	11.9	4.9	81.8	0.1	0.0	85.4	78.2
Uzbekistan	607	51.3	6.9	28.5	13.3	51.2	0.2	0.0	57.2	44.8
International Avg. (40)	39198	67.9	3.5	18.9	9.7	67.7	0.2	0.0	71.5	64.3
Abu Dhabi, UAE	2407	61.3	5.0	21.9	11.7	61.0	0.5	0.0	64.4	58.1
Dubai, UAE	1152	82.6	1.8	11.5	4.2	82.5	0.0	0.0	83.2	81.9
Sharjah, UAE	899	73.3	2.8	14.2	9.6	73.2	0.1	0.0	76.5	70.0

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Knowing

B_SE3_03 SE82002: Identify major organs in the human body (DERIVED) - CR - 1 Point

COUNTRY	N	DIFF %	1 %	0 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1193	51.5	51.4	48.5	51.4	48.5	0.0	0.0	49.1	53.7
Austria	651	67.2	67.2	32.8	67.2	32.8	0.0	0.0	64.3	69.9
Azerbaijan	874	60.3	59.9	39.4	59.9	39.4	0.6	0.0	59.7	60.9
Bahrain	719	51.6	51.6	48.4	51.6	48.4	0.0	0.0	56.6	46.8
Brazil	3169	37.6	37.4	62.1	37.4	62.1	0.5	0.0	35.6	39.8
Chile	631	46.5	46.4	53.4	46.4	53.4	0.2	0.0	42.4	50.3
Chinese Taipei	474	67.6	67.6	32.4	67.6	32.4	0.0	0.0	68.0	67.3
Cyprus	578	81.6	81.6	18.4	81.6	18.4	0.0	0.0	85.9	77.1
Czech Republic	1137	66.6	66.6	33.4	66.6	33.4	0.0	0.0	67.0	66.3
England	604	56.6	56.5	43.4	56.5	43.4	0.2	0.0	54.6	58.6
Finland	809	63.1	63.0	36.9	63.0	36.9	0.1	0.0	66.2	59.9
France	633	49.2	49.1	50.6	49.1	50.6	0.3	0.0	53.8	45.1
Georgia	677	68.4	68.4	31.6	68.4	31.6	0.0	0.0	66.4	70.3
Hong Kong SAR	637	57.0	57.0	43.0	57.0	43.0	0.0	0.0	55.1	58.7
Hungary	758	64.8	64.8	35.2	64.8	35.2	0.0	0.0	59.5	70.3
Ireland	715	58.0	58.0	42.0	58.0	42.0	0.0	0.0	57.3	58.6
Israel	727	29.8	29.8	70.2	29.8	70.2	0.0	0.0	29.1	30.4
Italy	639	55.7	55.7	44.3	55.7	44.3	0.0	0.0	53.2	57.9
Japan	334	85.6	85.6	14.4	85.6	14.4	0.0	0.0	82.7	88.4
Jordan	1398	43.7	43.6	56.3	43.6	56.3	0.1	0.0	43.7	43.7
Kazakhstan	892	52.5	52.5	47.5	52.5	47.5	0.0	0.0	52.9	52.2
Korea, Rep. of	366	77.9	77.4	21.9	77.4	21.9	0.7	0.0	77.9	77.9
Lithuania	748	72.8	72.8	27.2	72.8	27.2	0.0	0.0	74.6	71.0
Malaysia	1229	33.1	33.1	66.8	33.1	66.8	0.1	0.0	30.5	36.1
Malta	551	61.9	61.9	38.1	61.9	38.1	0.0	0.0	60.9	62.8
Morocco	1730	27.3	27.2	72.5	27.2	72.5	0.3	0.0	28.6	25.9
New Zealand	554	48.6	48.5	51.4	48.5	51.4	0.1	0.0	40.0	55.2
Norway (9)	885	43.4	43.2	56.5	43.2	56.5	0.1	0.1	42.3	44.3
Oman	1647	72.4	72.3	27.6	72.3	27.6	0.1	0.0	75.4	69.5
Palestinian Nat'l Auth.	1302	49.1	49.0	50.8	49.0	50.8	0.1	0.0	51.2	47.0
Portugal	757	66.8	66.8	33.2	66.8	33.2	0.0	0.0	62.5	71.0
Qatar	598	69.2	69.1	30.7	69.1	30.7	0.2	0.0	76.0	63.4
Romania	518	75.7	75.3	24.2	75.3	24.2	0.1	0.3	74.0	77.3
Saudi Arabia	1164	46.5	46.4	53.5	46.4	53.5	0.1	0.0	45.0	47.9
Singapore	407	81.5	81.5	18.5	81.5	18.5	0.0	0.0	81.5	81.5
Sweden	712	68.9	68.9	31.1	68.9	31.1	0.0	0.0	66.9	70.6
Turkiye	702	55.2	55.2	44.8	55.2	44.8	0.0	0.0	50.1	61.1
United Arab Emirates	5314	57.2	57.1	42.8	57.1	42.8	0.1	0.0	54.6	59.7
United States	1158	43.4	43.4	56.6	43.4	56.6	0.0	0.0	39.8	46.8
Uzbekistan	607	59.2	59.2	40.8	59.2	40.8	0.0	0.0	57.4	61.2
International Avg. (40)	39198	58.1	58.1	41.8	58.1	41.8	0.1	0.0	57.3	58.9
Abu Dhabi, UAE	2407	45.0	44.8	54.8	44.8	54.8	0.3	0.0	43.0	47.0
Dubai, UAE	1152	70.6	70.6	29.4	70.6	29.4	0.0	0.0	66.3	74.7
Sharjah, UAE	899	64.0	64.0	36.0	64.0	36.0	0.0	0.0	62.1	65.9

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Knowing

B_SE3_03A SE82002A: Identify major organs in the human body - lung - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	C %	D %	E %	F %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1193	96.8	0.1	96.8	0.2	1.6	0.3	1.0	0.0	0.0	96.6	97.2
Austria	651	93.3	0.4	93.1	0.4	2.8	0.2	2.9	0.1	0.0	92.4	94.1
Azerbaijan	874	87.2	3.8	85.6	0.1	4.3	0.9	3.6	1.8	0.0	89.4	85.1
Bahrain	719	87.0	1.1	87.0	0.9	7.6	1.6	1.9	0.0	0.0	89.7	84.3
Brazil	3169	93.9	1.0	93.3	0.5	1.9	1.3	1.2	0.7	0.0	92.9	95.0
Chile	631	99.1	0.1	99.0	0.2	0.3	0.2	0.0	0.2	0.0	99.1	99.1
Chinese Taipei	474	93.4	0.1	93.4	0.0	2.9	1.6	2.1	0.0	0.0	93.4	93.4
Cyprus	578	97.5	0.2	97.5	0.3	0.7	0.5	0.8	0.0	0.0	99.6	95.3
Czech Republic	1137	98.5	0.1	98.5	0.0	1.0	0.2	0.2	0.0	0.0	97.7	99.3
England	604	96.8	0.1	96.6	0.0	0.9	0.9	1.3	0.2	0.0	97.4	96.1
Finland	809	98.5	0.1	98.0	0.4	0.7	0.3	0.0	0.5	0.0	99.7	97.2
France	633	97.4	0.5	97.1	0.2	1.0	0.5	0.4	0.3	0.0	97.8	97.0
Georgia	677	95.4	0.3	94.8	0.4	2.4	0.5	1.0	0.7	0.0	94.8	96.0
Hong Kong SAR	637	95.6	0.2	95.4	0.6	1.6	0.7	1.2	0.2	0.0	95.5	95.7
Hungary	758	98.0	0.2	97.9	0.1	0.4	0.5	0.7	0.1	0.0	98.3	97.8
Ireland	715	96.3	1.0	96.3	0.6	1.4	0.3	0.4	0.0	0.0	96.2	96.4
Israel	727	91.3	1.1	91.2	0.4	5.7	1.0	0.5	0.1	0.0	90.7	91.9
Italy	639	99.8	0.1	99.5	0.0	0.1	0.0	0.0	0.3	0.0	99.7	99.8
Japan	334	97.9	0.6	97.9	0.0	0.9	0.0	0.5	0.0	0.0	98.9	97.0
Jordan	1398	80.6	1.9	80.4	2.0	8.6	2.1	4.9	0.3	0.0	80.8	80.4
Kazakhstan	892	94.1	0.5	94.1	0.3	3.2	0.8	1.0	0.0	0.0	94.5	93.9
Korea, Rep. of	366	93.0	1.2	92.4	0.6	0.6	1.8	2.7	0.7	0.0	94.8	91.4
Lithuania	748	96.1	0.5	96.1	0.2	0.4	0.1	2.6	0.0	0.0	94.9	97.2
Malaysia	1229	77.6	0.9	77.4	1.2	1.7	13.9	4.6	0.2	0.0	76.6	78.7
Malta	551	92.0	0.3	92.0	1.2	4.4	0.8	1.3	0.0	0.0	92.1	91.9
Morocco	1730	62.5	7.8	61.6	7.9	10.3	6.3	4.7	1.4	0.0	65.8	59.1
New Zealand	554	95.3	0.2	95.2	0.5	2.5	0.5	1.1	0.1	0.0	93.0	97.2
Norway (9)	885	98.9	0.0	98.4	0.0	0.6	0.0	0.4	0.4	0.1	99.3	98.6
Oman	1647	92.6	0.7	92.5	1.0	3.7	1.0	1.0	0.1	0.0	95.2	90.2
Palestinian Nat'l Auth.	1302	81.9	1.8	81.5	2.0	7.6	2.9	3.7	0.6	0.0	84.0	79.9
Portugal	757	98.6	0.3	98.6	0.1	0.6	0.3	0.1	0.0	0.0	98.5	98.8
Qatar	598	93.3	0.2	93.1	0.4	2.2	2.8	1.1	0.2	0.0	96.3	90.8
Romania	518	96.2	0.0	95.8	0.0	2.6	0.6	0.6	0.1	0.3	96.6	95.8
Saudi Arabia	1164	85.7	1.7	85.2	1.4	7.9	1.6	1.7	0.6	0.0	87.7	83.8
Singapore	407	98.1	0.0	98.1	0.3	0.8	0.6	0.2	0.0	0.0	99.3	97.2
Sweden	712	99.6	0.1	99.6	0.1	0.1	0.1	0.0	0.0	0.0	99.5	99.6
Turkiye	702	79.7	0.6	79.5	0.8	9.0	0.6	9.3	0.2	0.0	78.3	81.3
United Arab Emirates	5314	87.7	1.5	87.4	2.4	5.0	0.9	2.5	0.3	0.0	87.9	87.4
United States	1158	95.2	0.0	95.2	0.9	2.2	0.5	1.3	0.0	0.0	95.7	94.6
Uzbekistan	607	89.0	1.6	88.8	0.4	5.7	1.7	1.6	0.2	0.0	88.1	89.9
International Avg. (40)	39198	92.5	0.8	92.3	0.7	2.9	1.3	1.7	0.3	0.0	93.0	92.1
Abu Dhabi, UAE	2407	80.0	2.9	79.4	4.6	6.7	1.3	4.3	0.8	0.0	80.3	79.7
Dubai, UAE	1152	95.7	0.3	95.7	0.5	2.4	0.3	0.8	0.0	0.0	95.8	95.6
Sharjah, UAE	899	93.2	0.5	93.1	0.9	3.6	0.7	1.1	0.0	0.0	92.8	93.6

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Knowing

B_SE3_03B SE82002B: Identify major organs in the human body - liver - MC - Key: F

COUNTRY	N	DIFF %	A %	B %	C %	D %	E %	F %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1193	70.7	5.8	0.5	2.8	19.8	0.4	70.6	0.1	0.0	66.9	74.4
Austria	651	81.7	6.4	1.6	1.7	8.6	0.0	81.6	0.1	0.0	80.6	82.7
Azerbaijan	874	86.0	3.1	1.2	0.5	8.7	0.2	84.6	1.6	0.0	84.4	87.5
Bahrain	719	80.0	2.5	2.3	1.4	13.4	0.3	79.8	0.3	0.0	81.6	78.5
Brazil	3169	75.9	4.8	0.5	2.9	15.5	0.3	75.4	0.7	0.0	78.0	73.7
Chile	631	62.8	3.4	0.2	3.5	29.7	0.0	62.3	0.9	0.0	59.0	66.4
Chinese Taipei	474	76.9	2.7	2.0	0.4	17.7	0.3	76.9	0.0	0.0	75.5	78.1
Cyprus	578	90.4	2.5	0.2	0.3	6.5	0.0	90.4	0.0	0.0	92.6	88.1
Czech Republic	1137	79.2	2.5	0.4	2.6	15.2	0.0	79.2	0.0	0.0	82.0	76.7
England	604	69.3	6.6	0.2	2.9	20.6	0.4	69.2	0.2	0.0	68.0	70.6
Finland	809	77.6	7.1	0.2	5.0	10.1	0.0	77.5	0.1	0.0	82.2	72.9
France	633	74.5	4.8	0.0	5.6	14.7	0.3	74.3	0.3	0.0	76.1	73.1
Georgia	677	82.5	4.0	0.7	1.9	10.8	0.0	81.7	0.9	0.0	83.1	81.9
Hong Kong SAR	637	68.0	3.1	1.0	3.5	24.2	0.1	67.9	0.2	0.0	68.0	68.1
Hungary	758	88.6	2.0	0.2	1.8	7.0	0.3	88.6	0.0	0.0	88.5	88.7
Ireland	715	76.0	6.3	0.1	2.4	15.1	0.2	76.0	0.0	0.0	71.7	79.9
Israel	727	67.2	4.1	0.9	7.1	20.6	0.0	67.0	0.3	0.0	66.9	67.4
Italy	639	78.6	5.4	0.0	3.0	12.7	0.1	78.4	0.3	0.0	76.0	80.9
Japan	334	89.3	1.9	0.9	0.3	7.2	0.2	88.4	1.0	0.0	87.4	91.2
Jordan	1398	71.0	3.1	2.3	1.3	21.6	0.7	70.9	0.1	0.0	72.1	69.9
Kazakhstan	892	76.4	1.5	1.2	1.3	19.4	0.2	76.2	0.3	0.0	76.7	76.2
Korea, Rep. of	366	88.0	4.4	1.1	0.4	5.9	0.1	87.4	0.7	0.0	87.8	88.2
Lithuania	748	82.9	1.7	1.2	0.5	13.7	0.0	82.9	0.0	0.0	84.9	80.9
Malaysia	1229	38.8	8.8	6.7	3.0	34.2	8.3	38.7	0.3	0.0	36.9	41.0
Malta	551	74.8	4.8	1.7	1.2	17.6	0.0	74.8	0.0	0.0	71.6	78.0
Morocco	1730	46.2	9.5	8.3	11.9	16.2	6.9	45.3	1.9	0.0	48.1	44.2
New Zealand	554	72.0	4.6	0.7	1.7	20.9	0.0	71.9	0.1	0.0	69.0	74.4
Norway (9)	885	69.8	4.7	0.0	2.2	22.8	0.3	69.1	0.8	0.1	68.0	71.5
Oman	1647	85.6	2.4	0.8	0.8	9.9	0.5	85.4	0.2	0.0	87.4	83.8
Palestinian Nat'l Auth.	1302	78.8	3.8	2.1	1.5	12.7	0.9	78.4	0.5	0.0	83.0	74.6
Portugal	757	83.3	7.4	0.1	1.1	7.7	0.4	83.3	0.0	0.0	82.5	84.0
Qatar	598	83.3	3.6	0.2	0.7	12.1	0.0	83.1	0.3	0.0	84.0	82.8
Romania	518	90.3	0.7	0.5	0.4	8.0	0.1	89.9	0.1	0.3	88.5	92.2
Saudi Arabia	1164	78.3	2.7	0.8	1.2	16.5	0.5	78.0	0.4	0.0	76.2	80.2
Singapore	407	83.8	0.4	0.3	0.0	14.9	0.5	83.8	0.0	0.0	83.2	84.4
Sweden	712	79.3	2.4	0.0	1.7	16.6	0.0	79.3	0.0	0.0	77.8	80.6
Turkiye	702	71.0	2.4	4.8	0.9	20.9	0.0	70.8	0.2	0.0	66.3	76.4
United Arab Emirates	5314	72.2	3.5	2.0	2.9	18.5	0.7	71.9	0.4	0.0	70.7	73.7
United States	1158	67.1	4.2	1.0	4.8	22.7	0.2	67.1	0.0	0.0	66.1	68.0
Uzbekistan	607	82.4	1.7	1.7	0.6	12.6	0.9	82.3	0.2	0.0	80.7	84.3
International Avg. (40)	39198	76.3	3.9	1.3	2.2	15.6	0.6	76.0	0.3	0.0	75.8	76.8
Abu Dhabi, UAE	2407	62.0	4.0	3.7	4.9	23.8	1.4	61.4	0.9	0.0	60.4	63.6
Dubai, UAE	1152	80.5	3.2	0.5	1.0	14.5	0.2	80.4	0.1	0.0	79.4	81.5
Sharjah, UAE	899	80.3	3.3	0.7	1.9	13.6	0.2	80.2	0.0	0.0	78.4	82.2

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Knowing

B_SE3_03C SE82002C: Identify major organs in the human body - intestine - MC - Key: C

COUNTRY	N	DIFF %	A %	B %	C %	D %	E %	F %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1193	79.2	14.9	0.1	79.2	2.1	0.0	3.7	0.0	0.0	76.3	82.0
Austria	651	86.4	11.2	0.0	86.4	0.6	0.2	1.6	0.0	0.0	86.9	85.9
Azerbaijan	874	92.5	5.2	0.2	91.4	1.6	0.0	0.5	1.2	0.0	94.2	90.8
Bahrain	719	84.4	10.4	0.4	83.9	2.8	0.2	1.7	0.5	0.0	88.3	80.4
Brazil	3169	66.9	24.8	0.2	66.5	4.8	0.1	2.9	0.7	0.0	67.4	66.4
Chile	631	72.8	12.5	0.0	72.4	5.8	0.0	8.8	0.6	0.0	68.2	77.2
Chinese Taipei	474	94.8	3.6	0.3	94.8	0.5	0.2	0.6	0.0	0.0	94.6	95.0
Cyprus	578	91.8	5.0	0.2	91.8	1.6	0.3	1.1	0.0	0.0	93.7	89.8
Czech Republic	1137	85.9	9.6	0.0	85.9	0.5	0.0	4.0	0.0	0.0	85.3	86.4
England	604	88.0	7.8	0.0	87.9	1.7	0.0	2.5	0.2	0.0	85.4	90.8
Finland	809	74.4	12.2	0.0	74.3	3.6	0.3	9.5	0.1	0.0	75.9	72.9
France	633	71.9	21.8	0.2	71.7	3.4	0.1	2.5	0.4	0.0	73.7	70.4
Georgia	677	88.0	6.9	0.1	87.4	1.9	0.0	3.0	0.7	0.0	88.4	87.6
Hong Kong SAR	637	85.6	7.0	0.3	85.5	3.6	0.3	3.2	0.2	0.0	85.2	86.0
Hungary	758	80.4	17.1	0.2	80.3	1.7	0.0	0.6	0.1	0.0	76.2	84.7
Ireland	715	83.9	11.4	0.4	83.9	1.4	0.0	3.0	0.0	0.0	81.4	86.2
Israel	727	54.0	37.2	0.1	53.8	3.2	0.3	4.9	0.4	0.0	53.4	54.6
Italy	639	79.3	17.7	0.1	79.1	0.9	0.0	1.9	0.3	0.0	79.7	79.1
Japan	334	98.8	0.7	0.0	98.8	0.2	0.0	0.3	0.0	0.0	97.5	100.0
Jordan	1398	83.2	10.8	0.8	83.1	2.5	0.9	1.7	0.1	0.0	86.8	79.8
Kazakhstan	892	82.7	15.4	0.0	82.5	0.5	0.3	0.9	0.3	0.0	84.6	81.2
Korea, Rep. of	366	91.3	3.3	0.0	90.7	4.3	0.4	0.7	0.7	0.0	91.7	91.0
Lithuania	748	95.5	2.7	0.1	95.5	0.8	0.2	0.7	0.0	0.0	97.2	93.8
Malaysia	1229	87.1	7.6	1.2	86.9	2.5	0.6	1.0	0.2	0.0	86.7	87.5
Malta	551	88.1	8.4	0.3	88.1	1.5	0.0	1.7	0.0	0.0	88.2	88.0
Morocco	1730	49.8	14.3	7.0	48.9	10.9	7.5	9.6	1.8	0.0	51.1	48.5
New Zealand	554	81.0	15.2	0.0	80.9	1.3	0.6	1.8	0.1	0.0	76.7	84.3
Norway (9)	885	88.2	6.7	0.0	87.7	2.6	0.1	2.3	0.4	0.1	91.0	85.6
Oman	1647	92.3	4.9	0.3	92.1	1.3	0.3	0.9	0.2	0.0	94.8	89.8
Palestinian Nat'l Auth.	1302	82.2	9.5	1.0	81.9	4.4	0.9	1.9	0.3	0.0	83.6	80.7
Portugal	757	88.6	8.7	0.0	88.6	1.1	0.1	1.5	0.0	0.0	89.2	88.0
Qatar	598	94.8	2.9	0.2	94.4	1.1	0.0	1.0	0.4	0.0	97.0	92.9
Romania	518	89.4	9.3	0.2	89.0	0.9	0.0	0.1	0.1	0.3	87.3	91.5
Saudi Arabia	1164	82.3	12.6	1.0	81.9	2.6	0.2	1.3	0.4	0.0	84.1	80.6
Singapore	407	99.5	0.3	0.0	99.5	0.0	0.0	0.3	0.0	0.0	100.0	99.1
Sweden	712	88.7	8.6	0.0	88.7	1.9	0.1	0.7	0.0	0.0	88.6	88.8
Turkiye	702	90.9	5.4	0.2	90.9	2.9	0.0	0.7	0.0	0.0	92.5	89.0
United Arab Emirates	5314	79.9	11.8	1.5	79.6	2.7	0.6	3.6	0.3	0.0	79.5	80.2
United States	1158	72.0	23.0	0.5	72.0	2.1	0.1	2.3	0.0	0.0	66.9	77.0
Uzbekistan	607	88.9	8.9	0.2	88.8	0.7	0.1	1.2	0.2	0.0	91.1	86.6
International Avg. (40)	39198	83.9	10.7	0.4	83.7	2.3	0.4	2.3	0.3	0.0	84.0	83.8
Abu Dhabi, UAE	2407	67.0	17.5	2.6	66.5	4.9	1.2	6.6	0.7	0.0	66.1	67.9
Dubai, UAE	1152	91.3	6.6	0.4	91.3	0.9	0.0	0.9	0.0	0.0	89.2	93.2
Sharjah, UAE	899	87.8	8.5	0.5	87.7	1.2	0.3	1.7	0.1	0.0	90.5	85.1

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Knowing

B_SE3_03D SE82002D: Identify major organs in the human body - heart - MC - Key: E

COUNTRY	N	DIFF %	A %	B %	C %	D %	E %	F %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1193	98.8	0.2	0.5	0.2	0.3	98.7	0.0	0.0	0.0	99.1	98.6
Austria	651	99.1	0.0	0.3	0.1	0.4	99.1	0.1	0.0	0.0	99.2	99.1
Azerbaijan	874	97.1	1.7	0.7	0.2	0.2	96.2	0.2	0.9	0.0	96.4	97.7
Bahrain	719	96.3	0.4	2.3	0.1	0.5	96.3	0.4	0.0	0.0	97.6	95.1
Brazil	3169	97.9	0.4	1.3	0.1	0.3	97.4	0.1	0.5	0.0	98.2	97.5
Chile	631	99.4	0.0	0.4	0.0	0.0	99.3	0.2	0.2	0.0	99.6	99.2
Chinese Taipei	474	96.9	0.0	0.9	0.0	0.8	96.9	1.3	0.0	0.0	96.8	97.1
Cyprus	578	99.0	0.1	0.4	0.0	0.3	99.0	0.2	0.0	0.0	100.0	97.8
Czech Republic	1137	99.8	0.0	0.2	0.0	0.1	99.8	0.0	0.0	0.0	99.9	99.7
England	604	98.6	0.4	0.9	0.1	0.0	98.5	0.0	0.2	0.0	98.5	98.8
Finland	809	98.4	1.0	0.4	0.0	0.2	98.3	0.0	0.1	0.0	99.3	97.5
France	633	98.9	0.3	0.7	0.0	0.0	98.6	0.0	0.3	0.0	98.2	99.5
Georgia	677	98.9	0.3	0.5	0.0	0.3	98.5	0.0	0.4	0.0	98.4	99.4
Hong Kong SAR	637	98.1	0.7	0.5	0.0	0.2	97.9	0.6	0.2	0.0	98.6	97.7
Hungary	758	99.1	0.0	0.5	0.2	0.1	99.1	0.0	0.0	0.0	99.1	99.2
Ireland	715	99.3	0.0	0.5	0.1	0.1	99.3	0.0	0.0	0.0	99.3	99.4
Israel	727	98.3	0.2	0.9	0.1	0.5	98.1	0.0	0.1	0.0	98.7	97.8
Italy	639	99.6	0.0	0.3	0.0	0.1	99.6	0.0	0.0	0.0	99.4	99.8
Japan	334	99.3	0.2	0.0	0.0	0.3	99.3	0.2	0.0	0.0	99.1	99.5
Jordan	1398	94.9	1.7	2.2	0.5	0.6	94.8	0.1	0.1	0.0	96.1	93.8
Kazakhstan	892	98.6	0.7	0.4	0.0	0.2	98.6	0.0	0.1	0.0	99.8	97.7
Korea, Rep. of	366	97.1	0.6	1.7	0.0	0.3	96.5	0.3	0.7	0.0	98.1	96.3
Lithuania	748	99.4	0.4	0.1	0.0	0.1	99.4	0.0	0.0	0.0	99.6	99.3
Malaysia	1229	65.1	0.6	3.4	0.4	0.3	64.9	30.2	0.3	0.0	63.9	66.4
Malta	551	98.9	0.2	0.4	0.0	0.2	98.9	0.4	0.0	0.0	98.8	98.9
Morocco	1730	65.7	7.7	7.0	4.4	8.5	64.9	6.2	1.3	0.0	71.2	60.1
New Zealand	554	98.8	0.2	0.6	0.0	0.3	98.7	0.1	0.1	0.0	98.1	99.3
Norway (9)	885	99.4	0.0	0.3	0.0	0.1	99.1	0.1	0.1	0.1	100.0	98.8
Oman	1647	96.8	1.2	1.0	0.0	0.4	96.6	0.6	0.2	0.0	98.2	95.4
Palestinian Nat'l Auth.	1302	92.9	2.0	2.3	0.7	1.4	92.7	0.6	0.2	0.0	95.5	90.4
Portugal	757	99.1	0.1	0.6	0.0	0.2	99.1	0.0	0.0	0.0	99.4	98.8
Qatar	598	95.8	0.3	1.8	0.0	1.3	95.6	0.8	0.2	0.0	98.7	93.4
Romania	518	98.7	0.3	0.6	0.0	0.2	98.3	0.2	0.1	0.3	98.5	98.9
Saudi Arabia	1164	96.9	0.5	1.6	0.3	0.3	96.7	0.3	0.2	0.0	97.7	96.2
Singapore	407	98.1	0.0	0.6	0.0	0.6	98.1	0.7	0.0	0.0	99.5	97.0
Sweden	712	99.8	0.1	0.1	0.0	0.0	99.8	0.0	0.0	0.0	100.0	99.6
Turkiye	702	98.3	0.1	1.0	0.0	0.4	98.3	0.3	0.0	0.0	98.0	98.6
United Arab Emirates	5314	96.6	0.7	1.2	0.5	0.5	96.4	0.6	0.2	0.0	98.4	94.8
United States	1158	98.6	0.3	0.5	0.1	0.4	98.5	0.1	0.1	0.0	99.5	97.7
Uzbekistan	607	95.5	0.8	1.8	0.2	0.9	95.5	0.9	0.0	0.0	95.7	95.3
International Avg. (40)	39198	96.4	0.6	1.0	0.2	0.5	96.3	1.1	0.2	0.0	97.0	95.9
Abu Dhabi, UAE	2407	94.5	1.2	1.6	1.0	0.7	94.2	1.0	0.3	0.0	97.7	91.3
Dubai, UAE	1152	98.9	0.0	0.6	0.0	0.1	98.9	0.3	0.0	0.0	99.7	98.1
Sharjah, UAE	899	97.8	0.5	0.7	0.3	0.5	97.7	0.2	0.1	0.0	98.1	97.5

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Knowing

B_SE3_03E SE82002E: Identify major organs in the human body - stomach - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	C %	D %	E %	F %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1193	65.5	65.5	1.1	4.2	20.8	0.3	8.2	0.0	0.0	62.8	68.1
Austria	651	74.9	74.8	3.4	5.5	8.6	0.3	7.3	0.1	0.0	73.8	75.9
Azerbaijan	874	72.2	71.2	5.7	2.2	17.8	0.0	1.8	1.4	0.0	74.3	70.2
Bahrain	719	68.4	68.0	2.8	2.8	19.3	0.2	6.2	0.7	0.0	74.3	62.6
Brazil	3169	50.3	50.0	2.7	11.6	28.3	0.1	6.7	0.6	0.0	46.5	54.5
Chile	631	70.9	70.8	0.3	5.0	12.4	0.4	11.0	0.2	0.0	66.7	74.9
Chinese Taipei	474	86.7	86.7	1.7	0.3	7.4	0.0	3.8	0.0	0.0	85.7	87.7
Cyprus	578	88.2	88.2	0.9	1.9	5.3	0.0	3.6	0.0	0.0	89.8	86.4
Czech Republic	1137	80.9	80.9	0.2	3.3	10.8	0.0	4.8	0.0	0.0	79.4	82.4
England	604	71.9	71.8	0.8	1.6	14.2	0.0	11.4	0.2	0.0	71.4	72.5
Finland	809	75.4	75.3	1.2	7.7	8.5	0.3	6.9	0.1	0.0	78.1	72.6
France	633	60.0	59.8	1.1	9.6	15.3	0.0	13.8	0.3	0.0	63.7	56.8
Georgia	677	81.0	80.2	2.3	1.7	7.9	0.0	6.9	1.0	0.0	81.0	81.1
Hong Kong SAR	637	81.6	81.4	1.1	2.9	8.9	0.4	5.1	0.2	0.0	79.3	83.8
Hungary	758	70.1	70.1	0.6	5.4	19.9	0.0	3.9	0.1	0.0	65.8	74.6
Ireland	715	69.3	69.3	2.0	4.9	15.9	0.0	7.8	0.0	0.0	71.8	67.0
Israel	727	43.0	42.9	2.6	13.4	25.9	0.3	14.7	0.1	0.0	42.2	43.8
Italy	639	61.3	61.2	0.0	8.6	15.0	0.3	14.7	0.2	0.0	59.3	63.0
Japan	334	94.4	93.4	0.6	0.0	1.7	0.0	3.3	1.0	0.0	92.0	96.7
Jordan	1398	65.3	65.2	4.6	4.7	19.7	0.5	5.3	0.1	0.0	66.0	64.6
Kazakhstan	892	66.8	66.6	1.4	4.8	18.9	0.0	8.1	0.3	0.0	67.8	66.0
Korea, Rep. of	366	86.1	85.5	2.6	1.3	5.4	0.0	4.5	0.7	0.0	84.6	87.4
Lithuania	748	85.8	85.8	0.8	0.2	9.4	0.0	3.8	0.0	0.0	86.7	84.9
Malaysia	1229	72.6	72.5	4.6	5.2	11.0	2.5	3.9	0.2	0.0	70.6	74.9
Malta	551	80.0	80.0	1.9	1.8	10.2	0.0	6.0	0.0	0.0	80.7	79.4
Morocco	1730	51.5	50.7	8.5	11.7	11.8	6.0	9.7	1.5	0.0	54.0	48.9
New Zealand	554	64.8	64.8	2.2	4.3	21.8	0.0	6.9	0.1	0.0	54.1	73.1
Norway (9)	885	55.4	55.2	0.4	5.2	25.9	0.0	12.8	0.3	0.1	54.7	56.1
Oman	1647	84.1	83.9	1.8	2.0	8.5	0.4	3.1	0.2	0.0	86.2	82.1
Palestinian Nat'l Auth.	1302	64.3	64.0	3.9	4.7	20.6	1.2	5.1	0.4	0.0	64.6	64.0
Portugal	757	71.9	71.9	0.0	3.3	14.5	0.1	10.2	0.0	0.0	66.4	77.3
Qatar	598	84.1	83.9	2.0	0.6	9.4	0.3	3.6	0.2	0.0	89.4	79.5
Romania	518	83.0	82.7	1.1	1.9	9.9	0.2	3.8	0.1	0.3	81.0	85.1
Saudi Arabia	1164	63.2	63.1	4.4	3.4	22.1	0.1	6.8	0.1	0.0	62.1	64.1
Singapore	407	97.8	97.8	0.0	0.0	1.1	0.0	1.1	0.0	0.0	98.2	97.4
Sweden	712	82.8	82.8	0.2	2.7	8.9	0.0	5.5	0.0	0.0	81.8	83.6
Turkiye	702	87.0	86.9	1.8	2.6	7.3	0.2	1.0	0.2	0.0	87.8	86.2
United Arab Emirates	5314	74.7	74.4	2.5	4.4	12.1	0.3	6.0	0.3	0.0	72.9	76.4
United States	1158	58.1	58.1	1.8	4.3	22.2	0.1	13.5	0.0	0.0	52.7	63.4
Uzbekistan	607	73.5	73.0	2.5	3.4	15.6	0.3	4.6	0.7	0.0	74.3	72.6
International Avg. (40)	39198	73.0	72.8	2.0	4.1	13.8	0.4	6.7	0.3	0.0	72.4	73.5
Abu Dhabi, UAE	2407	67.0	66.5	4.3	8.0	12.8	0.4	7.3	0.6	0.0	65.2	68.8
Dubai, UAE	1152	82.6	82.6	1.0	1.4	8.9	0.2	5.8	0.1	0.0	77.8	87.1
Sharjah, UAE	899	78.4	78.4	1.1	1.8	14.3	0.0	4.3	0.0	0.0	79.9	76.9

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Knowing

B_SE3_04 SE82073: Difference between producers and consumers - MC - Key: D

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1193	68.2	11.6	7.8	12.3	67.9	0.3	0.0	66.7	69.5
Austria	651	55.7	13.6	11.2	19.3	55.3	0.6	0.0	61.9	49.8
Azerbaijan	874	45.3	16.0	16.4	20.8	43.9	3.0	0.0	53.3	37.6
Bahrain	719	61.2	12.9	11.2	14.7	61.2	0.0	0.0	68.8	53.7
Brazil	3169	52.6	17.6	9.9	19.6	52.4	0.5	0.0	54.4	50.7
Chile	631	55.7	14.8	9.0	20.3	55.5	0.4	0.0	54.7	56.7
Chinese Taipei	474	75.5	6.0	4.8	13.7	75.5	0.0	0.0	73.5	77.6
Cyprus	578	57.9	14.9	12.1	14.9	57.6	0.4	0.0	59.7	55.9
Czech Republic	1137	64.7	12.5	6.2	16.5	64.6	0.2	0.0	67.1	62.5
England	604	74.9	10.1	5.8	9.0	74.3	0.8	0.0	75.4	74.3
Finland	809	68.8	10.6	7.3	13.1	68.4	0.6	0.0	72.3	65.3
France	633	52.8	14.3	9.9	22.3	52.1	1.3	0.0	51.7	53.7
Georgia	677	57.0	14.4	10.4	17.8	56.6	0.8	0.0	62.3	51.9
Hong Kong SAR	637	75.9	7.1	5.9	10.9	75.2	0.9	0.0	76.3	75.5
Hungary	758	67.9	8.5	7.3	16.3	67.8	0.1	0.0	68.3	67.5
Ireland	715	67.3	11.3	7.8	13.6	67.3	0.0	0.0	64.1	70.3
Israel	726	61.9	11.6	8.8	17.6	61.8	0.2	0.0	63.8	60.0
Italy	639	62.2	9.8	9.1	18.8	61.9	0.5	0.0	66.3	58.6
Japan	334	78.1	9.4	4.2	8.2	77.8	0.3	0.0	79.6	76.6
Jordan	1398	43.3	19.6	17.9	19.0	43.3	0.2	0.0	46.4	40.4
Kazakhstan	892	60.8	13.9	10.4	14.7	60.5	0.4	0.0	70.5	53.0
Korea, Rep. of	366	73.3	10.6	5.5	10.5	72.8	0.7	0.0	74.0	72.6
Lithuania	748	73.0	8.0	5.7	13.3	72.9	0.1	0.0	78.5	67.8
Malaysia	1229	66.0	13.2	9.3	11.4	66.0	0.0	0.0	70.1	61.4
Malta	551	67.1	9.6	9.9	13.3	66.9	0.3	0.0	72.2	61.9
Morocco	1730	30.2	19.6	19.8	29.7	29.9	0.9	0.0	32.3	28.0
New Zealand	554	64.3	11.8	10.3	13.5	64.0	0.4	0.0	66.0	63.0
Norway (9)	885	63.3	12.7	10.0	13.7	62.9	0.6	0.1	68.2	58.9
Oman	1647	68.0	10.7	10.4	10.8	67.9	0.2	0.0	77.3	59.1
Palestinian Nat'l Auth.	1302	43.3	16.8	21.1	18.5	43.2	0.3	0.1	50.7	35.9
Portugal	757	72.4	7.8	6.6	13.2	72.3	0.2	0.0	73.5	71.4
Qatar	598	65.8	15.0	7.0	12.2	65.8	0.0	0.0	66.3	65.3
Romania	518	58.9	13.9	8.0	18.9	58.4	0.5	0.3	63.6	54.2
Saudi Arabia	1164	55.5	15.6	13.3	15.6	55.4	0.1	0.0	63.7	47.8
Singapore	407	92.0	2.2	3.3	2.4	92.0	0.0	0.0	95.0	89.6
Sweden	712	65.9	12.3	8.1	13.5	65.6	0.5	0.0	67.7	64.4
Turkiye	702	75.3	8.9	4.6	11.0	74.5	1.1	0.0	78.1	72.0
United Arab Emirates	5314	71.5	10.0	7.9	10.5	71.3	0.2	0.0	75.3	67.6
United States	1158	76.7	7.8	6.4	9.1	76.6	0.2	0.0	77.0	76.3
Uzbekistan	607	48.9	18.6	14.9	17.5	48.7	0.3	0.0	57.0	39.9
International Avg. (40)	39197	63.5	12.1	9.4	14.8	63.2	0.5	0.0	66.6	60.5
Abu Dhabi, UAE	2407	65.0	12.4	10.2	12.4	64.8	0.2	0.0	69.2	60.7
Dubai, UAE	1152	84.8	4.8	4.2	6.2	84.6	0.2	0.0	86.6	83.1
Sharjah, UAE	899	72.8	9.2	7.2	10.8	72.7	0.2	0.0	78.5	67.1

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Applying

B_SE3_05 SE82070: Food chain is missing an animal - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1193	75.7	18.0	75.5	5.5	0.7	0.3	0.0	69.4	81.9
Austria	651	59.4	30.3	59.3	9.3	1.0	0.1	0.0	54.4	64.2
Azerbaijan	874	64.8	16.0	64.0	12.0	6.9	1.1	0.0	57.8	71.6
Bahrain	719	72.8	13.2	72.5	12.1	1.8	0.4	0.0	68.6	77.0
Brazil	3169	69.1	10.4	68.3	18.2	1.9	1.1	0.0	63.3	75.3
Chile	631	64.1	20.1	63.6	13.4	2.2	0.7	0.0	59.1	68.7
Chinese Taipei	474	82.7	12.1	82.4	4.0	1.2	0.3	0.0	78.3	86.9
Cyprus	578	84.0	8.0	83.8	7.1	0.9	0.3	0.0	79.8	88.5
Czech Republic	1137	79.7	15.2	79.7	4.8	0.3	0.0	0.0	78.2	81.1
England	604	64.7	29.3	64.1	4.3	1.4	0.7	0.2	56.8	73.0
Finland	809	68.4	22.5	68.2	6.9	2.0	0.2	0.1	64.2	72.7
France	633	68.8	18.0	68.5	11.9	1.2	0.3	0.0	59.6	76.9
Georgia	677	69.9	14.5	69.7	13.5	2.0	0.2	0.1	64.8	75.0
Hong Kong SAR	637	72.8	20.8	72.7	4.5	1.8	0.2	0.0	66.3	79.1
Hungary	758	76.5	16.6	76.4	5.8	1.1	0.1	0.0	70.8	82.2
Ireland	715	64.2	29.7	63.9	5.8	0.1	0.5	0.0	57.3	70.6
Israel	725	76.9	12.8	76.8	7.7	2.6	0.2	0.0	72.4	81.4
Italy	639	70.5	19.4	70.5	8.8	1.3	0.0	0.0	61.9	78.1
Japan	334	82.7	15.2	82.7	1.4	0.7	0.0	0.0	76.1	89.2
Jordan	1398	66.1	12.7	65.8	18.2	2.8	0.4	0.0	60.9	71.0
Kazakhstan	892	64.8	19.4	64.8	14.4	1.4	0.0	0.0	61.5	67.5
Korea, Rep. of	366	84.6	11.6	84.3	2.7	1.1	0.3	0.0	82.2	86.7
Lithuania	748	76.4	15.6	76.4	7.0	1.0	0.0	0.0	76.0	76.8
Malaysia	1229	92.5	3.1	92.2	4.2	0.2	0.3	0.0	90.0	95.3
Malta	551	72.4	18.6	72.4	8.0	1.0	0.0	0.0	68.7	76.1
Morocco	1730	66.6	9.0	65.9	21.0	3.1	1.1	0.0	56.1	77.5
New Zealand	554	66.5	27.9	66.5	4.4	1.1	0.1	0.0	58.2	73.0
Norway (9)	885	63.2	30.4	63.1	4.6	1.7	0.1	0.1	58.4	67.6
Oman	1647	72.7	8.0	72.3	17.6	1.6	0.5	0.0	65.5	79.7
Palestinian Nat'l Auth.	1302	57.1	17.3	56.7	21.7	3.6	0.7	0.1	50.8	63.4
Portugal	757	80.5	14.2	80.5	4.9	0.3	0.0	0.0	73.3	87.7
Qatar	598	72.8	14.7	72.0	8.9	3.4	1.0	0.0	68.3	76.5
Romania	518	74.7	16.1	74.0	8.5	0.5	0.5	0.3	70.7	78.6
Saudi Arabia	1164	55.1	21.8	55.1	18.8	4.3	0.1	0.0	51.6	58.4
Singapore	407	82.1	13.6	82.1	3.8	0.5	0.0	0.0	78.5	85.0
Sweden	712	77.6	17.6	77.6	3.6	1.2	0.1	0.0	73.5	81.3
Turkiye	702	75.7	12.6	75.6	10.6	1.2	0.1	0.0	70.2	82.0
United Arab Emirates	5314	77.9	11.9	77.8	9.1	1.1	0.1	0.0	73.2	82.5
United States	1158	84.5	12.1	84.4	3.0	0.4	0.0	0.1	78.8	90.2
Uzbekistan	607	74.2	9.2	74.1	13.5	3.1	0.2	0.0	72.0	76.6
International Avg. (40)	39196	72.6	16.5	72.4	9.1	1.6	0.3	0.0	67.4	77.7
Abu Dhabi, UAE	2407	73.6	14.0	73.5	10.9	1.5	0.1	0.0	69.1	78.2
Dubai, UAE	1152	83.7	11.5	83.7	4.3	0.5	0.0	0.0	78.6	88.5
Sharjah, UAE	899	81.1	9.1	81.1	8.7	1.1	0.0	0.0	76.6	85.7

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Chemistry / Reasoning

B_SE3_06 SE82144: Information gained from a dissolving experiment - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1193	68.2	67.6	14.1	11.4	6.2	0.7	0.1	61.9	74.2
Austria	651	51.0	50.6	20.2	13.2	15.2	0.8	0.0	53.5	48.6
Azerbaijan	874	41.9	40.8	21.6	18.6	16.2	2.8	0.0	42.1	41.8
Bahrain	719	50.4	50.3	18.3	18.2	13.0	0.1	0.0	53.6	47.3
Brazil	3169	48.2	47.8	19.8	14.5	17.2	0.7	0.0	46.0	50.5
Chile	631	56.2	55.6	15.7	13.7	14.1	0.9	0.0	56.4	55.9
Chinese Taipei	474	81.9	81.9	8.6	5.0	4.5	0.0	0.0	81.3	82.4
Cyprus	578	50.0	49.9	18.0	14.0	18.0	0.1	0.0	51.8	48.0
Czech Republic	1137	57.2	57.1	16.6	12.7	13.5	0.2	0.0	56.8	57.5
England	604	70.1	69.6	14.7	7.6	7.4	0.5	0.2	68.0	72.3
Finland	809	59.1	58.7	18.5	13.3	8.8	0.5	0.1	57.4	60.8
France	633	47.5	46.4	16.8	22.8	11.6	2.3	0.0	51.3	44.1
Georgia	677	42.4	41.8	23.8	16.0	17.0	1.4	0.1	43.0	41.9
Hong Kong SAR	637	71.1	70.6	11.6	8.6	8.4	0.8	0.0	70.6	71.7
Hungary	758	55.9	55.8	17.4	15.0	11.6	0.2	0.0	52.9	58.9
Ireland	715	68.4	68.2	15.8	7.7	8.0	0.4	0.0	69.4	67.5
Israel	727	67.3	67.1	13.8	9.8	9.0	0.3	0.0	67.1	67.5
Italy	639	55.1	54.9	16.8	16.5	11.5	0.4	0.0	51.9	58.0
Japan	334	86.4	86.1	8.3	3.6	1.7	0.3	0.0	87.8	85.1
Jordan	1398	34.0	33.8	24.2	20.0	21.6	0.4	0.0	35.6	32.4
Kazakhstan	892	47.5	47.5	22.6	12.6	17.3	0.1	0.0	51.7	44.2
Korea, Rep. of	366	74.6	74.1	13.3	7.2	4.7	0.7	0.0	73.7	75.3
Lithuania	748	57.5	57.4	13.4	14.3	14.8	0.1	0.0	53.5	61.3
Malaysia	1229	56.1	56.1	15.8	16.0	12.1	0.1	0.0	58.5	53.4
Malta	551	60.2	59.8	17.2	11.8	10.6	0.6	0.0	60.9	59.4
Morocco	1730	29.5	29.3	26.3	22.5	21.2	0.7	0.1	29.7	29.3
New Zealand	554	63.0	62.7	15.2	12.3	9.4	0.4	0.0	55.4	68.8
Norway (9)	885	51.0	50.3	21.9	13.6	12.9	1.1	0.1	48.2	53.5
Oman	1647	42.2	42.0	19.6	21.8	16.3	0.3	0.0	47.4	37.1
Palestinian Nat'l Auth.	1302	34.0	33.7	25.6	18.4	21.4	0.8	0.1	33.9	34.2
Portugal	757	61.4	61.1	15.1	12.5	10.8	0.5	0.0	62.1	60.7
Qatar	598	59.9	59.5	15.9	13.2	10.8	0.5	0.0	61.4	58.5
Romania	518	47.3	47.0	19.9	18.5	13.9	0.4	0.3	47.0	47.6
Saudi Arabia	1164	53.3	53.2	22.3	13.6	10.8	0.1	0.0	56.2	50.5
Singapore	407	83.6	83.6	6.0	7.1	3.3	0.0	0.0	88.3	79.8
Sweden	712	61.7	60.9	15.8	13.0	9.0	1.3	0.0	61.3	62.0
Turkiye	702	75.2	74.5	6.8	10.2	7.5	1.0	0.0	76.5	73.8
United Arab Emirates	5314	62.1	62.0	15.2	12.9	9.7	0.2	0.0	63.2	61.1
United States	1158	66.0	65.7	15.7	12.5	5.8	0.2	0.1	66.7	65.2
Uzbekistan	607	34.2	34.0	28.0	12.4	24.9	0.7	0.0	33.6	34.8
International Avg. (40)	39198	57.1	56.7	17.2	13.5	12.0	0.6	0.0	57.2	56.9
Abu Dhabi, UAE	2407	56.9	56.7	17.3	14.9	10.8	0.3	0.0	58.0	55.7
Dubai, UAE	1152	75.5	75.4	10.5	7.6	6.3	0.1	0.0	74.6	76.3
Sharjah, UAE	899	61.2	61.2	15.2	13.0	10.6	0.0	0.0	62.5	60.0

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Chemistry / Applying

B_SE3_07 SE82108: Element with a similar property to neon - MC - Key: C

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1193	45.7	26.9	16.2	45.6	11.1	0.1	0.1	43.3	48.1
Austria	651	50.5	12.9	18.4	50.2	18.0	0.5	0.0	53.0	48.1
Azerbaijan	874	48.7	17.5	19.5	47.8	13.2	2.0	0.0	54.3	43.3
Bahrain	719	38.5	22.3	19.0	38.4	20.0	0.3	0.0	41.3	35.8
Brazil	3169	30.8	19.7	25.3	30.1	22.4	2.5	0.0	29.9	31.8
Chile	631	40.0	11.7	26.8	38.9	19.8	2.8	0.0	40.4	39.6
Chinese Taipei	474	64.3	14.5	12.0	64.3	9.2	0.0	0.0	64.2	64.3
Cyprus	578	39.3	23.6	19.6	39.2	17.2	0.3	0.0	41.8	36.7
Czech Republic	1137	59.7	14.8	14.5	59.6	11.0	0.2	0.0	60.8	58.5
England	604	52.3	29.7	8.3	51.9	9.3	0.6	0.2	47.0	58.0
Finland	809	48.8	24.2	14.3	48.4	12.3	0.7	0.1	54.5	43.1
France	633	34.5	11.2	25.4	33.8	27.5	2.1	0.0	35.3	33.8
Georgia	677	47.8	15.4	21.7	47.1	14.3	1.4	0.1	50.0	45.7
Hong Kong SAR	637	47.1	17.8	17.9	46.9	17.0	0.2	0.2	47.8	46.5
Hungary	758	57.4	11.9	13.7	57.1	16.8	0.5	0.0	55.6	59.3
Ireland	715	41.6	28.9	13.7	41.3	15.5	0.5	0.0	40.2	42.8
Israel	727	46.0	20.4	16.2	45.8	17.3	0.4	0.0	47.5	44.5
Italy	639	51.1	12.0	12.8	51.1	24.0	0.1	0.0	48.6	53.4
Japan	334	55.7	12.6	17.0	55.5	14.6	0.3	0.0	57.7	53.8
Jordan	1398	45.2	24.7	14.5	45.2	15.6	0.0	0.0	49.0	41.6
Kazakhstan	892	59.0	15.9	16.7	58.7	8.2	0.4	0.0	61.4	57.0
Korea, Rep. of	366	51.5	18.2	16.4	51.1	13.6	0.7	0.0	57.2	46.5
Lithuania	748	55.9	13.6	14.4	55.9	16.1	0.1	0.0	53.9	57.8
Malaysia	1229	34.7	22.0	24.0	34.6	19.3	0.1	0.1	34.9	34.4
Malta	551	44.1	27.2	15.1	43.9	13.4	0.4	0.0	45.7	42.5
Morocco	1730	33.4	21.9	25.9	32.9	17.9	1.4	0.1	32.0	34.8
New Zealand	554	43.6	27.5	14.2	43.5	14.6	0.3	0.0	44.0	43.3
Norway (9)	885	43.4	16.8	23.1	42.9	16.0	1.0	0.2	43.7	43.1
Oman	1647	44.3	16.4	19.1	44.1	19.9	0.4	0.0	50.1	38.7
Palestinian Nat'l Auth.	1302	50.9	18.8	16.5	50.6	13.6	0.3	0.1	59.9	41.9
Portugal	757	46.6	15.7	16.8	46.4	20.7	0.4	0.0	46.6	46.6
Qatar	598	43.9	22.2	18.8	43.6	14.7	0.7	0.0	48.5	40.0
Romania	518	36.3	38.6	14.8	36.2	9.9	0.2	0.3	32.8	39.8
Saudi Arabia	1164	38.1	23.6	19.7	38.1	18.6	0.0	0.0	43.8	32.7
Singapore	407	64.6	15.4	12.8	64.6	7.3	0.0	0.0	67.5	62.2
Sweden	712	39.2	28.8	11.5	38.8	19.6	1.2	0.0	39.9	38.7
Turkiye	702	63.4	11.8	11.7	61.9	12.2	2.5	0.0	67.0	59.4
United Arab Emirates	5314	57.7	17.7	11.9	57.5	12.6	0.3	0.1	59.6	55.8
United States	1158	45.0	21.1	15.2	44.8	18.5	0.2	0.2	46.5	43.5
Uzbekistan	607	43.4	17.7	22.6	43.2	16.1	0.3	0.0	42.4	44.4
International Avg. (40)	39198	47.1	19.6	17.2	46.8	15.7	0.7	0.0	48.5	45.8
Abu Dhabi, UAE	2407	50.7	19.4	15.5	50.3	14.1	0.6	0.1	53.2	48.1
Dubai, UAE	1152	68.7	15.2	7.3	68.6	8.7	0.3	0.0	68.3	69.0
Sharjah, UAE	899	62.1	15.4	10.5	62.1	12.0	0.0	0.0	64.1	60.1

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Chemistry / Reasoning

B_SE3_08 SE82137: Stirring affects sugar dissolving - MC - Key: C

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1193	87.7	4.1	3.3	87.3	4.9	0.4	0.1	89.3	86.2
Austria	651	79.4	10.3	5.4	79.3	4.9	0.1	0.0	78.2	80.5
Azerbaijan	874	66.0	15.9	8.4	65.3	9.3	1.1	0.0	63.0	68.9
Bahrain	719	80.3	7.1	4.5	80.3	8.2	0.0	0.0	85.8	74.9
Brazil	3169	66.9	15.8	7.1	66.6	10.1	0.4	0.0	68.7	65.0
Chile	631	74.0	13.5	5.9	73.4	6.4	0.7	0.0	76.3	71.9
Chinese Taipei	474	96.0	1.1	1.0	96.0	1.9	0.0	0.0	95.9	96.2
Cyprus	578	80.6	8.7	5.1	80.4	5.6	0.2	0.0	85.0	76.0
Czech Republic	1137	89.3	5.9	1.6	89.1	3.2	0.2	0.0	87.8	90.6
England	604	88.9	6.7	1.4	88.2	2.9	0.6	0.2	90.1	87.6
Finland	809	81.2	10.8	3.7	80.9	4.2	0.2	0.1	84.5	77.9
France	633	80.0	12.6	3.9	79.8	3.4	0.3	0.0	78.8	81.2
Georgia	677	81.0	7.1	4.5	80.9	7.3	0.0	0.1	80.8	81.2
Hong Kong SAR	637	91.3	2.9	1.8	90.9	4.0	0.2	0.2	92.2	90.5
Hungary	758	87.2	7.4	1.9	87.2	3.5	0.0	0.0	86.8	87.7
Ireland	715	85.2	6.5	2.5	85.2	5.8	0.1	0.0	86.9	83.7
Israel	727	81.3	10.4	3.2	81.1	5.1	0.2	0.0	83.4	79.2
Italy	639	79.4	11.6	2.7	79.4	6.3	0.0	0.0	79.6	79.3
Japan	334	93.9	1.3	0.5	93.6	4.3	0.3	0.0	95.0	92.8
Jordan	1398	68.5	16.1	6.4	68.4	9.0	0.1	0.0	72.8	64.4
Kazakhstan	892	80.1	9.6	2.7	80.0	7.6	0.1	0.0	82.9	77.7
Korea, Rep. of	366	92.0	2.4	3.1	91.4	2.4	0.7	0.0	93.0	91.2
Lithuania	748	92.1	3.2	2.1	92.1	2.6	0.0	0.0	93.9	90.4
Malaysia	1229	79.4	8.9	6.2	79.2	5.4	0.2	0.1	82.5	75.8
Malta	551	85.5	5.6	3.8	85.3	5.1	0.2	0.0	87.5	83.5
Morocco	1730	52.2	18.0	15.0	52.0	14.6	0.3	0.1	52.8	51.5
New Zealand	554	82.2	8.9	3.3	81.7	5.5	0.6	0.0	84.0	80.8
Norway (9)	885	72.9	10.7	6.6	72.6	9.7	0.2	0.2	74.2	71.8
Oman	1647	76.8	12.3	4.9	76.7	6.0	0.1	0.0	83.0	70.9
Palestinian Nat'l Auth.	1302	75.1	8.6	6.5	74.8	9.8	0.2	0.1	78.5	71.7
Portugal	757	85.9	5.3	2.3	85.7	6.5	0.1	0.1	87.5	84.3
Qatar	598	80.7	10.6	3.6	80.3	5.0	0.5	0.0	83.9	78.0
Romania	518	84.6	8.4	4.4	84.2	2.6	0.1	0.3	85.9	83.2
Saudi Arabia	1164	80.9	9.0	4.3	80.9	5.8	0.0	0.0	85.8	76.4
Singapore	407	92.6	1.1	3.3	92.6	3.0	0.0	0.0	95.8	90.1
Sweden	712	82.3	6.4	4.3	82.2	6.9	0.1	0.0	83.0	81.8
Turkiye	702	91.1	4.1	2.7	91.1	2.0	0.1	0.0	92.4	89.6
United Arab Emirates	5314	80.4	9.2	4.4	80.2	5.9	0.2	0.1	82.3	78.6
United States	1158	81.2	7.9	5.5	81.0	5.3	0.1	0.2	83.4	79.0
Uzbekistan	607	60.7	18.9	6.3	60.4	13.9	0.5	0.0	62.9	58.2
International Avg. (40)	39198	81.2	8.6	4.3	81.0	5.9	0.2	0.0	82.9	79.5
Abu Dhabi, UAE	2407	73.0	11.5	6.6	72.7	8.7	0.3	0.1	74.1	71.9
Dubai, UAE	1152	89.5	5.7	1.9	89.5	2.9	0.0	0.0	91.3	87.7
Sharjah, UAE	899	85.4	7.5	2.7	85.3	4.4	0.1	0.0	86.6	84.3

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Knowing

B_SE3_09A SE82200A: Physical state of water (DERIVED) - CR - 1 Point

COUNTRY	N	DIFF %	1 %	0 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1193	72.3	69.9	26.8	69.9	26.8	3.1	0.1	68.5	75.9
Austria	651	78.0	76.9	21.7	76.9	21.7	1.4	0.0	77.6	78.4
Azerbaijan	874	51.2	42.1	40.2	42.1	40.2	17.7	0.0	46.6	55.3
Bahrain	719	52.4	49.3	44.8	49.3	44.8	5.9	0.0	51.3	53.4
Brazil	3169	51.7	46.8	43.8	46.8	43.8	9.4	0.0	45.6	58.5
Chile	631	65.6	60.3	31.6	60.3	31.6	8.1	0.0	67.2	64.1
Chinese Taipei	474	83.0	77.6	15.9	77.6	15.9	6.5	0.0	79.8	86.5
Cyprus	578	57.7	56.4	41.4	56.4	41.4	2.2	0.0	55.6	60.0
Czech Republic	1137	82.9	81.8	16.8	81.8	16.8	1.4	0.0	79.4	86.3
England	604	74.2	71.0	24.7	71.0	24.7	4.1	0.2	69.6	79.0
Finland	809	86.5	85.0	13.3	85.0	13.3	1.6	0.1	88.9	84.1
France	633	78.6	77.2	21.0	77.2	21.0	1.8	0.0	75.8	81.1
Georgia	677	66.7	61.5	30.7	61.5	30.7	7.8	0.1	66.6	66.9
Hong Kong SAR	637	80.4	75.9	18.5	75.9	18.5	5.3	0.2	77.5	83.3
Hungary	758	83.1	82.0	16.7	82.0	16.7	1.3	0.0	81.7	84.5
Ireland	715	75.6	73.8	23.9	73.8	23.9	2.3	0.0	71.5	79.4
Israel	727	67.9	64.0	30.3	64.0	30.3	5.6	0.0	63.6	72.2
Italy	639	80.1	79.0	19.6	79.0	19.6	1.4	0.0	79.4	80.7
Japan	334	82.7	82.2	17.2	82.2	17.2	0.6	0.0	78.4	86.9
Jordan	1398	54.4	47.2	39.6	47.2	39.6	13.2	0.0	54.6	54.2
Kazakhstan	892	58.5	56.6	40.1	56.6	40.1	3.3	0.0	59.5	57.7
Korea, Rep. of	366	65.6	62.1	32.5	62.1	32.5	5.3	0.0	62.1	68.8
Lithuania	748	75.4	73.9	24.0	73.9	24.0	2.1	0.0	75.6	75.3
Malaysia	1229	34.0	33.5	64.9	33.5	64.9	1.5	0.1	30.4	38.3
Malta	551	62.7	61.1	36.3	61.1	36.3	2.6	0.0	56.6	69.0
Morocco	1730	40.3	32.2	47.6	32.2	47.6	20.1	0.1	41.2	39.4
New Zealand	553	74.0	70.0	24.5	70.0	24.5	5.4	0.0	71.8	75.8
Norway (9)	885	74.1	71.3	24.9	71.3	24.9	3.5	0.2	74.7	73.6
Oman	1647	55.3	50.5	40.8	50.5	40.8	8.8	0.0	52.6	58.2
Palestinian Nat'l Auth.	1302	40.1	34.5	51.5	34.5	51.5	13.9	0.1	39.8	40.5
Portugal	757	75.1	73.2	24.2	73.2	24.2	2.4	0.1	71.0	79.2
Qatar	598	60.0	56.9	38.0	56.9	38.0	5.1	0.0	54.0	65.1
Romania	518	71.4	66.8	26.7	66.8	26.7	6.1	0.3	73.6	69.3
Saudi Arabia	1164	44.3	40.1	50.5	40.1	50.5	9.4	0.0	39.0	49.2
Singapore	407	87.1	85.0	12.6	85.0	12.6	2.4	0.0	89.8	84.8
Sweden	712	90.1	87.8	9.7	87.8	9.7	2.5	0.0	90.9	89.4
Turkiye	702	73.4	72.2	26.2	72.2	26.2	1.6	0.0	71.4	75.7
United Arab Emirates	5314	64.7	61.9	33.7	61.9	33.7	4.2	0.1	62.1	67.4
United States	1158	64.3	61.4	34.0	61.4	34.0	4.3	0.3	59.8	69.0
Uzbekistan	607	39.4	31.9	49.1	31.9	49.1	19.0	0.0	39.9	38.8
International Avg. (40)	39197	66.9	63.6	30.8	63.6	30.8	5.6	0.1	64.9	68.9
Abu Dhabi, UAE	2407	55.6	53.0	42.4	53.0	42.4	4.4	0.2	53.3	57.9
Dubai, UAE	1152	79.0	76.9	20.4	76.9	20.4	2.7	0.0	75.8	82.0
Sharjah, UAE	899	69.6	66.4	29.0	66.4	29.0	4.6	0.0	65.4	73.9

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Knowing

B_SE3_09AA SE82200AA: Physical state of water - 110C - MC - Key: C

COUNTRY	N	DIFF %	A %	B %	C %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1193	78.9	9.9	10.5	76.2	3.3	0.1	77.0	80.8
Austria	651	81.5	4.9	13.3	80.2	1.7	0.0	81.0	82.0
Azerbaijan	874	59.6	14.9	17.3	47.6	20.2	0.0	51.8	66.7
Bahrain	719	59.4	24.3	13.6	55.5	6.6	0.0	56.3	62.7
Brazil	3169	62.0	18.2	15.7	55.4	10.7	0.0	56.4	68.2
Chile	631	74.9	11.3	11.5	68.0	9.2	0.0	73.3	76.3
Chinese Taipei	474	85.7	4.5	8.9	79.8	6.8	0.0	82.4	89.2
Cyprus	578	67.1	14.3	17.7	65.1	2.9	0.0	64.7	69.7
Czech Republic	1137	88.1	3.4	8.4	86.8	1.4	0.0	86.0	90.0
England	604	82.5	8.0	8.7	78.6	4.5	0.2	78.2	86.9
Finland	809	90.9	3.8	5.1	89.3	1.7	0.1	93.5	88.3
France	633	84.8	7.0	7.9	82.8	2.4	0.0	82.8	86.5
Georgia	677	72.7	11.5	13.1	65.7	9.5	0.1	70.9	74.5
Hong Kong SAR	637	85.3	4.9	8.9	80.4	5.5	0.2	83.5	87.0
Hungary	758	87.3	3.7	8.8	85.6	1.9	0.0	85.6	88.9
Ireland	715	83.6	8.3	7.8	81.6	2.3	0.0	80.1	86.8
Israel	727	75.2	13.3	9.9	70.6	6.2	0.0	70.4	80.2
Italy	639	88.6	5.6	5.6	87.3	1.6	0.0	86.4	90.6
Japan	334	85.5	4.2	10.2	85.0	0.6	0.0	80.4	90.7
Jordan	1398	61.7	17.8	15.0	52.8	14.5	0.0	60.9	62.5
Kazakhstan	892	65.7	15.6	17.1	62.8	4.4	0.0	65.3	66.0
Korea, Rep. of	366	69.5	12.4	16.4	65.6	5.6	0.0	67.4	71.4
Lithuania	748	79.0	4.9	15.6	77.4	2.1	0.0	77.8	80.3
Malaysia	1229	44.5	31.2	23.1	43.6	2.1	0.1	42.0	47.5
Malta	551	70.9	16.2	12.1	69.0	2.8	0.0	65.9	76.1
Morocco	1730	48.9	22.3	16.9	37.6	23.0	0.1	49.7	48.2
New Zealand	553	79.3	11.7	7.8	74.6	5.9	0.0	77.7	80.5
Norway (9)	885	83.1	7.6	8.6	79.6	4.0	0.2	82.3	83.9
Oman	1647	60.4	20.5	15.4	54.8	9.3	0.0	57.1	63.9
Palestinian Nat'l Auth.	1302	49.3	23.7	19.0	41.5	15.7	0.1	47.5	51.3
Portugal	757	83.3	7.6	8.6	80.7	2.9	0.1	80.0	86.5
Qatar	598	63.2	21.4	13.5	59.9	5.1	0.0	58.0	67.6
Romania	518	77.9	6.9	13.5	72.2	7.0	0.3	79.7	76.1
Saudi Arabia	1164	55.2	22.9	17.3	49.7	10.0	0.0	49.8	60.4
Singapore	407	90.2	4.2	5.4	87.8	2.6	0.0	91.8	88.9
Sweden	712	93.1	2.5	4.2	90.4	2.9	0.0	93.2	93.0
Turkiye	702	78.1	9.7	11.8	76.4	2.2	0.0	76.3	80.2
United Arab Emirates	5314	71.3	15.5	11.9	68.0	4.5	0.1	67.0	75.6
United States	1158	70.8	14.1	13.7	67.3	4.6	0.3	65.5	76.2
Uzbekistan	607	50.2	15.5	22.1	37.9	24.5	0.0	51.1	49.2
International Avg. (40)	39197	73.5	12.0	12.3	69.3	6.4	0.1	71.2	75.8
Abu Dhabi, UAE	2407	64.7	19.2	14.4	61.4	4.9	0.2	59.4	70.0
Dubai, UAE	1152	83.2	7.8	8.5	81.0	2.7	0.0	78.9	87.3
Sharjah, UAE	899	73.7	13.9	11.1	70.2	4.7	0.0	69.5	78.0

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Knowing

B_SE3_09AB SE82200AB: Physical state of water - -5C - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	C %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1193	81.0	78.3	8.8	9.6	3.2	0.1	78.5	83.6
Austria	651	90.6	89.2	6.5	2.8	1.5	0.0	91.6	89.6
Azerbaijan	874	71.8	57.0	14.0	8.4	20.6	0.0	68.8	74.7
Bahrain	719	62.7	58.3	15.5	19.2	7.0	0.0	61.1	64.3
Brazil	3169	66.3	59.1	13.6	16.5	10.8	0.0	61.0	72.1
Chile	631	78.0	70.9	12.8	7.3	9.1	0.0	75.2	80.5
Chinese Taipei	474	92.2	86.0	2.9	4.4	6.7	0.0	91.2	93.2
Cyprus	578	71.4	69.3	15.3	12.5	2.9	0.0	69.8	73.1
Czech Republic	1137	90.0	88.6	6.0	3.9	1.5	0.0	88.2	91.6
England	604	81.7	78.0	8.7	8.8	4.2	0.2	78.1	85.4
Finland	809	93.3	91.4	4.7	1.9	1.9	0.1	93.7	92.8
France	633	86.8	85.1	6.6	6.4	1.9	0.0	83.5	89.7
Georgia	677	83.1	75.1	8.2	7.0	9.6	0.1	82.1	84.2
Hong Kong SAR	637	87.0	81.8	6.4	5.9	5.7	0.2	86.4	87.5
Hungary	758	92.2	90.7	5.8	1.9	1.7	0.0	90.6	93.9
Ireland	715	83.1	80.9	10.2	6.3	2.6	0.0	79.1	86.8
Israel	727	75.8	71.3	11.6	11.1	6.0	0.0	73.7	78.0
Italy	639	87.6	86.3	7.6	4.7	1.4	0.0	86.3	88.7
Japan	334	91.9	91.3	4.4	3.6	0.6	0.0	89.3	94.5
Jordan	1398	70.5	60.2	14.5	10.7	14.6	0.0	69.1	71.9
Kazakhstan	892	76.0	72.3	12.7	10.2	4.8	0.0	75.5	76.3
Korea, Rep. of	366	77.9	73.6	5.9	15.1	5.5	0.0	76.4	79.2
Lithuania	748	89.1	87.3	5.2	5.4	2.1	0.0	89.4	88.8
Malaysia	1229	48.7	47.7	21.5	28.8	1.9	0.1	45.2	52.6
Malta	551	70.8	68.6	15.3	13.0	3.1	0.0	62.8	79.0
Morocco	1730	60.3	46.6	16.2	14.6	22.5	0.1	61.5	59.0
New Zealand	553	82.6	77.2	8.5	7.7	6.6	0.0	80.9	84.0
Norway (9)	885	82.4	78.8	10.2	6.6	4.2	0.2	83.1	81.8
Oman	1647	70.5	64.1	11.5	15.4	9.1	0.0	68.3	72.8
Palestinian Nat'l Auth.	1302	57.7	48.0	16.8	18.4	16.7	0.1	57.3	58.1
Portugal	757	81.9	79.7	10.1	7.5	2.5	0.1	78.8	85.0
Qatar	598	70.5	66.7	10.1	17.9	5.3	0.0	64.3	75.7
Romania	518	85.8	80.0	7.4	5.8	6.4	0.3	84.8	86.8
Saudi Arabia	1164	60.9	54.6	15.9	19.2	10.3	0.0	56.0	65.4
Singapore	407	91.5	89.1	3.4	4.9	2.6	0.0	93.6	89.8
Sweden	712	95.0	92.5	2.8	2.0	2.6	0.0	96.1	94.1
Turkiye	702	83.5	82.2	8.5	7.7	1.7	0.0	81.4	86.0
United Arab Emirates	5314	74.2	70.7	11.4	13.1	4.7	0.1	72.3	76.2
United States	1158	75.2	71.7	10.0	13.6	4.4	0.3	69.9	80.6
Uzbekistan	607	64.0	47.0	16.5	9.9	26.7	0.0	66.3	61.9
International Avg. (40)	39197	78.4	73.7	10.1	9.7	6.4	0.1	76.5	80.2
Abu Dhabi, UAE	2407	66.7	63.4	15.1	16.5	4.9	0.2	64.7	68.8
Dubai, UAE	1152	86.0	83.4	6.2	7.4	3.1	0.0	84.3	87.6
Sharjah, UAE	899	78.3	74.2	9.2	11.4	5.1	0.0	74.9	81.6

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Knowing

B_SE3_09AC SE82200AC: Physical state of water - 25C - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	C %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1193	80.2	8.9	77.4	10.2	3.5	0.1	77.4	83.1
Austria	651	84.7	4.2	83.2	10.7	1.9	0.0	84.1	85.3
Azerbaijan	874	68.8	8.3	53.1	15.8	22.8	0.0	66.4	71.0
Bahrain	719	72.0	10.5	66.2	15.2	8.0	0.0	74.4	69.6
Brazil	3169	67.1	12.3	59.3	16.8	11.6	0.0	63.2	71.4
Chile	631	74.6	10.6	67.6	12.4	9.3	0.0	74.9	74.3
Chinese Taipei	474	90.7	2.4	84.8	6.3	6.5	0.0	87.5	94.0
Cyprus	578	68.1	16.1	66.0	14.8	3.1	0.0	67.4	68.9
Czech Republic	1137	86.9	6.7	85.4	6.2	1.7	0.0	83.4	90.2
England	604	82.3	9.8	78.8	7.1	4.1	0.2	78.0	86.9
Finland	809	90.7	3.7	88.3	5.4	2.5	0.1	90.9	90.4
France	633	84.7	6.8	83.0	8.2	2.0	0.0	84.2	85.2
Georgia	677	78.4	5.4	70.7	14.0	9.8	0.1	79.4	77.4
Hong Kong SAR	637	85.2	6.9	80.1	7.1	5.7	0.2	82.9	87.4
Hungary	758	88.8	3.7	87.5	7.4	1.4	0.0	87.2	90.4
Ireland	715	83.0	8.9	81.1	7.8	2.3	0.0	82.1	83.8
Israel	727	79.9	9.0	75.0	9.8	6.1	0.0	78.4	81.5
Italy	639	84.4	6.9	82.9	8.5	1.8	0.0	84.2	84.6
Japan	334	87.6	3.5	87.0	8.9	0.6	0.0	85.3	89.8
Jordan	1398	66.9	8.3	57.2	20.0	14.5	0.0	67.3	66.5
Kazakhstan	892	72.2	8.3	69.2	18.4	4.1	0.0	73.7	70.9
Korea, Rep. of	366	77.0	11.2	72.6	10.5	5.7	0.0	78.5	75.6
Lithuania	748	80.9	6.3	79.2	12.4	2.1	0.0	81.7	80.1
Malaysia	1229	54.8	20.1	53.8	24.3	1.8	0.1	51.2	58.9
Malta	551	74.4	11.6	72.1	13.2	3.1	0.0	71.3	77.6
Morocco	1730	59.6	12.1	45.8	18.9	23.1	0.1	61.5	57.7
New Zealand	553	82.2	8.7	76.6	7.9	6.8	0.0	79.0	84.7
Norway (9)	885	79.7	11.0	76.5	8.4	3.8	0.2	79.8	79.6
Oman	1647	71.2	6.8	64.5	19.3	9.4	0.0	70.4	72.0
Palestinian Nat'l Auth.	1302	61.3	12.4	50.6	19.5	17.3	0.1	59.8	63.1
Portugal	757	80.4	9.9	78.3	9.2	2.4	0.1	76.9	83.8
Qatar	598	77.2	8.2	73.2	13.4	5.1	0.0	77.0	77.4
Romania	518	80.4	6.1	74.5	12.0	7.1	0.3	83.0	77.8
Saudi Arabia	1164	63.0	10.8	56.5	22.5	10.2	0.0	61.0	64.8
Singapore	407	91.0	4.2	88.8	4.6	2.4	0.0	93.7	88.7
Sweden	712	92.6	3.6	90.2	3.6	2.6	0.0	93.8	91.7
Turkiye	702	81.7	7.2	80.4	10.7	1.7	0.0	81.3	82.3
United Arab Emirates	5314	77.2	9.5	73.3	12.2	4.9	0.1	76.2	78.1
United States	1158	76.1	11.3	72.5	11.4	4.4	0.3	73.7	78.5
Uzbekistan	607	60.0	10.7	44.5	19.0	25.8	0.0	62.7	57.3
International Avg. (40)	39197	77.4	8.6	72.7	12.1	6.6	0.1	76.6	78.3
Abu Dhabi, UAE	2407	70.2	12.5	66.3	15.6	5.4	0.2	70.1	70.4
Dubai, UAE	1152	86.0	6.8	83.3	6.7	3.1	0.0	84.9	87.1
Sharjah, UAE	899	81.5	6.5	77.3	11.0	5.1	0.0	79.1	84.0

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Applying

B_SE3_09B SE82200B: Changes in state of water (DERIVED) - CR - 1 Point

COUNTRY	N	DIFF %	1 %	0 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1193	78.2	73.7	20.5	73.7	20.5	5.5	0.3	78.0	78.4
Austria	651	76.0	73.5	23.2	73.5	23.2	3.3	0.0	75.7	76.2
Azerbaijan	874	57.1	40.8	30.6	40.8	30.6	28.5	0.0	52.5	62.1
Bahrain	719	58.3	55.0	39.3	55.0	39.3	5.7	0.0	59.6	57.0
Brazil	3169	41.7	37.3	52.1	37.3	52.1	10.5	0.0	36.4	47.7
Chile	631	57.4	51.5	38.3	51.5	38.3	10.1	0.0	55.1	59.5
Chinese Taipei	474	75.1	73.5	24.4	73.5	24.4	2.2	0.0	78.7	71.5
Cyprus	578	54.4	50.2	42.1	50.2	42.1	7.7	0.0	54.1	54.6
Czech Republic	1137	80.3	78.4	19.3	78.4	19.3	2.3	0.0	81.8	78.8
England	604	80.4	76.3	18.6	76.3	18.6	4.9	0.2	76.4	84.6
Finland	809	71.6	68.0	27.0	68.0	27.0	4.9	0.2	72.8	70.3
France	633	71.7	69.4	27.3	69.4	27.3	3.3	0.0	68.8	74.4
Georgia	677	53.7	48.8	42.1	48.8	42.1	8.9	0.1	56.3	51.0
Hong Kong SAR	637	75.9	73.6	23.4	73.6	23.4	2.8	0.2	73.1	78.5
Hungary	758	75.2	74.0	24.4	74.0	24.4	1.7	0.0	73.5	77.0
Ireland	715	71.0	68.6	28.1	68.6	28.1	3.3	0.0	69.5	72.5
Israel	727	66.0	63.5	32.8	63.5	32.8	3.7	0.0	68.5	63.5
Italy	639	73.9	69.5	24.5	69.5	24.5	6.0	0.0	72.9	74.9
Japan	334	70.2	65.9	28.0	65.9	28.0	6.1	0.0	72.9	67.6
Jordan	1398	46.2	41.6	48.5	41.6	48.5	9.9	0.0	49.0	43.5
Kazakhstan	892	59.4	52.5	35.8	52.5	35.8	11.7	0.0	60.6	58.4
Korea, Rep. of	366	75.2	73.2	24.2	73.2	24.2	2.6	0.0	78.1	72.6
Lithuania	748	67.9	66.0	31.1	66.0	31.1	2.8	0.0	67.7	68.2
Malaysia	1229	40.9	40.2	58.2	40.2	58.2	1.6	0.1	40.1	41.7
Malta	551	71.5	69.0	27.5	69.0	27.5	3.6	0.0	71.1	72.0
Morocco	1730	35.9	32.3	57.6	32.3	57.6	9.9	0.2	37.4	34.3
New Zealand	554	74.8	71.4	24.1	71.4	24.1	4.6	0.0	69.6	78.9
Norway (9)	885	69.1	60.0	26.9	60.0	26.9	12.9	0.2	69.6	68.6
Oman	1647	59.2	57.3	39.4	57.3	39.4	3.3	0.0	64.9	53.7
Palestinian Nat'l Auth.	1302	44.0	39.2	49.8	39.2	49.8	10.8	0.1	48.1	39.5
Portugal	757	74.3	73.6	25.4	73.6	25.4	0.9	0.1	73.0	75.7
Qatar	598	66.3	63.5	32.3	63.5	32.3	4.2	0.0	65.4	67.1
Romania	518	62.8	55.4	32.8	55.4	32.8	11.5	0.3	64.7	60.9
Saudi Arabia	1164	53.5	46.7	40.6	46.7	40.6	12.7	0.0	55.0	52.0
Singapore	407	90.2	90.2	9.8	90.2	9.8	0.0	0.0	91.3	89.3
Sweden	712	66.3	62.8	31.9	62.8	31.9	5.2	0.0	64.3	68.3
Turkiye	702	73.9	70.2	24.8	70.2	24.8	4.9	0.0	78.7	67.8
United Arab Emirates	5314	70.1	66.9	28.5	66.9	28.5	4.5	0.1	71.7	68.5
United States	1158	69.9	67.4	29.0	67.4	29.0	3.3	0.3	70.4	69.4
Uzbekistan	607	42.3	29.8	40.6	29.8	40.6	29.6	0.0	44.2	40.1
International Avg. (40)	39198	65.0	61.0	32.1	61.0	32.1	6.8	0.1	65.3	64.8
Abu Dhabi, UAE	2407	64.8	60.7	33.0	60.7	33.0	6.1	0.2	67.7	61.8
Dubai, UAE	1152	83.4	81.2	16.1	81.2	16.1	2.7	0.0	83.1	83.7
Sharjah, UAE	899	70.8	68.9	28.4	68.9	28.4	2.7	0.0	72.1	69.5

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Applying

B_SE3_09BA SE82200BA: Changes in state of water - l to g - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	C %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1193	80.4	15.9	75.8	2.6	5.5	0.3	80.5	80.3
Austria	651	79.7	14.7	77.0	5.0	3.3	0.0	79.1	80.1
Azerbaijan	874	66.1	18.5	46.5	5.4	29.6	0.0	63.0	69.3
Bahrain	719	66.5	25.5	62.6	6.0	5.9	0.0	65.5	67.4
Brazil	3169	50.3	32.9	44.9	11.5	10.6	0.0	45.3	56.0
Chile	631	64.6	24.2	57.7	7.5	10.6	0.0	62.5	66.6
Chinese Taipei	474	85.4	9.1	83.5	5.2	2.2	0.0	87.9	82.9
Cyprus	578	64.5	22.3	59.5	10.4	7.9	0.0	65.4	63.5
Czech Republic	1137	82.0	13.6	80.1	3.9	2.3	0.0	83.0	81.1
England	604	83.5	12.3	79.1	3.3	5.1	0.2	79.1	88.2
Finland	809	80.1	15.6	76.0	3.4	4.9	0.2	82.2	77.7
France	633	75.2	19.4	72.7	4.6	3.3	0.0	71.2	78.8
Georgia	677	61.0	23.3	54.7	11.8	10.2	0.1	63.7	58.2
Hong Kong SAR	637	83.4	12.2	80.7	3.8	3.0	0.2	81.3	85.5
Hungary	758	77.8	17.9	76.5	4.0	1.7	0.0	76.4	79.2
Ireland	715	76.1	18.6	73.5	4.6	3.3	0.0	75.5	76.6
Israel	727	72.5	18.9	69.6	7.5	4.0	0.0	73.6	71.3
Italy	639	80.4	11.9	75.6	6.5	6.0	0.0	80.9	79.9
Japan	334	80.2	11.9	73.0	6.1	9.0	0.0	79.7	80.7
Jordan	1398	54.6	30.9	48.8	9.6	10.6	0.0	54.8	54.5
Kazakhstan	892	67.6	23.3	59.6	5.3	11.8	0.0	68.3	67.0
Korea, Rep. of	366	79.8	15.4	77.7	4.3	2.6	0.0	82.9	77.0
Lithuania	748	73.8	19.2	71.7	6.3	2.8	0.0	72.6	75.0
Malaysia	1229	49.7	38.7	48.9	10.8	1.6	0.1	48.9	50.6
Malta	551	76.3	19.1	73.6	3.7	3.6	0.0	76.4	76.2
Morocco	1730	47.8	32.3	42.8	14.4	10.3	0.2	49.2	46.3
New Zealand	554	78.2	17.2	73.8	3.4	5.6	0.0	73.3	82.0
Norway (9)	885	73.1	17.7	63.5	5.6	13.0	0.2	73.1	73.2
Oman	1647	66.0	27.0	63.4	5.6	4.0	0.0	70.5	61.6
Palestinian Nat'l Auth.	1302	53.5	33.6	47.3	7.5	11.5	0.1	56.6	50.2
Portugal	757	79.1	16.1	78.3	4.6	0.9	0.1	77.9	80.3
Qatar	598	73.1	21.3	70.0	4.5	4.2	0.0	71.4	74.5
Romania	518	66.6	25.6	58.6	3.7	11.7	0.3	69.0	64.1
Saudi Arabia	1164	60.3	28.9	52.2	5.6	13.4	0.0	60.0	60.6
Singapore	407	91.8	6.4	91.8	1.8	0.0	0.0	92.9	90.9
Sweden	712	67.6	28.5	64.1	2.2	5.2	0.0	65.9	69.2
Turkiye	702	77.2	18.5	73.4	3.1	4.9	0.0	80.9	72.5
United Arab Emirates	5314	74.3	19.8	70.8	4.6	4.7	0.1	75.6	73.0
United States	1158	75.7	17.9	73.0	5.5	3.3	0.3	74.5	76.9
Uzbekistan	607	51.8	26.8	36.3	6.9	30.0	0.0	53.0	50.3
International Avg. (40)	39198	71.2	20.6	66.5	5.8	7.1	0.1	71.1	71.2
Abu Dhabi, UAE	2407	68.8	23.4	64.5	5.8	6.1	0.2	71.0	66.5
Dubai, UAE	1152	85.6	11.8	83.3	2.1	2.7	0.0	84.8	86.5
Sharjah, UAE	899	77.1	18.4	74.8	3.7	2.9	0.0	78.8	75.5

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Applying

B_SE3_09BB SE82200BB: Changes in state of water - 1 to s - MC - Key: C

COUNTRY	N	DIFF %	A %	B %	C %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1193	92.2	3.4	3.9	86.9	5.5	0.3	90.3	94.3
Austria	651	88.9	6.7	4.0	85.8	3.5	0.0	88.9	88.9
Azerbaijan	874	76.3	7.5	9.2	53.7	29.6	0.0	71.9	81.0
Bahrain	719	78.7	10.4	9.5	73.3	6.8	0.0	79.3	78.0
Brazil	3169	65.7	13.5	17.2	58.6	10.7	0.0	61.6	70.3
Chile	631	80.3	10.0	7.6	72.0	10.4	0.0	80.6	80.0
Chinese Taipei	474	83.7	12.9	3.1	81.8	2.2	0.0	86.6	80.8
Cyprus	578	73.7	15.9	8.4	67.9	7.9	0.0	72.1	75.5
Czech Republic	1137	91.8	3.8	4.2	89.7	2.3	0.0	92.5	91.1
England	604	91.9	4.7	3.0	87.1	5.0	0.2	90.2	93.7
Finland	809	83.7	10.0	5.5	79.1	5.3	0.2	82.0	85.4
France	633	88.7	6.1	4.8	85.6	3.5	0.0	89.5	87.9
Georgia	677	73.7	10.7	12.7	65.7	10.8	0.1	77.3	70.1
Hong Kong SAR	637	86.1	9.2	4.2	83.3	3.0	0.2	84.2	88.0
Hungary	758	89.8	3.9	6.1	88.3	1.7	0.0	90.0	89.7
Ireland	715	87.2	7.2	5.2	84.3	3.3	0.0	85.3	89.1
Israel	727	82.6	10.4	6.3	79.2	4.2	0.0	86.2	79.1
Italy	639	85.3	10.8	3.1	80.2	6.0	0.0	82.5	87.9
Japan	334	81.5	10.6	6.6	75.9	6.8	0.0	84.5	78.4
Jordan	1398	71.8	10.9	14.2	63.9	11.0	0.0	74.2	69.5
Kazakhstan	892	80.8	8.7	7.9	69.5	13.9	0.0	80.4	81.1
Korea, Rep. of	366	88.1	8.3	3.4	85.7	2.6	0.0	87.3	88.7
Lithuania	748	83.6	9.9	6.1	81.2	2.8	0.0	85.3	81.9
Malaysia	1229	68.9	13.6	17.1	67.8	1.6	0.1	69.9	67.8
Malta	551	87.1	6.6	5.8	84.0	3.6	0.0	88.9	85.2
Morocco	1730	59.0	17.1	19.5	52.6	10.6	0.2	60.8	57.1
New Zealand	554	88.7	4.5	6.1	83.8	5.6	0.0	86.5	90.5
Norway (9)	885	83.9	6.5	7.5	72.6	13.2	0.2	82.9	84.8
Oman	1647	83.1	8.3	7.8	79.1	4.8	0.0	87.8	78.3
Palestinian Nat'l Auth.	1302	72.0	11.4	13.1	63.2	12.1	0.1	76.2	67.5
Portugal	757	87.6	7.7	4.5	86.8	0.9	0.1	86.1	89.2
Qatar	598	83.2	9.3	6.6	79.2	4.9	0.0	83.9	82.7
Romania	518	83.9	5.1	9.2	73.9	11.5	0.3	83.7	84.1
Saudi Arabia	1164	82.1	7.9	7.5	70.7	13.8	0.0	85.5	78.7
Singapore	407	95.9	2.5	1.6	95.9	0.0	0.0	97.4	94.7
Sweden	712	93.5	3.0	3.2	88.3	5.6	0.0	93.3	93.7
Turkiye	702	91.8	4.0	3.8	87.2	4.9	0.0	95.0	87.7
United Arab Emirates	5314	86.7	6.3	6.3	82.4	4.8	0.1	88.0	85.3
United States	1158	84.5	7.7	7.2	81.3	3.5	0.3	83.6	85.5
Uzbekistan	607	69.8	10.4	10.4	48.2	31.0	0.0	71.1	68.3
International Avg. (40)	39198	82.7	8.4	7.3	76.9	7.3	0.1	83.1	82.3
Abu Dhabi, UAE	2407	83.9	6.9	8.2	78.3	6.4	0.2	85.5	82.1
Dubai, UAE	1152	94.2	3.1	2.5	91.6	2.8	0.0	94.9	93.6
Sharjah, UAE	899	86.1	7.7	5.8	83.7	2.8	0.0	86.7	85.5

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Applying

B_SE3_09BC SE82200BC: Changes in state of water - g to l - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	C %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1193	79.5	75.0	14.6	4.7	5.5	0.3	80.6	78.5
Austria	651	78.0	75.2	15.6	5.7	3.5	0.0	78.1	77.9
Azerbaijan	874	62.9	44.4	15.2	11.0	29.4	0.0	60.3	65.7
Bahrain	719	62.0	57.8	21.6	13.8	6.8	0.0	63.1	60.9
Brazil	3169	48.0	42.9	27.2	19.2	10.7	0.0	43.8	52.9
Chile	631	61.6	55.1	24.2	10.2	10.5	0.0	59.4	63.7
Chinese Taipei	474	77.6	75.8	11.1	10.8	2.3	0.0	80.7	74.5
Cyprus	578	58.6	54.0	24.3	13.8	7.9	0.0	59.9	57.2
Czech Republic	1137	82.2	80.3	13.3	4.1	2.3	0.0	84.3	80.2
England	604	82.1	77.8	12.7	4.3	5.0	0.2	78.6	85.9
Finland	809	73.2	69.2	13.2	12.1	5.3	0.2	74.3	72.0
France	633	73.8	71.2	19.0	6.3	3.5	0.0	70.7	76.6
Georgia	677	62.6	55.8	21.8	11.6	10.7	0.1	63.2	61.9
Hong Kong SAR	637	77.8	75.3	11.8	9.6	3.0	0.2	75.1	80.5
Hungary	758	77.8	76.5	15.8	6.0	1.7	0.0	76.3	79.4
Ireland	715	73.6	70.9	17.6	7.8	3.7	0.0	71.4	75.8
Israel	727	69.5	66.6	20.1	9.1	4.2	0.0	72.2	66.8
Italy	639	75.9	71.4	15.4	7.3	6.0	0.0	73.6	78.1
Japan	334	76.5	70.6	10.2	11.5	7.6	0.0	77.5	75.5
Jordan	1398	52.8	47.0	26.5	15.4	11.1	0.0	57.5	48.4
Kazakhstan	892	63.1	54.4	20.5	11.4	13.7	0.0	64.2	62.1
Korea, Rep. of	366	75.7	73.7	16.3	7.4	2.6	0.0	78.1	73.5
Lithuania	748	70.1	68.2	19.4	9.6	2.8	0.0	69.6	70.7
Malaysia	1229	46.8	46.1	32.4	19.8	1.6	0.1	45.7	48.2
Malta	551	73.3	70.7	17.0	8.7	3.6	0.0	72.0	74.7
Morocco	1730	44.7	39.8	27.1	22.1	10.7	0.2	45.5	43.8
New Zealand	554	77.5	73.3	14.0	7.3	5.5	0.0	72.4	81.5
Norway (9)	885	72.0	62.5	15.7	8.6	13.0	0.2	73.2	71.0
Oman	1647	63.1	60.1	24.6	10.5	4.8	0.0	67.5	58.8
Palestinian Nat'l Auth.	1302	48.9	42.9	27.6	17.2	12.2	0.1	52.6	44.8
Portugal	757	76.0	75.2	16.2	7.6	0.9	0.1	75.5	76.5
Qatar	598	67.8	64.7	19.0	11.6	4.6	0.0	66.3	69.2
Romania	518	65.2	57.4	20.2	10.5	11.5	0.3	66.3	64.0
Saudi Arabia	1164	57.4	49.5	26.9	9.8	13.7	0.0	59.5	55.4
Singapore	407	91.1	91.1	6.6	2.3	0.0	0.0	92.3	90.1
Sweden	712	66.8	63.2	27.3	4.1	5.5	0.0	64.9	68.6
Turkiye	702	76.4	72.5	17.7	4.7	5.0	0.0	80.4	71.3
United Arab Emirates	5314	72.6	69.1	18.1	8.0	4.8	0.1	73.9	71.3
United States	1158	73.5	70.7	16.0	9.4	3.5	0.3	75.9	71.1
Uzbekistan	607	46.8	32.2	22.5	14.1	31.1	0.0	48.3	45.0
International Avg. (40)	39198	68.4	63.8	18.9	10.0	7.3	0.1	68.6	68.1
Abu Dhabi, UAE	2407	67.6	63.3	21.0	9.3	6.2	0.2	69.8	65.3
Dubai, UAE	1152	84.7	82.2	11.4	3.5	2.9	0.0	84.8	84.5
Sharjah, UAE	899	73.1	70.8	16.4	9.6	3.1	0.0	74.2	72.0

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Reasoning

B_SE3_10 SE82244: Arrange mirrors to reflect light out of a box (DERIVED) - CR - 1 Point

COUNTRY	N	DIFF %	1 %	0 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1193	64.6	64.3	35.2	64.3	35.2	0.3	0.3	60.0	69.0
Austria	651	59.5	58.9	40.1	58.9	40.1	1.0	0.0	51.2	67.2
Azerbaijan	874	35.9	32.7	58.4	32.7	58.4	8.9	0.0	30.0	41.3
Bahrain	719	46.9	46.6	52.8	46.6	52.8	0.6	0.0	47.9	45.9
Brazil	3169	45.6	45.0	53.8	45.0	53.8	1.1	0.0	39.5	52.2
Chile	631	61.7	60.9	37.8	60.9	37.8	1.3	0.0	51.6	71.0
Chinese Taipei	474	74.3	74.3	25.7	74.3	25.7	0.0	0.0	69.0	79.5
Cyprus	578	50.6	50.0	48.9	50.0	48.9	1.1	0.0	45.1	56.4
Czech Republic	1137	75.3	75.2	24.7	75.2	24.7	0.2	0.0	70.9	79.5
England	604	62.9	62.2	36.7	62.2	36.7	0.9	0.2	58.0	68.1
Finland	809	68.2	67.0	31.3	67.0	31.3	1.4	0.2	65.5	70.8
France	633	58.0	57.4	41.6	57.4	41.6	1.1	0.0	52.0	63.3
Georgia	677	47.3	46.1	51.4	46.1	51.4	2.4	0.1	43.2	51.3
Hong Kong SAR	637	66.8	66.1	32.9	66.1	32.9	0.7	0.2	62.2	71.2
Hungary	758	61.7	61.6	38.3	61.6	38.3	0.1	0.0	52.0	71.6
Ireland	715	61.0	60.8	38.8	60.8	38.8	0.4	0.0	51.6	69.8
Israel	727	57.3	56.6	42.1	56.6	42.1	1.3	0.0	51.4	63.1
Italy	639	66.8	66.5	33.0	66.5	33.0	0.6	0.0	62.9	70.3
Japan	334	74.1	73.9	25.8	73.9	25.8	0.3	0.0	69.2	79.0
Jordan	1398	34.1	33.9	65.5	33.9	65.5	0.6	0.0	30.0	38.0
Kazakhstan	892	57.6	57.4	42.3	57.4	42.3	0.3	0.0	51.9	62.1
Korea, Rep. of	366	64.9	64.2	34.8	64.2	34.8	1.0	0.0	60.3	69.0
Lithuania	748	72.0	72.0	28.0	72.0	28.0	0.0	0.0	68.3	75.5
Malaysia	1229	63.3	63.3	36.7	63.3	36.7	0.0	0.1	61.1	65.8
Malta	551	58.6	58.3	41.2	58.3	41.2	0.5	0.0	53.7	63.5
Morocco	1730	26.8	26.4	72.1	26.4	72.1	1.3	0.2	21.2	32.6
New Zealand	554	69.0	68.9	30.9	68.9	30.9	0.1	0.1	58.8	76.9
Norway (9)	885	63.9	62.6	35.4	62.6	35.4	1.6	0.4	59.1	68.1
Oman	1647	49.5	49.2	50.1	49.2	50.1	0.7	0.0	49.0	50.0
Palestinian Nat'l Auth.	1302	30.7	30.1	67.8	30.1	67.8	2.0	0.1	27.9	33.6
Portugal	757	64.8	64.7	35.1	64.7	35.1	0.1	0.1	58.4	71.1
Qatar	598	55.5	55.0	44.1	55.0	44.1	0.9	0.0	51.2	59.2
Romania	518	56.3	55.2	42.8	55.2	42.8	0.9	1.0	54.3	58.3
Saudi Arabia	1163	41.9	41.7	57.9	41.7	57.9	0.5	0.0	44.8	39.1
Singapore	406	77.7	77.7	22.3	77.7	22.3	0.0	0.0	77.2	78.0
Sweden	712	69.6	69.1	30.2	69.1	30.2	0.6	0.1	63.1	75.2
Turkiye	702	61.7	61.0	37.9	61.0	37.9	1.0	0.0	58.9	65.0
United Arab Emirates	5314	55.9	55.6	43.9	55.6	43.9	0.4	0.1	52.5	59.3
United States	1158	60.7	60.4	39.1	60.4	39.1	0.1	0.3	56.5	64.9
Uzbekistan	607	32.7	32.4	66.6	32.4	66.6	1.0	0.0	24.3	41.8
International Avg. (40)	39196	57.6	57.1	41.9	57.1	41.9	0.9	0.1	52.9	62.2
Abu Dhabi, UAE	2407	51.1	50.8	48.6	50.8	48.6	0.3	0.2	47.8	54.5
Dubai, UAE	1152	66.9	66.8	33.0	66.8	33.0	0.1	0.0	62.2	71.3
Sharjah, UAE	899	57.5	57.3	42.4	57.3	42.4	0.3	0.0	52.8	62.3

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Applying

B_SE3_10A SE82244A: Arrange mirrors to reflect light out of a box - upper left - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1193	82.8	6.4	80.6	8.4	2.0	2.3	0.3	80.3	85.2
Austria	651	81.9	7.3	78.8	8.7	1.4	3.8	0.0	72.4	90.5
Azerbaijan	874	61.5	17.8	54.5	10.5	5.8	11.5	0.0	52.4	70.1
Bahrain	719	70.7	10.9	69.3	14.2	3.7	2.0	0.0	70.6	70.7
Brazil	3169	69.5	12.6	67.8	12.7	4.4	2.5	0.0	62.2	77.6
Chile	631	83.1	5.1	79.9	9.0	2.2	3.8	0.0	75.4	90.3
Chinese Taipei	474	89.7	2.6	86.8	6.8	0.6	3.2	0.0	87.4	92.0
Cyprus	578	73.4	10.6	70.9	12.3	2.8	3.4	0.0	67.2	80.0
Czech Republic	1137	91.0	1.7	89.0	5.9	1.2	2.1	0.0	89.5	92.4
England	604	82.6	5.8	80.3	9.8	1.3	2.6	0.2	75.3	90.3
Finland	809	85.6	5.3	81.9	6.2	2.2	4.1	0.2	82.9	88.5
France	633	78.0	8.1	75.1	11.1	2.0	3.7	0.0	74.0	81.5
Georgia	677	74.3	10.2	71.1	11.8	2.7	4.2	0.1	69.4	79.1
Hong Kong SAR	637	83.8	6.5	81.4	7.5	1.7	2.6	0.2	80.1	87.5
Hungary	758	81.0	6.2	79.8	10.3	2.2	1.5	0.0	73.6	88.6
Ireland	715	80.9	7.6	78.9	10.2	0.9	2.5	0.0	71.8	89.3
Israel	727	76.6	7.8	74.3	11.7	3.1	3.1	0.0	67.5	85.5
Italy	639	83.5	7.2	82.9	7.1	2.0	0.8	0.0	80.5	86.3
Japan	334	88.1	3.9	86.5	5.8	2.0	1.9	0.0	83.1	93.0
Jordan	1398	59.2	12.4	57.9	20.3	7.2	2.2	0.0	54.9	63.2
Kazakhstan	892	81.1	8.5	79.6	7.8	2.3	2.0	0.0	73.3	87.3
Korea, Rep. of	366	80.6	6.0	77.3	10.0	2.6	4.0	0.0	77.7	83.0
Lithuania	748	88.8	2.8	87.1	6.9	1.3	1.9	0.0	86.1	91.5
Malaysia	1229	79.4	8.8	78.8	9.8	1.9	0.7	0.1	77.6	81.4
Malta	551	79.3	7.6	77.9	10.6	2.0	1.8	0.0	73.4	85.3
Morocco	1730	54.1	18.4	52.4	18.7	7.4	2.9	0.2	46.9	61.6
New Zealand	554	89.1	2.9	86.4	5.3	2.4	3.0	0.1	83.4	93.6
Norway (9)	885	86.4	5.5	83.2	6.2	1.4	3.4	0.4	84.5	88.2
Oman	1647	73.8	8.7	72.2	12.6	4.4	2.1	0.0	70.6	76.9
Palestinian Nat'l Auth.	1302	59.1	16.0	56.8	15.1	8.3	3.7	0.1	55.5	62.7
Portugal	757	83.0	7.2	81.7	8.6	1.0	1.4	0.1	77.7	88.2
Qatar	598	75.8	10.8	73.5	10.2	2.5	3.0	0.0	70.8	80.2
Romania	518	74.6	13.6	72.0	8.3	2.6	2.4	1.0	73.1	76.1
Saudi Arabia	1163	70.3	9.8	68.8	15.3	4.0	2.1	0.0	67.0	73.3
Singapore	406	89.9	2.5	88.5	5.4	2.0	1.6	0.0	89.0	90.7
Sweden	712	86.8	4.3	84.2	7.0	1.5	2.9	0.1	82.3	90.6
Turkiye	702	83.7	4.7	81.3	9.0	2.2	2.9	0.0	81.1	86.8
United Arab Emirates	5314	75.7	9.7	74.4	11.9	2.2	1.7	0.1	71.1	80.4
United States	1158	80.2	7.1	78.1	8.3	3.9	2.2	0.3	73.6	86.8
Uzbekistan	607	63.7	19.9	61.3	10.9	4.2	3.6	0.0	56.8	71.3
International Avg. (40)	39196	78.3	8.3	76.1	10.0	2.8	2.8	0.1	73.5	82.9
Abu Dhabi, UAE	2407	72.0	11.6	70.5	12.9	3.0	1.8	0.2	66.7	77.3
Dubai, UAE	1152	85.0	5.7	83.5	7.9	1.1	1.8	0.0	79.1	90.7
Sharjah, UAE	899	75.2	9.0	74.4	13.4	2.1	1.0	0.0	70.9	79.5

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Applying

B_SE3_10B SE82244B: Arrange mirrors to reflect light out of a box - upper right - MC - Key: D

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1193	75.7	15.7	5.9	1.3	71.7	5.1	0.3	70.0	81.4
Austria	651	73.0	17.6	5.6	2.0	68.2	6.6	0.0	67.8	77.9
Azerbaijan	874	50.5	23.7	12.7	6.3	43.5	13.8	0.0	46.6	54.1
Bahrain	719	67.8	19.4	8.2	3.3	65.2	3.8	0.0	68.7	66.9
Brazil	3169	61.2	22.9	10.1	4.0	58.3	4.8	0.0	57.4	65.5
Chile	631	76.0	15.6	4.2	2.5	70.7	6.9	0.0	67.8	84.0
Chinese Taipei	474	85.0	10.6	2.2	1.5	81.4	4.2	0.0	79.1	90.8
Cyprus	578	65.3	21.7	8.0	3.1	61.7	5.5	0.0	62.3	68.5
Czech Republic	1137	82.7	12.8	2.8	1.0	79.3	4.1	0.0	78.0	87.4
England	604	74.8	17.7	4.6	2.0	72.3	3.2	0.2	70.9	79.1
Finland	809	77.9	15.2	4.3	1.4	73.8	5.0	0.2	76.3	79.6
France	633	71.4	18.3	5.5	3.0	66.7	6.5	0.0	68.3	74.1
Georgia	677	64.7	21.7	6.5	4.8	60.4	6.5	0.1	61.5	67.9
Hong Kong SAR	637	78.0	12.2	6.5	2.0	73.4	5.7	0.2	74.5	81.5
Hungary	758	74.4	14.7	6.2	3.9	72.0	3.2	0.0	69.0	80.0
Ireland	715	76.1	16.3	4.9	1.6	72.4	4.8	0.0	69.6	82.3
Israel	727	74.7	15.1	8.1	1.1	71.5	4.3	0.0	71.9	77.5
Italy	639	75.5	16.4	4.8	3.0	74.3	1.6	0.0	71.6	78.9
Japan	334	82.9	11.0	4.4	1.3	80.7	2.6	0.0	79.4	86.2
Jordan	1398	58.3	24.4	13.4	2.7	56.4	3.1	0.0	55.1	61.3
Kazakhstan	892	69.7	18.2	7.3	3.1	65.8	5.5	0.0	65.4	73.1
Korea, Rep. of	366	77.7	12.5	7.2	1.6	74.1	4.6	0.0	76.5	78.7
Lithuania	748	80.8	14.8	2.9	0.7	77.7	3.8	0.0	76.7	84.8
Malaysia	1229	74.4	14.5	7.0	3.5	73.0	1.8	0.1	73.0	76.1
Malta	551	72.7	17.4	5.3	3.4	69.4	4.5	0.0	66.1	79.4
Morocco	1730	46.0	27.2	17.5	7.2	44.3	3.6	0.2	42.3	49.8
New Zealand	554	80.2	14.3	2.3	2.0	75.1	6.2	0.1	71.5	86.7
Norway (9)	885	75.2	16.7	5.3	0.5	68.4	8.7	0.4	71.0	79.1
Oman	1647	67.4	21.5	8.5	1.6	65.5	2.9	0.0	69.9	65.0
Palestinian Nat'l Auth.	1302	51.2	25.5	16.6	4.4	48.8	4.5	0.1	51.5	50.8
Portugal	757	78.1	14.4	4.3	2.4	75.4	3.3	0.1	73.6	82.7
Qatar	598	71.3	16.3	8.6	2.6	68.3	4.2	0.0	70.9	71.7
Romania	518	69.9	15.7	9.3	3.3	65.3	5.5	1.0	65.4	74.6
Saudi Arabia	1163	62.0	25.6	8.7	2.5	59.9	3.3	0.0	64.8	59.3
Singapore	406	85.9	9.0	3.5	1.1	82.9	3.6	0.0	85.6	86.2
Sweden	712	80.6	12.8	3.6	1.7	75.1	6.7	0.1	75.7	84.9
Turkiye	702	72.2	20.0	3.6	2.9	69.0	4.4	0.0	70.0	74.9
United Arab Emirates	5314	70.3	18.3	7.9	2.7	68.3	2.8	0.1	69.6	71.0
United States	1158	74.0	14.7	7.2	2.5	69.6	5.6	0.3	71.2	77.1
Uzbekistan	607	47.7	27.6	13.1	8.1	44.5	6.7	0.0	38.7	57.8
International Avg. (40)	39196	71.3	17.5	7.0	2.7	67.9	4.8	0.1	67.9	74.7
Abu Dhabi, UAE	2407	66.4	19.6	9.4	3.6	64.5	2.7	0.2	66.8	66.0
Dubai, UAE	1152	78.1	15.8	4.1	1.4	75.8	2.9	0.0	76.5	79.5
Sharjah, UAE	899	71.5	16.9	8.6	2.2	69.7	2.4	0.0	70.0	73.0

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Applying

B_SE3_10C SE82244C: Arrange mirrors to reflect light out of a box - lower right - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1193	86.6	85.8	4.1	4.2	5.0	0.6	0.3	84.1	88.9
Austria	651	87.1	86.3	4.6	5.8	2.3	1.0	0.0	84.1	90.0
Azerbaijan	874	68.3	61.1	8.8	9.9	9.6	10.7	0.0	63.9	72.4
Bahrain	719	79.2	78.5	6.0	7.7	6.9	0.8	0.0	77.0	81.3
Brazil	3169	73.7	72.7	7.2	9.6	9.1	1.4	0.0	67.1	80.8
Chile	631	89.7	87.7	3.6	3.9	2.6	2.2	0.0	83.3	95.6
Chinese Taipei	474	93.3	93.3	2.9	2.7	1.1	0.0	0.0	89.3	97.2
Cyprus	578	82.1	80.6	4.3	7.6	5.7	1.8	0.0	78.8	85.5
Czech Republic	1137	93.4	93.2	1.8	3.1	1.8	0.2	0.0	90.0	96.6
England	604	88.7	87.7	4.0	3.5	3.7	0.9	0.2	83.6	94.1
Finland	809	88.3	86.9	3.4	4.0	4.1	1.4	0.2	87.6	89.1
France	633	87.8	86.2	4.1	4.5	3.5	1.8	0.0	84.8	90.5
Georgia	677	78.1	75.9	7.8	7.2	6.3	2.7	0.1	75.2	81.0
Hong Kong SAR	637	88.1	87.2	2.5	5.6	3.6	0.8	0.2	86.5	89.7
Hungary	758	87.3	86.9	4.5	3.9	4.3	0.4	0.0	85.0	89.7
Ireland	715	88.1	87.5	4.1	3.0	4.6	0.7	0.0	83.7	92.3
Israel	727	82.9	81.6	2.9	8.7	5.3	1.6	0.0	80.7	85.2
Italy	639	85.8	85.3	4.8	4.8	4.5	0.6	0.0	84.1	87.3
Japan	334	88.3	88.0	3.9	3.6	4.2	0.3	0.0	83.9	92.6
Jordan	1398	73.5	72.8	5.4	12.2	8.7	0.9	0.0	71.1	75.7
Kazakhstan	892	85.5	85.2	3.1	6.5	4.8	0.4	0.0	79.9	90.0
Korea, Rep. of	366	87.9	87.0	3.0	7.1	1.8	1.0	0.0	87.1	88.6
Lithuania	748	92.6	92.3	2.0	2.7	2.6	0.3	0.0	92.3	92.8
Malaysia	1229	84.6	84.4	4.1	5.8	5.4	0.2	0.1	82.8	86.7
Malta	551	84.9	84.0	4.6	5.2	5.1	1.1	0.0	80.1	89.8
Morocco	1730	58.0	56.7	12.4	14.1	14.6	2.1	0.2	51.6	64.5
New Zealand	554	91.2	90.8	3.8	2.9	2.1	0.4	0.1	88.2	93.5
Norway (9)	885	89.4	87.3	3.2	4.0	3.2	1.9	0.4	87.2	91.3
Oman	1647	80.9	80.0	5.0	9.1	4.8	1.0	0.0	78.2	83.4
Palestinian Nat'l Auth.	1302	65.4	63.7	6.7	14.9	12.1	2.4	0.1	63.2	67.7
Portugal	757	87.2	86.9	4.9	4.5	3.2	0.3	0.1	83.2	91.2
Qatar	598	83.8	83.0	4.0	5.8	6.2	0.9	0.0	85.1	82.7
Romania	518	84.4	82.7	5.6	6.9	2.8	0.9	1.0	83.3	85.4
Saudi Arabia	1163	78.0	77.6	4.0	9.7	8.1	0.6	0.0	76.8	79.2
Singapore	406	94.9	94.7	1.2	3.3	0.6	0.3	0.0	96.6	93.5
Sweden	712	91.2	90.1	3.0	2.9	2.9	1.0	0.1	87.0	94.7
Turkiye	702	87.5	86.4	4.0	4.4	3.9	1.3	0.0	85.8	89.6
United Arab Emirates	5314	82.7	82.2	5.6	6.2	5.3	0.5	0.1	80.2	85.2
United States	1158	85.4	85.1	3.8	7.1	3.6	0.1	0.3	82.9	88.0
Uzbekistan	607	65.6	64.2	9.2	13.7	10.9	2.0	0.0	57.3	74.4
International Avg. (40)	39196	83.8	82.7	4.6	6.3	5.0	1.2	0.1	80.8	86.7
Abu Dhabi, UAE	2407	79.0	78.4	7.2	7.2	6.4	0.5	0.2	76.9	81.2
Dubai, UAE	1152	89.6	89.2	4.6	3.2	2.7	0.4	0.0	87.5	91.5
Sharjah, UAE	899	83.1	82.9	4.1	6.4	6.4	0.3	0.0	80.3	86.0

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Applying

B_SE3_11 SE82271: Direction a ball falls on Earth (DERIVED) - CR - 1 Point

COUNTRY	N	DIFF %	1 %	7 %	0 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1193	73.6	73.2	4.4	21.9	73.2	26.3	0.2	0.3	72.3	74.8
Austria	651	70.8	70.6	6.0	23.1	70.6	29.1	0.3	0.0	66.7	74.7
Azerbaijan	874	47.6	46.0	3.0	47.6	46.0	50.6	3.5	0.0	50.5	44.9
Bahrain	719	51.0	51.0	3.4	45.5	51.0	48.9	0.1	0.0	53.0	49.1
Brazil	3169	39.4	39.2	5.9	54.5	39.2	60.4	0.4	0.0	36.2	42.8
Chile	631	55.0	54.6	8.5	36.3	54.6	44.8	0.7	0.0	49.6	59.9
Chinese Taipei	474	80.3	80.3	6.1	13.5	80.3	19.7	0.0	0.0	78.2	82.4
Cyprus	578	65.5	65.4	7.3	27.1	65.4	34.4	0.2	0.0	64.2	66.9
Czech Republic	1137	79.6	79.6	6.4	14.0	79.6	20.4	0.0	0.0	75.3	83.7
England	604	75.1	74.6	5.8	18.9	74.6	24.7	0.5	0.2	70.2	80.3
Finland	809	76.9	76.2	4.2	18.8	76.2	22.9	0.7	0.2	77.8	75.9
France	633	66.3	66.2	6.0	27.6	66.2	33.6	0.2	0.0	63.9	68.4
Georgia	676	61.6	61.4	1.7	36.5	61.4	38.2	0.3	0.1	61.4	61.9
Hong Kong SAR	637	79.9	79.5	2.8	17.3	79.5	20.0	0.3	0.2	78.0	81.7
Hungary	758	70.1	70.1	4.8	25.1	70.1	29.9	0.0	0.0	63.9	76.4
Ireland	715	71.2	71.1	8.6	20.1	71.1	28.7	0.1	0.0	67.1	75.0
Israel	727	57.6	57.5	6.9	35.3	57.5	42.3	0.1	0.2	55.0	60.2
Italy	639	66.1	65.9	4.0	29.7	65.9	33.7	0.4	0.0	66.1	66.2
Japan	334	90.7	90.7	3.3	6.0	90.7	9.3	0.0	0.0	87.6	93.8
Jordan	1398	36.3	36.2	3.9	59.7	36.2	63.6	0.1	0.0	37.1	35.5
Kazakhstan	892	51.2	51.1	2.9	45.9	51.1	48.8	0.0	0.1	52.1	50.4
Korea, Rep. of	366	85.1	84.6	0.7	14.1	84.6	14.8	0.7	0.0	84.2	86.0
Lithuania	748	70.1	70.1	5.5	24.4	70.1	29.9	0.0	0.0	69.8	70.4
Malaysia	1229	51.1	51.1	1.9	46.9	51.1	48.9	0.0	0.1	50.2	52.2
Malta	551	71.7	71.3	4.5	23.7	71.3	28.1	0.5	0.0	69.7	73.8
Morocco	1730	22.1	22.0	1.9	75.7	22.0	77.6	0.2	0.2	22.3	22.0
New Zealand	554	69.9	69.7	7.5	22.5	69.7	30.0	0.1	0.1	62.2	75.9
Norway (9)	885	69.4	69.1	5.9	24.6	69.1	30.5	0.0	0.4	64.1	74.1
Oman	1647	52.1	52.0	2.8	45.1	52.0	47.9	0.1	0.0	54.6	49.7
Palestinian Nat'l Auth.	1302	35.9	35.6	2.6	60.9	35.6	63.6	0.7	0.1	39.6	32.2
Portugal	757	65.8	65.7	5.9	28.3	65.7	34.1	0.0	0.1	62.1	69.5
Qatar	598	62.7	62.6	5.2	32.0	62.6	37.2	0.2	0.0	59.3	65.6
Romania	518	54.4	53.7	5.0	40.1	53.7	45.1	0.2	1.0	57.1	51.7
Saudi Arabia	1164	46.7	46.6	4.6	48.7	46.6	53.3	0.1	0.0	48.6	44.9
Singapore	407	85.8	85.8	3.5	10.7	85.8	14.2	0.0	0.0	86.9	84.9
Sweden	712	81.1	80.7	3.5	15.2	80.7	18.8	0.4	0.2	79.0	82.9
Turkiye	702	71.4	71.3	5.2	23.3	71.3	28.5	0.2	0.0	75.9	66.2
United Arab Emirates	5314	60.7	60.5	3.5	35.7	60.5	39.2	0.1	0.1	60.0	61.3
United States	1158	66.8	66.5	6.1	27.0	66.5	33.1	0.0	0.4	63.9	69.7
Uzbekistan	607	41.5	41.5	2.7	55.8	41.5	58.5	0.0	0.0	37.6	45.7
International Avg. (40)	39197	63.3	63.0	4.6	32.0	63.0	36.6	0.3	0.1	61.8	64.6
Abu Dhabi, UAE	2407	53.8	53.6	3.3	42.7	53.6	46.0	0.1	0.2	55.1	52.5
Dubai, UAE	1152	75.8	75.8	3.8	20.4	75.8	24.2	0.0	0.0	71.8	79.6
Sharjah, UAE	899	64.1	64.0	4.2	31.5	64.0	35.8	0.1	0.1	61.0	67.3

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Applying

B_SE3_11A SE82271A: Direction a ball falls on Earth - top - MC - Key: D

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1193	81.6	8.8	5.2	4.2	81.3	0.2	0.3	83.0	80.4
Austria	651	79.4	9.7	5.2	5.7	79.2	0.3	0.0	78.4	80.3
Azerbaijan	874	55.2	15.2	8.1	19.9	53.2	3.6	0.0	58.8	51.7
Bahrain	719	58.7	15.4	5.2	20.6	58.6	0.2	0.0	62.4	55.1
Brazil	3169	52.1	20.6	12.4	14.3	51.6	1.1	0.0	52.5	51.8
Chile	631	68.4	13.8	7.7	9.7	67.7	1.0	0.0	66.8	69.8
Chinese Taipei	474	88.1	5.4	2.3	4.3	88.1	0.0	0.0	87.1	89.0
Cyprus	578	77.9	10.9	3.9	7.3	77.7	0.2	0.0	81.8	73.7
Czech Republic	1137	88.5	4.4	3.7	3.4	88.5	0.0	0.0	88.6	88.3
England	604	83.6	7.9	3.0	5.4	83.0	0.5	0.2	82.5	84.6
Finland	809	84.5	6.3	3.8	5.2	83.6	0.8	0.2	88.0	80.9
France	633	76.1	10.3	7.5	6.0	75.8	0.4	0.0	76.9	75.4
Georgia	676	68.5	12.1	4.8	14.3	68.2	0.4	0.1	70.7	66.5
Hong Kong SAR	637	85.1	4.4	3.6	6.8	84.5	0.4	0.2	83.6	86.5
Hungary	758	81.3	8.5	5.6	4.6	81.3	0.0	0.0	79.9	82.8
Ireland	715	84.3	7.8	2.8	5.0	84.2	0.1	0.0	87.1	81.8
Israel	727	69.5	13.0	4.6	12.8	69.0	0.5	0.2	69.9	69.0
Italy	639	74.7	8.7	7.9	8.6	74.3	0.5	0.0	75.0	74.3
Japan	334	95.0	3.8	0.3	1.0	95.0	0.0	0.0	92.9	97.0
Jordan	1398	46.8	22.7	5.1	25.2	46.7	0.2	0.0	51.9	42.1
Kazakhstan	892	57.5	27.1	6.8	8.5	57.3	0.2	0.1	61.0	54.7
Korea, Rep. of	366	88.2	4.1	1.4	6.2	87.6	0.7	0.0	89.5	87.1
Lithuania	748	78.9	10.2	4.3	6.6	78.9	0.0	0.0	81.1	76.9
Malaysia	1229	57.8	21.2	6.3	14.6	57.7	0.1	0.1	58.6	57.0
Malta	551	80.8	5.4	3.7	9.9	80.4	0.5	0.0	82.3	79.4
Morocco	1730	27.8	24.1	9.8	37.8	27.6	0.5	0.2	30.2	25.3
New Zealand	554	80.1	7.8	6.7	5.3	79.9	0.2	0.1	74.2	84.7
Norway (9)	885	77.6	11.6	6.6	4.1	77.0	0.4	0.4	77.2	78.0
Oman	1647	59.9	15.9	4.4	19.7	59.8	0.2	0.0	64.6	55.4
Palestinian Nat'l Auth.	1302	46.6	21.8	5.6	25.2	46.0	1.2	0.1	53.5	39.7
Portugal	757	77.5	8.2	6.8	7.4	77.3	0.1	0.1	77.8	77.3
Qatar	598	73.1	8.0	2.2	16.6	72.9	0.2	0.0	70.8	75.1
Romania	518	65.4	13.8	8.1	12.2	64.5	0.3	1.0	72.2	58.7
Saudi Arabia	1164	57.2	16.7	4.6	21.4	57.1	0.3	0.0	60.9	53.8
Singapore	407	92.3	3.2	0.7	3.8	92.3	0.0	0.0	93.1	91.6
Sweden	712	87.3	6.5	2.7	3.4	86.7	0.5	0.2	87.9	86.8
Turkiye	702	81.3	8.1	5.0	5.5	81.1	0.3	0.0	85.9	76.0
United Arab Emirates	5314	68.7	8.3	3.8	19.1	68.4	0.2	0.1	69.9	67.4
United States	1158	77.2	10.9	4.3	7.5	76.8	0.0	0.4	77.8	76.5
Uzbekistan	607	48.9	27.6	12.6	10.5	48.5	0.8	0.0	47.2	50.8
International Avg. (40)	39197	72.1	11.8	5.2	10.7	71.7	0.4	0.1	73.3	70.8
Abu Dhabi, UAE	2407	61.4	9.3	4.5	24.6	61.0	0.3	0.2	63.5	59.2
Dubai, UAE	1152	84.3	4.6	3.0	8.1	84.1	0.2	0.0	83.9	84.6
Sharjah, UAE	899	72.7	8.6	2.4	16.2	72.6	0.1	0.1	72.4	73.0

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Applying

B_SE3_11B SE82271B: Direction a ball falls on Earth - right - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1193	76.1	5.3	75.7	3.8	14.7	0.3	0.3	76.0	76.2
Austria	651	72.7	6.2	72.4	3.4	17.5	0.4	0.0	69.2	76.1
Azerbaijan	874	52.5	19.4	50.5	6.9	19.4	3.8	0.0	57.2	48.0
Bahrain	719	55.5	19.9	55.4	5.6	18.9	0.2	0.0	58.1	53.0
Brazil	3169	45.8	14.4	45.3	9.9	29.4	1.0	0.0	44.6	47.1
Chile	631	57.7	9.5	57.0	6.5	25.7	1.2	0.0	52.7	62.5
Chinese Taipei	474	81.7	5.3	81.7	0.8	12.2	0.0	0.0	80.2	83.2
Cyprus	578	68.6	8.7	68.4	4.0	18.7	0.2	0.0	67.8	69.4
Czech Republic	1137	80.6	3.2	80.6	3.3	12.9	0.0	0.0	76.8	84.1
England	604	76.5	6.0	76.0	2.7	14.6	0.5	0.2	71.1	82.2
Finland	809	78.5	5.4	77.7	4.0	11.9	0.8	0.2	78.8	78.2
France	633	69.0	6.8	68.6	6.0	18.1	0.5	0.0	68.7	69.2
Georgia	676	65.9	13.9	65.6	4.9	15.1	0.4	0.1	66.8	65.0
Hong Kong SAR	637	81.8	7.6	81.2	2.8	7.8	0.4	0.2	81.1	82.5
Hungary	758	72.6	6.3	72.3	5.0	16.0	0.4	0.0	67.4	78.0
Ireland	715	72.8	5.6	72.7	3.8	17.7	0.2	0.0	69.5	75.9
Israel	727	60.1	13.0	59.7	3.8	22.8	0.5	0.2	58.7	61.4
Italy	639	69.5	8.9	69.0	5.2	16.2	0.7	0.0	70.0	69.1
Japan	334	91.6	0.3	91.6	0.5	7.7	0.0	0.0	88.4	94.7
Jordan	1398	41.0	23.2	40.9	7.2	28.6	0.2	0.0	42.9	39.2
Kazakhstan	892	55.6	7.5	55.3	6.5	30.3	0.4	0.1	58.5	53.3
Korea, Rep. of	366	85.9	6.5	85.3	2.1	5.4	0.7	0.0	85.7	86.0
Lithuania	748	71.4	6.2	71.4	4.0	18.3	0.0	0.0	71.5	71.4
Malaysia	1229	55.0	15.2	54.8	7.0	22.7	0.1	0.1	55.3	54.5
Malta	551	74.3	10.9	73.9	3.0	11.7	0.5	0.0	72.5	76.0
Morocco	1730	26.9	37.1	26.7	10.0	25.5	0.5	0.2	29.6	24.0
New Zealand	554	71.7	5.7	71.5	5.7	16.8	0.2	0.1	63.7	77.8
Norway (9)	885	70.9	4.2	70.3	5.1	19.5	0.4	0.4	65.9	75.4
Oman	1647	55.7	19.4	55.5	4.6	20.2	0.4	0.0	58.7	52.8
Palestinian Nat'l Auth.	1302	41.3	26.8	40.7	6.6	24.5	1.4	0.1	47.0	35.5
Portugal	757	68.7	8.1	68.6	5.4	17.8	0.0	0.1	65.2	72.1
Qatar	598	66.0	15.3	65.8	3.0	15.7	0.2	0.0	60.9	70.3
Romania	518	58.3	12.8	57.2	6.3	21.7	0.9	1.0	61.1	55.7
Saudi Arabia	1164	51.3	19.7	51.2	4.7	24.1	0.3	0.0	54.0	48.9
Singapore	407	86.6	4.9	86.6	1.3	7.2	0.0	0.0	87.4	85.9
Sweden	712	83.1	2.9	82.5	2.6	11.2	0.5	0.2	81.3	84.7
Turkiye	702	73.5	7.4	73.3	3.3	15.7	0.4	0.0	77.6	68.7
United Arab Emirates	5314	63.2	19.1	62.9	4.4	13.2	0.3	0.1	62.8	63.5
United States	1158	69.3	8.0	69.0	3.7	18.8	0.0	0.4	67.2	71.5
Uzbekistan	607	47.9	10.6	47.1	11.2	29.4	1.6	0.0	45.2	50.8
International Avg. (40)	39197	66.2	10.9	65.8	4.8	17.9	0.5	0.1	65.4	66.8
Abu Dhabi, UAE	2407	56.4	24.3	56.1	5.5	13.6	0.3	0.2	57.8	55.0
Dubai, UAE	1152	78.3	9.1	77.8	3.1	9.4	0.6	0.0	75.1	81.3
Sharjah, UAE	899	66.9	15.1	66.8	3.2	14.7	0.1	0.1	64.3	69.5

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Applying

B_SE3_11C SE82271C: Direction a ball falls on Earth - bottom - MC - Key: C

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1193	76.3	3.3	6.1	75.9	14.2	0.3	0.3	75.5	76.9
Austria	651	74.4	2.7	8.0	74.1	14.9	0.4	0.0	70.8	77.8
Azerbaijan	874	53.1	5.3	12.4	51.1	27.5	3.7	0.0	56.4	49.9
Bahrain	719	56.1	3.7	12.0	56.0	27.9	0.3	0.0	58.7	53.7
Brazil	3169	46.2	7.3	16.1	45.7	29.9	1.1	0.0	43.8	48.8
Chile	631	57.1	5.3	11.2	56.5	25.9	1.1	0.0	52.0	61.9
Chinese Taipei	474	81.6	0.8	5.0	81.6	12.5	0.0	0.0	78.7	84.4
Cyprus	578	69.1	2.4	8.7	69.0	19.7	0.2	0.0	69.4	68.8
Czech Republic	1137	81.5	2.3	3.4	81.5	12.7	0.0	0.0	78.4	84.5
England	604	77.1	1.5	6.4	76.6	14.9	0.5	0.2	73.3	81.1
Finland	809	80.3	2.4	4.9	79.6	12.2	0.7	0.2	82.1	78.5
France	633	68.4	5.7	9.0	68.1	16.9	0.3	0.0	66.4	70.1
Georgia	676	65.4	3.9	10.4	65.1	20.2	0.4	0.1	66.0	64.8
Hong Kong SAR	637	82.2	2.2	3.9	81.6	11.6	0.4	0.2	81.3	83.0
Hungary	758	75.3	2.7	7.1	75.0	14.9	0.4	0.0	71.9	78.8
Ireland	715	75.0	1.6	4.6	74.8	18.8	0.2	0.0	71.4	78.2
Israel	727	60.1	3.4	9.6	59.8	26.6	0.5	0.2	58.7	61.5
Italy	639	70.9	4.7	6.8	70.4	17.4	0.7	0.0	70.8	71.0
Japan	334	93.1	0.3	2.2	93.1	4.4	0.0	0.0	91.9	94.2
Jordan	1398	42.4	4.5	14.7	42.4	38.3	0.1	0.0	43.5	41.4
Kazakhstan	892	54.8	5.1	23.6	54.6	16.4	0.3	0.1	55.6	54.1
Korea, Rep. of	366	87.2	1.0	3.8	86.6	7.9	0.7	0.0	87.9	86.5
Lithuania	748	72.4	2.2	8.4	72.4	17.0	0.0	0.0	72.8	71.9
Malaysia	1229	57.0	4.8	18.0	56.8	20.2	0.1	0.1	56.9	57.0
Malta	551	75.6	1.6	3.6	75.2	19.1	0.5	0.0	75.5	75.7
Morocco	1730	26.4	8.5	20.1	26.2	44.4	0.6	0.2	28.1	24.6
New Zealand	554	72.8	4.3	5.6	72.6	17.1	0.2	0.1	66.9	77.4
Norway (9)	885	72.3	4.4	9.8	71.8	13.3	0.2	0.4	67.4	76.7
Oman	1647	56.5	3.9	13.7	56.3	25.8	0.3	0.0	58.6	54.5
Palestinian Nat'l Auth.	1302	43.4	4.3	15.6	42.9	35.8	1.2	0.1	48.6	38.3
Portugal	757	69.9	4.2	6.8	69.8	19.1	0.0	0.1	67.1	72.7
Qatar	598	66.1	1.9	6.7	66.0	25.2	0.2	0.0	61.2	70.3
Romania	518	58.6	3.9	10.3	57.7	26.6	0.5	1.0	62.4	54.9
Saudi Arabia	1164	52.6	3.1	10.2	52.5	34.0	0.2	0.0	55.8	49.6
Singapore	407	88.3	0.5	2.7	88.3	8.5	0.0	0.0	88.4	88.2
Sweden	712	82.9	1.6	6.0	82.3	9.4	0.5	0.2	81.1	84.4
Turkiye	702	74.2	2.5	7.4	74.0	15.8	0.3	0.0	79.3	68.3
United Arab Emirates	5314	63.8	3.0	6.7	63.5	26.3	0.3	0.1	63.9	63.7
United States	1158	69.7	2.8	8.8	69.3	18.6	0.0	0.4	67.3	72.1
Uzbekistan	607	47.5	8.8	23.4	47.0	19.7	1.1	0.0	44.7	50.6
International Avg. (40)	39197	66.9	3.5	9.4	66.6	20.0	0.5	0.1	66.3	67.5
Abu Dhabi, UAE	2407	56.1	3.6	8.1	55.7	31.8	0.5	0.2	57.9	54.3
Dubai, UAE	1152	79.4	2.5	3.3	79.2	14.7	0.2	0.0	77.4	81.3
Sharjah, UAE	899	67.4	2.3	6.8	67.3	23.4	0.1	0.1	65.2	69.6

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Applying

B_SE3_11D SE82271D: Direction a ball falls on Earth - left - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1193	75.6	75.3	6.3	7.1	10.9	0.3	0.3	74.4	76.9
Austria	651	72.5	72.3	5.3	8.4	13.7	0.3	0.0	68.3	76.5
Azerbaijan	874	51.7	49.7	19.1	14.2	13.1	3.8	0.0	55.3	48.2
Bahrain	719	55.3	55.2	19.3	14.2	11.1	0.2	0.0	59.1	51.6
Brazil	3169	43.1	42.8	13.5	18.6	24.5	0.6	0.0	40.5	45.9
Chile	631	57.7	57.0	8.8	13.0	20.0	1.1	0.0	53.0	62.0
Chinese Taipei	474	82.0	82.0	4.9	4.6	8.5	0.0	0.0	80.4	83.5
Cyprus	578	68.7	68.5	8.2	8.9	14.1	0.2	0.0	67.7	69.7
Czech Republic	1137	81.2	81.2	2.9	4.3	11.6	0.0	0.0	77.8	84.4
England	604	76.0	75.3	5.4	6.1	12.3	0.6	0.2	71.2	81.0
Finland	809	77.9	77.1	5.0	5.9	11.0	0.8	0.2	78.9	77.0
France	633	68.5	68.3	6.6	8.1	16.8	0.3	0.0	68.2	68.7
Georgia	676	64.4	64.1	13.8	12.9	8.8	0.3	0.1	64.7	64.0
Hong Kong SAR	637	81.7	81.1	7.6	4.6	6.0	0.4	0.2	81.0	82.4
Hungary	758	72.0	71.7	6.4	7.9	13.6	0.4	0.0	65.9	78.2
Ireland	715	72.9	72.8	5.3	5.4	16.3	0.2	0.0	70.0	75.6
Israel	727	60.7	60.3	13.8	10.7	14.6	0.5	0.2	59.0	62.4
Italy	639	68.0	67.6	8.6	8.6	14.6	0.6	0.0	68.3	67.8
Japan	334	90.9	90.9	0.9	2.2	6.0	0.0	0.0	87.6	94.2
Jordan	1398	41.9	41.8	26.3	18.3	13.4	0.2	0.0	43.7	40.2
Kazakhstan	892	54.3	54.1	7.4	24.6	13.6	0.2	0.1	55.5	53.3
Korea, Rep. of	366	85.9	85.3	6.3	3.6	4.0	0.7	0.0	85.3	86.4
Lithuania	748	71.5	71.5	5.5	9.3	13.7	0.0	0.0	71.4	71.6
Malaysia	1229	53.2	53.2	15.8	19.7	11.3	0.0	0.1	52.5	54.0
Malta	551	73.9	73.5	10.5	5.3	10.2	0.5	0.0	72.5	75.3
Morocco	1730	26.3	26.2	37.6	21.8	13.8	0.4	0.2	28.6	23.9
New Zealand	554	72.1	71.9	5.0	5.8	17.0	0.2	0.1	63.0	79.1
Norway (9)	885	70.3	69.9	5.6	10.5	13.5	0.1	0.4	65.5	74.5
Oman	1647	55.3	55.0	21.3	14.8	8.4	0.5	0.0	58.2	52.5
Palestinian Nat'l Auth.	1302	40.6	40.0	28.6	18.4	11.5	1.5	0.1	45.9	35.3
Portugal	757	68.9	68.8	8.4	7.3	15.4	0.0	0.1	67.0	70.7
Qatar	598	65.1	65.0	16.1	8.0	10.7	0.2	0.0	60.9	68.8
Romania	518	56.5	55.6	14.1	11.9	16.7	0.6	1.0	59.6	53.5
Saudi Arabia	1164	51.7	51.6	21.5	13.8	12.8	0.3	0.0	54.5	49.1
Singapore	407	86.3	86.3	4.9	3.5	5.3	0.0	0.0	87.4	85.4
Sweden	712	82.7	82.2	3.3	5.8	8.1	0.4	0.2	81.3	83.9
Turkiye	702	72.7	72.6	6.5	7.6	13.1	0.2	0.0	77.8	66.7
United Arab Emirates	5314	63.0	62.7	19.3	7.8	9.8	0.3	0.1	62.4	63.6
United States	1158	68.9	68.6	8.7	9.7	12.6	0.0	0.4	66.4	71.3
Uzbekistan	607	45.3	44.9	11.5	24.8	17.9	0.9	0.0	41.7	49.2
International Avg. (40)	39197	65.7	65.3	11.2	10.4	12.5	0.4	0.1	64.8	66.5
Abu Dhabi, UAE	2407	55.8	55.5	24.4	8.8	10.8	0.3	0.2	57.2	54.4
Dubai, UAE	1152	78.3	78.1	8.8	4.3	8.6	0.2	0.0	74.6	81.7
Sharjah, UAE	899	66.8	66.6	15.7	8.1	9.4	0.1	0.1	63.8	69.8

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Knowing

B_SE3_12A SE82346A: Advantage of replacing coal with wind power - CR - 1 Point

COUNTRY	N	DIFF %	1 %	0 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1193	50.3	48.3	47.8	48.3	47.8	3.6	0.3	51.8	48.8
Austria	651	26.5	23.8	66.0	23.8	66.0	10.2	0.0	28.2	25.1
Azerbaijan	874	30.4	19.3	44.1	19.3	44.1	36.6	0.0	30.1	30.7
Bahrain	719	46.2	42.8	49.9	42.8	49.9	7.3	0.0	53.8	38.3
Brazil	3169	28.1	24.1	61.8	24.1	61.8	14.0	0.1	26.5	29.8
Chile	631	30.7	26.5	59.7	26.5	59.7	13.8	0.0	32.9	28.7
Chinese Taipei	474	62.5	62.3	37.4	62.3	37.4	0.2	0.0	69.9	55.2
Cyprus	578	55.7	46.6	37.1	46.6	37.1	16.3	0.0	62.1	48.7
Czech Republic	1137	47.3	44.0	49.1	44.0	49.1	6.9	0.0	49.9	45.0
England	604	56.9	53.5	40.6	53.5	40.6	5.7	0.2	54.9	58.9
Finland	809	51.4	48.6	46.0	48.6	46.0	5.2	0.2	52.4	50.4
France	633	69.6	61.2	26.8	61.2	26.8	12.0	0.0	69.7	69.4
Georgia	677	55.9	44.9	35.4	44.9	35.4	19.6	0.1	56.7	55.2
Hong Kong SAR	636	53.8	50.5	43.4	50.5	43.4	5.9	0.2	54.0	53.6
Hungary	758	64.9	59.7	32.2	59.7	32.2	8.1	0.0	65.0	64.9
Ireland	715	39.3	38.1	58.9	38.1	58.9	3.0	0.0	42.7	36.4
Israel	727	62.7	55.7	33.1	55.7	33.1	11.0	0.2	69.1	56.6
Italy	639	77.4	70.5	20.6	70.5	20.6	8.8	0.0	78.4	76.5
Japan	334	75.4	71.2	23.3	71.2	23.3	5.6	0.0	71.2	79.3
Jordan	1398	37.0	33.7	57.4	33.7	57.4	8.9	0.0	41.1	32.9
Kazakhstan	892	33.8	30.7	60.2	30.7	60.2	9.1	0.1	39.3	29.5
Korea, Rep. of	366	54.1	51.9	44.1	51.9	44.1	4.0	0.0	53.9	54.3
Lithuania	748	60.2	53.7	35.5	53.7	35.5	10.9	0.0	64.4	56.4
Malaysia	1229	29.0	28.3	69.1	28.3	69.1	2.6	0.1	28.1	30.1
Malta	551	52.4	48.4	44.0	48.4	44.0	7.6	0.0	53.2	51.5
Morocco	1730	21.8	15.9	57.0	15.9	57.0	26.8	0.3	24.8	18.8
New Zealand	554	52.0	48.7	44.9	48.7	44.9	6.3	0.1	42.0	59.6
Norway (9)	885	43.2	40.2	52.8	40.2	52.8	6.5	0.4	45.8	40.9
Oman	1647	41.6	39.5	55.3	39.5	55.3	5.2	0.0	45.9	37.4
Palestinian Nat'l Auth.	1302	38.9	35.6	55.9	35.6	55.9	8.2	0.3	44.2	33.5
Portugal	757	81.8	77.0	17.1	77.0	17.1	5.7	0.1	82.2	81.4
Qatar	598	50.0	47.6	47.7	47.6	47.7	4.7	0.0	50.4	49.6
Romania	518	32.6	28.9	59.9	28.9	59.9	10.2	1.0	34.3	31.0
Saudi Arabia	1164	32.4	31.1	64.9	31.1	64.9	4.0	0.0	40.4	24.9
Singapore	407	64.4	64.0	35.5	64.0	35.5	0.5	0.0	69.7	60.1
Sweden	712	47.5	45.1	49.9	45.1	49.9	4.8	0.2	54.1	41.6
Turkiye	702	86.3	81.7	13.0	81.7	13.0	5.3	0.0	85.8	86.8
United Arab Emirates	5314	32.5	31.2	64.9	31.2	64.9	3.9	0.1	33.4	31.5
United States	1158	55.4	53.7	43.1	53.7	43.1	2.7	0.4	55.2	55.7
Uzbekistan	607	18.8	16.2	70.2	16.2	70.2	13.6	0.0	19.0	18.5
International Avg. (40)	39197	48.8	44.9	46.4	44.9	46.4	8.6	0.1	50.7	46.9
Abu Dhabi, UAE	2407	27.0	25.5	69.1	25.5	69.1	5.1	0.2	28.6	25.3
Dubai, UAE	1152	41.3	40.6	57.7	40.6	57.7	1.7	0.0	39.1	43.6
Sharjah, UAE	899	37.4	35.8	60.0	35.8	60.0	4.1	0.1	40.2	34.6

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Knowing

B_SE3_12B SE82346B: Disadvantage of replacing coal with wind power - CR - 1 Point

COUNTRY	N	DIFF %	1 %	0 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1193	44.2	42.2	53.3	42.2	53.3	4.2	0.3	46.7	41.8
Austria	651	29.8	26.7	62.9	26.7	62.9	10.3	0.0	32.2	27.6
Azerbaijan	874	32.1	19.0	40.2	19.0	40.2	40.8	0.0	35.1	29.7
Bahrain	719	38.9	34.6	54.4	34.6	54.4	10.9	0.0	39.9	37.9
Brazil	3169	22.7	18.3	62.1	18.3	62.1	19.5	0.1	22.3	23.1
Chile	631	42.4	34.2	46.4	34.2	46.4	19.4	0.0	39.2	45.2
Chinese Taipei	474	53.3	53.0	46.4	53.0	46.4	0.6	0.0	63.2	43.8
Cyprus	578	36.8	30.6	52.4	30.6	52.4	17.0	0.0	39.9	33.5
Czech Republic	1137	43.8	38.7	49.5	38.7	49.5	11.8	0.0	46.7	41.4
England	604	60.7	57.2	37.1	57.2	37.1	5.5	0.2	61.9	59.4
Finland	809	49.0	44.6	46.5	44.6	46.5	8.6	0.2	50.6	47.3
France	633	40.1	33.2	49.7	33.2	49.7	17.1	0.0	42.2	38.4
Georgia	677	20.0	14.3	56.9	14.3	56.9	28.7	0.1	17.5	22.4
Hong Kong SAR	636	62.9	59.0	34.8	59.0	34.8	5.9	0.2	61.9	63.7
Hungary	758	46.3	40.4	46.9	40.4	46.9	12.7	0.0	52.4	40.3
Ireland	715	51.4	49.6	47.0	49.6	47.0	3.4	0.0	55.7	47.5
Israel	727	47.9	41.0	44.6	41.0	44.6	14.3	0.2	53.1	43.0
Italy	639	38.7	32.6	51.7	32.6	51.7	15.7	0.0	37.4	39.7
Japan	334	74.2	70.1	24.4	70.1	24.4	5.5	0.0	70.0	78.2
Jordan	1398	18.3	16.2	72.0	16.2	72.0	11.8	0.0	17.7	18.9
Kazakhstan	892	25.5	21.6	63.2	21.6	63.2	15.1	0.1	29.3	22.7
Korea, Rep. of	366	36.9	34.9	59.6	34.9	59.6	5.6	0.0	39.2	34.9
Lithuania	748	56.2	46.6	36.4	46.6	36.4	17.1	0.0	55.8	56.5
Malaysia	1229	36.0	34.7	61.6	34.7	61.6	3.7	0.1	34.6	37.6
Malta	551	56.8	51.7	39.3	51.7	39.3	9.1	0.0	57.2	56.4
Morocco	1730	6.6	4.2	59.5	4.2	59.5	36.1	0.3	7.0	6.1
New Zealand	554	38.9	36.1	56.7	36.1	56.7	7.1	0.1	36.8	40.5
Norway (9)	885	50.9	47.0	45.3	47.0	45.3	7.2	0.5	55.9	46.3
Oman	1647	27.7	26.0	68.0	26.0	68.0	6.0	0.0	31.8	23.6
Palestinian Nat'l Auth.	1302	19.2	17.0	71.4	17.0	71.4	11.3	0.3	20.3	18.1
Portugal	757	30.5	25.3	57.6	25.3	57.6	17.0	0.1	32.6	28.5
Qatar	598	20.9	19.5	74.1	19.5	74.1	6.3	0.0	21.8	20.0
Romania	518	37.4	31.4	52.6	31.4	52.6	14.9	1.2	33.3	40.9
Saudi Arabia	1164	25.8	24.3	69.9	24.3	69.9	5.8	0.0	29.2	22.6
Singapore	407	61.8	61.5	38.0	61.5	38.0	0.5	0.0	65.1	59.2
Sweden	712	39.8	37.3	56.4	37.3	56.4	6.0	0.2	45.6	34.9
Turkiye	702	48.6	40.0	42.3	40.0	42.3	17.8	0.0	49.1	48.0
United Arab Emirates	5314	35.3	33.3	61.2	33.3	61.2	5.4	0.1	35.6	34.9
United States	1157	36.7	35.5	61.2	35.5	61.2	2.6	0.7	35.8	37.7
Uzbekistan	607	30.2	24.9	57.4	24.9	57.4	17.7	0.0	26.3	34.4
International Avg. (40)	39196	39.4	35.2	52.8	35.2	52.8	11.9	0.1	40.7	38.2
Abu Dhabi, UAE	2407	28.9	26.9	66.2	26.9	66.2	6.7	0.2	30.0	27.8
Dubai, UAE	1152	50.2	48.7	48.4	48.7	48.4	2.9	0.0	50.1	50.4
Sharjah, UAE	899	35.2	33.2	61.1	33.2	61.1	5.5	0.2	34.7	35.8

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Applying

B_SE3_13 SE82335: Natural resource formation shown in diagrams - MC - Key: C

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1193	48.5	19.2	16.2	48.1	15.8	0.3	0.5	42.9	54.1
Austria	651	48.1	11.4	28.9	48.0	11.5	0.2	0.0	47.1	49.0
Azerbaijan	874	27.5	15.1	34.5	26.7	20.7	3.0	0.0	24.9	30.0
Bahrain	719	41.1	20.4	18.1	41.0	20.3	0.3	0.0	39.1	43.0
Brazil	3169	38.9	20.5	29.7	38.6	10.4	0.7	0.2	37.9	40.0
Chile	631	44.7	14.7	25.4	43.9	14.3	1.7	0.0	37.3	51.4
Chinese Taipei	474	69.5	11.9	9.5	69.5	9.1	0.0	0.0	59.5	79.2
Cyprus	578	29.5	27.2	25.2	29.4	18.0	0.2	0.0	25.7	33.5
Czech Republic	1137	42.6	11.4	16.8	42.6	29.1	0.1	0.0	30.2	54.4
England	604	60.7	14.2	12.2	60.4	12.6	0.4	0.2	52.7	69.3
Finland	809	47.8	9.9	23.9	47.6	18.1	0.4	0.2	44.7	51.0
France	633	41.1	17.4	29.3	40.6	11.5	1.2	0.0	40.6	41.5
Georgia	677	36.2	14.8	39.3	35.8	9.2	0.9	0.1	37.9	34.4
Hong Kong SAR	637	69.1	8.7	9.3	68.8	12.8	0.2	0.2	63.3	74.8
Hungary	758	44.5	16.9	27.3	44.5	11.2	0.0	0.0	39.1	50.1
Ireland	715	52.3	13.9	13.7	52.1	20.0	0.4	0.0	44.5	59.5
Israel	727	35.9	20.5	24.2	35.5	18.8	0.9	0.2	38.1	33.7
Italy	639	65.5	13.0	10.5	65.4	11.0	0.1	0.0	61.2	69.3
Japan	334	55.3	14.4	14.6	55.1	15.5	0.3	0.0	47.2	63.2
Jordan	1398	41.9	24.1	22.0	41.8	11.8	0.3	0.0	44.6	39.5
Kazakhstan	892	33.5	20.7	21.7	33.3	23.7	0.4	0.1	34.0	33.1
Korea, Rep. of	366	60.4	11.9	6.3	60.2	21.3	0.3	0.0	46.8	72.3
Lithuania	748	33.0	14.1	34.3	33.0	18.5	0.2	0.0	27.2	38.6
Malaysia	1229	29.6	28.2	30.6	29.6	11.6	0.0	0.1	24.5	35.4
Malta	551	52.6	14.5	20.3	52.3	12.4	0.6	0.0	49.1	56.1
Morocco	1730	30.3	23.3	37.6	30.0	8.2	0.5	0.3	29.0	31.6
New Zealand	554	45.3	19.9	18.9	44.9	15.5	0.7	0.1	43.0	47.1
Norway (9)	885	59.2	12.3	12.3	58.4	15.7	0.8	0.5	54.9	63.0
Oman	1647	38.9	19.1	22.2	38.8	19.6	0.2	0.0	38.6	39.2
Palestinian Nat'l Auth.	1302	21.3	27.8	32.6	21.2	17.6	0.6	0.3	19.9	22.8
Portugal	757	54.3	19.0	18.3	54.3	8.3	0.0	0.1	50.7	57.9
Qatar	598	45.6	24.8	17.0	45.5	12.4	0.2	0.0	44.8	46.3
Romania	518	42.2	11.3	14.2	41.6	31.6	0.2	1.2	41.0	43.3
Saudi Arabia	1164	35.2	27.5	19.3	35.2	18.0	0.0	0.0	37.5	33.0
Singapore	407	63.6	10.8	13.8	63.5	11.7	0.3	0.0	59.1	67.2
Sweden	712	68.0	10.0	12.5	67.7	9.3	0.3	0.2	64.1	71.4
Turkiye	702	48.2	14.2	23.4	47.9	13.9	0.5	0.0	43.0	54.3
United Arab Emirates	5314	61.3	14.5	14.7	61.1	9.4	0.2	0.1	58.7	63.8
United States	1158	53.0	13.5	14.2	52.6	18.9	0.1	0.7	43.3	62.9
Uzbekistan	607	35.5	17.8	25.0	35.4	21.5	0.3	0.0	34.1	37.0
International Avg. (40)	39198	46.3	16.9	21.0	46.0	15.5	0.5	0.1	42.6	49.9
Abu Dhabi, UAE	2407	58.6	16.8	16.4	58.4	8.0	0.1	0.2	56.6	60.6
Dubai, UAE	1152	70.6	10.7	9.6	70.6	9.1	0.0	0.0	67.3	73.7
Sharjah, UAE	899	62.8	12.2	15.1	62.6	9.7	0.2	0.2	58.0	67.7

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Applying

B_SE4_01A SE62091A: Producers in food web - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1191	80.5	3.8	79.9	6.7	8.9	0.6	0.1	78.2	82.4
Austria	647	77.4	4.9	76.5	5.7	11.7	1.2	0.0	75.2	79.2
Azerbaijan	877	53.4	12.0	47.8	11.0	18.8	10.2	0.2	51.1	55.5
Bahrain	730	72.0	6.8	71.3	9.9	11.0	0.9	0.0	74.5	69.6
Brazil	3198	54.9	5.5	54.2	11.3	27.7	1.3	0.1	52.8	56.9
Chile	646	66.8	4.5	64.4	12.5	14.9	3.2	0.5	60.8	71.9
Chinese Taipei	475	90.4	2.1	89.7	3.6	3.8	0.8	0.0	88.3	92.2
Cyprus	587	61.2	6.2	59.8	10.8	20.9	1.9	0.4	58.8	63.4
Czech Republic	1146	68.6	7.2	67.4	7.0	16.7	1.8	0.0	61.2	74.7
England	602	81.1	4.5	80.2	3.2	11.0	1.0	0.1	77.7	84.5
Finland	804	83.9	5.8	83.4	5.2	5.0	0.3	0.2	84.7	83.1
France	632	70.4	5.1	70.0	8.6	15.7	0.6	0.0	63.6	77.0
Georgia	688	59.0	12.4	55.3	8.8	17.2	6.0	0.3	57.5	60.5
Hong Kong SAR	623	89.7	2.2	87.6	2.1	5.7	1.9	0.5	87.1	92.6
Hungary	765	87.4	3.7	87.0	3.9	4.9	0.5	0.0	86.4	88.4
Ireland	703	73.0	5.2	72.9	7.2	14.5	0.1	0.1	68.6	76.8
Israel	733	70.4	6.1	69.3	6.5	16.5	1.6	0.0	70.2	70.6
Italy	645	70.8	2.8	69.7	7.3	18.7	1.5	0.0	66.4	75.2
Japan	329	79.5	4.8	79.3	4.2	11.5	0.3	0.0	77.8	81.2
Jordan	1402	63.5	8.1	63.1	10.8	17.3	0.7	0.0	68.1	59.3
Kazakhstan	885	60.0	10.3	57.6	9.8	18.3	3.9	0.0	59.0	60.9
Korea, Rep. of	365	81.2	4.5	80.6	3.2	10.9	0.8	0.0	77.2	85.7
Lithuania	758	85.9	5.6	85.3	3.9	4.5	0.7	0.0	86.6	85.2
Malaysia	1244	77.7	5.7	77.5	4.6	12.0	0.2	0.0	79.3	76.0
Malta	560	69.6	7.3	68.6	8.5	14.1	1.4	0.0	71.3	67.8
Morocco	1734	42.9	11.0	42.3	16.9	28.3	1.5	0.1	41.1	44.8
New Zealand	537	72.6	6.3	71.8	5.6	15.2	0.9	0.2	70.3	74.2
Norway (9)	889	79.6	6.8	78.4	4.1	9.1	0.8	0.8	80.1	79.2
Oman	1638	84.9	3.8	84.4	4.5	6.8	0.4	0.1	87.7	82.2
Palestinian Nat'l Auth.	1300	55.4	8.6	54.4	10.7	24.6	1.7	0.1	60.9	49.9
Portugal	762	82.3	3.1	82.1	4.4	10.1	0.3	0.0	80.7	83.9
Qatar	597	74.2	6.3	73.8	5.2	14.1	0.5	0.0	77.9	70.4
Romania	534	62.8	5.2	61.6	14.4	16.9	1.9	0.0	62.4	63.2
Saudi Arabia	1172	60.7	5.0	60.1	13.8	20.2	1.0	0.0	65.9	55.9
Singapore	402	93.2	1.5	92.8	2.7	2.5	0.5	0.0	92.5	93.9
Sweden	714	75.1	7.8	74.2	6.4	10.5	0.8	0.4	75.5	74.6
Turkiye	692	85.1	3.3	84.2	3.9	7.6	1.0	0.0	82.6	87.6
United Arab Emirates	5310	72.8	5.4	71.7	6.8	14.6	1.3	0.1	71.4	74.2
United States	1151	80.1	4.8	79.7	4.3	10.7	0.3	0.2	78.2	81.9
Uzbekistan	608	50.4	11.9	48.3	9.0	26.6	4.2	0.0	52.0	49.0
International Avg. (40)	39275	72.5	5.9	71.5	7.2	13.8	1.5	0.1	71.5	73.4
Abu Dhabi, UAE	2424	65.2	6.7	64.2	8.1	19.5	1.3	0.2	62.4	68.0
Dubai, UAE	1158	86.2	3.1	85.4	3.4	7.2	0.9	0.0	84.8	87.5
Sharjah, UAE	877	77.9	4.8	77.0	6.0	11.1	1.1	0.0	76.8	79.0

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Applying

B_SE4_01B SE62091B: Eat only plants in food web - MC - Key: C

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1191	80.5	9.1	9.7	79.7	0.5	1.0	0.1	82.3	79.1
Austria	647	69.1	11.6	17.7	68.8	1.5	0.4	0.0	68.9	69.3
Azerbaijan	877	58.8	18.6	16.3	55.9	4.2	4.8	0.2	61.1	56.5
Bahrain	730	67.7	11.4	16.3	66.4	4.0	1.8	0.0	69.0	66.4
Brazil	3198	64.9	21.1	11.1	63.9	2.3	1.5	0.1	65.0	64.8
Chile	646	72.6	7.5	18.1	70.6	1.1	2.3	0.5	69.0	75.5
Chinese Taipei	475	84.9	10.2	4.1	84.6	0.7	0.4	0.0	81.9	87.6
Cyprus	587	73.0	13.3	11.7	71.9	1.7	1.1	0.4	73.9	72.2
Czech Republic	1146	79.1	8.6	11.9	78.8	0.3	0.3	0.0	79.3	79.0
England	602	77.8	9.1	12.4	76.7	0.3	1.4	0.1	76.5	79.1
Finland	804	67.4	9.6	21.6	66.6	0.9	1.0	0.2	68.3	66.6
France	632	65.0	11.6	16.4	64.4	6.7	0.9	0.0	62.7	67.1
Georgia	688	71.3	10.4	14.5	69.0	2.9	2.9	0.3	74.0	68.4
Hong Kong SAR	623	75.3	13.3	7.0	74.6	4.1	0.6	0.5	74.6	76.2
Hungary	765	77.4	9.5	12.5	77.0	0.6	0.5	0.0	73.7	80.9
Ireland	703	71.0	14.6	11.3	70.5	2.9	0.6	0.1	68.3	73.3
Israel	733	72.0	10.4	16.4	71.6	1.0	0.7	0.0	71.5	72.5
Italy	645	74.9	9.2	14.5	74.3	1.2	0.8	0.0	74.3	75.4
Japan	329	76.6	15.8	7.4	76.6	0.2	0.0	0.0	78.4	74.7
Jordan	1402	53.5	13.5	25.9	51.7	5.5	3.4	0.0	53.8	53.3
Kazakhstan	885	57.5	20.5	17.3	55.8	3.5	2.9	0.0	53.5	61.4
Korea, Rep. of	365	80.8	10.2	8.3	80.8	0.7	0.1	0.0	82.3	79.2
Lithuania	758	80.0	9.9	9.2	79.9	0.9	0.2	0.0	79.1	81.0
Malaysia	1244	70.5	16.2	10.2	70.3	3.1	0.3	0.0	71.8	69.0
Malta	560	73.2	12.4	12.8	72.8	1.5	0.5	0.0	76.9	69.2
Morocco	1734	43.3	12.6	28.8	42.3	13.9	2.3	0.1	45.2	41.5
New Zealand	537	73.3	14.1	11.4	72.2	0.8	1.3	0.2	73.1	73.9
Norway (9)	889	75.8	12.2	11.2	74.4	0.4	1.1	0.8	74.4	77.0
Oman	1638	70.2	10.1	16.3	68.6	2.7	2.1	0.1	71.1	69.4
Palestinian Nat'l Auth.	1300	61.5	7.8	23.0	59.4	6.3	3.4	0.1	65.4	57.6
Portugal	762	80.2	10.7	7.9	79.7	1.2	0.5	0.0	78.2	82.0
Qatar	597	76.2	6.1	15.8	74.9	1.5	1.7	0.0	76.8	75.5
Romania	534	64.7	13.8	20.5	64.0	0.6	1.1	0.0	63.0	66.6
Saudi Arabia	1172	58.0	13.5	22.8	56.8	4.8	2.1	0.0	59.6	56.5
Singapore	402	85.6	7.6	6.7	85.4	0.0	0.2	0.0	87.5	83.9
Sweden	714	70.4	13.3	14.3	69.9	1.8	0.4	0.4	74.0	66.5
Turkiye	692	77.0	12.2	9.4	76.8	1.4	0.3	0.0	77.4	76.7
United Arab Emirates	5310	75.7	9.6	12.3	75.0	2.2	0.7	0.1	76.1	75.3
United States	1151	80.2	8.1	10.5	79.8	1.1	0.2	0.2	79.3	81.0
Uzbekistan	608	63.3	17.0	12.4	58.5	4.5	7.6	0.0	64.9	61.8
International Avg. (40)	39275	71.3	11.9	13.9	70.3	2.4	1.4	0.1	71.4	71.1
Abu Dhabi, UAE	2424	73.0	11.1	12.7	72.2	2.9	0.9	0.2	74.5	71.6
Dubai, UAE	1158	81.7	7.4	9.6	81.5	1.2	0.3	0.0	82.3	81.2
Sharjah, UAE	877	78.1	8.5	10.7	77.7	2.6	0.5	0.0	76.4	79.9

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Applying

B_SE4_02 SE62100: Cell structure of fossils - CR - 1 Point

COUNTRY	N	DIFF %	10 %	79 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1192	45.4	44.6	53.7	44.6	53.7	1.7	0.1	44.6	45.9
Austria	647	16.8	16.7	82.7	16.7	82.7	0.5	0.0	15.5	17.9
Azerbaijan	877	14.4	13.6	80.5	13.6	80.5	5.7	0.2	17.9	11.1
Bahrain	729	56.1	55.7	43.7	55.7	43.7	0.6	0.0	65.2	47.3
Brazil	3198	13.3	12.7	82.8	12.7	82.8	4.4	0.1	12.2	14.3
Chile	646	26.7	25.1	68.9	25.1	68.9	5.5	0.5	31.5	23.0
Chinese Taipei	475	74.0	74.0	26.0	74.0	26.0	0.0	0.0	71.3	76.4
Cyprus	586	45.4	44.6	53.5	44.6	53.5	1.5	0.4	52.7	38.7
Czech Republic	1146	31.2	30.9	68.2	30.9	68.2	0.8	0.0	32.7	29.9
England	602	59.2	58.2	40.1	58.2	40.1	1.6	0.1	60.3	58.3
Finland	804	46.9	46.6	52.7	46.6	52.7	0.4	0.2	51.0	42.8
France	632	21.4	20.9	77.1	20.9	77.1	2.0	0.0	20.9	21.8
Georgia	688	28.8	27.7	68.5	27.7	68.5	3.6	0.3	30.2	27.3
Hong Kong SAR	623	60.8	60.3	38.9	60.3	38.9	0.4	0.5	58.8	63.0
Hungary	765	11.9	11.8	87.0	11.8	87.0	1.2	0.0	13.1	10.8
Ireland	703	43.5	42.9	55.7	42.9	55.7	1.2	0.1	45.3	42.0
Israel	732	27.6	27.1	71.0	27.1	71.0	1.9	0.0	27.3	27.9
Italy	645	29.6	28.0	66.6	28.0	66.6	5.4	0.0	31.5	27.6
Japan	329	71.8	71.8	28.2	71.8	28.2	0.0	0.0	70.5	73.1
Jordan	1402	24.4	24.3	75.2	24.3	75.2	0.5	0.0	29.9	19.2
Kazakhstan	885	23.9	23.3	74.2	23.3	74.2	2.5	0.0	25.5	22.4
Korea, Rep. of	365	64.3	64.1	35.6	64.1	35.6	0.3	0.0	67.8	60.4
Lithuania	757	42.1	41.8	57.4	41.8	57.4	0.8	0.0	47.9	36.4
Malaysia	1245	30.9	30.8	69.0	30.8	69.0	0.1	0.0	34.1	27.6
Malta	560	45.1	44.2	53.8	44.2	53.8	2.0	0.0	50.6	39.4
Morocco	1372	5.3	5.2	92.2	5.2	92.2	2.4	0.2	6.0	4.6
New Zealand	537	29.0	28.3	69.4	28.3	69.4	2.1	0.2	27.6	30.2
Norway (9)	889	29.6	28.7	68.3	28.7	68.3	2.2	0.8	32.1	27.6
Oman	1638	55.1	54.4	44.3	54.4	44.3	1.2	0.1	66.2	44.9
Palestinian Nat'l Auth.	1300	38.6	38.4	61.1	38.4	61.1	0.4	0.1	45.8	31.4
Portugal	762	40.6	40.1	58.7	40.1	58.7	1.1	0.0	43.0	38.3
Qatar	597	56.2	55.7	43.4	55.7	43.4	0.9	0.0	60.1	52.3
Romania	534	19.2	18.8	79.4	18.8	79.4	1.7	0.0	17.1	21.2
Saudi Arabia	1172	44.3	44.3	55.6	44.3	55.6	0.1	0.0	56.4	32.9
Singapore	402	82.1	82.1	17.9	82.1	17.9	0.0	0.0	82.7	81.5
Sweden	714	27.0	26.5	71.7	26.5	71.7	1.4	0.4	28.0	25.9
Turkiye	692	51.3	50.3	47.7	50.3	47.7	2.0	0.0	55.4	47.2
United Arab Emirates	5310	53.2	52.9	46.6	52.9	46.6	0.4	0.1	55.6	50.8
United States	1151	45.3	44.8	54.2	44.8	54.2	0.8	0.2	46.1	44.6
Uzbekistan	608	16.5	16.2	81.7	16.2	81.7	2.1	0.0	20.8	12.5
International Avg. (40)	38911	38.7	38.2	60.1	38.2	60.1	1.6	0.1	41.3	36.3
Abu Dhabi, UAE	2424	41.5	41.2	58.2	41.2	58.2	0.4	0.2	44.1	38.9
Dubai, UAE	1158	69.9	69.7	30.0	69.7	30.0	0.2	0.0	70.1	69.7
Sharjah, UAE	877	61.3	61.0	38.6	61.0	38.6	0.4	0.0	65.2	57.3

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Reasoning

B_SE4_03 SE62097: Kate's heart and breathing rates - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1192	62.1	61.8	16.0	17.4	4.3	0.4	0.1	64.7	60.1
Austria	647	61.8	61.5	18.1	14.8	5.2	0.5	0.0	62.5	61.2
Azerbaijan	877	41.7	38.1	30.1	17.8	5.4	7.7	0.9	39.9	43.4
Bahrain	730	42.6	42.1	23.3	28.3	5.1	1.2	0.0	43.0	42.2
Brazil	3198	39.7	38.5	23.5	27.0	7.9	3.1	0.1	39.4	40.1
Chile	646	56.2	54.2	16.5	22.7	3.0	3.2	0.5	52.4	59.4
Chinese Taipei	475	77.9	77.9	10.2	10.0	1.9	0.0	0.0	78.9	77.1
Cyprus	587	49.1	48.6	21.1	21.7	7.6	0.6	0.4	51.2	47.2
Czech Republic	1146	57.9	57.3	22.9	13.8	5.0	1.0	0.0	56.8	58.8
England	602	60.0	59.0	14.1	21.4	3.9	1.4	0.1	62.5	57.5
Finland	804	63.3	62.5	21.6	10.3	4.3	1.0	0.2	66.2	60.4
France	632	59.4	58.6	19.6	16.3	4.1	1.4	0.0	59.2	59.7
Georgia	688	42.3	40.4	31.0	18.3	6.0	4.0	0.3	44.4	40.1
Hong Kong SAR	623	66.2	65.7	19.0	11.4	3.2	0.3	0.5	64.8	67.8
Hungary	765	56.9	56.6	23.0	16.2	3.8	0.5	0.0	57.8	56.1
Ireland	703	65.7	65.1	13.1	17.5	3.4	0.8	0.1	72.4	60.1
Israel	732	54.0	53.3	23.4	16.1	5.8	1.4	0.0	55.9	52.2
Italy	645	60.0	58.4	17.6	17.4	3.8	2.7	0.0	61.2	58.8
Japan	329	77.0	76.7	11.5	9.5	2.0	0.4	0.0	80.6	73.2
Jordan	1402	41.0	40.5	24.8	24.6	9.0	1.0	0.0	42.1	39.9
Kazakhstan	885	44.6	43.8	24.8	22.6	7.0	1.7	0.0	44.9	44.3
Korea, Rep. of	365	74.6	74.4	11.3	12.4	1.6	0.3	0.0	80.0	68.6
Lithuania	758	63.6	63.5	21.0	12.3	3.0	0.3	0.0	62.8	64.5
Malaysia	1244	47.3	47.3	22.4	25.3	5.0	0.0	0.0	46.8	47.8
Malta	560	61.4	60.9	17.6	16.7	4.0	0.8	0.0	61.2	61.6
Morocco	1734	23.4	22.7	24.3	37.8	12.3	2.7	0.3	24.3	22.4
New Zealand	537	58.5	57.6	19.1	14.3	7.5	1.3	0.2	63.6	55.0
Norway (9)	889	59.6	58.2	19.5	14.5	5.3	1.7	0.8	64.4	55.8
Oman	1638	41.1	40.4	20.9	31.9	5.2	1.6	0.1	40.8	41.3
Palestinian Nat'l Auth.	1300	35.1	34.8	25.1	31.3	8.0	0.8	0.1	37.8	32.3
Portugal	762	53.2	52.7	23.0	18.2	5.1	0.9	0.0	54.4	52.1
Qatar	597	55.7	55.4	18.6	20.4	5.1	0.3	0.2	52.4	58.9
Romania	534	53.1	52.2	19.6	21.1	5.4	1.1	0.7	55.4	50.8
Saudi Arabia	1172	36.2	36.1	27.2	30.8	5.7	0.2	0.0	40.3	32.3
Singapore	402	81.3	81.3	9.7	7.0	1.9	0.0	0.0	78.2	84.0
Sweden	714	69.0	67.7	15.1	10.9	4.4	1.4	0.4	68.3	69.8
Turkiye	692	63.4	62.3	17.7	14.6	3.6	1.8	0.0	65.0	61.8
United Arab Emirates	5310	55.3	54.9	19.2	21.4	3.7	0.6	0.1	55.7	54.9
United States	1151	59.6	59.2	16.5	19.6	4.1	0.4	0.2	59.7	59.7
Uzbekistan	608	42.8	41.6	23.4	20.6	11.7	2.6	0.0	38.9	46.4
International Avg. (40)	39275	55.3	54.6	19.9	18.9	5.1	1.3	0.2	56.3	54.5
Abu Dhabi, UAE	2424	49.3	48.9	22.4	23.3	4.6	0.6	0.2	50.0	48.7
Dubai, UAE	1158	67.2	67.0	13.5	16.1	3.1	0.3	0.0	65.6	68.7
Sharjah, UAE	877	57.5	57.1	18.4	20.9	2.8	0.7	0.0	57.9	57.2

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Knowing

B_SE4_04 SE62101: Stomach tissue and function (DERIVED) - CR - 2 Points

COUNTRY	N	DIFF %	20 %	10 %	79 %	2pt %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1192	59.3	37.7	42.9	19.0	37.7	42.9	19.0	0.3	0.1	57.2	61.0
Austria	647	54.7	33.0	41.9	23.8	33.0	41.9	23.8	1.2	0.0	51.8	57.1
Azerbaijan	877	47.1	25.5	31.6	30.5	25.5	31.6	30.5	11.3	1.0	46.4	47.9
Bahrain	730	41.2	21.5	38.9	39.0	21.5	38.9	39.0	0.6	0.0	43.4	39.0
Brazil	3198	44.3	25.2	34.6	36.2	25.2	34.6	36.2	3.5	0.5	39.1	49.1
Chile	646	47.2	24.6	40.2	29.9	24.6	40.2	29.9	4.8	0.5	44.1	49.8
Chinese Taipei	475	74.8	58.9	31.9	9.3	58.9	31.9	9.3	0.0	0.0	73.7	75.7
Cyprus	587	43.3	23.5	38.2	36.8	23.5	38.2	36.8	1.0	0.4	45.8	40.9
Czech Republic	1146	60.9	43.4	34.6	21.7	43.4	34.6	21.7	0.4	0.0	58.1	63.2
England	602	64.1	45.6	36.1	17.6	45.6	36.1	17.6	0.6	0.1	62.1	66.1
Finland	804	49.2	24.6	48.0	26.2	24.6	48.0	26.2	1.0	0.2	49.6	48.9
France	632	46.1	23.4	45.2	31.1	23.4	45.2	31.1	0.3	0.0	43.1	49.1
Georgia	688	59.6	42.9	28.7	24.5	42.9	28.7	24.5	3.6	0.3	59.8	59.3
Hong Kong SAR	622	64.3	46.4	32.5	18.6	46.4	32.5	18.6	2.1	0.5	59.3	69.9
Hungary	765	53.6	31.8	43.5	24.5	31.8	43.5	24.5	0.2	0.0	51.3	55.9
Ireland	703	58.8	38.7	40.0	21.1	38.7	40.0	21.1	0.0	0.1	57.1	60.3
Israel	732	43.0	23.5	37.8	37.4	23.5	37.8	37.4	1.0	0.2	41.3	44.6
Italy	645	54.2	33.2	41.1	24.8	33.2	41.1	24.8	1.0	0.0	51.0	57.6
Japan	329	76.0	64.5	23.1	12.4	64.5	23.1	12.4	0.0	0.0	74.9	77.2
Jordan	1402	38.7	20.8	35.3	43.2	20.8	35.3	43.2	0.7	0.0	38.5	38.9
Kazakhstan	885	38.5	19.9	35.0	42.3	19.9	35.0	42.3	2.7	0.0	38.9	38.1
Korea, Rep. of	365	68.4	54.1	27.7	17.5	54.1	27.7	17.5	0.6	0.0	68.0	69.0
Lithuania	758	54.8	37.0	35.6	27.4	37.0	35.6	27.4	0.0	0.0	52.7	56.8
Malaysia	1244	29.6	11.4	36.2	52.0	11.4	36.2	52.0	0.4	0.0	27.4	32.0
Malta	560	52.7	32.7	39.4	27.2	32.7	39.4	27.2	0.7	0.0	55.4	50.0
Morocco	1734	24.7	8.8	30.4	57.9	8.8	30.4	57.9	2.6	0.3	25.4	24.1
New Zealand	537	50.9	31.1	38.8	29.2	31.1	38.8	29.2	0.6	0.3	49.8	52.1
Norway (9)	889	51.0	33.0	33.4	31.0	33.0	33.4	31.0	1.8	0.8	49.0	52.7
Oman	1638	46.4	26.7	38.7	33.9	26.7	38.7	33.9	0.7	0.1	48.2	44.6
Palestinian Nat'l Auth.	1300	33.5	15.9	34.2	48.6	15.9	34.2	48.6	1.2	0.1	34.1	32.8
Portugal	762	46.2	27.4	37.4	35.1	27.4	37.4	35.1	0.1	0.0	42.3	49.8
Qatar	597	48.1	30.5	34.4	34.2	30.5	34.4	34.2	0.7	0.2	48.0	48.3
Romania	534	41.5	20.3	39.9	36.7	20.3	39.9	36.7	2.4	0.7	41.6	41.4
Saudi Arabia	1172	41.1	20.9	40.0	38.6	20.9	40.0	38.6	0.5	0.0	42.6	39.7
Singapore	402	70.5	52.2	36.1	11.4	52.2	36.1	11.4	0.3	0.0	72.0	69.1
Sweden	714	42.1	23.4	35.8	38.9	23.4	35.8	38.9	1.4	0.4	42.1	42.1
Turkiye	692	37.2	13.9	46.0	39.4	13.9	46.0	39.4	0.8	0.0	35.4	38.9
United Arab Emirates	5310	50.2	31.9	36.0	31.5	31.9	36.0	31.5	0.5	0.1	48.9	51.6
United States	1151	54.6	34.3	40.1	25.1	34.3	40.1	25.1	0.4	0.2	53.5	55.6
Uzbekistan	608	49.0	30.6	31.1	32.5	30.6	31.1	32.5	5.7	0.0	50.8	47.3
International Avg. (40)	39274	50.3	31.1	36.8	30.5	31.1	36.8	30.5	1.4	0.2	49.3	51.2
Abu Dhabi, UAE	2424	42.4	24.1	36.0	39.2	24.1	36.0	39.2	0.5	0.2	41.6	43.2
Dubai, UAE	1158	64.4	46.3	35.9	17.6	46.3	35.9	17.6	0.3	0.0	61.9	66.8
Sharjah, UAE	877	52.7	34.8	35.3	29.4	34.8	35.3	29.4	0.5	0.0	52.4	53.0

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Knowing

B_SE4_04A SE62101A: Stomach tissue and function: connective - MC - Key: D

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1192	81.0	8.5	6.0	4.3	80.5	0.6	0.1	83.3	79.2
Austria	647	83.6	6.9	4.2	5.1	82.6	1.2	0.0	83.3	83.9
Azerbaijan	877	67.1	10.2	11.1	7.2	58.3	12.2	1.0	69.7	64.5
Bahrain	730	64.4	10.7	12.7	11.8	64.0	0.7	0.0	67.6	61.4
Brazil	3198	63.5	14.3	10.9	9.7	60.7	3.8	0.5	61.1	65.7
Chile	646	75.2	9.4	7.7	6.4	71.1	4.9	0.5	74.8	75.5
Chinese Taipei	475	92.7	4.0	1.7	1.5	92.7	0.1	0.0	91.4	94.0
Cyprus	587	68.4	9.2	9.0	12.9	67.0	1.5	0.4	76.7	60.7
Czech Republic	1146	89.1	4.8	2.8	3.2	88.7	0.5	0.0	89.2	89.1
England	602	86.5	5.8	4.0	3.5	85.7	0.8	0.1	85.6	87.4
Finland	804	74.1	10.2	8.3	7.1	73.0	1.1	0.2	76.5	71.6
France	632	75.2	10.1	6.9	7.7	74.9	0.3	0.0	74.5	75.9
Georgia	688	72.2	8.5	12.0	6.1	68.9	4.2	0.3	71.8	72.5
Hong Kong SAR	622	83.6	5.2	6.2	4.6	81.5	2.1	0.5	80.7	87.0
Hungary	765	85.6	4.4	5.5	4.4	85.3	0.4	0.0	86.0	85.2
Ireland	703	80.6	10.1	5.0	4.3	80.4	0.1	0.1	79.6	81.4
Israel	732	62.5	14.5	11.0	11.2	61.4	1.7	0.2	60.1	64.9
Italy	645	82.6	4.6	7.0	5.6	81.8	1.0	0.0	80.6	84.6
Japan	329	87.8	5.1	4.5	2.6	87.8	0.0	0.0	85.2	90.5
Jordan	1402	59.3	11.1	13.6	15.6	58.6	1.2	0.0	61.8	56.9
Kazakhstan	885	65.8	12.7	10.5	9.8	63.5	3.5	0.0	67.7	64.0
Korea, Rep. of	365	85.0	3.5	6.2	5.2	84.4	0.7	0.0	87.5	82.2
Lithuania	758	77.2	9.4	7.6	5.8	77.2	0.0	0.0	76.8	77.7
Malaysia	1244	57.2	13.7	12.3	16.5	57.0	0.4	0.0	56.4	58.0
Malta	560	76.5	7.8	6.6	8.9	76.0	0.7	0.0	79.1	73.8
Morocco	1734	44.5	14.0	20.1	19.4	43.0	3.3	0.3	47.4	41.7
New Zealand	537	68.1	11.7	8.7	11.2	67.4	0.6	0.3	68.0	68.6
Norway (9)	889	63.7	15.6	11.1	8.7	62.0	1.9	0.8	62.2	64.9
Oman	1638	74.1	9.5	8.3	7.9	73.1	1.2	0.1	78.0	70.5
Palestinian Nat'l Auth.	1300	54.2	15.4	15.2	14.3	53.2	1.8	0.1	57.8	50.6
Portugal	762	77.9	7.6	7.4	7.1	77.8	0.1	0.0	78.3	77.5
Qatar	597	74.7	9.3	8.0	7.7	74.1	0.7	0.2	76.8	72.7
Romania	534	69.3	9.5	9.0	11.2	67.1	2.6	0.7	70.5	68.2
Saudi Arabia	1172	69.0	9.8	8.9	11.8	68.1	1.3	0.0	71.7	66.5
Singapore	402	90.3	4.2	3.5	1.9	90.1	0.3	0.0	88.1	92.3
Sweden	714	73.2	7.1	12.0	7.2	71.8	1.4	0.4	73.7	72.6
Turkiye	692	69.3	11.3	11.4	7.6	68.6	1.0	0.0	71.2	67.5
United Arab Emirates	5310	70.8	9.3	9.3	10.5	70.1	0.7	0.1	70.7	70.8
United States	1151	73.9	10.0	9.1	6.7	73.5	0.4	0.2	72.7	75.0
Uzbekistan	608	63.0	11.9	12.4	10.4	59.1	6.3	0.0	69.0	57.4
International Avg. (40)	39274	73.3	9.3	8.7	8.1	72.1	1.7	0.2	74.1	72.6
Abu Dhabi, UAE	2424	61.2	11.5	12.8	14.1	60.5	0.9	0.2	61.3	61.1
Dubai, UAE	1158	85.6	5.1	4.5	4.7	85.3	0.3	0.0	84.5	86.6
Sharjah, UAE	877	74.2	8.5	7.4	9.8	73.8	0.6	0.0	73.9	74.6

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Knowing

B_SE4_04B SE62101B: Stomach tissue and function: smooth muscle - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1192	48.8	34.4	48.5	9.8	6.6	0.6	0.1	44.5	52.2
Austria	647	43.8	34.2	43.3	12.5	8.8	1.2	0.0	40.1	46.9
Azerbaijan	877	43.1	24.7	37.1	13.7	10.5	13.0	1.0	41.5	44.8
Bahrain	730	38.1	30.5	37.7	17.4	13.3	1.1	0.0	41.5	34.9
Brazil	3198	42.7	21.9	40.8	21.7	11.2	4.0	0.5	39.1	46.2
Chile	646	40.7	33.1	38.3	16.0	6.7	5.4	0.5	41.5	40.1
Chinese Taipei	475	67.4	28.2	67.4	2.2	2.2	0.0	0.0	68.2	66.7
Cyprus	587	37.6	27.8	36.9	19.8	13.6	1.5	0.4	36.8	38.4
Czech Republic	1146	53.6	27.5	53.3	14.7	3.9	0.6	0.0	50.6	56.1
England	602	53.5	31.9	53.0	7.0	7.2	0.9	0.1	51.4	55.6
Finland	804	36.6	43.2	36.0	7.8	11.5	1.3	0.2	35.6	37.6
France	632	36.4	40.6	36.2	14.1	8.7	0.3	0.0	35.9	36.8
Georgia	688	52.3	22.2	49.6	11.5	11.5	5.0	0.3	53.5	51.2
Hong Kong SAR	622	62.2	21.7	60.6	8.3	6.8	2.1	0.5	57.9	67.0
Hungary	765	42.7	38.5	42.5	13.6	5.0	0.3	0.0	41.3	43.9
Ireland	703	49.1	32.8	49.1	11.1	6.9	0.0	0.1	49.5	48.8
Israel	732	37.6	27.6	37.0	14.7	19.2	1.4	0.2	38.6	36.6
Italy	645	43.0	35.1	42.5	13.3	7.8	1.3	0.0	39.2	47.0
Japan	329	69.6	14.4	69.6	8.3	7.7	0.0	0.0	68.9	70.3
Jordan	1402	42.5	28.5	41.9	17.6	10.6	1.3	0.0	42.0	43.0
Kazakhstan	885	32.1	34.7	30.8	17.9	12.7	3.8	0.0	31.6	32.5
Korea, Rep. of	365	60.1	21.4	59.7	8.5	9.7	0.7	0.0	55.5	65.2
Lithuania	758	45.7	34.1	45.6	8.9	11.3	0.2	0.0	43.5	47.9
Malaysia	1244	36.5	32.8	36.3	20.0	10.4	0.4	0.0	33.6	39.5
Malta	560	43.8	36.0	43.5	10.8	9.0	0.7	0.0	45.3	42.2
Morocco	1734	28.2	29.7	27.2	22.9	16.5	3.4	0.3	27.7	28.8
New Zealand	537	46.8	32.1	46.0	11.0	9.1	1.5	0.3	44.8	48.7
Norway (9)	889	56.8	19.7	55.1	10.3	11.9	2.2	0.8	57.0	56.7
Oman	1638	42.1	26.2	41.6	18.1	12.8	1.2	0.1	42.0	42.2
Palestinian Nat'l Auth.	1300	36.6	27.8	36.0	15.8	18.7	1.6	0.1	35.5	37.7
Portugal	762	41.6	33.6	41.4	16.8	7.9	0.3	0.0	36.7	46.2
Qatar	597	40.7	30.1	40.2	16.9	11.6	1.1	0.2	37.9	43.5
Romania	534	34.7	37.4	33.6	15.0	10.9	2.5	0.7	32.4	37.0
Saudi Arabia	1172	36.7	30.1	36.5	20.3	12.3	0.8	0.0	38.0	35.6
Singapore	402	57.4	29.5	57.2	7.2	5.8	0.3	0.0	60.4	54.7
Sweden	714	40.2	28.3	39.2	15.3	14.8	2.0	0.4	39.2	41.3
Turkiye	692	27.4	45.3	27.1	14.9	11.4	1.4	0.0	25.0	29.9
United Arab Emirates	5310	44.8	28.6	44.3	14.8	11.3	0.8	0.1	43.9	45.6
United States	1151	45.8	33.7	45.5	10.4	9.6	0.5	0.2	45.2	46.4
Uzbekistan	608	47.2	23.1	43.9	15.5	10.6	7.1	0.0	48.9	45.6
International Avg. (40)	39274	44.7	30.3	43.8	13.7	10.2	1.8	0.2	43.5	45.8
Abu Dhabi, UAE	2424	39.3	28.3	38.8	16.8	15.0	0.9	0.2	39.5	39.0
Dubai, UAE	1158	53.3	29.7	53.1	10.5	6.4	0.3	0.0	51.0	55.4
Sharjah, UAE	877	47.0	28.2	46.6	13.9	10.4	0.8	0.0	46.7	47.4

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Knowing

B_SE4_04C SE62101C: Stomach tissue and function: nervous - MC - Key: C

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1192	76.6	12.3	8.5	76.2	2.5	0.4	0.1	75.3	77.5
Austria	647	67.6	16.7	12.4	66.8	2.9	1.2	0.0	66.3	68.8
Azerbaijan	877	59.7	12.7	16.3	51.6	5.8	12.4	1.0	59.4	60.0
Bahrain	730	50.2	22.6	19.1	49.7	7.6	1.0	0.0	52.6	48.0
Brazil	3198	51.8	18.3	21.0	49.5	6.7	4.1	0.5	45.8	57.6
Chile	646	58.0	17.5	17.3	54.7	4.8	5.2	0.5	52.9	62.2
Chinese Taipei	475	86.2	6.8	6.7	86.2	0.3	0.0	0.0	83.3	88.7
Cyprus	587	49.0	18.8	26.9	48.0	4.1	1.7	0.4	48.3	49.8
Czech Republic	1146	67.4	16.4	14.6	67.0	1.4	0.6	0.0	62.5	71.5
England	602	79.3	11.4	7.3	78.5	1.8	0.9	0.1	77.1	81.5
Finland	804	73.0	12.0	12.4	72.0	2.1	1.1	0.2	76.2	69.9
France	632	65.4	18.2	11.9	65.1	4.2	0.5	0.0	61.9	68.8
Georgia	688	72.2	5.8	17.6	68.4	3.0	5.0	0.3	73.6	70.7
Hong Kong SAR	622	70.3	15.2	11.3	68.5	2.4	2.1	0.5	65.0	76.3
Hungary	765	65.5	16.9	14.5	65.3	3.0	0.3	0.0	61.5	69.2
Ireland	703	76.2	10.4	12.0	76.1	1.3	0.1	0.1	70.6	81.0
Israel	732	59.0	17.7	16.2	58.1	6.5	1.3	0.2	55.6	62.5
Italy	645	65.6	15.6	15.7	64.6	2.6	1.5	0.0	64.0	67.3
Japan	329	83.9	7.9	6.9	83.9	1.3	0.0	0.0	85.5	82.3
Jordan	1402	45.5	23.2	23.2	44.8	7.2	1.6	0.0	44.9	46.1
Kazakhstan	885	51.2	15.2	24.6	49.1	7.0	4.1	0.0	51.9	50.5
Korea, Rep. of	365	76.3	8.9	12.2	75.8	2.4	0.7	0.0	77.3	75.1
Lithuania	758	73.2	13.5	10.7	73.1	2.6	0.2	0.0	69.8	76.6
Malaysia	1244	31.8	32.2	23.0	31.7	12.6	0.4	0.0	31.2	32.5
Malta	560	65.9	12.9	15.7	65.4	5.3	0.7	0.0	67.8	63.8
Morocco	1734	30.3	24.5	25.6	29.2	17.0	3.5	0.3	30.7	29.9
New Zealand	537	69.6	13.8	11.9	68.2	4.1	1.6	0.3	69.3	69.6
Norway (9)	889	60.7	19.2	14.3	58.9	4.6	2.2	0.8	56.5	64.1
Oman	1638	49.0	18.8	27.1	48.2	4.2	1.6	0.1	49.1	48.9
Palestinian Nat'l Auth.	1300	42.1	23.1	25.0	41.3	8.6	1.9	0.1	42.4	41.8
Portugal	762	54.6	21.1	20.0	54.4	4.2	0.3	0.0	50.5	58.4
Qatar	597	57.9	16.5	20.6	57.2	4.5	1.1	0.2	59.6	56.2
Romania	534	57.2	21.9	14.9	55.4	4.6	2.5	0.7	55.1	59.4
Saudi Arabia	1172	45.6	20.7	26.2	45.1	6.9	1.2	0.0	45.3	45.9
Singapore	402	84.2	6.4	8.1	83.9	1.3	0.3	0.0	84.3	84.0
Sweden	714	46.6	27.0	22.9	45.5	2.2	2.0	0.4	45.3	48.2
Turkiye	692	58.4	18.8	16.6	57.4	5.6	1.7	0.0	54.2	62.5
United Arab Emirates	5310	61.1	16.5	16.1	60.5	5.9	0.9	0.1	58.2	64.0
United States	1151	72.8	12.3	10.9	72.3	3.9	0.5	0.2	72.5	73.0
Uzbekistan	608	60.8	12.7	17.8	56.3	5.7	7.4	0.0	60.3	61.3
International Avg. (40)	39274	61.8	16.3	16.4	60.6	4.6	1.9	0.2	60.3	63.1
Abu Dhabi, UAE	2424	53.9	20.0	17.4	53.3	8.1	1.0	0.2	51.1	56.7
Dubai, UAE	1158	76.4	10.8	10.3	76.2	2.4	0.3	0.0	72.7	79.8
Sharjah, UAE	877	63.2	15.1	16.6	62.7	4.7	0.8	0.0	60.4	66.1

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Knowing

B_SE4_04D SE62101D: Stomach tissue and function: blood - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1192	44.4	44.1	36.3	9.0	9.9	0.6	0.1	39.1	48.6
Austria	647	41.5	41.0	38.9	14.4	4.5	1.2	0.0	37.5	44.8
Azerbaijan	877	44.7	38.6	21.6	13.9	12.2	12.7	1.0	43.8	45.6
Bahrain	730	35.5	35.2	29.3	20.0	14.5	0.9	0.0	33.9	37.0
Brazil	3198	43.0	41.0	22.8	14.6	17.0	4.0	0.5	37.7	48.0
Chile	646	36.4	34.3	30.8	17.1	12.0	5.3	0.5	32.6	39.6
Chinese Taipei	475	60.9	60.9	24.2	10.0	4.8	0.0	0.0	60.1	61.6
Cyprus	587	43.2	42.2	25.1	17.2	13.3	1.7	0.4	45.8	40.8
Czech Republic	1146	50.9	50.6	28.7	14.6	5.5	0.6	0.0	49.2	52.4
England	602	50.4	49.9	34.7	10.0	4.4	0.9	0.1	47.2	53.5
Finland	804	33.7	33.2	41.9	11.7	11.9	1.0	0.2	29.3	38.1
France	632	30.9	30.7	44.4	12.8	11.6	0.5	0.0	27.1	34.6
Georgia	688	61.8	58.8	15.5	8.9	11.9	4.6	0.3	59.3	64.5
Hong Kong SAR	622	56.8	55.3	19.3	16.1	6.7	2.1	0.5	52.6	61.4
Hungary	765	40.0	39.8	37.3	16.5	6.1	0.3	0.0	37.8	42.0
Ireland	703	46.7	46.6	33.7	8.3	11.1	0.1	0.1	47.8	45.9
Israel	732	39.2	38.6	33.9	14.3	11.6	1.3	0.2	38.8	39.7
Italy	645	43.9	43.3	33.4	15.1	6.9	1.3	0.0	40.2	47.6
Japan	329	72.7	72.7	19.0	5.1	3.2	0.0	0.0	70.9	74.5
Jordan	1402	36.3	35.6	19.9	20.6	21.9	1.9	0.0	33.2	39.2
Kazakhstan	885	34.7	33.3	29.9	19.4	13.4	4.1	0.0	32.5	36.8
Korea, Rep. of	365	66.0	65.6	21.2	9.8	2.8	0.6	0.0	66.4	65.6
Lithuania	758	43.1	42.9	35.8	12.0	8.9	0.3	0.0	42.5	43.6
Malaysia	1244	20.9	20.8	27.9	31.3	19.6	0.4	0.0	18.5	23.4
Malta	560	42.9	42.6	33.5	14.1	9.1	0.7	0.0	46.0	39.5
Morocco	1734	29.0	27.9	23.3	24.9	20.1	3.5	0.3	27.9	30.2
New Zealand	537	41.3	40.5	31.5	8.4	17.6	1.6	0.3	38.3	43.9
Norway (9)	889	43.8	42.4	16.6	19.2	18.6	2.4	0.8	39.7	47.2
Oman	1638	44.9	44.0	21.6	24.4	7.9	2.0	0.1	46.4	43.6
Palestinian Nat'l Auth.	1300	32.3	31.7	22.1	26.9	17.4	1.9	0.1	33.2	31.5
Portugal	762	37.5	37.4	30.9	21.4	10.0	0.3	0.0	31.7	43.1
Qatar	597	43.4	42.8	29.9	17.0	9.0	1.1	0.2	42.2	44.5
Romania	534	29.1	28.1	39.2	15.3	14.1	2.6	0.7	30.1	28.0
Saudi Arabia	1172	38.7	38.1	27.3	21.3	11.7	1.6	0.0	41.4	36.2
Singapore	402	59.7	59.5	30.9	6.7	2.6	0.3	0.0	65.8	54.4
Sweden	714	36.1	35.2	23.6	29.9	8.9	2.0	0.4	36.2	36.0
Turkiye	692	23.4	23.0	43.3	18.5	13.6	1.7	0.0	24.1	22.6
United Arab Emirates	5310	45.0	44.5	29.3	13.4	11.8	0.9	0.1	43.9	46.1
United States	1151	43.6	43.3	33.7	9.9	12.5	0.5	0.2	42.8	44.2
Uzbekistan	608	48.9	45.1	18.6	10.6	18.0	7.7	0.0	51.5	46.5
International Avg. (40)	39274	42.9	42.0	29.0	15.6	11.2	1.9	0.2	41.6	44.2
Abu Dhabi, UAE	2424	39.4	39.0	29.8	14.8	15.3	0.9	0.2	39.2	39.6
Dubai, UAE	1158	54.3	54.1	31.7	8.2	5.7	0.3	0.0	52.1	56.2
Sharjah, UAE	877	47.7	47.3	28.5	12.8	10.5	0.8	0.0	48.1	47.4

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Physics / Applying

B_SE4_06 SE62128: Densities of three liquids - CR - 1 Point

COUNTRY	N	DIFF %	10 %	79 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1192	56.1	54.3	42.6	54.3	42.6	3.0	0.1	54.3	57.3
Austria	647	58.2	56.5	40.7	56.5	40.7	2.8	0.0	58.2	58.2
Azerbaijan	877	38.0	29.3	47.6	29.3	47.6	22.1	1.0	38.4	37.7
Bahrain	730	40.4	39.4	58.1	39.4	58.1	2.5	0.0	40.4	40.4
Brazil	3198	31.2	28.6	63.0	28.6	63.0	7.9	0.6	30.3	32.1
Chile	646	37.5	33.5	56.0	33.5	56.0	9.9	0.6	34.5	39.9
Chinese Taipei	475	63.0	62.7	36.8	62.7	36.8	0.5	0.0	56.3	69.0
Cyprus	587	50.5	46.6	45.7	46.6	45.7	7.3	0.4	48.6	52.4
Czech Republic	1146	66.0	64.7	33.4	64.7	33.4	1.9	0.0	61.4	69.9
England	601	55.9	53.5	42.2	53.5	42.2	4.1	0.1	49.9	61.6
Finland	804	62.2	59.3	36.0	59.3	36.0	4.5	0.2	60.5	63.9
France	632	55.0	51.5	42.2	51.5	42.2	6.3	0.0	53.2	56.7
Georgia	688	43.9	38.7	49.4	38.7	49.4	11.6	0.3	38.1	50.0
Hong Kong SAR	623	60.2	56.8	37.6	56.8	37.6	5.1	0.5	55.2	66.2
Hungary	765	57.4	56.5	41.9	56.5	41.9	1.7	0.0	54.1	60.5
Ireland	703	62.7	61.0	36.3	61.0	36.3	2.6	0.1	56.7	67.7
Israel	732	51.9	49.1	45.5	49.1	45.5	5.3	0.2	53.8	50.1
Italy	645	54.6	51.4	42.7	51.4	42.7	5.9	0.0	50.0	59.3
Japan	329	77.6	75.9	21.9	75.9	21.9	2.2	0.0	73.6	81.9
Jordan	1402	40.6	39.5	57.7	39.5	57.7	2.8	0.0	43.8	37.5
Kazakhstan	885	42.5	39.7	53.8	39.7	53.8	6.5	0.0	40.3	44.6
Korea, Rep. of	365	76.9	74.6	22.5	74.6	22.5	3.0	0.0	78.7	74.8
Lithuania	758	62.1	60.4	36.8	60.4	36.8	2.8	0.0	62.0	62.3
Malaysia	1245	43.0	43.0	57.0	43.0	57.0	0.1	0.0	43.6	42.4
Malta	560	63.5	61.5	35.4	61.5	35.4	3.1	0.0	61.7	65.4
Morocco	1734	29.5	25.9	61.7	25.9	61.7	12.1	0.3	29.4	29.7
New Zealand	537	55.5	52.4	42.1	52.4	42.1	5.1	0.3	51.8	58.6
Norway (9)	889	51.0	47.4	45.5	47.4	45.5	6.2	1.0	49.0	52.6
Oman	1638	32.3	31.4	65.8	31.4	65.8	2.7	0.2	30.5	34.0
Palestinian Nat'l Auth.	1300	40.4	38.9	57.4	38.9	57.4	3.5	0.2	43.0	37.7
Portugal	762	52.2	51.0	46.7	51.0	46.7	2.3	0.0	50.2	54.2
Qatar	597	51.8	50.4	46.9	50.4	46.9	2.5	0.2	46.2	57.5
Romania	534	47.0	42.9	48.4	42.9	48.4	7.4	1.3	47.0	46.9
Saudi Arabia	1172	29.7	29.3	69.2	29.3	69.2	1.5	0.0	29.0	30.4
Singapore	402	80.3	80.3	19.7	80.3	19.7	0.0	0.0	79.8	80.7
Sweden	714	58.3	54.8	39.2	54.8	39.2	5.6	0.4	53.9	63.2
Turkiye	692	69.9	68.2	29.4	68.2	29.4	2.4	0.0	68.5	71.3
United Arab Emirates	5310	52.1	51.0	47.0	51.0	47.0	1.8	0.2	51.1	53.0
United States	1151	50.5	49.7	48.8	49.7	48.8	1.2	0.3	48.0	52.7
Uzbekistan	608	33.8	31.3	61.2	31.3	61.2	7.5	0.0	31.3	36.3
International Avg. (40)	39275	52.1	49.8	45.3	49.8	45.3	4.7	0.2	50.2	54.0
Abu Dhabi, UAE	2424	45.0	44.1	53.8	44.1	53.8	1.8	0.2	46.1	44.0
Dubai, UAE	1158	65.4	64.3	34.1	64.3	34.1	1.5	0.1	62.3	68.2
Sharjah, UAE	877	55.0	53.9	44.1	53.9	44.1	1.9	0.2	52.8	57.3

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Physics / Knowing

B_SE4_07 SE62047: Absorbed or reflected light (DERIVED) - CR - 1 Point

COUNTRY	N	DIFF %	10 %	79 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1192	42.5	42.4	57.5	42.4	57.5	0.0	0.1	42.9	41.9
Austria	647	44.4	44.3	55.5	44.3	55.5	0.2	0.0	44.6	44.2
Azerbaijan	877	41.8	40.1	55.7	40.1	55.7	3.1	1.1	45.1	38.7
Bahrain	730	39.4	39.2	60.3	39.2	60.3	0.5	0.0	40.4	38.5
Brazil	3198	29.8	29.2	68.9	29.2	68.9	1.3	0.6	31.3	28.4
Chile	646	34.4	32.8	62.6	32.8	62.6	4.1	0.6	36.7	32.5
Chinese Taipei	475	48.7	48.7	51.3	48.7	51.3	0.0	0.0	51.5	46.1
Cyprus	587	37.1	36.6	62.0	36.6	62.0	1.0	0.4	37.9	36.4
Czech Republic	1146	41.4	41.4	58.5	41.4	58.5	0.1	0.0	38.4	44.0
England	602	48.2	47.2	50.9	47.2	50.9	1.7	0.2	44.7	51.5
Finland	804	50.0	49.6	49.6	49.6	49.6	0.6	0.2	47.6	52.4
France	632	53.1	52.5	46.3	52.5	46.3	1.2	0.0	54.7	51.6
Georgia	688	32.3	31.7	66.4	31.7	66.4	1.6	0.3	34.1	30.5
Hong Kong SAR	623	41.1	40.9	58.4	40.9	58.4	0.3	0.5	36.3	46.6
Hungary	765	44.2	44.2	55.7	44.2	55.7	0.2	0.0	40.8	47.5
Ireland	703	40.7	40.6	59.1	40.6	59.1	0.2	0.1	36.2	44.6
Israel	732	43.2	42.7	56.3	42.7	56.3	0.8	0.2	42.1	44.1
Italy	645	46.7	46.3	52.9	46.3	52.9	0.8	0.0	45.4	48.0
Japan	329	53.3	53.2	46.6	53.2	46.6	0.2	0.0	51.2	55.5
Jordan	1402	31.4	31.4	68.5	31.4	68.5	0.1	0.0	36.7	26.4
Kazakhstan	885	39.5	38.8	59.6	38.8	59.6	1.6	0.0	41.2	37.8
Korea, Rep. of	365	48.2	48.0	51.6	48.0	51.6	0.4	0.0	49.7	46.4
Lithuania	758	41.9	41.8	58.0	41.8	58.0	0.2	0.0	40.7	43.1
Malaysia	1244	37.0	37.0	63.0	37.0	63.0	0.0	0.0	41.1	32.8
Malta	560	41.5	41.2	58.3	41.2	58.3	0.5	0.0	42.0	40.9
Morocco	1734	28.2	27.6	70.3	27.6	70.3	1.5	0.6	28.4	28.0
New Zealand	537	44.5	44.2	55.1	44.2	55.1	0.3	0.3	49.0	41.4
Norway (9)	889	37.7	36.9	61.0	36.9	61.0	0.9	1.2	35.9	39.2
Oman	1638	38.6	38.3	60.9	38.3	60.9	0.6	0.2	43.2	34.3
Palestinian Nat'l Auth.	1300	28.0	27.7	71.3	27.7	71.3	0.9	0.2	27.9	28.0
Portugal	762	41.3	40.9	58.3	40.9	58.3	0.8	0.0	47.6	35.3
Qatar	597	41.3	41.2	58.5	41.2	58.5	0.1	0.2	41.2	41.5
Romania	534	44.1	43.5	55.1	43.5	55.1	0.0	1.4	45.7	42.4
Saudi Arabia	1172	29.6	29.5	70.2	29.5	70.2	0.3	0.0	30.8	28.4
Singapore	402	57.0	56.9	42.9	56.9	42.9	0.2	0.0	61.2	53.4
Sweden	714	45.9	45.4	53.5	45.4	53.5	0.6	0.5	46.5	45.3
Turkiye	692	53.6	53.3	46.1	53.3	46.1	0.6	0.0	58.8	48.4
United Arab Emirates	5310	47.0	46.8	52.7	46.8	52.7	0.4	0.2	47.3	46.8
United States	1151	47.0	46.7	52.7	46.7	52.7	0.3	0.4	45.1	48.6
Uzbekistan	608	28.2	27.5	70.0	27.5	70.0	2.2	0.3	26.9	29.5
International Avg. (40)	39275	41.6	41.2	57.8	41.2	57.8	0.8	0.2	42.2	41.0
Abu Dhabi, UAE	2424	44.0	43.7	55.7	43.7	55.7	0.3	0.2	44.0	43.9
Dubai, UAE	1158	58.1	57.9	41.7	57.9	41.7	0.3	0.2	58.7	57.6
Sharjah, UAE	877	43.0	42.8	56.7	42.8	56.7	0.4	0.2	46.0	40.0

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Physics / Knowing

B_SE4_07A SE62047A: Absorbed or reflected light: green - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1192	63.3	61.6	35.7	2.5	0.1	65.4	61.5
Austria	647	67.2	65.3	31.9	2.8	0.0	69.9	64.9
Azerbaijan	877	67.2	60.7	29.6	8.6	1.1	69.1	65.2
Bahrain	730	62.5	60.0	36.1	3.9	0.0	62.2	62.7
Brazil	3198	63.4	56.5	32.6	10.3	0.6	64.0	62.8
Chile	646	64.2	58.4	32.6	8.4	0.6	62.7	65.5
Chinese Taipei	475	61.7	61.3	38.0	0.8	0.0	62.8	60.7
Cyprus	587	59.6	56.9	38.6	4.0	0.4	58.4	60.7
Czech Republic	1146	60.7	59.4	38.4	2.2	0.0	58.5	62.5
England	602	69.0	65.9	29.6	4.3	0.2	64.1	73.6
Finland	804	68.8	65.7	29.7	4.4	0.2	66.7	71.0
France	632	73.5	70.2	25.2	4.6	0.0	73.8	73.3
Georgia	688	61.3	55.0	34.8	9.9	0.3	62.6	60.0
Hong Kong SAR	623	63.3	61.2	35.4	2.9	0.5	58.2	69.1
Hungary	765	63.5	62.3	35.8	1.8	0.0	61.9	64.9
Ireland	703	64.8	60.1	32.6	7.1	0.1	65.4	64.4
Israel	732	67.8	66.3	31.4	2.0	0.2	67.2	68.5
Italy	645	67.9	66.7	31.6	1.7	0.0	69.5	66.2
Japan	329	72.2	70.5	27.1	2.4	0.0	71.1	73.3
Jordan	1402	58.0	54.1	39.3	6.6	0.0	59.1	56.8
Kazakhstan	885	61.8	57.6	35.6	6.8	0.0	63.8	60.0
Korea, Rep. of	365	67.0	63.8	31.5	4.7	0.0	66.2	67.8
Lithuania	758	60.7	60.2	39.0	0.8	0.0	60.4	61.0
Malaysia	1244	60.8	59.9	38.7	1.4	0.0	61.6	59.9
Malta	560	64.3	60.8	33.7	5.5	0.0	65.1	63.5
Morocco	1734	55.8	51.2	40.5	7.8	0.6	57.7	54.0
New Zealand	537	70.0	67.6	29.0	3.0	0.3	72.4	68.0
Norway (9)	889	64.1	60.7	34.0	4.1	1.2	64.2	64.1
Oman	1638	61.7	60.3	37.4	2.2	0.2	60.8	62.5
Palestinian Nat'l Auth.	1300	58.2	54.8	39.4	5.6	0.2	54.3	62.1
Portugal	762	64.4	61.6	34.1	4.3	0.0	70.8	58.4
Qatar	597	62.7	61.0	36.3	2.6	0.2	57.7	67.5
Romania	534	67.1	61.9	30.3	6.4	1.4	66.8	67.3
Saudi Arabia	1172	60.4	58.8	38.6	2.5	0.0	58.6	62.0
Singapore	402	71.0	69.1	28.2	2.6	0.0	74.3	68.1
Sweden	714	66.4	64.4	32.6	2.4	0.5	68.5	64.0
Turkiye	692	67.6	66.6	31.9	1.5	0.0	71.4	63.9
United Arab Emirates	5310	65.6	64.1	33.6	2.1	0.2	65.6	65.6
United States	1151	66.5	64.7	32.6	2.3	0.4	65.4	67.4
Uzbekistan	608	62.7	53.3	31.8	14.6	0.3	60.6	64.7
International Avg. (40)	39275	64.5	61.5	33.9	4.4	0.2	64.5	64.5
Abu Dhabi, UAE	2424	65.9	64.4	33.3	2.1	0.2	65.5	66.2
Dubai, UAE	1158	69.0	68.0	30.5	1.4	0.2	68.8	69.3
Sharjah, UAE	877	61.9	60.1	37.0	2.8	0.2	66.9	57.0

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Physics / Knowing

B_SE4_07B SE62047B: Absorbed or reflected light: red - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1192	59.9	39.6	59.3	1.0	0.1	61.8	58.3
Austria	647	66.4	33.4	66.0	0.6	0.0	70.4	63.0
Azerbaijan	877	65.2	31.5	59.0	8.4	1.1	68.9	61.4
Bahrain	730	59.7	39.8	58.8	1.5	0.0	62.0	57.3
Brazil	3198	59.8	37.3	55.5	6.6	0.6	62.2	57.6
Chile	646	65.1	32.5	60.7	6.2	0.6	68.2	62.5
Chinese Taipei	475	58.1	41.9	58.0	0.0	0.0	58.6	57.6
Cyprus	587	56.8	42.3	55.5	1.8	0.4	58.3	55.4
Czech Republic	1146	57.2	42.6	56.9	0.5	0.0	54.2	59.7
England	602	66.3	32.8	64.5	2.5	0.2	64.1	68.4
Finland	804	69.7	29.8	68.6	1.3	0.2	69.6	69.7
France	632	71.8	27.4	70.0	2.6	0.0	74.4	69.4
Georgia	688	57.9	40.0	55.0	4.7	0.3	57.1	58.6
Hong Kong SAR	623	59.5	40.0	58.9	0.7	0.5	58.8	60.3
Hungary	765	62.4	37.3	62.0	0.7	0.0	61.0	63.8
Ireland	703	62.4	37.2	61.6	1.1	0.1	62.1	62.5
Israel	732	67.8	31.7	66.8	1.3	0.2	67.9	67.8
Italy	645	67.7	31.9	66.8	1.4	0.0	69.0	66.3
Japan	329	69.7	29.5	67.9	2.6	0.0	65.3	74.3
Jordan	1402	52.6	46.0	51.1	2.9	0.0	57.4	47.9
Kazakhstan	885	59.4	39.0	57.0	4.1	0.0	60.7	58.2
Korea, Rep. of	365	62.4	36.9	61.3	1.8	0.0	62.5	62.3
Lithuania	758	60.3	39.4	59.9	0.8	0.0	61.6	59.0
Malaysia	1244	59.8	40.0	59.5	0.5	0.0	63.0	56.4
Malta	560	63.8	35.1	61.9	3.0	0.0	64.7	62.8
Morocco	1734	49.7	48.0	47.5	3.9	0.6	47.6	51.9
New Zealand	537	64.4	34.8	63.0	1.9	0.3	67.9	61.6
Norway (9)	889	60.5	38.0	58.2	2.6	1.2	60.1	60.9
Oman	1638	57.3	41.9	56.2	1.8	0.2	59.5	55.2
Palestinian Nat'l Auth.	1300	51.8	46.1	49.6	4.1	0.2	52.0	51.6
Portugal	762	63.2	36.3	62.2	1.5	0.0	69.5	57.1
Qatar	597	58.5	41.3	58.1	0.5	0.2	58.9	58.0
Romania	534	65.4	33.0	62.3	3.3	1.4	68.4	62.5
Saudi Arabia	1172	53.1	45.7	51.8	2.5	0.0	53.5	52.8
Singapore	402	68.4	31.5	68.0	0.5	0.0	72.7	64.6
Sweden	714	64.6	34.5	63.1	1.8	0.5	69.1	59.6
Turkiye	692	72.2	27.6	71.7	0.7	0.0	76.1	68.3
United Arab Emirates	5310	64.3	35.2	63.4	1.2	0.2	65.2	63.4
United States	1151	62.8	36.8	62.2	0.7	0.4	62.1	63.4
Uzbekistan	608	60.5	35.1	53.7	11.0	0.3	59.0	62.1
International Avg. (40)	39275	62.0	37.0	60.3	2.4	0.2	63.1	60.8
Abu Dhabi, UAE	2424	62.7	36.6	61.7	1.4	0.2	63.5	62.0
Dubai, UAE	1158	70.4	29.4	70.0	0.4	0.2	72.0	69.0
Sharjah, UAE	877	62.5	37.0	61.6	1.2	0.2	65.1	59.8

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Physics / Knowing

B_SE4_07C SE62047C: Absorbed or reflected light: blue - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1192	62.0	60.3	36.9	2.7	0.1	58.9	64.5
Austria	647	64.9	63.0	34.1	2.9	0.0	61.9	67.5
Azerbaijan	877	64.7	57.1	31.2	10.6	1.1	64.4	64.9
Bahrain	730	56.2	54.2	42.3	3.5	0.0	56.6	55.8
Brazil	3198	53.2	47.6	41.9	9.9	0.6	55.5	50.9
Chile	646	60.1	54.5	36.2	8.7	0.6	62.5	58.1
Chinese Taipei	475	59.3	58.6	40.3	1.1	0.0	59.8	58.8
Cyprus	587	58.8	56.6	39.6	3.4	0.4	60.8	57.0
Czech Republic	1146	58.6	57.8	40.8	1.3	0.0	57.0	60.0
England	602	61.6	58.9	36.7	4.2	0.2	60.6	62.6
Finland	804	66.5	64.1	32.3	3.4	0.2	65.7	67.3
France	632	70.7	68.2	28.2	3.6	0.0	70.9	70.5
Georgia	688	57.0	50.4	38.1	11.2	0.3	54.6	59.6
Hong Kong SAR	623	61.5	59.6	37.4	2.6	0.5	58.8	64.5
Hungary	765	57.7	57.0	41.8	1.2	0.0	58.0	57.4
Ireland	703	62.3	58.9	35.7	5.3	0.1	59.1	64.9
Israel	732	58.4	57.0	40.5	2.3	0.2	57.7	59.2
Italy	645	62.4	61.4	37.0	1.6	0.0	59.5	65.4
Japan	329	65.6	64.8	33.9	1.3	0.0	64.7	66.5
Jordan	1402	53.6	49.2	42.6	8.2	0.0	55.5	51.8
Kazakhstan	885	60.0	56.6	37.7	5.7	0.0	60.5	59.6
Korea, Rep. of	365	64.9	60.8	32.9	6.3	0.0	68.2	61.1
Lithuania	758	60.6	60.1	39.1	0.8	0.0	58.1	63.0
Malaysia	1244	57.5	56.7	41.9	1.4	0.0	61.8	53.0
Malta	560	62.8	60.3	35.6	4.1	0.0	61.5	64.2
Morocco	1734	54.6	48.9	40.5	10.0	0.6	53.4	55.8
New Zealand	537	60.4	57.1	37.4	5.2	0.3	68.2	55.0
Norway (9)	889	59.6	56.3	38.1	4.4	1.2	55.6	62.9
Oman	1638	57.8	55.8	40.7	3.3	0.2	59.3	56.4
Palestinian Nat'l Auth.	1300	49.5	45.9	46.8	7.1	0.2	47.6	51.5
Portugal	762	55.9	54.3	42.9	2.7	0.0	61.3	50.7
Qatar	597	61.5	59.9	37.4	2.4	0.2	62.2	60.9
Romania	534	62.6	57.9	34.6	6.1	1.4	64.0	61.1
Saudi Arabia	1172	51.9	49.3	45.6	5.1	0.0	50.4	53.5
Singapore	402	69.8	68.3	29.6	2.1	0.0	71.5	68.2
Sweden	714	59.7	57.0	38.5	3.9	0.5	60.1	59.2
Turkiye	692	67.1	65.7	32.3	2.0	0.0	71.4	62.7
United Arab Emirates	5310	64.6	62.5	34.3	3.0	0.2	64.7	64.5
United States	1151	64.9	63.3	34.2	2.1	0.4	64.1	65.6
Uzbekistan	608	56.7	46.2	35.3	18.2	0.3	54.1	59.3
International Avg. (40)	39275	60.4	57.5	37.6	4.6	0.2	60.5	60.4
Abu Dhabi, UAE	2424	62.0	59.5	36.4	3.9	0.2	61.9	62.1
Dubai, UAE	1158	72.7	71.5	26.9	1.4	0.2	74.5	71.0
Sharjah, UAE	877	60.7	59.1	38.2	2.6	0.2	60.4	61.1

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Physics / Applying

B_SE4_08 SE62042: Parts of incandescent light bulb (DERIVED) - CR - 1 Point

COUNTRY	N	DIFF %	10 %	70 %	79 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1192	38.5	38.0	16.7	44.0	38.0	60.7	1.1	0.1	29.8	45.4
Austria	647	44.8	44.7	21.9	33.1	44.7	55.0	0.3	0.0	38.7	49.9
Azerbaijan	877	26.4	25.5	20.5	50.6	25.5	71.1	2.4	1.1	24.7	28.0
Bahrain	730	24.9	24.8	25.5	49.3	24.8	74.8	0.4	0.0	26.6	23.4
Brazil	3198	25.9	25.5	19.1	53.7	25.5	72.8	1.0	0.8	22.1	29.5
Chile	646	35.8	34.9	23.0	39.6	34.9	62.6	1.9	0.6	32.7	38.4
Chinese Taipei	475	42.6	42.6	23.0	34.4	42.6	57.4	0.0	0.0	37.7	47.0
Cyprus	587	32.6	32.2	22.1	44.4	32.2	66.4	1.0	0.4	31.0	34.1
Czech Republic	1146	49.6	49.6	19.5	30.8	49.6	50.3	0.2	0.0	38.3	59.1
England	602	42.4	42.0	13.9	43.1	42.0	57.0	0.6	0.3	36.5	48.2
Finland	804	36.3	35.8	21.5	41.4	35.8	62.9	1.0	0.2	29.1	43.6
France	632	35.8	35.5	25.1	38.6	35.5	63.7	0.8	0.0	32.7	38.9
Georgia	688	13.5	13.2	14.8	69.9	13.2	84.8	1.2	0.8	8.4	18.7
Hong Kong SAR	623	44.8	44.4	23.2	31.7	44.4	54.8	0.3	0.5	39.1	51.2
Hungary	765	31.7	31.6	22.8	45.4	31.6	68.2	0.2	0.0	25.0	38.0
Ireland	703	30.9	30.8	18.4	50.7	30.8	69.0	0.0	0.1	24.7	36.0
Israel	733	41.5	41.3	26.0	32.2	41.3	58.2	0.1	0.4	36.3	46.6
Italy	645	51.4	51.2	14.9	33.5	51.2	48.4	0.4	0.0	46.1	56.8
Japan	329	45.1	45.0	29.0	25.8	45.0	54.8	0.2	0.0	40.4	50.0
Jordan	1402	34.2	34.2	30.8	34.8	34.2	65.7	0.2	0.0	34.3	34.1
Kazakhstan	885	25.8	25.6	18.9	54.6	25.6	73.5	0.8	0.1	18.5	32.7
Korea, Rep. of	365	35.9	35.8	13.2	50.7	35.8	63.9	0.3	0.0	34.5	37.4
Lithuania	758	42.9	42.8	19.3	37.8	42.8	57.0	0.2	0.0	34.5	51.2
Malaysia	1244	22.1	22.1	13.9	64.0	22.1	77.9	0.0	0.0	20.8	23.5
Malta	560	43.8	43.6	23.0	32.9	43.6	55.9	0.5	0.0	43.2	44.4
Morocco	1734	21.4	21.1	22.5	54.7	21.1	77.1	0.7	1.1	19.1	23.8
New Zealand	537	30.5	30.2	16.7	52.3	30.2	69.0	0.4	0.4	28.3	32.3
Norway (9)	889	30.0	29.3	18.2	50.2	29.3	68.4	1.1	1.2	25.8	33.4
Oman	1638	35.7	35.5	29.8	34.1	35.5	63.9	0.3	0.3	34.7	36.7
Palestinian Nat'l Auth.	1300	22.2	22.0	35.8	41.5	22.0	77.4	0.2	0.4	21.8	22.5
Portugal	762	28.4	28.2	16.9	54.1	28.2	71.0	0.8	0.0	22.5	34.1
Qatar	597	40.1	39.9	29.7	29.8	39.9	59.5	0.3	0.2	38.9	41.4
Romania	534	32.9	32.4	23.5	42.5	32.4	66.1	0.1	1.4	27.5	38.4
Saudi Arabia	1172	14.2	14.2	34.5	51.2	14.2	85.7	0.0	0.1	13.3	15.0
Singapore	402	60.3	60.3	21.7	18.0	60.3	39.7	0.0	0.0	62.3	58.5
Sweden	714	41.4	40.9	21.9	36.0	40.9	57.9	0.6	0.6	37.4	45.8
Turkiye	692	28.8	28.7	29.6	41.5	28.7	71.1	0.2	0.0	26.2	31.3
United Arab Emirates	5310	38.5	38.4	24.7	36.5	38.4	61.3	0.1	0.3	36.6	40.4
United States	1151	36.5	36.2	16.8	46.2	36.2	63.0	0.4	0.4	30.6	42.1
Uzbekistan	608	21.6	21.3	20.9	56.2	21.3	77.1	1.4	0.3	18.3	24.9
International Avg. (40)	39276	34.5	34.3	22.1	42.8	34.3	64.9	0.5	0.3	30.7	38.2
Abu Dhabi, UAE	2424	32.0	31.9	23.5	44.2	31.9	67.7	0.1	0.3	30.4	33.6
Dubai, UAE	1158	48.6	48.4	25.2	26.1	48.4	51.3	0.1	0.2	45.4	51.5
Sharjah, UAE	877	43.0	42.9	24.2	32.7	42.9	56.9	0.0	0.2	42.7	43.3

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Physics / Applying

B_SE4_08A SE62042A: Parts of incandescent light bulb - filament - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1192	81.8	80.5	17.9	1.6	0.1	82.5	81.3
Austria	647	88.1	87.9	11.8	0.3	0.0	86.3	89.7
Azerbaijan	877	82.0	75.7	16.6	6.6	1.1	82.3	81.7
Bahrain	730	86.3	85.3	13.5	1.2	0.0	86.4	86.3
Brazil	3198	78.6	72.2	19.6	7.4	0.8	76.3	80.8
Chile	646	83.6	79.9	15.6	3.8	0.6	79.3	87.3
Chinese Taipei	475	95.6	95.6	4.4	0.0	0.0	95.5	95.7
Cyprus	587	82.7	81.5	17.0	1.2	0.4	79.9	85.4
Czech Republic	1146	91.8	91.4	8.2	0.4	0.0	89.4	93.8
England	602	83.5	81.7	16.2	1.8	0.3	82.4	84.5
Finland	804	91.6	89.7	8.3	1.8	0.2	93.4	89.7
France	632	87.9	87.0	12.0	1.0	0.0	90.9	85.0
Georgia	688	66.7	60.9	30.4	7.9	0.8	65.2	68.2
Hong Kong SAR	623	94.7	93.9	5.3	0.4	0.5	94.5	94.9
Hungary	765	94.8	94.3	5.2	0.5	0.0	94.5	95.1
Ireland	703	79.3	78.4	20.4	1.1	0.1	78.1	80.3
Israel	733	92.1	91.4	7.9	0.3	0.4	91.1	93.0
Italy	645	89.7	89.4	10.2	0.4	0.0	87.9	91.6
Japan	329	95.6	94.8	4.4	0.8	0.0	94.5	96.8
Jordan	1402	89.7	87.2	10.0	2.8	0.0	91.1	88.5
Kazakhstan	885	83.7	81.2	15.8	2.9	0.1	82.6	84.8
Korea, Rep. of	365	79.8	78.2	19.8	2.0	0.0	79.7	79.9
Lithuania	758	90.8	90.3	9.2	0.6	0.0	89.7	91.9
Malaysia	1244	70.6	70.5	29.3	0.1	0.0	69.4	71.9
Malta	560	84.6	84.1	15.3	0.6	0.0	83.6	85.6
Morocco	1734	73.8	70.1	24.9	4.0	1.1	73.7	73.9
New Zealand	537	77.7	76.3	21.9	1.4	0.4	80.6	76.0
Norway (9)	889	78.3	76.2	21.1	1.6	1.2	81.1	76.1
Oman	1638	92.3	91.0	7.6	1.0	0.3	93.9	90.8
Palestinian Nat'l Auth.	1300	82.9	79.1	16.3	4.2	0.4	85.4	80.3
Portugal	762	85.0	84.0	14.8	1.2	0.0	85.4	84.5
Qatar	597	86.7	85.8	13.1	0.8	0.2	87.3	86.1
Romania	534	87.9	85.1	11.7	1.8	1.4	87.9	87.9
Saudi Arabia	1172	85.1	84.4	14.7	0.8	0.1	87.0	83.4
Singapore	402	94.7	94.7	5.3	0.0	0.0	94.6	94.9
Sweden	714	89.7	87.9	10.1	1.3	0.6	90.3	88.9
Turkiye	692	80.9	80.5	19.0	0.5	0.0	80.8	81.0
United Arab Emirates	5310	84.4	83.6	15.4	0.7	0.3	83.4	85.4
United States	1151	81.8	80.6	17.9	1.1	0.4	80.8	82.7
Uzbekistan	608	82.4	74.3	15.9	9.5	0.3	84.3	80.4
International Avg. (40)	39276	85.2	83.4	14.4	1.9	0.3	85.1	85.4
Abu Dhabi, UAE	2424	78.5	77.4	21.2	1.0	0.3	76.3	80.7
Dubai, UAE	1158	89.2	88.9	10.8	0.2	0.2	88.7	89.5
Sharjah, UAE	877	88.5	88.1	11.5	0.2	0.2	88.7	88.3

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Physics / Applying

B_SE4_08B SE62042B: Parts of incandescent light bulb - bulb - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1192	82.9	16.8	81.1	2.0	0.1	83.7	82.1
Austria	647	89.6	10.4	89.3	0.3	0.0	91.5	88.0
Azerbaijan	877	81.7	16.5	73.7	8.6	1.1	83.1	80.2
Bahrain	730	81.9	17.7	80.4	1.9	0.0	82.3	81.6
Brazil	3198	76.8	21.5	71.1	6.7	0.8	74.9	78.6
Chile	646	85.5	13.7	80.8	4.9	0.6	84.4	86.5
Chinese Taipei	475	93.0	6.9	92.4	0.6	0.0	93.5	92.6
Cyprus	587	79.9	19.8	78.4	1.4	0.4	77.6	81.9
Czech Republic	1146	92.9	7.0	92.2	0.8	0.0	90.9	94.6
England	602	81.3	18.5	80.5	0.7	0.3	80.1	82.5
Finland	804	91.9	8.0	90.1	1.7	0.2	94.6	89.1
France	632	88.0	11.8	87.0	1.1	0.0	89.7	86.3
Georgia	688	46.4	51.1	44.3	3.8	0.8	42.4	50.6
Hong Kong SAR	623	91.5	8.4	90.1	1.0	0.5	91.2	91.7
Hungary	765	94.7	5.3	94.5	0.3	0.0	94.9	94.6
Ireland	703	82.2	17.6	81.3	0.9	0.1	81.3	82.9
Israel	733	89.4	10.5	88.1	1.1	0.4	87.7	91.0
Italy	645	87.1	12.8	86.8	0.4	0.0	86.6	87.7
Japan	329	93.8	6.1	92.3	1.6	0.0	92.1	95.7
Jordan	1402	82.9	16.5	80.0	3.5	0.0	84.3	81.5
Kazakhstan	885	87.8	11.7	84.4	3.8	0.1	87.0	88.5
Korea, Rep. of	365	73.4	25.8	71.4	2.7	0.0	74.3	72.4
Lithuania	758	92.4	7.6	91.9	0.5	0.0	92.2	92.5
Malaysia	1244	68.2	31.7	67.9	0.4	0.0	66.1	70.3
Malta	560	79.6	20.0	78.4	1.6	0.0	78.7	80.6
Morocco	1734	69.9	28.7	66.5	3.7	1.1	69.9	69.8
New Zealand	537	78.7	20.6	76.4	2.6	0.4	77.4	79.6
Norway (9)	889	84.8	14.8	82.3	1.8	1.2	88.6	81.7
Oman	1638	90.6	9.2	89.2	1.2	0.3	94.3	87.2
Palestinian Nat'l Auth.	1300	79.7	19.4	75.9	4.4	0.4	81.6	77.7
Portugal	762	88.8	11.0	87.5	1.5	0.0	87.3	90.2
Qatar	597	84.5	15.3	83.4	1.1	0.2	85.2	83.8
Romania	534	88.2	11.4	85.7	1.5	1.4	90.0	86.4
Saudi Arabia	1172	88.7	11.0	86.0	2.9	0.1	91.7	85.7
Singapore	402	93.8	6.2	93.8	0.0	0.0	93.6	94.0
Sweden	714	90.5	9.3	88.7	1.5	0.6	90.8	90.3
Turkiye	692	85.8	14.1	85.3	0.6	0.0	83.4	88.3
United Arab Emirates	5310	80.5	19.2	79.3	1.2	0.3	80.0	81.0
United States	1151	80.1	19.5	78.6	1.5	0.4	79.3	80.9
Uzbekistan	608	84.0	13.9	72.8	13.1	0.3	80.4	87.7
International Avg. (40)	39276	84.1	15.4	82.0	2.3	0.3	84.0	84.2
Abu Dhabi, UAE	2424	73.9	25.7	72.5	1.5	0.3	72.6	75.2
Dubai, UAE	1158	86.3	13.6	85.7	0.5	0.2	84.6	87.8
Sharjah, UAE	877	86.6	13.3	85.9	0.6	0.2	86.0	87.2

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Physics / Applying

B_SE4_08C SE62042C: Parts of incandescent light bulb - mount - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1192	53.8	45.1	52.6	2.2	0.1	44.8	61.0
Austria	647	56.6	43.3	56.3	0.4	0.0	49.8	62.1
Azerbaijan	877	45.6	48.6	40.8	9.5	1.1	44.2	47.1
Bahrain	730	41.7	57.1	40.8	2.1	0.0	41.8	41.6
Brazil	3198	47.2	48.0	42.8	8.4	0.8	44.9	49.4
Chile	646	50.6	47.2	48.4	3.8	0.6	49.1	51.8
Chinese Taipei	475	53.7	46.1	53.5	0.4	0.0	55.0	52.5
Cyprus	587	52.2	46.9	51.2	1.5	0.4	52.2	52.2
Czech Republic	1146	59.3	40.6	59.1	0.3	0.0	49.1	67.8
England	602	59.1	39.9	57.6	2.2	0.3	54.2	63.8
Finland	804	45.8	52.9	44.8	2.1	0.2	37.3	54.6
France	632	47.8	51.5	47.3	1.2	0.0	46.4	49.2
Georgia	688	55.8	39.9	50.4	8.9	0.8	54.0	57.7
Hong Kong SAR	623	57.4	41.8	56.4	1.4	0.5	53.2	62.1
Hungary	765	46.9	52.8	46.6	0.6	0.0	39.5	53.9
Ireland	703	46.4	52.3	45.3	2.3	0.1	41.2	51.0
Israel	733	52.1	47.3	51.4	1.0	0.4	48.5	55.5
Italy	645	62.2	37.6	61.9	0.5	0.0	57.0	67.6
Japan	329	52.5	46.6	51.5	2.0	0.0	49.2	55.9
Jordan	1402	50.7	46.9	48.3	4.8	0.0	48.6	52.8
Kazakhstan	885	36.9	61.4	35.9	2.6	0.1	29.4	43.9
Korea, Rep. of	365	56.4	42.8	55.5	1.6	0.0	53.9	59.2
Lithuania	758	51.8	48.0	51.5	0.5	0.0	42.0	61.6
Malaysia	1244	46.2	53.5	45.9	0.6	0.0	48.3	44.0
Malta	560	64.3	35.2	63.3	1.6	0.0	64.5	64.0
Morocco	1734	42.5	54.6	40.4	3.9	1.1	39.6	45.4
New Zealand	537	48.8	50.0	47.6	2.0	0.4	49.9	48.2
Norway (9)	889	43.0	55.2	41.5	2.1	1.2	36.3	48.4
Oman	1638	46.5	52.2	45.3	2.2	0.3	42.7	50.1
Palestinian Nat'l Auth.	1300	38.3	59.0	36.6	4.0	0.4	36.2	40.5
Portugal	762	39.3	60.0	38.9	1.1	0.0	34.7	43.7
Qatar	597	53.1	46.3	52.4	1.0	0.2	50.5	55.6
Romania	534	46.7	51.2	44.8	2.7	1.4	39.4	53.8
Saudi Arabia	1172	25.7	72.4	25.1	2.4	0.1	22.1	29.3
Singapore	402	72.6	27.4	72.4	0.3	0.0	76.9	68.8
Sweden	714	50.0	49.1	49.1	1.2	0.6	45.5	55.1
Turkiye	692	39.5	59.9	39.1	1.0	0.0	39.0	40.0
United Arab Emirates	5310	55.3	44.1	54.5	1.2	0.3	53.2	57.2
United States	1151	51.9	47.0	50.7	1.9	0.4	46.8	56.8
Uzbekistan	608	39.0	53.4	34.1	12.1	0.3	34.7	43.3
International Avg. (40)	39276	49.6	48.9	48.3	2.5	0.3	46.1	53.0
Abu Dhabi, UAE	2424	53.3	45.8	52.4	1.5	0.3	52.0	54.7
Dubai, UAE	1158	62.6	37.2	62.2	0.4	0.2	61.0	64.0
Sharjah, UAE	877	54.2	45.5	53.8	0.6	0.2	53.3	55.1

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Physics / Applying

B_SE4_08D SE62042D: Parts of incandescent light bulb - base - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1192	65.9	64.8	33.6	1.6	0.1	57.9	72.1
Austria	647	70.0	69.8	29.9	0.3	0.0	62.5	76.3
Azerbaijan	877	63.3	56.8	32.9	9.2	1.1	57.5	69.4
Bahrain	730	59.1	57.8	39.9	2.3	0.0	56.8	61.4
Brazil	3198	63.4	57.2	33.0	9.0	0.8	58.1	68.4
Chile	646	69.3	65.7	29.0	4.7	0.6	68.5	70.0
Chinese Taipei	475	62.8	62.8	37.2	0.0	0.0	54.3	70.2
Cyprus	587	61.7	60.5	37.6	1.5	0.4	59.8	63.4
Czech Republic	1146	71.1	71.0	28.8	0.3	0.0	61.8	79.0
England	602	66.1	65.0	33.4	1.3	0.3	60.4	71.6
Finland	804	63.0	61.4	36.1	2.3	0.2	55.0	71.1
France	632	66.4	65.7	33.3	1.1	0.0	62.9	69.8
Georgia	688	43.4	39.5	51.5	8.3	0.8	38.0	48.9
Hong Kong SAR	623	67.4	66.6	32.2	0.8	0.5	60.1	75.5
Hungary	765	47.5	47.1	52.1	0.8	0.0	39.9	54.6
Ireland	703	62.0	60.6	37.2	2.1	0.1	55.4	67.5
Israel	733	72.3	71.3	27.3	1.1	0.4	67.8	76.7
Italy	645	72.1	71.6	27.7	0.7	0.0	66.0	78.4
Japan	329	76.1	75.6	23.8	0.7	0.0	72.9	79.4
Jordan	1402	75.7	72.2	23.1	4.6	0.0	73.8	77.6
Kazakhstan	885	58.7	57.0	40.2	2.7	0.1	46.2	70.3
Korea, Rep. of	365	61.6	60.0	37.3	2.7	0.0	58.1	65.6
Lithuania	758	64.7	64.6	35.2	0.2	0.0	58.5	71.0
Malaysia	1244	52.9	52.5	46.7	0.8	0.0	50.1	55.9
Malta	560	74.3	73.0	25.2	1.8	0.0	75.2	73.3
Morocco	1734	60.0	56.3	37.6	4.9	1.1	57.3	62.7
New Zealand	537	61.4	60.1	37.7	1.8	0.4	56.5	64.9
Norway (9)	889	65.7	63.4	33.1	2.3	1.2	58.7	71.5
Oman	1638	69.4	67.5	29.7	2.5	0.3	67.0	71.7
Palestinian Nat'l Auth.	1300	75.7	71.7	23.0	5.0	0.4	75.5	75.9
Portugal	762	53.2	52.4	46.2	1.5	0.0	44.4	61.6
Qatar	597	77.1	75.8	22.5	1.5	0.2	74.1	80.1
Romania	534	61.8	59.9	37.0	1.7	1.4	52.6	71.1
Saudi Arabia	1172	59.9	57.0	38.2	4.7	0.1	59.0	60.8
Singapore	402	77.3	77.3	22.7	0.0	0.0	74.5	79.8
Sweden	714	68.1	66.6	31.2	1.5	0.6	64.4	72.3
Turkiye	692	73.1	72.7	26.8	0.5	0.0	70.9	75.2
United Arab Emirates	5310	72.4	70.9	27.0	1.8	0.3	70.8	74.0
United States	1151	63.3	61.9	35.9	1.8	0.4	59.0	67.2
Uzbekistan	608	62.3	54.5	33.0	12.2	0.3	56.6	67.9
International Avg. (40)	39276	65.3	63.4	33.6	2.6	0.3	60.5	69.9
Abu Dhabi, UAE	2424	68.0	66.0	31.1	2.6	0.3	67.5	68.4
Dubai, UAE	1158	77.8	77.2	22.0	0.7	0.2	75.2	80.3
Sharjah, UAE	877	75.4	74.6	24.3	1.0	0.2	73.1	77.7

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Chemistry / Applying

B_SE4_09 SE62250: Paint prevents rust - CR - 1 Point

COUNTRY	N	DIFF %	10 %	11 %	79 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1192	32.6	6.0	25.5	65.2	31.5	65.2	3.2	0.1	35.1	30.7
Austria	647	23.8	2.3	18.7	67.2	21.0	67.2	11.8	0.0	25.0	22.8
Azerbaijan	877	17.1	1.1	10.0	54.1	11.2	54.1	33.6	1.1	17.4	16.7
Bahrain	730	38.8	6.2	29.5	56.3	35.8	56.3	7.8	0.2	40.1	37.5
Brazil	3198	16.8	1.6	12.2	68.2	13.8	68.2	17.1	1.0	19.3	14.5
Chile	646	19.7	1.5	14.4	64.7	15.9	64.7	18.8	0.6	23.2	17.1
Chinese Taipei	0	.	.	.	.	.	.	.	.	.	.
Cyprus	587	13.9	1.9	8.6	64.5	10.5	64.5	24.7	0.4	14.2	13.6
Czech Republic	1146	29.9	3.1	23.4	62.0	26.5	62.0	11.5	0.0	31.8	28.4
England	602	33.2	7.1	24.2	63.0	31.3	63.0	5.4	0.3	35.0	31.4
Finland	804	32.0	3.5	26.6	64.0	30.1	64.0	5.6	0.2	35.4	28.5
France	632	26.7	0.8	21.8	62.1	22.6	62.1	15.2	0.0	30.5	23.2
Georgia	688	15.2	2.4	9.3	65.1	11.7	65.1	22.5	0.8	15.6	14.8
Hong Kong SAR	623	24.1	9.3	11.0	64.1	20.3	64.1	15.1	0.5	21.9	26.7
Hungary	765	24.9	3.2	20.2	70.6	23.4	70.6	6.0	0.0	26.0	23.9
Ireland	703	32.1	5.6	24.3	63.3	29.9	63.3	6.6	0.1	36.7	28.3
Israel	732	17.9	4.9	10.2	69.1	15.1	69.1	15.2	0.6	16.6	19.0
Italy	645	23.1	1.1	17.4	61.9	18.6	61.9	19.5	0.0	28.3	18.0
Japan	0	.	.	.	.	.	.	.	.	.	.
Jordan	1402	17.7	6.9	9.1	74.3	16.0	74.3	9.6	0.1	18.5	16.9
Kazakhstan	885	15.3	3.6	9.4	71.8	13.0	71.8	15.0	0.2	13.0	17.4
Korea, Rep. of	365	41.1	1.6	35.8	53.6	37.4	53.6	9.0	0.0	39.7	42.7
Lithuania	758	38.0	6.1	27.8	55.4	33.9	55.4	10.7	0.0	39.8	36.2
Malaysia	1245	33.1	14.0	18.2	65.3	32.3	65.3	2.5	0.0	31.5	34.7
Malta	560	35.2	4.8	27.6	59.5	32.4	59.5	8.1	0.0	39.7	30.5
Morocco	1734	7.4	0.6	3.7	54.3	4.4	54.3	40.3	1.1	8.6	6.3
New Zealand	537	33.6	4.0	27.1	61.6	31.1	61.6	6.9	0.4	37.4	30.8
Norway (9)	889	31.2	4.6	22.6	60.2	27.3	60.2	11.2	1.4	34.0	28.9
Oman	1638	36.5	14.0	20.0	59.2	34.0	59.2	6.4	0.3	40.9	32.2
Palestinian Nat'l Auth.	1300	26.6	7.8	16.6	67.5	24.4	67.5	7.8	0.4	31.0	22.1
Portugal	762	13.4	1.7	9.7	73.7	11.4	73.7	14.9	0.0	14.1	12.8
Qatar	596	41.2	11.4	26.2	53.5	37.6	53.5	8.7	0.2	43.0	39.4
Romania	533	35.1	12.3	17.5	55.1	29.7	55.1	13.8	1.4	37.1	33.0
Saudi Arabia	1171	12.0	4.7	6.8	84.3	11.6	84.3	4.0	0.1	12.4	11.7
Singapore	402	33.1	16.4	16.5	66.2	32.8	66.2	1.0	0.0	37.8	29.1
Sweden	714	39.5	7.0	28.7	54.7	35.7	54.7	9.0	0.6	39.7	39.3
Turkiye	692	32.2	23.4	5.2	60.1	28.6	60.1	11.3	0.0	33.2	31.3
United Arab Emirates	5308	24.6	14.3	8.8	70.9	23.1	70.9	5.6	0.4	26.3	22.9
United States	1151	25.8	3.3	21.7	72.0	25.0	72.0	2.5	0.5	25.8	25.9
Uzbekistan	608	28.5	1.1	23.5	61.5	24.6	61.5	13.7	0.3	29.7	27.5
International Avg. (38)	38467	26.9	5.9	18.2	63.7	24.1	63.7	11.9	0.3	28.6	25.4
Abu Dhabi, UAE	2424	18.1	9.4	7.4	75.9	16.7	75.9	7.0	0.4	19.5	16.6
Dubai, UAE	1157	33.4	21.0	11.1	64.1	32.2	64.1	3.5	0.2	34.4	32.5
Sharjah, UAE	877	28.6	17.9	9.4	68.3	27.3	68.3	4.2	0.2	31.2	26.0

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Chemistry / Knowing

B_SE4_10 SE62246: True of all neutral atoms - MC - Key: C

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1192	34.1	29.7	24.2	33.9	11.5	0.6	0.1	32.9	35.2
Austria	647	45.2	33.8	12.3	45.2	8.7	0.0	0.0	48.6	42.3
Azerbaijan	877	35.5	26.8	25.4	34.3	10.3	2.0	1.2	33.9	37.0
Bahrain	730	40.8	26.3	18.9	40.6	13.8	0.3	0.2	40.7	40.8
Brazil	3198	31.8	20.0	27.5	31.0	19.0	1.5	1.0	28.6	34.9
Chile	646	36.1	31.4	20.0	34.5	9.6	3.9	0.6	40.2	32.8
Chinese Taipei	475	51.7	24.5	17.2	51.7	6.7	0.0	0.0	52.4	51.1
Cyprus	587	49.4	23.9	17.1	48.6	8.8	1.2	0.4	50.7	48.1
Czech Republic	1146	48.1	35.8	10.1	47.8	5.7	0.6	0.0	49.7	46.7
England	602	45.8	27.7	14.8	45.2	11.0	1.0	0.3	44.9	46.7
Finland	804	47.1	30.9	12.8	46.6	8.6	0.9	0.2	46.4	47.8
France	0	.	.	.	.	.	.	.	.	.
Georgia	688	46.2	25.5	18.0	45.0	9.0	1.8	0.8	49.7	42.6
Hong Kong SAR	0	.	.	.	.	.	.	.	.	.
Hungary	765	55.8	26.6	11.2	55.8	6.4	0.0	0.0	54.5	57.0
Ireland	703	39.4	31.1	15.9	39.1	13.2	0.5	0.1	36.7	41.7
Israel	732	46.7	29.2	14.6	45.9	8.7	1.0	0.6	42.5	50.6
Italy	645	43.7	27.6	20.5	43.1	7.5	1.3	0.0	41.8	45.7
Japan	329	43.6	17.3	17.2	43.4	21.6	0.6	0.0	49.5	37.6
Jordan	1402	38.5	40.1	14.3	38.5	7.0	0.1	0.1	39.8	37.4
Kazakhstan	885	37.8	28.3	21.8	37.1	10.9	1.8	0.2	38.0	37.6
Korea, Rep. of	365	48.8	19.9	22.8	48.8	8.5	0.0	0.0	53.0	44.0
Lithuania	758	51.4	28.5	12.1	51.3	7.8	0.3	0.0	50.3	52.5
Malaysia	1244	28.4	25.7	31.1	28.3	14.7	0.1	0.1	28.6	28.2
Malta	560	40.4	23.5	22.2	39.7	12.9	1.7	0.0	40.4	40.4
Morocco	1734	35.8	15.9	30.1	34.8	16.3	1.5	1.3	36.2	35.5
New Zealand	537	29.4	30.0	25.7	29.0	14.1	0.7	0.4	30.9	28.4
Norway (9)	889	39.6	32.5	15.7	38.6	10.8	1.0	1.4	42.0	37.6
Oman	1638	42.7	33.4	13.2	42.3	10.1	0.7	0.3	44.9	40.6
Palestinian Nat'l Auth.	1300	41.3	37.7	12.8	40.9	7.6	0.5	0.4	43.6	39.0
Portugal	762	45.0	23.3	17.1	44.8	14.4	0.4	0.0	46.9	43.2
Qatar	597	48.4	31.1	13.2	48.3	7.1	0.1	0.2	53.8	43.1
Romania	534	36.7	35.2	15.6	35.9	11.1	0.8	1.4	40.4	33.0
Saudi Arabia	1172	32.9	38.7	16.7	32.7	11.6	0.2	0.2	36.2	29.7
Singapore	402	62.4	19.7	11.5	62.2	6.3	0.2	0.0	60.4	64.0
Sweden	714	38.7	32.8	17.7	37.8	9.2	1.8	0.6	38.1	39.4
Turkiye	692	36.6	38.0	14.0	35.9	10.2	1.9	0.0	37.0	36.1
United Arab Emirates	5310	48.0	26.4	16.4	47.7	8.8	0.3	0.4	48.0	48.1
United States	1151	36.2	28.8	21.2	35.8	13.1	0.4	0.7	35.8	36.4
Uzbekistan	608	29.6	36.7	24.1	29.2	8.7	0.8	0.5	31.4	27.9
International Avg. (38)	38020	41.8	28.8	18.1	41.3	10.6	0.9	0.4	42.6	41.1
Abu Dhabi, UAE	2424	44.6	24.1	19.6	44.3	11.3	0.2	0.5	42.7	46.6
Dubai, UAE	1158	57.4	23.6	12.8	56.9	5.9	0.7	0.2	58.5	56.3
Sharjah, UAE	877	48.2	30.0	14.6	48.0	7.0	0.2	0.2	51.4	44.9

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Chemistry / Reasoning

B_SE4_11 SE62056: Mary has a light stick - CR - 1 Point

COUNTRY	N	DIFF %	10 %	79 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1192	45.4	45.1	54.2	45.1	54.2	0.6	0.1	50.6	41.2
Austria	647	52.8	52.5	46.9	52.5	46.9	0.6	0.0	56.8	49.4
Azerbaijan	877	9.3	8.4	81.8	8.4	81.8	8.4	1.4	9.0	9.6
Bahrain	730	26.8	26.3	71.8	26.3	71.8	1.7	0.2	29.7	24.0
Brazil	3198	17.2	16.6	79.9	16.6	79.9	2.5	1.0	15.5	18.7
Chile	646	32.0	29.4	62.7	29.4	62.7	7.2	0.7	34.3	30.1
Chinese Taipei	473	63.2	63.2	36.8	63.2	36.8	0.0	0.0	63.9	62.6
Cyprus	587	20.8	20.5	78.0	20.5	78.0	0.9	0.6	25.2	16.7
Czech Republic	1146	31.5	31.4	68.3	31.4	68.3	0.3	0.0	30.2	32.5
England	601	53.7	52.9	45.6	52.9	45.6	1.2	0.3	52.4	54.9
Finland	804	56.6	55.9	43.0	55.9	43.0	0.9	0.2	61.5	51.6
France	632	42.8	42.0	56.2	42.0	56.2	1.8	0.0	46.7	38.9
Georgia	688	14.9	14.2	80.9	14.2	80.9	4.1	0.8	15.5	14.4
Hong Kong SAR	623	37.6	37.1	61.6	37.1	61.6	0.8	0.5	37.1	38.1
Hungary	765	30.3	30.3	69.7	30.3	69.7	0.0	0.0	30.3	30.3
Ireland	703	67.0	66.7	32.8	66.7	32.8	0.3	0.1	74.7	60.5
Israel	732	27.7	27.1	70.8	27.1	70.8	1.5	0.6	29.0	26.4
Italy	645	34.2	33.5	64.4	33.5	64.4	2.1	0.0	35.8	32.7
Japan	329	35.6	35.5	64.0	35.5	64.0	0.5	0.0	33.4	38.0
Jordan	1402	21.6	21.4	77.9	21.4	77.9	0.6	0.1	25.8	17.6
Kazakhstan	885	26.5	26.0	72.0	26.0	72.0	1.9	0.2	26.4	26.6
Korea, Rep. of	365	24.1	24.0	75.7	24.0	75.7	0.3	0.0	24.5	23.6
Lithuania	758	53.2	53.0	46.6	53.0	46.6	0.5	0.0	59.4	47.1
Malaysia	1245	21.7	21.7	78.2	21.7	78.2	0.0	0.1	21.8	21.6
Malta	560	45.1	44.7	54.4	44.7	54.4	1.0	0.0	53.1	36.7
Morocco	1734	4.0	3.8	92.7	3.8	92.7	1.9	1.5	3.9	4.1
New Zealand	537	49.2	47.9	49.6	47.9	49.6	2.1	0.4	54.2	45.7
Norway (9)	889	47.2	45.5	50.8	45.5	50.8	2.1	1.5	52.7	42.7
Oman	1638	33.9	33.1	64.5	33.1	64.5	2.0	0.4	40.1	28.2
Palestinian Nat'l Auth.	1300	11.1	11.0	88.1	11.0	88.1	0.4	0.4	13.9	8.4
Portugal	762	41.2	40.7	58.2	40.7	58.2	1.2	0.0	44.8	37.8
Qatar	597	37.4	37.1	62.0	37.1	62.0	0.7	0.2	41.6	33.2
Romania	534	30.6	29.6	67.1	29.6	67.1	1.9	1.4	32.5	28.7
Saudi Arabia	1172	16.6	16.6	83.1	16.6	83.1	0.1	0.2	20.1	13.4
Singapore	402	70.3	70.3	29.7	70.3	29.7	0.0	0.0	71.7	69.0
Sweden	714	42.1	41.1	56.7	41.1	56.7	1.6	0.6	42.1	42.0
Turkiye	692	46.0	45.0	52.7	45.0	52.7	2.3	0.0	50.9	41.2
United Arab Emirates	5310	40.8	40.3	58.6	40.3	58.6	0.7	0.5	41.8	39.7
United States	1151	51.2	50.4	48.1	50.4	48.1	0.7	0.8	54.5	48.2
Uzbekistan	608	8.7	8.4	89.1	8.4	89.1	1.5	0.9	7.5	9.8
International Avg. (40)	39273	35.5	35.0	63.1	35.0	63.1	1.5	0.4	37.9	33.4
Abu Dhabi, UAE	2424	34.3	33.9	64.9	33.9	64.9	0.7	0.5	35.5	33.1
Dubai, UAE	1158	58.0	57.6	41.6	57.6	41.6	0.3	0.5	58.1	57.9
Sharjah, UAE	877	41.3	40.9	58.2	40.9	58.2	0.7	0.2	41.1	41.4

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Knowing

B_SE4_12 SE62235: Negative effects of fertilizer - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1192	40.0	39.9	7.8	32.4	19.7	0.1	0.1	39.6	40.2
Austria	647	42.7	42.6	8.2	30.8	18.1	0.3	0.0	42.1	43.3
Azerbaijan	877	32.7	31.3	16.6	22.0	25.6	3.1	1.4	34.8	30.7
Bahrain	730	40.3	40.0	13.5	24.2	21.6	0.3	0.5	42.2	38.4
Brazil	3198	34.9	34.3	13.8	26.5	23.7	0.6	1.0	32.6	37.0
Chile	646	37.5	36.3	16.6	28.7	15.1	2.4	1.0	40.4	35.1
Chinese Taipei	475	71.4	71.4	2.5	12.5	13.6	0.0	0.0	68.2	74.1
Cyprus	587	28.5	28.2	15.3	33.1	22.3	0.5	0.6	28.9	28.2
Czech Republic	1146	36.0	35.9	15.3	32.2	16.2	0.3	0.0	32.8	38.7
England	602	26.6	26.3	11.6	44.8	15.9	1.0	0.4	27.6	25.7
Finland	804	54.7	54.1	11.7	15.1	18.1	0.8	0.2	55.9	53.5
France	632	37.9	37.5	12.3	31.5	17.8	0.8	0.1	34.8	40.9
Georgia	688	33.2	32.4	12.2	30.7	22.5	1.5	0.8	34.0	32.3
Hong Kong SAR	623	50.6	50.1	4.3	22.0	22.6	0.5	0.5	48.2	53.4
Hungary	765	55.5	55.5	10.5	20.6	13.3	0.1	0.0	53.7	57.2
Ireland	703	30.4	30.3	14.4	27.9	27.0	0.3	0.1	30.6	30.2
Israel	733	38.4	38.1	11.9	25.7	23.5	0.1	0.7	38.1	38.7
Italy	645	42.5	42.4	12.3	24.2	21.0	0.1	0.0	46.0	38.8
Japan	329	34.7	34.6	15.6	36.8	12.5	0.5	0.0	32.0	37.6
Jordan	1402	37.2	37.0	17.6	25.0	20.0	0.3	0.1	38.6	35.8
Kazakhstan	885	27.8	27.3	15.0	28.9	27.0	1.6	0.2	27.8	27.8
Korea, Rep. of	365	48.0	48.0	10.0	21.3	20.7	0.0	0.0	47.5	48.6
Lithuania	758	46.5	46.3	6.9	30.9	15.5	0.4	0.0	45.9	47.0
Malaysia	1244	45.7	45.6	11.7	21.4	21.1	0.1	0.1	46.0	45.3
Malta	560	37.4	37.0	13.0	32.2	16.7	1.0	0.0	39.1	35.6
Morocco	1734	22.7	22.2	21.4	36.1	17.9	0.8	1.6	23.8	21.7
New Zealand	537	32.5	32.3	11.0	30.2	25.9	0.3	0.4	32.4	32.7
Norway (9)	889	30.9	29.9	18.7	21.9	26.4	1.7	1.6	34.1	28.2
Oman	1638	47.1	46.8	12.9	21.0	18.6	0.2	0.4	50.6	43.9
Palestinian Nat'l Auth.	1300	34.2	33.9	19.3	26.5	19.5	0.3	0.4	38.6	29.8
Portugal	762	53.5	53.5	11.2	18.3	17.0	0.1	0.0	51.9	55.0
Qatar	597	44.5	44.1	10.3	25.6	19.1	0.5	0.4	50.0	39.0
Romania	534	38.9	38.3	10.5	23.9	25.6	0.3	1.4	40.5	37.3
Saudi Arabia	1172	51.3	51.2	13.0	22.2	13.3	0.1	0.2	57.9	45.1
Singapore	402	56.5	56.5	5.9	22.5	15.1	0.0	0.0	59.4	53.9
Sweden	714	45.2	44.6	12.6	27.2	14.3	0.6	0.6	46.7	43.6
Turkiye	692	38.5	38.3	10.5	18.7	32.0	0.5	0.0	39.8	37.1
United Arab Emirates	5310	37.8	37.4	8.5	27.7	25.5	0.4	0.5	37.4	38.2
United States	1151	33.8	33.2	8.8	30.3	26.1	0.5	1.0	32.1	35.2
Uzbekistan	608	28.8	28.3	14.3	20.0	35.7	0.4	1.1	32.3	25.5
International Avg. (40)	39276	40.2	39.8	12.2	26.3	20.6	0.6	0.4	40.9	39.5
Abu Dhabi, UAE	2424	30.6	30.3	9.8	29.3	29.7	0.3	0.5	29.2	32.0
Dubai, UAE	1158	45.1	44.8	5.2	27.7	21.7	0.2	0.5	42.9	47.2
Sharjah, UAE	877	45.4	45.1	7.7	25.7	20.9	0.4	0.2	48.9	41.8

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Applying

B_SE4_13 SE62180: Melting permafrost - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1192	69.8	69.5	9.6	6.8	13.6	0.3	0.1	67.4	71.7
Austria	647	63.4	62.8	8.9	7.6	19.8	0.8	0.1	62.3	64.2
Azerbaijan	877	41.3	39.3	22.7	17.1	16.0	3.6	1.4	43.0	39.6
Bahrain	730	43.9	43.4	14.5	18.0	23.0	0.7	0.5	43.4	44.4
Brazil	3198	46.6	45.7	15.1	13.3	24.1	0.7	1.2	47.8	45.4
Chile	646	52.3	49.3	12.6	11.7	20.8	4.6	1.0	51.9	52.6
Chinese Taipei	475	78.0	78.0	6.2	5.0	10.7	0.0	0.0	80.9	75.4
Cyprus	587	44.3	43.4	20.2	14.2	20.1	1.3	0.8	47.6	41.3
Czech Republic	1146	61.9	61.4	12.1	6.5	19.1	0.9	0.0	56.6	66.4
England	602	78.0	77.4	4.4	5.3	12.2	0.3	0.4	78.0	77.9
Finland	804	62.5	62.1	11.9	9.7	15.7	0.3	0.4	63.9	61.1
France	632	62.2	61.6	11.6	8.5	17.3	0.9	0.1	62.2	62.2
Georgia	688	43.1	41.8	20.8	11.4	23.0	2.2	0.8	45.2	41.0
Hong Kong SAR	623	68.2	67.7	10.2	7.4	14.0	0.0	0.7	68.9	67.3
Hungary	765	47.8	47.7	14.4	16.1	21.4	0.3	0.0	44.1	51.3
Ireland	703	71.5	71.1	8.0	5.7	14.6	0.5	0.1	69.9	72.9
Israel	733	52.0	51.2	18.5	12.1	16.7	0.8	0.7	54.8	49.3
Italy	645	60.7	59.8	11.2	10.4	17.1	1.6	0.0	58.3	63.2
Japan	329	76.7	76.7	10.1	3.2	10.0	0.0	0.0	78.8	74.6
Jordan	1402	37.6	37.5	19.3	18.1	24.8	0.2	0.2	39.1	36.2
Kazakhstan	885	38.5	37.9	30.8	12.3	17.4	1.4	0.2	36.5	40.3
Korea, Rep. of	365	71.0	71.0	7.6	6.3	15.2	0.0	0.0	71.3	70.6
Lithuania	758	65.4	65.2	9.8	6.9	17.8	0.2	0.0	68.1	62.6
Malaysia	1244	43.0	43.0	21.4	11.3	24.2	0.0	0.1	43.0	43.0
Malta	560	62.4	61.8	13.4	7.6	16.2	1.0	0.0	62.8	61.9
Morocco	1734	24.1	23.3	26.0	23.0	24.7	1.4	1.7	23.0	25.2
New Zealand	537	63.2	62.9	12.5	10.3	13.8	0.2	0.4	64.3	62.7
Norway (9)	889	68.2	66.2	8.7	9.1	13.1	1.1	1.8	70.7	66.1
Oman	1638	50.5	49.9	15.1	11.1	22.8	0.6	0.5	54.7	46.5
Palestinian Nat'l Auth.	1300	28.3	28.1	25.4	20.9	24.7	0.3	0.5	31.6	25.1
Portugal	762	63.4	63.2	14.8	9.4	12.2	0.3	0.0	64.9	62.0
Qatar	597	54.2	53.6	12.3	11.5	21.4	0.8	0.4	57.1	51.4
Romania	534	57.2	56.4	17.2	9.2	15.9	0.0	1.4	56.2	58.1
Saudi Arabia	1172	40.7	40.6	18.4	14.3	26.4	0.1	0.2	45.4	36.4
Singapore	402	82.3	82.3	5.3	6.2	6.2	0.0	0.0	84.2	80.7
Sweden	714	68.6	67.7	8.8	7.2	15.0	0.7	0.6	69.3	67.7
Turkiye	692	68.2	67.7	12.1	9.5	10.1	0.7	0.0	73.2	63.3
United Arab Emirates	5310	57.3	56.6	14.3	12.3	15.6	0.6	0.6	57.0	57.5
United States	1151	64.7	63.7	11.9	7.5	15.3	0.2	1.3	61.5	67.7
Uzbekistan	608	38.1	37.0	25.8	18.6	15.8	1.4	1.4	35.7	40.3
International Avg. (40)	39276	56.8	56.1	14.3	10.8	17.4	0.8	0.5	57.4	56.2
Abu Dhabi, UAE	2424	51.9	51.2	17.1	13.8	16.6	0.6	0.7	53.3	50.5
Dubai, UAE	1158	73.1	72.3	8.7	6.1	11.8	0.6	0.5	70.6	75.4
Sharjah, UAE	877	58.3	57.9	13.5	12.0	16.0	0.4	0.2	57.3	59.3

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Knowing

B_SE4_14 SE62022: Fresh water or salt water (DERIVED) - CR - 1 Point

COUNTRY	N	DIFF %	10 %	79 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1192	36.0	36.0	64.0	36.0	64.0	0.0	0.1	32.3	39.0
Austria	647	51.0	51.0	48.9	51.0	48.9	0.0	0.1	48.2	53.4
Azerbaijan	877	22.0	21.6	76.3	21.6	76.3	0.7	1.5	21.2	22.9
Bahrain	730	23.5	23.4	76.2	23.4	76.2	0.0	0.5	19.2	27.6
Brazil	3198	27.2	26.7	71.6	26.7	71.6	0.4	1.3	26.4	27.9
Chile	646	42.9	41.7	55.6	41.7	55.6	0.6	2.0	39.2	45.9
Chinese Taipei	475	63.0	63.0	37.0	63.0	37.0	0.0	0.0	58.1	67.2
Cyprus	587	32.3	31.8	66.6	31.8	66.6	0.5	1.1	28.6	35.7
Czech Republic	1146	69.1	69.1	30.9	69.1	30.9	0.0	0.0	68.9	69.3
England	602	32.6	32.2	66.7	32.2	66.7	0.6	0.4	30.8	34.3
Finland	804	40.3	40.1	59.4	40.1	59.4	0.2	0.4	36.6	44.0
France	632	45.0	44.8	54.9	44.8	54.9	0.2	0.1	46.9	43.0
Georgia	688	28.2	27.7	70.7	27.7	70.7	0.7	0.8	27.9	28.5
Hong Kong SAR	623	37.0	36.7	62.6	36.7	62.6	0.0	0.7	32.3	42.2
Hungary	765	40.3	40.3	59.7	40.3	59.7	0.0	0.0	33.1	47.2
Ireland	703	42.6	42.5	57.4	42.5	57.4	0.0	0.1	36.7	47.5
Israel	733	31.6	31.2	67.7	31.2	67.7	0.2	0.9	26.4	36.5
Italy	645	44.6	44.5	55.3	44.5	55.3	0.2	0.0	41.6	47.6
Japan	0	.	.	.	.	.	.	.	.	.
Jordan	1402	18.5	18.4	81.3	18.4	81.3	0.0	0.2	16.4	20.4
Kazakhstan	885	23.2	23.1	76.3	23.1	76.3	0.2	0.4	18.5	27.7
Korea, Rep. of	365	39.3	39.2	60.6	39.2	60.6	0.2	0.0	37.1	41.7
Lithuania	758	41.8	41.7	58.0	41.7	58.0	0.2	0.0	43.0	40.6
Malaysia	1244	24.4	24.4	75.5	24.4	75.5	0.0	0.1	22.6	26.4
Malta	560	36.7	36.7	63.3	36.7	63.3	0.0	0.0	34.3	39.2
Morocco	1734	13.9	13.5	83.8	13.5	83.8	0.8	1.9	11.4	16.5
New Zealand	537	48.5	48.1	51.1	48.1	51.1	0.5	0.4	49.1	47.7
Norway (9)	889	53.6	52.5	45.4	52.5	45.4	0.1	2.0	48.7	57.7
Oman	1637	37.4	37.1	62.2	37.1	62.2	0.1	0.5	31.3	43.1
Palestinian Nat'l Auth.	1300	15.8	15.6	83.3	15.6	83.3	0.5	0.5	15.4	16.2
Portugal	762	32.1	32.1	67.8	32.1	67.8	0.1	0.0	34.2	30.2
Qatar	597	40.9	40.7	58.8	40.7	58.8	0.0	0.4	36.8	45.0
Romania	534	37.8	37.2	61.2	37.2	61.2	0.2	1.4	38.8	36.8
Saudi Arabia	1172	20.4	20.4	79.4	20.4	79.4	0.1	0.2	20.2	20.6
Singapore	402	42.1	42.1	57.9	42.1	57.9	0.0	0.0	40.2	43.7
Sweden	714	45.6	45.3	54.1	45.3	54.1	0.0	0.6	41.4	50.2
Turkiye	692	33.5	33.4	66.4	33.4	66.4	0.2	0.0	29.1	37.9
United Arab Emirates	5310	35.2	34.9	64.2	34.9	64.2	0.2	0.7	32.3	38.1
United States	1151	42.3	41.7	56.9	41.7	56.9	0.1	1.3	39.4	44.9
Uzbekistan	608	13.1	12.8	85.0	12.8	85.0	0.6	1.6	11.0	15.0
International Avg. (39)	38946	36.0	35.8	63.4	35.8	63.4	0.2	0.6	33.5	38.4
Abu Dhabi, UAE	2424	30.5	30.3	68.8	30.3	68.8	0.1	0.8	27.0	34.1
Dubai, UAE	1158	41.5	41.1	58.0	41.1	58.0	0.2	0.6	38.2	44.5
Sharjah, UAE	877	38.8	38.6	60.9	38.6	60.9	0.3	0.3	37.0	40.6

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Knowing

B_SE4_14A SE62022A: Fresh water or salt water: snow cap - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1192	85.5	84.7	14.4	0.9	0.1	82.5	87.8
Austria	647	82.5	82.3	17.5	0.1	0.1	74.0	89.6
Azerbaijan	877	77.9	72.7	20.6	5.1	1.5	75.7	80.1
Bahrain	730	61.3	60.3	38.1	1.2	0.5	60.6	62.0
Brazil	3198	65.7	60.6	31.6	6.5	1.3	64.2	67.2
Chile	646	79.5	75.6	19.5	2.9	2.0	75.4	82.9
Chinese Taipei	475	91.7	91.1	8.2	0.6	0.0	91.8	91.7
Cyprus	587	78.7	77.1	20.8	1.0	1.1	74.0	83.1
Czech Republic	1146	90.5	90.4	9.5	0.1	0.0	88.8	92.0
England	602	82.2	80.8	17.5	1.3	0.4	80.8	83.6
Finland	804	78.3	77.2	21.4	1.1	0.4	72.9	83.8
France	632	89.7	89.1	10.3	0.5	0.1	90.7	88.6
Georgia	688	89.5	82.9	9.7	6.6	0.8	90.9	88.1
Hong Kong SAR	623	86.9	85.6	12.9	0.8	0.7	85.9	88.1
Hungary	765	79.1	79.1	20.9	0.0	0.0	72.0	85.8
Ireland	703	82.9	81.9	16.9	1.1	0.1	78.0	87.1
Israel	733	77.1	75.9	22.6	0.7	0.9	75.8	78.4
Italy	645	86.0	85.8	14.0	0.3	0.0	81.5	90.7
Japan	0	.	.	.	.	.	.	.
Jordan	1402	68.3	66.2	30.7	2.9	0.2	66.0	70.4
Kazakhstan	885	79.2	76.2	20.1	3.4	0.4	76.5	81.7
Korea, Rep. of	365	83.3	80.3	16.1	3.5	0.0	80.5	86.4
Lithuania	758	89.4	89.1	10.5	0.3	0.0	88.7	90.2
Malaysia	1244	75.8	75.2	24.0	0.7	0.1	72.9	78.9
Malta	560	85.6	84.8	14.2	1.0	0.0	86.6	84.6
Morocco	1734	66.7	62.1	31.0	5.0	1.9	67.4	65.9
New Zealand	537	81.8	79.3	17.7	2.6	0.4	78.8	83.9
Norway (9)	889	92.7	89.7	7.1	1.2	2.0	93.3	92.1
Oman	1637	71.7	70.5	27.8	1.2	0.5	70.4	73.0
Palestinian Nat'l Auth.	1300	57.9	55.4	40.3	3.8	0.5	55.3	60.5
Portugal	762	73.4	73.0	26.5	0.5	0.0	71.4	75.2
Qatar	597	75.5	74.6	24.1	0.9	0.4	76.0	75.1
Romania	534	78.1	76.0	21.3	1.3	1.4	74.4	82.0
Saudi Arabia	1172	58.9	57.8	40.3	1.7	0.2	57.6	60.1
Singapore	402	89.1	89.1	10.9	0.0	0.0	87.9	90.1
Sweden	714	86.3	84.7	13.4	1.3	0.6	83.5	89.4
Turkiye	692	87.3	86.9	12.6	0.5	0.0	85.1	89.5
United Arab Emirates	5310	80.4	79.0	19.2	1.1	0.7	79.9	80.9
United States	1151	82.2	80.4	17.4	0.9	1.3	79.8	84.4
Uzbekistan	608	87.1	77.7	11.5	9.3	1.6	86.2	88.0
International Avg. (39)	38946	79.9	78.0	19.6	1.9	0.6	77.8	81.9
Abu Dhabi, UAE	2424	78.7	76.8	20.8	1.5	0.8	77.6	79.8
Dubai, UAE	1158	86.2	85.2	13.7	0.6	0.6	88.4	84.0
Sharjah, UAE	877	81.2	80.2	18.5	1.0	0.3	80.5	81.9

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Knowing

B_SE4_14B SE62022B: Fresh water or salt water: cloud - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1192	77.2	76.5	22.6	0.8	0.1	76.7	77.6
Austria	647	74.9	74.4	25.0	0.5	0.1	77.6	72.6
Azerbaijan	877	50.2	45.9	45.5	7.1	1.5	52.7	47.6
Bahrain	730	68.6	67.7	31.0	0.8	0.5	64.7	72.3
Brazil	3198	69.3	63.2	28.0	7.5	1.3	68.6	69.9
Chile	646	70.0	67.1	28.8	2.1	2.0	67.6	72.0
Chinese Taipei	475	77.4	77.1	22.5	0.4	0.0	73.9	80.5
Cyprus	587	64.4	62.9	34.7	1.2	1.1	64.6	64.3
Czech Republic	1146	80.6	80.5	19.4	0.1	0.0	81.0	80.2
England	602	74.2	72.8	25.3	1.5	0.4	74.7	73.7
Finland	804	73.6	72.8	26.1	0.8	0.4	74.1	73.2
France	632	77.8	76.9	21.9	1.1	0.1	79.5	76.2
Georgia	688	57.2	52.9	39.6	6.7	0.8	56.0	58.4
Hong Kong SAR	623	66.1	64.7	33.2	1.4	0.7	64.8	67.5
Hungary	765	68.7	68.7	31.3	0.0	0.0	65.4	71.7
Ireland	703	74.9	73.7	24.7	1.5	0.1	75.2	74.6
Israel	733	69.1	67.8	30.4	0.9	0.9	65.2	72.8
Italy	645	65.4	65.3	34.5	0.2	0.0	66.2	64.6
Japan	0	.	.	.	.	.	.	.
Jordan	1402	72.3	70.1	26.8	2.9	0.2	72.0	72.6
Kazakhstan	885	61.4	58.9	37.1	3.7	0.4	58.1	64.5
Korea, Rep. of	365	63.5	61.8	35.4	2.8	0.0	62.6	64.6
Lithuania	758	68.4	67.9	31.5	0.6	0.0	69.3	67.4
Malaysia	1244	68.3	67.7	31.5	0.7	0.1	70.3	66.1
Malta	560	66.4	65.9	33.4	0.8	0.0	66.4	66.4
Morocco	1734	61.9	58.1	35.8	4.3	1.9	64.0	59.7
New Zealand	537	83.2	81.8	16.5	1.3	0.4	85.5	81.4
Norway (9)	889	71.7	69.4	27.3	1.2	2.0	69.6	73.5
Oman	1637	75.6	73.8	23.8	1.9	0.5	74.0	77.2
Palestinian Nat'l Auth.	1300	69.7	65.2	28.3	6.0	0.5	71.5	67.9
Portugal	762	64.5	64.2	35.3	0.5	0.0	67.0	62.1
Qatar	597	77.4	76.2	22.2	1.2	0.4	77.9	77.0
Romania	534	72.8	70.2	26.2	2.2	1.4	75.4	70.2
Saudi Arabia	1172	72.3	70.1	26.8	3.0	0.2	74.1	70.6
Singapore	402	81.0	80.6	18.9	0.5	0.0	84.0	78.4
Sweden	714	75.5	73.9	24.0	1.5	0.6	70.9	80.7
Turkiye	692	65.0	64.2	34.5	1.3	0.0	60.4	69.6
United Arab Emirates	5310	72.8	71.5	26.7	1.1	0.7	72.5	73.1
United States	1151	77.4	75.9	22.2	0.6	1.3	75.6	79.0
Uzbekistan	608	56.4	47.6	36.8	14.0	1.6	53.5	59.3
International Avg. (39)	38946	70.2	68.4	28.9	2.2	0.6	69.8	70.5
Abu Dhabi, UAE	2424	72.4	70.6	26.9	1.7	0.8	73.1	71.7
Dubai, UAE	1158	73.5	72.6	26.2	0.6	0.6	72.0	74.8
Sharjah, UAE	877	72.4	71.6	27.4	0.7	0.3	70.9	73.8

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Knowing

B_SE4_14C SE62022C: Fresh water or salt water: river - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1192	65.1	64.2	34.4	1.2	0.1	65.4	65.0
Austria	647	83.6	83.2	16.3	0.3	0.1	83.0	84.1
Azerbaijan	877	78.3	72.1	20.0	6.4	1.5	73.9	83.0
Bahrain	730	76.4	75.5	23.4	0.7	0.5	75.9	76.8
Brazil	3198	78.6	73.1	19.9	5.8	1.3	77.7	79.5
Chile	646	81.7	78.4	17.6	2.0	2.0	80.6	82.6
Chinese Taipei	475	87.8	87.7	12.2	0.0	0.0	85.5	89.8
Cyprus	587	73.2	71.3	26.2	1.5	1.1	72.1	74.1
Czech Republic	1146	92.1	92.0	7.8	0.2	0.0	93.1	91.3
England	602	64.6	63.7	34.9	1.0	0.4	62.9	66.3
Finland	804	80.9	79.5	18.8	1.2	0.4	82.0	79.7
France	632	71.0	70.4	28.8	0.7	0.1	68.7	73.2
Georgia	688	70.1	65.9	28.1	5.1	0.8	68.8	71.4
Hong Kong SAR	623	76.6	75.9	23.2	0.2	0.7	74.8	78.5
Hungary	765	82.9	82.8	17.1	0.1	0.0	82.7	83.1
Ireland	703	77.5	76.6	22.3	1.0	0.1	76.3	78.5
Israel	733	70.0	68.7	29.5	0.9	0.9	66.8	73.1
Italy	645	86.3	86.1	13.6	0.3	0.0	86.7	85.9
Japan	0	.	.	.	.	.	.	.
Jordan	1402	58.2	55.8	40.2	3.8	0.2	57.3	59.0
Kazakhstan	885	62.1	60.0	36.7	3.0	0.4	58.5	65.5
Korea, Rep. of	365	80.3	77.5	19.1	3.4	0.0	76.8	84.1
Lithuania	758	75.4	75.0	24.4	0.5	0.0	77.3	73.6
Malaysia	1244	69.0	68.4	30.7	0.8	0.1	66.4	71.8
Malta	560	76.0	75.1	23.8	1.2	0.0	74.3	77.7
Morocco	1734	56.3	52.6	40.8	4.8	1.9	51.4	61.3
New Zealand	537	79.2	76.9	20.1	2.6	0.4	79.5	79.0
Norway (9)	889	85.4	83.0	14.2	0.8	2.0	82.0	88.3
Oman	1637	79.2	77.8	20.4	1.3	0.5	75.4	82.7
Palestinian Nat'l Auth.	1300	71.0	67.2	27.4	4.9	0.5	69.9	72.2
Portugal	762	84.0	83.7	15.9	0.5	0.0	84.3	83.8
Qatar	597	74.3	73.5	25.4	0.7	0.4	67.4	81.3
Romania	534	74.9	72.9	24.4	1.3	1.4	77.0	72.8
Saudi Arabia	1172	69.7	67.2	29.2	3.4	0.2	70.5	68.9
Singapore	402	59.7	59.7	40.3	0.0	0.0	57.1	62.0
Sweden	714	76.8	75.7	22.8	0.8	0.6	80.0	73.3
Turkiye	692	68.2	68.0	31.8	0.2	0.0	65.1	71.2
United Arab Emirates	5310	70.7	69.1	28.7	1.5	0.7	66.8	74.5
United States	1151	75.6	74.0	24.0	0.7	1.3	75.6	75.4
Uzbekistan	608	51.0	44.0	42.3	12.1	1.6	50.3	51.7
International Avg. (39)	38946	74.2	72.4	25.0	2.0	0.6	72.8	75.5
Abu Dhabi, UAE	2424	65.2	63.3	33.8	2.1	0.8	59.6	70.8
Dubai, UAE	1158	74.4	73.4	25.3	0.8	0.6	69.0	79.4
Sharjah, UAE	877	74.4	73.4	25.2	1.2	0.3	74.7	74.1

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Knowing

B_SE4_14D SE62022D: Fresh water or salt water: ocean - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1192	95.3	4.7	94.6	0.7	0.1	96.2	94.6
Austria	647	93.7	6.3	93.5	0.1	0.1	93.3	94.1
Azerbaijan	877	87.0	12.2	81.7	4.5	1.5	88.3	85.6
Bahrain	730	86.0	13.8	84.8	0.9	0.5	88.2	83.9
Brazil	3198	84.6	14.3	78.9	5.5	1.3	84.7	84.6
Chile	646	90.2	9.4	86.5	2.1	2.0	88.7	91.6
Chinese Taipei	475	97.7	2.3	97.4	0.3	0.0	98.6	96.9
Cyprus	587	92.7	7.1	90.4	1.3	1.1	94.2	91.3
Czech Republic	1146	96.5	3.5	96.3	0.2	0.0	96.3	96.6
England	602	94.5	5.4	92.9	1.3	0.4	95.3	93.7
Finland	804	93.2	6.7	92.2	0.7	0.4	93.4	93.0
France	632	93.2	6.8	92.5	0.6	0.1	93.8	92.6
Georgia	688	91.9	7.6	86.3	5.2	0.8	91.1	92.7
Hong Kong SAR	623	96.9	3.1	95.3	0.8	0.7	96.8	96.9
Hungary	765	91.0	9.0	90.8	0.1	0.0	90.2	91.6
Ireland	703	96.8	3.2	95.7	0.9	0.1	96.4	97.0
Israel	733	82.2	17.5	80.9	0.8	0.9	79.6	84.8
Italy	645	92.3	7.7	91.8	0.6	0.0	89.9	94.7
Japan	0	.	.	.	.	.	.	.
Jordan	1402	78.5	20.6	75.2	4.0	0.2	75.2	81.7
Kazakhstan	885	80.1	19.3	77.8	2.4	0.4	75.3	84.7
Korea, Rep. of	365	86.4	13.4	85.4	1.2	0.0	85.0	88.0
Lithuania	758	91.9	8.1	91.7	0.2	0.0	91.6	92.1
Malaysia	1244	89.5	10.5	89.1	0.3	0.1	88.7	90.2
Malta	560	93.4	6.5	92.6	0.9	0.0	92.3	94.7
Morocco	1734	67.0	30.6	62.1	5.4	1.9	66.9	67.1
New Zealand	537	96.4	3.5	93.2	2.9	0.4	98.2	94.9
Norway (9)	889	94.0	5.8	90.9	1.2	2.0	95.1	93.0
Oman	1637	88.4	11.3	86.5	1.7	0.5	88.8	88.1
Palestinian Nat'l Auth.	1300	73.0	25.4	68.6	5.5	0.5	74.6	71.2
Portugal	762	94.2	5.8	93.7	0.6	0.0	93.5	94.8
Qatar	597	88.8	11.0	87.5	1.0	0.4	90.4	87.2
Romania	534	88.3	11.4	85.6	1.6	1.4	87.4	89.2
Saudi Arabia	1172	85.7	13.9	82.8	3.2	0.2	87.1	84.2
Singapore	402	97.3	2.7	97.3	0.0	0.0	98.0	96.7
Sweden	714	94.3	5.6	93.0	0.8	0.6	93.9	94.8
Turkiye	692	90.1	9.9	89.7	0.4	0.0	89.2	91.0
United Arab Emirates	5310	89.7	10.1	87.9	1.4	0.7	89.8	89.7
United States	1151	94.2	5.7	91.8	1.2	1.3	95.1	93.3
Uzbekistan	608	82.9	15.4	74.7	8.3	1.6	81.6	84.3
International Avg. (39)	38946	89.7	9.9	87.7	1.8	0.6	89.6	89.9
Abu Dhabi, UAE	2424	86.1	13.5	83.8	1.9	0.8	86.8	85.4
Dubai, UAE	1158	95.0	4.9	93.8	0.7	0.6	94.7	95.3
Sharjah, UAE	877	91.7	8.2	90.5	1.1	0.3	91.2	92.3

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Reasoning

B_SE4_15 SE62243: Animals and habitat (DERIVED) - CR - 2 Points

COUNTRY	N	DIFF %	20 %	10 %	79 %	2pt %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1192	65.3	56.5	16.4	26.2	56.5	16.4	26.2	0.7	0.1	63.0	67.1
Austria	647	62.9	49.7	25.9	24.0	49.7	25.9	24.0	0.3	0.1	62.4	63.3
Azerbaijan	877	38.6	24.2	21.5	44.8	24.2	21.5	44.8	7.5	1.9	39.5	37.8
Bahrain	730	42.7	26.2	31.6	40.6	26.2	31.6	40.6	0.7	0.8	44.0	41.4
Brazil	3198	25.3	8.8	31.0	56.5	8.8	31.0	56.5	1.8	1.9	27.0	23.6
Chile	646	49.0	30.9	30.8	32.8	30.9	30.8	32.8	3.0	2.5	47.7	50.0
Chinese Taipei	475	80.9	73.3	15.1	11.5	73.3	15.1	11.5	0.0	0.0	78.0	83.4
Cyprus	587	44.2	28.5	29.7	39.9	28.5	29.7	39.9	0.7	1.3	46.1	42.4
Czech Republic	1146	67.4	56.0	22.1	21.4	56.0	22.1	21.4	0.5	0.0	66.9	67.8
England	602	69.9	61.0	15.6	21.9	61.0	15.6	21.9	0.9	0.6	70.3	69.5
Finland	804	74.2	65.6	15.2	17.8	65.6	15.2	17.8	0.9	0.4	77.8	70.5
France	632	47.7	30.4	33.5	34.9	30.4	33.5	34.9	1.1	0.1	49.6	45.8
Georgia	688	33.4	16.8	27.9	47.3	16.8	27.9	47.3	6.2	1.8	38.7	28.1
Hong Kong SAR	623	70.9	60.4	18.6	19.4	60.4	18.6	19.4	0.6	1.0	68.8	73.2
Hungary	765	68.5	58.7	19.4	21.8	58.7	19.4	21.8	0.1	0.0	67.2	69.6
Ireland	703	71.8	61.4	20.6	17.9	61.4	20.6	17.9	0.0	0.1	72.1	71.5
Israel	733	47.7	32.0	29.2	36.4	32.0	29.2	36.4	1.4	1.0	46.9	48.5
Italy	645	59.5	45.6	27.6	26.6	45.6	27.6	26.6	0.1	0.0	58.9	60.2
Japan	329	85.7	78.3	14.8	6.9	78.3	14.8	6.9	0.0	0.0	83.3	88.3
Jordan	1402	31.0	17.4	26.6	55.3	17.4	26.6	55.3	0.5	0.2	34.3	27.8
Kazakhstan	885	42.1	27.4	26.4	42.7	27.4	26.4	42.7	2.8	0.6	45.1	39.3
Korea, Rep. of	365	74.8	65.6	17.9	16.2	65.6	17.9	16.2	0.3	0.0	78.6	70.5
Lithuania	758	64.4	51.7	25.1	23.0	51.7	25.1	23.0	0.3	0.0	65.5	63.3
Malaysia	1244	39.4	24.8	29.1	45.8	24.8	29.1	45.8	0.2	0.1	39.4	39.5
Malta	560	53.0	39.6	26.6	33.6	39.6	26.6	33.6	0.2	0.0	55.3	50.5
Morocco	1734	21.3	8.0	25.0	63.0	8.0	25.0	63.0	1.9	2.1	21.8	20.9
New Zealand	537	55.4	44.4	20.5	33.7	44.4	20.5	33.7	0.8	0.5	59.6	52.6
Norway (9)	889	63.0	52.4	17.2	27.2	52.4	17.2	27.2	1.0	2.2	68.3	58.6
Oman	1638	36.2	20.0	31.6	47.5	20.0	31.6	47.5	0.3	0.5	36.5	35.8
Palestinian Nat'l Auth.	1300	23.8	9.0	29.0	60.6	9.0	29.0	60.6	0.7	0.7	26.8	20.9
Portugal	762	52.8	36.9	31.0	31.3	36.9	31.0	31.3	0.8	0.0	53.7	52.0
Qatar	596	49.0	35.7	25.1	37.7	35.7	25.1	37.7	0.8	0.7	50.2	47.8
Romania	534	43.9	28.9	27.2	40.7	28.9	27.2	40.7	0.8	2.4	45.5	42.3
Saudi Arabia	1172	38.4	23.1	29.8	46.2	23.1	29.8	46.2	0.7	0.2	41.7	35.2
Singapore	402	71.1	61.3	19.6	19.2	61.3	19.6	19.2	0.0	0.0	71.4	70.7
Sweden	714	65.5	55.2	18.5	24.7	55.2	18.5	24.7	1.0	0.6	68.2	62.5
Turkiye	692	70.1	58.5	23.3	18.3	58.5	23.3	18.3	0.0	0.0	74.1	66.2
United Arab Emirates	5310	49.0	36.4	23.9	38.3	36.4	23.9	38.3	0.6	0.8	51.2	46.9
United States	1151	60.5	48.4	21.5	27.8	48.4	21.5	27.8	0.9	1.3	60.1	60.9
Uzbekistan	608	26.8	14.1	22.6	58.2	14.1	22.6	58.2	3.0	2.0	29.2	24.6
International Avg. (40)	39275	53.4	40.6	24.1	33.5	40.6	24.1	33.5	1.1	0.7	54.6	52.3
Abu Dhabi, UAE	2424	41.3	28.9	23.5	46.0	28.9	23.5	46.0	0.7	0.9	42.9	39.7
Dubai, UAE	1158	65.3	54.0	21.2	23.7	54.0	21.2	23.7	0.4	0.7	66.8	64.0
Sharjah, UAE	877	50.8	37.2	26.2	35.5	37.2	26.2	35.5	0.6	0.5	54.5	47.1

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Reasoning

B_SE4_15A SE62243A: Animals and habitat: deer - MC - Key: C

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1192	68.6	17.9	9.0	67.8	4.1	1.1	0.1	64.5	71.9
Austria	647	56.4	18.4	21.4	56.2	3.6	0.3	0.1	55.7	57.0
Azerbaijan	877	42.0	24.3	17.8	37.3	9.5	9.2	1.9	43.9	40.0
Bahrain	730	51.5	20.3	18.5	50.7	9.0	0.7	0.8	57.6	45.6
Brazil	3198	20.2	34.5	30.4	19.4	11.6	2.2	1.9	20.8	19.7
Chile	646	56.0	19.0	17.1	52.8	5.3	3.3	2.5	57.4	54.9
Chinese Taipei	475	81.9	10.1	6.4	81.8	1.6	0.0	0.0	79.0	84.5
Cyprus	587	49.0	22.6	21.0	48.0	6.3	0.7	1.3	52.3	46.0
Czech Republic	1146	62.7	15.3	18.2	62.3	3.6	0.6	0.0	62.9	62.5
England	602	69.7	14.3	10.6	68.5	5.0	1.1	0.6	71.5	67.9
Finland	804	70.4	12.7	12.3	69.5	4.2	0.9	0.4	73.3	67.4
France	632	38.9	24.3	30.8	38.3	5.2	1.3	0.1	39.8	37.9
Georgia	688	28.0	29.3	28.5	25.6	7.9	6.8	1.8	30.5	25.6
Hong Kong SAR	623	69.4	17.0	8.5	68.3	4.6	0.7	1.0	65.6	73.7
Hungary	765	67.4	16.5	11.3	67.2	4.8	0.3	0.0	67.7	67.1
Ireland	703	74.3	11.7	10.5	74.2	3.4	0.0	0.1	73.6	75.0
Israel	733	52.6	23.3	17.1	51.3	5.8	1.5	1.0	52.4	52.9
Italy	645	54.8	19.7	22.8	54.6	2.5	0.5	0.0	51.9	57.9
Japan	329	87.4	6.6	5.6	87.4	0.5	0.0	0.0	84.2	90.6
Jordan	1402	36.9	27.6	23.6	36.5	11.2	0.9	0.2	43.9	30.4
Kazakhstan	885	43.9	23.0	20.5	42.0	10.0	3.7	0.6	47.0	41.2
Korea, Rep. of	365	73.6	13.7	11.1	73.4	1.6	0.3	0.0	77.9	68.8
Lithuania	758	60.1	15.5	21.3	59.9	3.0	0.3	0.0	60.1	60.1
Malaysia	1244	44.0	22.9	22.1	43.8	10.9	0.2	0.1	44.7	43.1
Malta	560	56.9	18.8	15.4	56.8	8.8	0.2	0.0	61.5	52.0
Morocco	1734	27.3	25.4	26.5	26.2	17.7	2.2	2.1	29.4	25.2
New Zealand	537	56.9	22.4	13.2	56.0	6.8	1.0	0.5	61.9	53.4
Norway (9)	889	61.5	18.3	15.5	59.5	3.5	1.0	2.2	65.4	58.2
Oman	1638	47.5	22.3	21.9	46.9	7.8	0.6	0.5	49.5	45.7
Palestinian Nat'l Auth.	1300	26.2	25.5	31.7	25.7	15.4	1.1	0.7	29.5	22.9
Portugal	762	50.1	23.2	21.5	49.5	4.6	1.3	0.0	51.5	48.8
Qatar	596	54.6	22.2	14.0	53.6	8.4	1.0	0.7	55.2	54.0
Romania	534	39.3	23.9	26.1	38.0	8.7	1.0	2.4	42.0	36.6
Saudi Arabia	1172	45.5	23.5	19.8	45.1	10.7	0.7	0.2	49.3	41.9
Singapore	402	70.7	14.4	12.2	70.7	2.7	0.0	0.0	70.6	70.8
Sweden	714	62.3	18.7	14.3	61.0	4.0	1.4	0.6	64.5	59.8
Turkiye	692	75.7	11.0	10.0	75.7	3.2	0.0	0.0	78.8	72.7
United Arab Emirates	5310	52.9	23.1	16.1	52.1	7.1	0.7	0.8	55.2	50.7
United States	1151	58.5	19.9	13.5	57.2	7.2	0.9	1.3	57.6	59.4
Uzbekistan	608	32.6	26.9	25.6	30.7	11.1	3.7	2.0	34.3	31.1
International Avg. (40)	39275	54.5	20.0	17.8	53.5	6.6	1.3	0.7	55.9	53.1
Abu Dhabi, UAE	2424	45.9	27.5	17.5	45.2	8.1	0.8	0.9	47.3	44.6
Dubai, UAE	1158	66.5	15.8	11.1	65.7	6.2	0.5	0.7	68.6	64.5
Sharjah, UAE	877	56.0	21.9	16.0	55.3	5.7	0.6	0.5	58.5	53.4

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Reasoning

B_SE4_15B SE62243B: Animals and habitat: monkey - MC - Key: D

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1192	81.9	6.0	5.9	6.0	81.1	0.9	0.1	82.2	81.7
Austria	647	88.1	4.2	2.8	4.7	87.4	0.7	0.1	88.2	88.0
Azerbaijan	877	57.2	12.1	11.4	14.4	50.7	9.4	1.9	57.0	57.4
Bahrain	730	58.5	18.3	9.6	12.8	57.5	0.9	0.8	56.7	60.3
Brazil	3198	60.6	15.4	12.0	10.4	58.2	2.0	1.9	61.3	59.9
Chile	646	72.6	10.4	8.4	7.0	68.4	3.3	2.5	68.6	75.8
Chinese Taipei	475	93.0	2.1	0.9	4.0	93.0	0.0	0.0	91.5	94.3
Cyprus	587	70.6	12.8	7.9	8.1	69.1	0.9	1.3	70.6	70.6
Czech Republic	1146	86.5	6.6	3.3	3.6	86.0	0.5	0.0	85.8	87.0
England	602	83.9	4.6	3.4	7.9	82.6	0.9	0.6	80.1	87.5
Finland	804	85.6	6.1	3.2	4.9	84.5	0.9	0.4	90.9	80.2
France	632	84.1	7.3	4.1	4.3	82.9	1.3	0.1	83.7	84.4
Georgia	688	67.1	12.8	6.7	10.6	61.2	6.9	1.8	75.6	58.6
Hong Kong SAR	623	89.2	3.6	3.5	3.5	87.8	0.6	1.0	90.2	88.2
Hungary	765	84.9	6.8	3.8	4.6	84.8	0.1	0.0	85.5	84.3
Ireland	703	85.3	4.9	4.1	5.6	85.2	0.0	0.1	85.6	85.1
Israel	733	70.0	11.2	7.0	11.1	68.4	1.4	1.0	67.2	72.8
Italy	645	88.0	4.5	2.9	4.5	87.3	0.8	0.0	86.0	90.1
Japan	329	97.7	1.2	0.8	0.2	97.7	0.0	0.0	98.0	97.5
Jordan	1402	52.0	18.0	17.9	11.5	51.4	1.0	0.2	53.8	50.3
Kazakhstan	885	60.6	11.7	10.0	16.1	58.2	3.3	0.6	63.2	58.2
Korea, Rep. of	365	90.4	2.9	3.1	3.5	90.2	0.3	0.0	94.8	85.6
Lithuania	758	85.1	7.3	3.9	3.7	84.9	0.3	0.0	87.2	83.0
Malaysia	1244	56.7	10.9	9.8	22.5	56.4	0.4	0.1	54.9	58.5
Malta	560	71.4	10.7	5.3	12.5	71.3	0.2	0.0	73.4	69.3
Morocco	1734	37.3	23.4	23.5	13.1	35.7	2.2	2.1	37.5	37.1
New Zealand	537	71.8	11.3	6.6	9.9	70.6	1.2	0.5	72.8	71.4
Norway (9)	889	80.1	7.2	6.6	5.4	77.3	1.3	2.2	84.2	76.7
Oman	1638	56.0	14.3	11.5	17.7	55.5	0.4	0.5	55.8	56.2
Palestinian Nat'l Auth.	1300	46.0	21.5	15.7	15.9	45.3	0.9	0.7	49.4	42.7
Portugal	762	88.1	6.4	2.4	3.0	87.1	1.1	0.0	89.2	87.0
Qatar	596	68.3	11.2	7.4	12.5	67.3	0.8	0.7	69.0	67.7
Romania	534	75.6	9.5	7.8	6.3	73.2	0.8	2.4	78.9	72.3
Saudi Arabia	1172	55.4	16.9	11.2	15.9	54.8	1.0	0.2	57.4	53.5
Singapore	402	88.3	5.0	2.6	4.1	88.3	0.0	0.0	89.7	87.0
Sweden	714	84.9	7.3	3.9	3.7	83.5	1.0	0.6	86.7	82.9
Turkiye	692	80.9	9.2	4.9	5.0	80.9	0.0	0.0	82.1	79.8
United Arab Emirates	5310	68.6	10.9	9.2	10.8	67.5	0.8	0.8	69.2	68.1
United States	1151	78.0	8.7	3.6	9.2	76.3	0.9	1.3	78.4	77.6
Uzbekistan	608	43.0	19.5	12.4	21.2	40.1	4.8	2.0	47.0	39.4
International Avg. (40)	39275	73.6	9.9	7.0	8.8	72.2	1.4	0.7	74.5	72.7
Abu Dhabi, UAE	2424	61.2	13.9	12.4	11.8	60.2	0.9	0.9	61.8	60.7
Dubai, UAE	1158	80.4	6.3	5.2	7.8	79.5	0.5	0.7	78.7	82.0
Sharjah, UAE	877	73.0	8.4	7.3	10.9	72.0	1.0	0.5	75.5	70.6

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Reasoning

B_SE4_15C SE62243C: Animals and habitat: camel - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1192	65.5	64.8	21.9	7.7	4.5	1.0	0.1	63.4	67.2
Austria	647	71.5	71.0	21.3	4.1	2.8	0.7	0.1	72.1	71.0
Azerbaijan	877	47.4	42.1	26.0	9.4	11.3	9.3	1.9	46.1	48.8
Bahrain	730	45.2	44.5	32.4	11.3	10.3	0.7	0.8	45.8	44.6
Brazil	3198	38.0	36.5	37.3	12.7	9.4	2.2	1.9	41.5	34.8
Chile	646	53.2	50.2	33.0	6.7	4.4	3.2	2.5	53.2	53.2
Chinese Taipei	475	78.9	78.8	13.8	3.9	3.5	0.0	0.0	76.4	81.1
Cyprus	587	50.2	49.2	35.3	5.8	7.6	0.9	1.3	51.1	49.4
Czech Republic	1146	74.8	74.3	16.1	4.2	4.8	0.6	0.0	74.0	75.4
England	602	73.7	72.4	17.8	4.7	3.3	1.1	0.6	76.1	71.4
Finland	804	78.0	77.0	10.8	6.0	4.9	0.9	0.4	81.9	74.1
France	632	59.9	59.1	30.1	6.1	3.4	1.3	0.1	62.8	57.2
Georgia	688	44.8	40.9	32.6	10.3	7.5	6.8	1.8	50.5	39.1
Hong Kong SAR	623	70.9	69.7	19.7	7.7	1.3	0.6	1.0	70.1	71.6
Hungary	765	70.4	70.3	19.0	6.7	3.9	0.1	0.0	69.3	71.5
Ireland	703	74.0	73.9	19.5	4.0	2.5	0.0	0.1	73.0	74.9
Israel	733	50.5	49.2	33.7	7.5	7.1	1.5	1.0	52.6	48.5
Italy	645	67.5	66.8	24.6	4.3	3.4	1.0	0.0	69.2	65.7
Japan	329	84.4	84.4	13.7	0.7	1.3	0.0	0.0	81.5	87.4
Jordan	1402	37.3	36.8	30.3	19.1	12.5	1.1	0.2	39.7	34.9
Kazakhstan	885	51.7	49.4	29.0	8.7	8.5	3.7	0.6	52.9	50.6
Korea, Rep. of	365	75.1	74.9	15.5	7.5	1.9	0.3	0.0	76.9	73.1
Lithuania	758	71.9	71.7	18.7	4.5	4.8	0.3	0.0	74.5	69.3
Malaysia	1244	47.3	47.1	35.2	9.1	8.0	0.4	0.1	50.0	44.6
Malta	560	55.4	55.2	29.5	8.3	6.6	0.4	0.0	54.4	56.5
Morocco	1734	28.8	27.4	25.3	24.8	17.7	2.7	2.1	29.2	28.4
New Zealand	537	58.8	57.8	27.4	9.5	3.7	1.1	0.5	64.8	54.5
Norway (9)	889	68.5	65.8	18.0	6.7	5.6	1.7	2.2	73.9	63.8
Oman	1638	40.4	39.8	36.7	12.2	9.8	1.0	0.5	40.6	40.2
Palestinian Nat'l Auth.	1300	30.4	29.8	28.6	22.7	16.8	1.3	0.7	34.2	26.8
Portugal	762	59.0	58.2	34.9	2.9	2.6	1.4	0.0	59.0	59.0
Qatar	596	52.2	51.4	32.5	7.5	7.1	0.8	0.7	52.3	52.1
Romania	534	56.7	54.6	30.4	7.4	4.0	1.3	2.4	55.7	57.6
Saudi Arabia	1172	43.7	43.3	32.5	12.5	10.6	0.9	0.2	47.4	40.2
Singapore	402	73.2	72.8	19.0	3.7	4.1	0.5	0.0	75.7	71.0
Sweden	714	70.2	68.8	19.8	4.8	4.5	1.4	0.6	74.6	65.3
Turkiye	692	68.6	68.6	19.3	4.5	7.5	0.0	0.0	74.6	62.6
United Arab Emirates	5310	52.3	51.5	29.2	9.9	7.7	0.9	0.8	54.6	50.2
United States	1151	63.3	61.9	21.9	8.3	5.7	0.9	1.3	63.1	63.3
Uzbekistan	608	37.6	34.6	29.8	12.3	15.3	6.1	2.0	36.3	38.8
International Avg. (40)	39275	58.5	57.4	25.6	8.3	6.5	1.5	0.7	59.9	57.2
Abu Dhabi, UAE	2424	44.7	43.9	31.4	13.4	9.6	0.9	0.9	45.9	43.5
Dubai, UAE	1158	68.1	67.2	21.6	5.2	4.7	0.6	0.7	69.5	66.7
Sharjah, UAE	877	53.5	52.7	31.9	7.5	6.5	0.9	0.5	58.3	48.7

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Reasoning

B_SE4_15D SE62243D: Animals and habitat: polar bear - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1192	62.9	10.3	62.1	17.2	9.1	1.2	0.1	62.2	63.5
Austria	647	53.9	6.0	53.7	34.2	5.7	0.3	0.1	53.0	54.7
Azerbaijan	877	37.7	10.2	33.2	26.8	18.0	10.0	1.9	39.6	35.7
Bahrain	730	38.6	15.3	37.9	23.5	21.4	1.1	0.8	38.7	38.5
Brazil	3198	17.0	9.4	16.2	53.0	16.8	2.8	1.9	19.3	14.7
Chile	646	37.9	14.6	35.7	27.5	16.2	3.5	2.5	39.4	36.8
Chinese Taipei	475	78.8	8.9	78.8	10.3	1.9	0.0	0.0	76.9	80.5
Cyprus	587	34.3	13.4	33.6	36.2	14.9	0.7	1.3	34.5	34.0
Czech Republic	1146	62.2	3.2	61.9	29.4	5.1	0.5	0.0	61.6	62.7
England	602	67.6	7.0	66.4	17.3	7.5	1.1	0.6	71.4	64.0
Finland	804	73.3	2.9	72.4	18.3	5.1	0.9	0.4	75.6	71.0
France	632	34.2	7.9	33.8	49.9	7.1	1.1	0.1	34.4	34.0
Georgia	688	25.7	8.2	23.5	44.7	15.0	7.0	1.8	28.1	23.3
Hong Kong SAR	623	67.8	8.1	66.7	18.9	4.7	0.6	1.0	64.8	71.1
Hungary	765	66.0	6.3	65.9	21.2	6.4	0.1	0.0	63.0	68.8
Ireland	703	65.8	9.3	65.8	16.0	8.8	0.0	0.1	68.4	63.7
Israel	733	40.8	13.7	39.8	27.7	16.2	1.7	1.0	40.8	40.9
Italy	645	49.8	8.1	49.1	35.7	5.7	1.4	0.0	49.8	49.8
Japan	329	80.0	7.8	80.0	11.7	0.5	0.0	0.0	78.3	81.8
Jordan	1402	27.4	16.3	27.0	31.6	23.6	1.3	0.2	31.4	23.6
Kazakhstan	885	37.8	11.3	36.1	28.7	19.4	3.7	0.6	41.6	34.3
Korea, Rep. of	365	70.2	8.2	70.1	15.3	6.1	0.3	0.0	74.4	65.7
Lithuania	758	56.0	5.2	55.8	31.5	7.1	0.4	0.0	56.1	55.9
Malaysia	1244	32.6	18.7	32.5	24.1	24.4	0.2	0.1	32.8	32.4
Malta	560	49.7	14.7	49.4	22.1	13.1	0.6	0.0	51.7	47.5
Morocco	1734	21.4	19.2	20.3	31.2	24.2	3.0	2.1	21.2	21.5
New Zealand	537	52.0	7.0	51.2	22.9	17.3	1.1	0.5	54.0	50.8
Norway (9)	889	58.8	5.2	56.6	24.3	10.1	1.5	2.2	64.5	54.1
Oman	1638	28.9	22.5	28.4	22.0	25.6	1.0	0.5	28.9	28.8
Palestinian Nat'l Auth.	1300	22.8	21.4	22.3	33.7	20.8	1.1	0.7	23.7	21.8
Portugal	762	40.4	10.9	39.8	43.1	4.7	1.4	0.0	44.8	36.1
Qatar	596	45.3	13.4	44.5	24.8	15.5	0.9	0.7	47.1	43.4
Romania	534	33.5	8.6	32.4	44.7	10.9	1.1	2.4	34.3	32.7
Saudi Arabia	1172	36.0	15.0	35.4	25.4	22.6	1.4	0.2	38.8	33.3
Singapore	402	66.4	7.5	66.0	21.0	4.8	0.7	0.0	66.7	66.2
Sweden	714	61.6	3.2	60.2	28.3	6.0	1.7	0.6	62.4	60.7
Turkiye	692	65.8	11.0	65.8	14.8	8.3	0.1	0.0	71.5	60.2
United Arab Emirates	5310	44.7	12.8	43.9	25.4	16.0	1.1	0.8	48.6	41.0
United States	1151	60.3	7.3	58.9	23.0	8.5	1.0	1.3	61.7	59.1
Uzbekistan	608	27.7	12.4	25.7	28.2	26.6	5.1	2.0	32.6	23.4
International Avg. (40)	39275	48.3	10.6	47.5	27.1	12.5	1.6	0.7	49.7	47.1
Abu Dhabi, UAE	2424	37.7	13.0	37.0	27.8	20.2	1.2	0.9	41.4	34.1
Dubai, UAE	1158	61.6	9.4	60.8	20.2	8.3	0.6	0.7	64.8	58.6
Sharjah, UAE	877	44.2	15.4	43.5	24.9	14.6	1.1	0.5	50.9	37.6

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Knowing

B_SE5_01 SE82007: Identify an organ that is part of the human nervous system - MC - Key: C

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1187	82.0	7.1	3.7	81.9	7.2	0.0	0.2	81.6	82.5
Austria	643	92.1	1.2	1.5	92.1	5.1	0.0	0.0	92.2	92.1
Azerbaijan	869	86.7	1.5	1.1	86.6	10.6	0.1	0.0	88.9	84.6
Bahrain	722	84.0	4.3	3.6	83.9	8.0	0.1	0.0	87.0	81.1
Brazil	3173	65.2	7.8	6.1	64.8	20.7	0.4	0.2	62.4	68.2
Chile	638	75.8	7.8	3.0	75.7	13.4	0.1	0.0	74.4	77.0
Chinese Taipei	470	97.4	0.4	0.3	97.1	1.9	0.3	0.0	96.2	98.4
Cyprus	587	82.9	3.2	3.2	82.9	10.6	0.0	0.0	83.7	82.2
Czech Republic	1145	92.5	1.3	0.5	92.5	5.7	0.0	0.0	91.9	93.0
England	593	80.0	7.6	3.9	79.9	8.4	0.0	0.2	76.1	83.5
Finland	800	90.0	1.9	1.7	89.9	6.5	0.1	0.0	90.1	89.8
France	636	89.2	2.6	2.0	89.1	6.2	0.1	0.0	86.7	91.6
Georgia	686	88.1	1.6	0.2	88.0	10.0	0.1	0.1	88.2	88.0
Hong Kong SAR	637	89.2	4.7	1.3	88.4	4.6	0.9	0.0	86.1	92.5
Hungary	759	88.9	2.9	0.5	88.9	7.7	0.0	0.0	86.8	90.9
Ireland	718	75.8	13.7	4.1	75.7	6.4	0.1	0.0	71.9	79.4
Israel	729	79.1	5.4	3.3	78.5	12.0	0.7	0.0	78.6	79.6
Italy	646	94.5	1.5	1.2	94.4	2.8	0.1	0.0	96.4	92.7
Japan	326	93.8	0.7	0.9	93.8	4.7	0.0	0.0	94.1	93.4
Jordan	1387	81.9	7.1	3.1	81.9	7.9	0.0	0.0	85.9	78.2
Kazakhstan	893	77.9	4.3	5.2	77.8	12.6	0.0	0.1	80.7	75.5
Korea, Rep. of	363	92.9	1.4	1.2	92.9	4.4	0.0	0.0	93.4	92.5
Lithuania	750	91.1	1.8	0.8	90.9	6.3	0.2	0.0	91.3	90.9
Malaysia	1232	60.8	9.0	14.8	60.8	15.4	0.0	0.0	60.4	61.1
Malta	547	76.1	10.9	2.7	75.9	10.3	0.2	0.0	75.0	77.1
Morocco	1737	44.9	15.2	19.3	44.8	20.5	0.2	0.1	43.8	46.0
New Zealand	553	69.7	14.5	4.8	69.7	11.1	0.0	0.0	63.7	74.8
Norway (9)	890	79.6	8.1	2.7	79.4	9.5	0.2	0.1	77.1	81.8
Oman	1642	81.3	5.9	4.6	81.0	8.1	0.3	0.0	86.0	76.8
Palestinian Nat'l Auth.	1302	77.8	6.4	5.9	77.6	9.9	0.1	0.2	78.5	77.1
Portugal	769	76.8	3.5	1.8	76.6	17.9	0.1	0.1	74.6	79.0
Qatar	593	88.1	3.0	3.0	88.1	5.9	0.0	0.0	91.9	84.6
Romania	526	91.6	3.4	0.9	91.0	4.0	0.7	0.0	88.9	94.6
Saudi Arabia	1171	77.9	7.4	4.5	77.9	10.2	0.0	0.0	82.9	73.2
Singapore	400	91.4	1.2	0.9	91.4	6.5	0.0	0.0	89.6	92.9
Sweden	718	79.8	5.0	2.7	79.8	12.4	0.0	0.1	77.8	81.7
Turkiye	694	82.1	8.5	1.7	82.1	7.7	0.0	0.0	80.6	83.8
United Arab Emirates	5305	76.6	8.3	4.8	76.5	10.3	0.1	0.1	74.8	78.3
United States	1155	75.3	11.6	3.7	75.0	9.3	0.1	0.2	72.3	78.0
Uzbekistan	606	81.5	4.3	2.4	81.3	11.7	0.0	0.3	85.1	77.8
International Avg. (40)	39197	82.1	5.5	3.3	81.9	9.1	0.1	0.1	81.7	82.4
Abu Dhabi, UAE	2408	65.1	13.0	8.1	65.1	13.8	0.1	0.1	62.1	68.2
Dubai, UAE	1160	87.6	3.6	2.4	87.5	6.3	0.2	0.0	85.5	89.8
Sharjah, UAE	889	83.7	6.2	1.4	83.5	8.7	0.0	0.2	83.1	84.3

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Knowing

B_SE5_02 SE82045: Parts of a flowering plant that make seeds - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1187	71.0	7.9	70.6	16.5	4.3	0.4	0.2	72.1	70.3
Austria	643	77.9	4.2	76.7	13.8	3.8	1.5	0.0	77.3	78.3
Azerbaijan	869	63.9	6.3	60.8	24.4	3.6	5.0	0.0	64.0	63.9
Bahrain	722	67.5	6.7	66.6	17.8	7.6	1.3	0.0	73.4	61.8
Brazil	3173	63.6	11.4	60.8	14.9	8.5	4.0	0.3	62.3	65.1
Chile	638	68.1	5.4	66.9	18.8	7.2	1.7	0.0	70.0	66.4
Chinese Taipei	470	90.2	4.2	89.8	3.7	1.8	0.5	0.0	86.5	93.5
Cyprus	587	58.9	8.4	57.7	27.8	4.0	2.1	0.0	58.9	59.0
Czech Republic	1145	85.2	3.6	84.5	7.4	3.7	0.7	0.0	84.4	85.8
England	593	68.8	9.2	68.2	18.0	3.6	0.8	0.2	65.1	72.1
Finland	800	83.3	3.7	82.3	8.0	4.7	1.2	0.0	85.7	80.8
France	636	62.6	6.8	61.9	24.6	5.5	1.0	0.0	59.6	65.5
Georgia	686	62.9	5.6	61.7	26.7	4.1	1.8	0.1	60.6	65.3
Hong Kong SAR	637	78.1	3.3	76.4	14.0	4.1	2.2	0.0	77.4	78.9
Hungary	759	88.5	2.1	88.2	6.5	2.9	0.4	0.0	89.4	87.7
Ireland	718	63.7	8.8	62.0	20.4	6.1	2.7	0.0	63.4	64.0
Israel	729	60.1	8.8	58.2	23.8	5.9	3.1	0.2	60.4	59.9
Italy	646	74.8	8.0	73.8	13.1	3.8	1.4	0.0	76.5	73.3
Japan	326	88.1	4.9	87.9	3.4	3.6	0.3	0.0	86.6	89.8
Jordan	1387	60.5	8.0	57.8	21.7	8.0	4.4	0.0	60.9	60.1
Kazakhstan	893	56.7	6.3	55.7	32.7	3.5	1.6	0.1	52.0	60.6
Korea, Rep. of	363	81.7	2.7	81.6	13.2	2.3	0.2	0.0	81.8	81.6
Lithuania	750	84.0	3.3	83.7	7.8	4.9	0.4	0.0	85.5	82.7
Malaysia	1232	62.5	9.8	61.3	21.2	5.7	2.0	0.0	58.5	66.9
Malta	547	64.2	6.6	61.9	23.7	4.1	3.6	0.0	63.2	65.2
Morocco	1737	49.4	14.8	45.9	18.2	14.0	7.0	0.1	46.3	52.2
New Zealand	553	70.5	7.6	69.4	17.7	3.7	1.5	0.0	67.6	72.9
Norway (9)	890	69.2	6.7	67.8	19.1	4.4	1.9	0.1	70.4	68.1
Oman	1642	74.0	5.5	72.2	14.7	5.2	2.3	0.0	73.8	74.1
Palestinian Nat'l Auth.	1302	57.8	7.9	55.4	24.7	7.8	3.9	0.2	59.1	56.5
Portugal	769	67.9	6.2	67.6	21.4	4.4	0.2	0.1	64.0	71.6
Qatar	593	67.0	6.1	65.2	18.3	7.8	2.6	0.0	68.3	65.7
Romania	526	86.1	3.3	84.1	7.1	3.1	2.4	0.0	85.1	87.2
Saudi Arabia	1171	49.9	10.1	49.6	28.2	11.4	0.7	0.0	53.4	46.7
Singapore	400	91.5	1.4	91.3	4.7	2.3	0.3	0.0	92.4	90.8
Sweden	718	69.8	6.6	68.5	19.8	3.2	1.7	0.1	68.7	70.8
Turkiye	694	74.5	4.5	74.1	16.4	4.5	0.4	0.0	76.2	72.5
United Arab Emirates	5304	69.3	5.8	68.3	19.0	5.4	1.4	0.1	69.1	69.5
United States	1155	69.8	8.6	68.7	17.2	3.9	1.4	0.2	67.2	72.3
Uzbekistan	606	72.0	5.5	68.9	16.8	4.5	4.0	0.3	74.5	69.4
International Avg. (40)	39196	70.6	6.4	69.3	17.2	5.1	1.9	0.1	70.3	71.0
Abu Dhabi, UAE	2407	63.4	6.2	62.0	22.8	6.7	2.2	0.1	64.1	62.8
Dubai, UAE	1160	78.7	5.1	78.1	12.7	3.4	0.7	0.0	78.2	79.1
Sharjah, UAE	889	70.0	6.2	69.3	18.4	5.1	0.7	0.2	68.1	71.9

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Reasoning

B_SE5_03 SE82075: Predator population decreases after wildfire - CR - 1 Point

COUNTRY	N	DIFF %	1 %	0 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1187	63.3	61.1	35.4	61.1	35.4	3.3	0.2	64.4	62.6
Austria	643	51.9	47.3	43.8	47.3	43.8	8.9	0.0	51.9	51.9
Azerbaijan	869	24.5	16.9	52.0	16.9	52.0	31.1	0.0	28.9	20.3
Bahrain	722	36.0	34.4	61.1	34.4	61.1	4.5	0.0	43.7	28.2
Brazil	3173	39.5	34.9	53.5	34.9	53.5	11.2	0.4	37.7	41.4
Chile	638	47.0	41.9	47.3	41.9	47.3	10.9	0.0	44.4	49.1
Chinese Taipei	470	54.3	53.8	45.2	53.8	45.2	1.0	0.0	54.5	54.2
Cyprus	587	57.3	53.2	39.6	53.2	39.6	7.2	0.0	63.8	51.3
Czech Republic	1145	55.3	52.9	42.8	52.9	42.8	4.3	0.0	59.6	51.5
England	593	63.3	61.0	35.3	61.0	35.3	3.5	0.2	60.7	65.5
Finland	800	50.2	47.7	47.2	47.7	47.2	5.1	0.0	58.0	42.4
France	636	60.5	52.8	34.5	52.8	34.5	12.8	0.0	63.8	57.6
Georgia	686	46.3	38.5	44.7	38.5	44.7	16.7	0.1	48.1	44.4
Hong Kong SAR	636	67.8	63.6	30.2	63.6	30.2	6.0	0.2	67.4	68.1
Hungary	759	53.7	50.7	43.8	50.7	43.8	5.5	0.0	53.8	53.6
Ireland	718	56.7	53.0	40.5	53.0	40.5	6.5	0.0	52.0	61.0
Israel	729	60.4	55.0	36.0	55.0	36.0	8.9	0.2	63.4	57.4
Italy	646	51.0	46.6	44.7	46.6	44.7	8.8	0.0	49.8	52.1
Japan	325	56.6	52.7	40.4	52.7	40.4	6.9	0.0	55.2	58.2
Jordan	1386	31.1	29.4	65.2	29.4	65.2	5.4	0.0	35.0	27.4
Kazakhstan	893	42.4	38.6	52.6	38.6	52.6	8.7	0.1	42.7	42.1
Korea, Rep. of	363	76.8	73.9	22.3	73.9	22.3	3.9	0.0	76.8	76.8
Lithuania	750	53.3	51.0	44.7	51.0	44.7	4.4	0.0	56.1	50.7
Malaysia	1232	20.6	20.4	78.6	20.4	78.6	1.0	0.0	20.8	20.4
Malta	547	56.4	52.1	40.2	52.1	40.2	7.6	0.0	56.8	56.1
Morocco	1737	22.8	18.5	62.5	18.5	62.5	18.9	0.1	22.4	23.2
New Zealand	553	52.2	48.6	44.6	48.6	44.6	6.8	0.0	57.1	48.1
Norway (9)	890	59.4	53.2	36.3	53.2	36.3	10.4	0.1	63.5	55.8
Oman	1642	46.2	45.1	52.6	45.1	52.6	2.2	0.1	53.9	38.6
Palestinian Nat'l Auth.	1301	20.6	19.4	74.8	19.4	74.8	5.7	0.2	24.2	17.0
Portugal	769	59.4	57.0	38.9	57.0	38.9	3.8	0.3	61.7	57.2
Qatar	593	45.6	43.7	52.1	43.7	52.1	4.3	0.0	47.8	43.5
Romania	526	32.8	29.8	61.3	29.8	61.3	8.8	0.1	34.2	31.3
Saudi Arabia	1170	29.3	28.7	69.3	28.7	69.3	2.0	0.0	36.8	22.2
Singapore	400	76.1	75.9	23.9	75.9	23.9	0.3	0.0	80.5	72.4
Sweden	718	63.2	60.4	35.2	60.4	35.2	4.3	0.2	61.8	64.5
Turkiye	694	63.7	60.9	34.7	60.9	34.7	4.3	0.0	67.6	59.4
United Arab Emirates	5302	42.4	40.7	55.3	40.7	55.3	4.0	0.1	45.0	39.8
United States	1155	59.6	58.3	39.6	58.3	39.6	1.9	0.2	63.2	56.3
Uzbekistan	606	26.4	23.9	66.7	23.9	66.7	9.1	0.3	27.5	25.1
International Avg. (40)	39189	49.4	46.2	46.7	46.2	46.7	7.0	0.1	51.4	47.5
Abu Dhabi, UAE	2407	36.0	34.2	60.7	34.2	60.7	5.0	0.1	39.1	32.9
Dubai, UAE	1159	60.2	58.9	38.9	58.9	38.9	2.2	0.0	61.2	59.2
Sharjah, UAE	888	41.5	39.8	56.1	39.8	56.1	3.8	0.2	42.0	41.0

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Knowing

B_SE5_04 SE82027: Structure that distinguishes green plant and animal cells - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1187	55.3	55.0	10.3	21.5	12.5	0.4	0.2	55.1	55.4
Austria	643	48.1	48.1	17.9	23.4	10.6	0.1	0.0	47.8	48.4
Azerbaijan	869	48.8	47.8	24.8	14.8	10.5	1.8	0.3	49.9	47.8
Bahrain	722	72.1	72.0	7.5	10.7	9.7	0.1	0.0	78.5	65.9
Brazil	3173	37.2	36.9	23.0	18.9	20.5	0.3	0.4	35.3	39.3
Chile	638	60.1	59.7	12.8	13.2	13.6	0.8	0.0	64.5	56.4
Chinese Taipei	470	89.4	89.4	3.4	3.6	3.6	0.0	0.0	88.6	90.2
Cyprus	587	66.9	66.8	8.5	10.9	13.6	0.0	0.2	69.0	65.0
Czech Republic	1145	74.4	74.4	9.9	6.8	8.9	0.1	0.0	77.3	71.9
England	593	65.4	65.1	6.7	16.6	11.3	0.2	0.2	60.2	69.9
Finland	800	77.9	77.5	13.0	4.9	4.2	0.2	0.2	82.0	73.4
France	636	50.5	50.4	26.8	14.7	7.9	0.2	0.0	50.6	50.4
Georgia	686	55.5	55.0	15.7	16.1	12.2	0.8	0.1	55.8	55.1
Hong Kong SAR	637	79.2	78.7	4.5	9.0	7.2	0.5	0.2	75.2	83.4
Hungary	759	75.7	75.7	13.8	7.3	3.2	0.0	0.0	77.5	74.1
Ireland	718	62.1	62.1	5.6	18.6	13.7	0.0	0.0	64.7	59.8
Israel	729	52.3	52.2	22.7	16.4	8.5	0.0	0.2	53.4	51.3
Italy	646	73.8	73.5	5.7	12.4	8.1	0.3	0.0	78.9	69.1
Japan	326	87.6	87.6	5.5	3.2	3.7	0.0	0.0	80.6	95.2
Jordan	1387	58.6	58.5	18.9	9.7	12.8	0.1	0.0	65.0	52.6
Kazakhstan	893	49.0	48.9	16.5	20.0	14.4	0.2	0.1	55.9	43.2
Korea, Rep. of	363	79.5	79.5	9.8	3.0	7.8	0.0	0.0	78.0	81.2
Lithuania	750	64.4	64.4	11.4	15.4	8.7	0.1	0.0	61.1	67.6
Malaysia	1232	40.5	40.5	19.9	22.5	17.0	0.0	0.0	41.0	40.0
Malta	547	56.3	56.2	12.6	20.2	10.8	0.3	0.0	63.6	49.4
Morocco	1737	28.7	28.4	30.8	20.1	19.8	0.8	0.1	30.0	27.3
New Zealand	553	47.2	47.1	17.1	20.4	15.2	0.2	0.0	45.9	48.2
Norway (9)	890	53.4	52.5	7.8	21.5	16.6	1.2	0.3	56.0	51.1
Oman	1642	63.9	63.6	11.3	14.0	10.6	0.3	0.1	68.2	59.8
Palestinian Nat'l Auth.	1302	73.8	73.6	8.5	7.8	9.8	0.1	0.2	83.0	65.0
Portugal	769	52.1	52.0	13.4	19.1	15.2	0.0	0.3	54.5	49.9
Qatar	593	74.8	74.6	11.3	6.5	7.4	0.2	0.0	81.7	68.3
Romania	526	61.2	61.0	13.4	15.4	9.8	0.3	0.1	64.5	57.8
Saudi Arabia	1171	73.1	73.0	7.8	10.6	8.4	0.1	0.1	81.1	65.6
Singapore	400	89.8	89.8	2.5	4.0	3.7	0.0	0.0	92.5	87.6
Sweden	718	58.5	58.1	15.0	13.7	12.5	0.5	0.2	63.6	53.8
Turkiye	694	70.3	70.3	11.8	6.9	11.0	0.1	0.0	73.7	66.5
United Arab Emirates	5305	68.8	68.6	8.1	12.2	10.8	0.2	0.1	71.4	66.3
United States	1155	59.4	59.3	8.2	21.2	11.2	0.0	0.2	59.4	59.5
Uzbekistan	606	39.7	39.1	17.6	18.2	23.7	1.0	0.4	41.2	38.0
International Avg. (40)	39197	62.4	62.2	12.8	13.6	11.0	0.3	0.1	64.4	60.5
Abu Dhabi, UAE	2408	57.4	57.3	10.5	17.5	14.3	0.2	0.1	60.3	54.6
Dubai, UAE	1160	78.5	78.2	4.7	8.6	8.1	0.3	0.1	79.4	77.7
Sharjah, UAE	889	78.8	78.5	6.6	6.3	8.2	0.1	0.2	81.7	76.1

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Applying

B_SE5_05 SE82080: Relationship between clownfish and anemone - MC - Key: D

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1187	60.7	2.5	14.4	22.1	60.5	0.2	0.3	61.7	60.1
Austria	643	73.8	4.9	8.4	12.9	73.8	0.0	0.0	75.8	72.2
Azerbaijan	869	44.1	16.5	21.6	15.5	42.3	3.7	0.5	45.4	42.9
Bahrain	722	58.8	7.4	13.1	20.6	58.5	0.4	0.0	63.6	54.1
Brazil	3173	37.5	5.6	21.9	34.4	37.1	0.6	0.4	35.8	39.3
Chile	638	51.5	2.6	17.5	27.7	50.7	1.5	0.0	52.4	50.8
Chinese Taipei	470	97.7	0.6	0.8	0.9	97.7	0.0	0.0	97.1	98.3
Cyprus	587	60.3	5.6	19.8	14.1	59.9	0.5	0.2	60.2	60.5
Czech Republic	1145	88.4	2.0	2.6	7.0	88.2	0.2	0.0	89.3	87.5
England	593	64.8	2.8	17.0	15.1	64.3	0.6	0.2	60.4	68.7
Finland	800	78.0	4.3	9.3	8.3	77.7	0.1	0.2	84.4	71.2
France	636	58.3	3.5	14.9	23.1	57.8	0.8	0.0	55.2	61.1
Georgia	686	54.2	21.2	15.0	9.1	53.6	1.0	0.1	53.3	55.1
Hong Kong SAR	637	73.8	2.3	11.6	12.1	73.1	0.7	0.2	71.7	76.0
Hungary	759	70.1	3.3	15.4	11.2	69.9	0.2	0.0	69.0	71.0
Ireland	718	66.1	1.8	11.5	20.5	66.1	0.0	0.0	61.3	70.7
Israel	729	71.7	4.1	10.8	13.2	71.4	0.3	0.2	71.3	72.2
Italy	646	71.3	4.8	11.8	12.2	71.3	0.0	0.0	72.4	70.3
Japan	326	92.2	1.6	4.1	2.0	92.2	0.0	0.0	93.1	91.3
Jordan	1387	57.1	14.3	14.0	14.5	57.0	0.2	0.0	61.3	53.2
Kazakhstan	893	53.1	11.0	14.4	21.3	52.9	0.3	0.1	55.5	51.1
Korea, Rep. of	363	83.8	0.7	10.8	4.6	83.5	0.3	0.0	79.9	88.1
Lithuania	750	64.5	4.7	12.6	18.1	64.2	0.5	0.0	61.7	67.1
Malaysia	1232	56.2	16.4	13.0	14.5	56.1	0.1	0.0	58.4	53.8
Malta	547	55.3	4.3	20.8	19.5	55.2	0.2	0.0	57.1	53.6
Morocco	1737	26.9	12.9	23.4	36.4	26.7	0.3	0.2	28.1	25.7
New Zealand	553	56.5	3.1	17.8	22.5	56.3	0.3	0.0	52.6	59.8
Norway (9)	890	51.3	3.6	12.2	32.1	50.6	1.1	0.4	52.1	50.7
Oman	1642	66.1	5.4	16.0	12.4	65.8	0.3	0.1	71.5	60.8
Palestinian Nat'l Auth.	1302	48.4	13.5	20.4	17.5	48.2	0.2	0.2	54.5	42.4
Portugal	769	68.3	3.0	7.8	20.7	68.1	0.0	0.3	70.8	66.0
Qatar	593	66.2	4.6	17.4	11.8	66.1	0.0	0.2	69.1	63.5
Romania	526	62.1	5.5	20.7	11.5	61.7	0.5	0.1	64.0	60.2
Saudi Arabia	1171	57.5	11.6	19.5	11.4	57.5	0.0	0.1	60.2	55.0
Singapore	400	80.1	1.4	8.4	10.1	80.1	0.0	0.0	84.3	76.7
Sweden	718	62.4	10.6	10.0	16.8	62.2	0.2	0.2	62.3	62.5
Turkiye	694	83.1	3.3	12.4	1.2	83.1	0.0	0.0	83.7	82.5
United Arab Emirates	5305	61.3	5.8	16.9	15.8	61.1	0.2	0.1	61.8	60.8
United States	1155	64.5	4.6	14.1	16.7	64.2	0.2	0.2	61.6	67.3
Uzbekistan	606	48.7	21.1	17.1	12.6	48.1	0.3	0.7	51.4	45.8
International Avg. (40)	39197	63.7	6.5	14.0	15.6	63.4	0.4	0.1	64.4	63.0
Abu Dhabi, UAE	2408	52.0	8.6	20.3	18.8	51.7	0.4	0.1	54.9	49.0
Dubai, UAE	1160	75.5	2.4	10.6	11.5	75.3	0.1	0.1	72.4	78.6
Sharjah, UAE	889	66.1	3.9	15.5	14.4	65.9	0.1	0.2	65.4	66.8

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Applying

B_SE5_06 SE82005: Classify animals into their taxonomic groups (DERIVED) - CR - 1 Point

COUNTRY	N	DIFF %	1 %	0 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1187	60.2	60.1	39.7	60.1	39.7	0.0	0.3	60.7	60.0
Austria	643	62.8	62.8	37.1	62.8	37.1	0.1	0.0	59.4	65.6
Azerbaijan	869	53.5	52.3	45.5	52.3	45.5	1.5	0.6	50.4	56.5
Bahrain	722	45.8	45.7	54.0	45.7	54.0	0.2	0.0	46.5	45.2
Brazil	3173	34.2	33.9	65.1	33.9	65.1	0.6	0.5	31.2	37.7
Chile	638	51.8	51.6	48.0	51.6	48.0	0.5	0.0	50.8	52.7
Chinese Taipei	470	55.1	55.0	44.9	55.0	44.9	0.0	0.0	52.3	57.6
Cyprus	587	43.1	42.9	56.6	42.9	56.6	0.1	0.4	41.5	44.6
Czech Republic	1145	74.9	74.9	25.1	74.9	25.1	0.0	0.0	77.4	72.7
England	593	55.8	55.6	44.1	55.6	44.1	0.1	0.2	53.1	58.1
Finland	800	51.5	51.3	48.3	51.3	48.3	0.1	0.2	51.1	52.0
France	636	47.2	47.1	52.7	47.1	52.7	0.2	0.0	47.8	46.6
Georgia	686	60.3	60.2	39.7	60.2	39.7	0.0	0.2	56.7	63.9
Hong Kong SAR	637	56.3	55.7	43.3	55.7	43.3	0.8	0.2	57.3	55.2
Hungary	759	60.9	60.9	39.1	60.9	39.1	0.0	0.0	54.8	66.8
Ireland	718	60.3	60.3	39.7	60.3	39.7	0.0	0.0	61.1	59.5
Israel	729	47.1	46.8	52.6	46.8	52.6	0.4	0.2	46.9	47.2
Italy	646	61.0	61.0	39.0	61.0	39.0	0.0	0.0	58.8	63.0
Japan	326	71.6	70.8	28.2	70.8	28.2	1.0	0.0	69.1	74.1
Jordan	1387	43.6	43.5	56.4	43.5	56.4	0.1	0.0	45.4	41.9
Kazakhstan	893	43.0	42.9	56.8	42.9	56.8	0.2	0.1	38.1	47.2
Korea, Rep. of	363	48.3	48.3	51.7	48.3	51.7	0.0	0.0	44.7	52.3
Lithuania	750	64.1	64.1	35.9	64.1	35.9	0.0	0.0	64.5	63.8
Malaysia	1232	26.6	26.6	73.4	26.6	73.4	0.0	0.0	22.6	30.9
Malta	547	55.9	55.9	44.1	55.9	44.1	0.0	0.0	54.6	57.1
Morocco	1737	18.5	18.4	81.1	18.4	81.1	0.1	0.4	19.2	17.8
New Zealand	553	66.8	66.8	33.2	66.8	33.2	0.0	0.0	65.1	68.2
Norway (9)	890	46.8	46.3	52.6	46.3	52.6	0.6	0.5	48.4	45.4
Oman	1642	40.1	39.9	59.6	39.9	59.6	0.3	0.1	40.4	39.7
Palestinian Nat'l Auth.	1302	36.5	36.2	63.2	36.2	63.2	0.4	0.2	40.0	33.0
Portugal	769	52.6	52.4	47.2	52.4	47.2	0.1	0.3	51.5	53.6
Qatar	593	51.2	50.9	48.5	50.9	48.5	0.5	0.2	49.8	52.6
Romania	526	71.6	71.0	28.2	71.0	28.2	0.5	0.2	67.5	75.9
Saudi Arabia	1171	34.5	34.4	65.4	34.4	65.4	0.1	0.1	35.7	33.3
Singapore	400	77.8	77.8	22.2	77.8	22.2	0.0	0.0	78.0	77.7
Sweden	718	51.9	51.7	47.8	51.7	47.8	0.3	0.2	50.8	53.0
Turkiye	694	66.5	66.5	33.5	66.5	33.5	0.0	0.0	68.9	63.9
United Arab Emirates	5305	52.2	52.0	47.6	52.0	47.6	0.2	0.2	49.9	54.5
United States	1155	64.7	64.5	35.2	64.5	35.2	0.0	0.3	64.1	65.3
Uzbekistan	606	39.8	39.4	59.7	39.4	59.7	0.2	0.7	38.8	40.8
International Avg. (40)	39197	52.7	52.5	47.1	52.5	47.1	0.2	0.2	51.6	53.7
Abu Dhabi, UAE	2408	42.6	42.4	57.0	42.4	57.0	0.4	0.2	40.7	44.6
Dubai, UAE	1160	65.8	65.7	34.1	65.7	34.1	0.0	0.2	63.7	67.9
Sharjah, UAE	889	55.7	55.5	44.2	55.5	44.2	0.0	0.2	53.9	57.4

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Applying

B_SE5_06A SE82005A: Classify animals into their taxonomic groups - monkey - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	C %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1187	95.9	95.7	3.8	0.3	0.0	0.3	96.9	95.4
Austria	643	97.1	97.0	2.8	0.1	0.1	0.0	96.2	97.8
Azerbaijan	869	97.0	94.4	2.8	0.1	2.1	0.6	96.7	97.4
Bahrain	722	92.0	90.6	6.3	1.6	1.5	0.0	91.2	92.7
Brazil	3173	88.6	87.2	10.9	0.3	1.1	0.5	87.5	89.8
Chile	638	90.7	88.5	8.8	0.3	2.5	0.0	92.1	89.5
Chinese Taipei	470	95.5	95.5	4.5	0.0	0.0	0.0	95.1	95.8
Cyprus	587	85.3	84.7	10.5	4.1	0.3	0.4	83.1	87.4
Czech Republic	1145	99.6	99.6	0.4	0.0	0.0	0.0	99.5	99.6
England	593	97.8	97.2	2.2	0.0	0.4	0.2	97.2	98.3
Finland	800	95.4	94.9	4.5	0.1	0.2	0.2	97.0	93.6
France	636	90.8	90.4	8.2	1.0	0.4	0.0	91.1	90.4
Georgia	686	98.7	98.1	1.3	0.0	0.4	0.2	98.7	98.6
Hong Kong SAR	637	92.7	91.6	6.8	0.5	1.0	0.2	91.9	93.5
Hungary	759	99.0	98.8	0.7	0.3	0.2	0.0	98.9	99.0
Ireland	718	94.1	94.0	5.6	0.4	0.1	0.0	93.2	94.9
Israel	729	88.4	87.6	6.1	5.3	0.8	0.2	88.4	88.4
Italy	646	96.3	96.2	3.7	0.0	0.1	0.0	96.1	96.4
Japan	326	95.7	94.7	4.3	0.0	1.0	0.0	95.5	95.9
Jordan	1387	91.4	89.4	5.5	2.9	2.2	0.0	92.3	90.6
Kazakhstan	893	89.9	88.2	9.7	0.3	1.8	0.1	86.5	92.7
Korea, Rep. of	363	90.1	90.1	7.9	2.0	0.0	0.0	91.3	88.7
Lithuania	750	95.2	95.2	4.8	0.0	0.0	0.0	96.2	94.4
Malaysia	1232	76.2	75.9	22.3	1.4	0.3	0.0	73.4	79.1
Malta	547	95.2	95.1	4.6	0.2	0.2	0.0	96.3	94.2
Morocco	1737	76.1	73.8	18.0	5.2	2.7	0.4	75.8	76.4
New Zealand	553	94.7	94.5	4.5	0.9	0.2	0.0	92.5	96.5
Norway (9)	890	83.1	82.1	16.6	0.1	0.6	0.5	87.2	79.5
Oman	1642	90.4	88.7	6.8	2.6	1.7	0.1	92.5	88.3
Palestinian Nat'l Auth.	1302	87.9	85.4	9.0	2.8	2.6	0.2	90.5	85.3
Portugal	769	95.4	94.9	4.5	0.1	0.2	0.3	96.5	94.3
Qatar	593	92.1	91.2	7.1	0.8	0.8	0.2	94.7	89.6
Romania	526	98.6	97.8	0.9	0.4	0.6	0.2	98.8	98.4
Saudi Arabia	1171	94.8	93.5	4.8	0.4	1.2	0.1	95.3	94.2
Singapore	400	99.3	99.3	0.7	0.0	0.0	0.0	98.9	99.5
Sweden	718	91.4	90.9	8.1	0.4	0.4	0.2	91.5	91.4
Turkiye	694	98.5	98.3	1.1	0.4	0.2	0.0	99.1	97.8
United Arab Emirates	5305	92.7	91.8	6.4	0.9	0.8	0.2	92.6	92.8
United States	1155	96.0	95.5	3.9	0.1	0.2	0.3	97.2	94.8
Uzbekistan	606	95.1	93.4	4.5	0.3	1.0	0.7	95.2	95.0
International Avg. (40)	39197	92.9	92.0	6.1	0.9	0.7	0.2	93.0	92.7
Abu Dhabi, UAE	2408	90.2	89.0	8.1	1.7	1.1	0.2	90.5	89.8
Dubai, UAE	1160	95.9	95.4	3.7	0.3	0.4	0.2	94.9	96.9
Sharjah, UAE	889	92.7	92.2	7.2	0.1	0.3	0.2	92.9	92.4

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Biology / Applying

B_SE5_06B SE82005B: Classify animals into their taxonomic groups - penguin - MC - Key: C

COUNTRY	N	DIFF %	A %	B %	C %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1187	78.3	17.5	4.0	77.9	0.3	0.3	80.2	77.0
Austria	643	72.0	18.7	9.3	71.9	0.1	0.0	69.8	73.9
Azerbaijan	869	66.5	26.9	5.5	64.4	2.6	0.6	66.0	67.1
Bahrain	722	60.2	26.4	12.9	59.5	1.2	0.0	62.2	58.2
Brazil	3173	48.4	29.4	20.9	47.1	2.1	0.5	47.3	49.5
Chile	638	66.0	29.4	3.8	64.5	2.2	0.0	66.2	65.8
Chinese Taipei	470	57.6	40.7	1.8	57.5	0.0	0.0	54.3	60.4
Cyprus	587	55.8	33.3	10.4	55.2	0.6	0.4	54.4	57.1
Czech Republic	1145	78.3	19.4	2.2	78.2	0.1	0.0	80.7	76.3
England	593	74.5	20.5	4.7	73.8	0.7	0.2	73.1	75.7
Finland	800	74.4	20.2	5.2	73.9	0.5	0.2	78.4	70.2
France	636	52.7	39.1	7.9	52.4	0.6	0.0	53.3	52.2
Georgia	686	69.2	24.3	6.1	68.3	1.1	0.2	64.9	73.5
Hong Kong SAR	637	60.4	35.5	3.6	59.7	1.0	0.2	61.6	59.2
Hungary	759	80.2	11.8	7.9	79.6	0.7	0.0	78.3	81.9
Ireland	718	74.8	20.8	4.4	74.8	0.0	0.0	74.9	74.7
Israel	729	55.9	37.1	6.7	55.5	0.6	0.2	54.5	57.4
Italy	646	66.7	26.0	7.2	66.4	0.4	0.0	65.3	68.0
Japan	326	77.4	16.7	5.6	76.7	1.0	0.0	77.5	77.3
Jordan	1387	61.0	29.2	9.3	60.2	1.3	0.0	58.1	63.8
Kazakhstan	893	73.4	18.7	7.7	72.8	0.7	0.1	73.8	73.0
Korea, Rep. of	363	60.6	31.7	7.8	60.6	0.0	0.0	55.3	66.5
Lithuania	750	75.8	19.6	4.5	75.8	0.0	0.0	75.8	75.9
Malaysia	1232	56.4	21.5	21.9	56.3	0.3	0.0	57.7	55.0
Malta	547	75.5	20.2	4.3	75.5	0.0	0.0	74.2	76.8
Morocco	1737	49.9	26.7	22.2	48.8	1.9	0.4	50.9	49.0
New Zealand	553	83.2	14.3	2.5	83.0	0.2	0.0	83.9	82.6
Norway (9)	890	65.3	23.3	10.9	64.5	0.8	0.5	67.9	63.1
Oman	1642	61.1	26.6	11.5	60.0	1.7	0.1	59.0	63.3
Palestinian Nat'l Auth.	1302	56.8	27.7	14.6	55.8	1.7	0.2	57.7	56.0
Portugal	769	56.7	37.9	4.9	56.2	0.7	0.3	56.3	57.1
Qatar	593	65.2	24.8	9.5	64.4	1.1	0.2	63.4	67.0
Romania	526	76.8	20.6	2.4	76.0	0.8	0.2	73.2	80.6
Saudi Arabia	1171	52.8	34.0	12.3	51.7	1.9	0.1	54.2	51.4
Singapore	400	83.1	16.4	0.5	83.1	0.0	0.0	83.1	83.1
Sweden	718	71.1	21.2	7.5	70.7	0.3	0.2	73.7	68.7
Turkiye	694	69.7	26.5	3.8	69.7	0.0	0.0	73.1	65.9
United Arab Emirates	5305	69.5	20.6	9.6	68.7	0.9	0.2	68.3	70.6
United States	1155	78.1	18.8	3.0	77.7	0.2	0.3	77.9	78.1
Uzbekistan	606	55.4	29.0	14.4	53.8	2.1	0.7	56.4	54.2
International Avg. (40)	39197	66.7	25.1	7.9	66.1	0.8	0.2	66.4	66.9
Abu Dhabi, UAE	2408	64.8	22.2	12.6	64.0	1.0	0.2	63.4	66.1
Dubai, UAE	1160	77.0	17.8	5.0	76.4	0.6	0.2	76.4	77.6
Sharjah, UAE	889	71.0	19.4	9.4	70.4	0.5	0.2	70.4	71.5

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Biology / Applying

B_SE5_06C SE82005C: Classify animals into their taxonomic groups - dolphin - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	C %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1187	78.1	77.6	21.6	0.1	0.4	0.3	78.3	78.0
Austria	643	83.7	83.6	15.5	0.7	0.1	0.0	83.8	83.6
Azerbaijan	869	82.1	79.1	16.6	0.6	3.0	0.6	82.4	81.9
Bahrain	722	73.9	72.5	25.1	0.5	2.0	0.0	72.8	75.0
Brazil	3173	68.5	66.6	30.3	0.3	2.3	0.5	65.2	72.3
Chile	638	82.2	80.1	17.2	0.2	2.6	0.0	79.1	84.8
Chinese Taipei	470	99.3	99.3	0.4	0.3	0.0	0.0	99.5	99.2
Cyprus	587	84.4	83.9	13.1	2.4	0.1	0.4	85.9	82.9
Czech Republic	1145	95.2	94.9	4.7	0.0	0.3	0.0	95.8	94.7
England	593	72.8	72.2	26.7	0.3	0.5	0.2	72.4	73.1
Finland	800	70.2	69.7	28.8	0.7	0.5	0.2	67.4	73.2
France	636	87.5	87.1	12.0	0.4	0.5	0.0	87.1	87.9
Georgia	686	88.7	87.8	11.0	0.2	0.9	0.2	88.3	89.1
Hong Kong SAR	637	96.4	95.3	2.8	0.8	1.0	0.2	96.1	96.8
Hungary	759	73.0	72.4	26.5	0.2	0.9	0.0	66.4	79.3
Ireland	718	82.2	82.1	17.7	0.2	0.1	0.0	81.7	82.6
Israel	729	90.0	89.5	9.5	0.4	0.4	0.2	91.9	88.0
Italy	646	90.9	90.5	8.8	0.2	0.4	0.0	91.9	89.9
Japan	326	92.5	91.0	7.4	0.0	1.7	0.0	88.9	96.4
Jordan	1387	70.3	68.2	27.6	1.2	3.0	0.0	70.5	70.1
Kazakhstan	893	62.5	61.1	36.1	0.5	2.2	0.1	58.5	65.9
Korea, Rep. of	363	89.1	88.8	7.4	3.5	0.4	0.0	92.9	84.9
Lithuania	750	87.0	87.0	12.8	0.3	0.0	0.0	84.9	88.9
Malaysia	1232	58.7	58.4	40.5	0.5	0.6	0.0	57.0	60.5
Malta	547	76.8	76.6	23.2	0.0	0.2	0.0	77.3	76.2
Morocco	1737	46.6	45.1	46.8	4.9	2.8	0.4	46.3	46.9
New Zealand	553	81.6	81.5	17.4	1.0	0.2	0.0	84.1	79.6
Norway (9)	890	83.8	82.8	15.3	0.7	0.7	0.5	83.8	83.9
Oman	1642	64.3	62.4	34.2	0.5	2.8	0.1	61.4	67.1
Palestinian Nat'l Auth.	1302	67.0	65.4	30.8	1.3	2.2	0.2	67.9	66.2
Portugal	769	91.0	90.0	8.7	0.3	0.8	0.3	89.7	92.2
Qatar	593	75.6	73.9	22.9	0.9	2.1	0.2	75.5	75.8
Romania	526	92.1	90.9	7.5	0.3	1.0	0.2	91.0	93.2
Saudi Arabia	1171	62.3	59.6	35.1	0.9	4.3	0.1	63.3	61.3
Singapore	400	91.6	91.4	8.4	0.0	0.2	0.0	93.7	89.9
Sweden	718	70.4	69.7	28.3	1.0	0.7	0.2	67.2	73.4
Turkiye	694	94.2	93.8	4.6	1.2	0.3	0.0	93.1	95.4
United Arab Emirates	5305	72.1	71.2	26.7	0.8	1.1	0.2	69.9	74.4
United States	1155	83.7	83.3	16.1	0.1	0.2	0.3	82.5	85.0
Uzbekistan	606	76.6	72.5	20.7	1.4	4.6	0.7	73.6	79.9
International Avg. (40)	39197	79.7	78.7	19.2	0.7	1.2	0.2	79.0	80.5
Abu Dhabi, UAE	2408	61.8	60.9	36.0	1.6	1.3	0.2	60.9	62.7
Dubai, UAE	1160	84.0	83.4	15.7	0.2	0.5	0.2	80.7	87.3
Sharjah, UAE	889	77.3	76.3	22.1	0.3	1.0	0.2	75.4	79.1

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Applying

B_SE5_06D SE82005D: Classify animals into their taxonomic groups - crocodile - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	C %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1187	96.7	3.0	96.5	0.2	0.0	0.3	97.3	96.4
Austria	643	97.0	2.9	96.8	0.1	0.1	0.0	95.9	97.8
Azerbaijan	869	97.7	1.8	95.1	0.5	2.0	0.6	97.5	97.9
Bahrain	722	95.5	4.2	95.1	0.3	0.3	0.0	96.0	95.0
Brazil	3173	88.6	10.7	87.0	0.5	1.2	0.5	87.4	89.9
Chile	638	96.0	3.8	94.9	0.1	1.1	0.0	95.5	96.5
Chinese Taipei	470	95.4	4.6	95.4	0.0	0.0	0.0	94.4	96.4
Cyprus	587	88.1	7.0	87.3	4.8	0.5	0.4	88.7	87.5
Czech Republic	1145	97.6	2.3	97.6	0.1	0.0	0.0	97.5	97.8
England	593	97.4	2.3	96.6	0.2	0.6	0.2	97.8	97.1
Finland	800	88.1	11.1	87.8	0.7	0.1	0.2	89.4	86.8
France	636	96.2	3.5	95.9	0.3	0.4	0.0	96.7	95.8
Georgia	686	97.8	2.1	97.1	0.1	0.5	0.2	98.5	97.0
Hong Kong SAR	637	93.9	5.5	92.7	0.5	1.0	0.2	95.0	92.8
Hungary	759	96.7	3.1	96.7	0.2	0.0	0.0	95.4	97.9
Ireland	718	97.2	2.7	97.2	0.1	0.0	0.0	97.4	97.1
Israel	729	95.4	4.4	94.7	0.2	0.5	0.2	94.8	96.0
Italy	646	94.3	5.4	94.2	0.2	0.1	0.0	91.7	96.7
Japan	326	97.6	2.3	96.6	0.0	1.0	0.0	97.0	98.3
Jordan	1387	95.1	4.2	94.5	0.7	0.6	0.0	97.0	93.4
Kazakhstan	893	92.5	7.1	90.4	0.3	2.2	0.1	89.3	95.2
Korea, Rep. of	363	81.8	17.1	81.8	1.1	0.0	0.0	80.5	83.2
Lithuania	750	96.5	3.5	96.4	0.0	0.2	0.0	97.1	96.0
Malaysia	1232	71.8	27.2	71.5	0.9	0.4	0.0	72.5	70.9
Malta	547	94.8	5.2	94.8	0.0	0.0	0.0	96.2	93.5
Morocco	1737	72.7	21.5	71.0	5.2	2.0	0.4	72.0	73.3
New Zealand	553	94.8	3.9	94.7	1.3	0.2	0.0	93.6	95.9
Norway (9)	890	82.6	16.3	81.4	0.8	0.9	0.5	81.5	83.5
Oman	1642	91.8	8.0	90.9	0.2	0.8	0.1	92.9	90.7
Palestinian Nat'l Auth.	1302	92.7	6.8	91.6	0.4	0.9	0.2	93.2	92.2
Portugal	769	96.6	3.4	96.1	0.0	0.2	0.3	97.0	96.3
Qatar	593	91.3	8.5	90.8	0.1	0.5	0.2	92.0	90.7
Romania	526	98.5	1.5	97.6	0.0	0.6	0.2	98.5	98.4
Saudi Arabia	1171	95.5	4.4	95.0	0.1	0.5	0.1	95.3	95.7
Singapore	400	99.3	0.7	99.3	0.0	0.0	0.0	99.0	99.6
Sweden	718	91.7	7.5	91.1	0.7	0.5	0.2	91.3	92.1
Turkiye	694	98.5	1.4	98.5	0.2	0.0	0.0	98.4	98.6
United Arab Emirates	5305	92.3	6.5	91.5	1.1	0.7	0.2	93.1	91.5
United States	1155	97.7	2.1	97.2	0.2	0.2	0.3	98.5	97.2
Uzbekistan	606	96.0	3.3	94.4	0.5	1.0	0.7	97.2	94.8
International Avg. (40)	39197	93.3	6.1	92.6	0.6	0.6	0.2	93.2	93.3
Abu Dhabi, UAE	2408	87.1	10.3	85.8	2.4	1.3	0.2	88.9	85.2
Dubai, UAE	1160	98.3	1.6	97.9	0.1	0.2	0.2	97.9	98.7
Sharjah, UAE	889	94.9	4.9	94.4	0.2	0.2	0.2	96.1	93.7

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Biology / Applying

B_SE5_06E SE82005E: Classify animals into their taxonomic groups - eagle - MC - Key: C

COUNTRY	N	DIFF %	A %	B %	C %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1187	99.4	0.2	0.4	99.0	0.0	0.3	99.4	99.5
Austria	643	99.8	0.1	0.1	99.7	0.1	0.0	99.8	99.9
Azerbaijan	869	99.1	0.1	0.7	96.9	1.6	0.6	98.6	99.6
Bahrain	722	98.3	1.3	0.4	98.0	0.2	0.0	99.3	97.3
Brazil	3173	98.7	0.6	0.7	97.4	0.8	0.5	98.5	98.8
Chile	638	98.9	0.3	0.8	98.2	0.7	0.0	100.0	97.9
Chinese Taipei	470	98.8	0.9	0.4	98.6	0.1	0.0	99.4	98.2
Cyprus	587	91.4	1.4	7.2	90.7	0.3	0.4	92.6	90.2
Czech Republic	1145	99.6	0.3	0.1	99.6	0.0	0.0	99.5	99.7
England	593	99.4	0.6	0.0	99.1	0.1	0.2	99.9	98.9
Finland	800	99.3	0.3	0.5	98.9	0.1	0.2	99.3	99.2
France	636	98.0	0.5	1.4	97.8	0.2	0.0	99.2	96.9
Georgia	686	99.6	0.0	0.4	99.3	0.1	0.2	99.5	99.8
Hong Kong SAR	637	99.4	0.4	0.2	98.1	1.0	0.2	100.0	98.8
Hungary	759	99.1	0.2	0.6	98.7	0.5	0.0	98.9	99.4
Ireland	718	99.5	0.2	0.3	99.5	0.0	0.0	99.7	99.4
Israel	729	97.4	2.5	0.1	96.8	0.4	0.2	97.5	97.3
Italy	646	99.6	0.0	0.4	99.4	0.1	0.0	99.3	99.8
Japan	326	100.0	0.0	0.0	99.0	1.0	0.0	100.0	100.0
Jordan	1387	96.7	2.5	0.8	96.6	0.2	0.0	97.7	95.8
Kazakhstan	893	99.3	0.2	0.5	99.0	0.2	0.1	99.9	98.8
Korea, Rep. of	363	96.1	2.2	1.7	96.1	0.0	0.0	97.4	94.7
Lithuania	750	99.7	0.2	0.2	99.7	0.0	0.0	99.6	99.7
Malaysia	1232	97.8	1.2	1.0	97.8	0.0	0.0	98.6	96.9
Malta	547	99.1	0.4	0.5	99.1	0.0	0.0	99.6	98.6
Morocco	1737	91.1	4.1	4.8	90.2	0.6	0.4	93.3	88.9
New Zealand	553	98.3	0.0	1.6	98.0	0.3	0.0	98.2	98.4
Norway (9)	890	98.8	0.5	0.7	97.6	0.6	0.5	99.4	98.3
Oman	1642	97.5	2.0	0.5	97.0	0.4	0.1	98.8	96.2
Palestinian Nat'l Auth.	1302	97.5	1.7	0.8	96.6	0.8	0.2	97.6	97.4
Portugal	769	99.4	0.1	0.5	99.0	0.1	0.3	99.3	99.5
Qatar	593	98.4	1.3	0.2	97.7	0.6	0.2	98.9	98.0
Romania	526	99.5	0.1	0.3	98.8	0.5	0.2	99.8	99.3
Saudi Arabia	1171	99.7	0.1	0.2	99.6	0.1	0.1	99.8	99.6
Singapore	400	99.8	0.2	0.0	99.8	0.0	0.0	99.5	100.0
Sweden	718	98.6	0.5	0.9	97.9	0.5	0.2	98.0	99.2
Turkiye	694	99.7	0.2	0.1	99.7	0.0	0.0	99.7	99.7
United Arab Emirates	5305	98.4	0.8	0.8	97.9	0.3	0.2	99.2	97.7
United States	1155	98.8	0.9	0.4	98.4	0.1	0.3	98.8	98.7
Uzbekistan	606	99.2	0.2	0.7	97.9	0.5	0.7	100.0	98.3
International Avg. (40)	39197	98.5	0.7	0.8	98.0	0.3	0.2	98.8	98.1
Abu Dhabi, UAE	2408	97.2	1.3	1.5	96.4	0.6	0.2	98.8	95.6
Dubai, UAE	1160	99.6	0.3	0.1	99.3	0.1	0.2	99.5	99.6
Sharjah, UAE	889	98.9	0.7	0.4	98.5	0.1	0.2	99.7	98.1

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Chemistry / Applying

B_SE5_07 SE82170: Mixing household cleaners - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1187	80.3	6.8	79.9	6.1	6.7	0.2	0.3	80.3	80.4
Austria	643	77.7	12.1	77.7	6.5	3.8	0.0	0.0	80.0	75.8
Azerbaijan	869	70.6	10.7	68.7	12.1	5.8	1.9	0.7	73.6	67.6
Bahrain	722	71.8	11.9	71.4	10.8	5.4	0.4	0.1	76.6	67.1
Brazil	3173	61.3	13.4	60.8	14.1	10.8	0.4	0.5	62.4	60.1
Chile	638	65.8	16.2	65.3	6.0	11.6	0.9	0.0	66.4	65.4
Chinese Taipei	470	84.4	10.7	84.4	2.1	2.9	0.0	0.0	83.9	84.8
Cyprus	587	70.0	15.2	69.4	6.8	7.7	0.5	0.4	70.9	69.2
Czech Republic	1145	75.3	12.4	75.3	5.5	6.8	0.0	0.0	75.6	75.1
England	593	81.3	5.5	80.8	4.9	8.2	0.2	0.3	82.8	79.9
Finland	800	86.5	4.4	86.0	4.1	5.0	0.2	0.2	88.3	84.5
France	636	64.5	17.1	64.4	7.6	10.7	0.2	0.0	63.6	65.5
Georgia	686	46.8	36.4	46.4	8.8	7.5	0.8	0.2	47.1	46.6
Hong Kong SAR	637	82.5	10.2	81.8	4.8	2.3	0.7	0.2	84.2	80.8
Hungary	759	86.6	4.9	86.6	3.7	4.8	0.0	0.0	86.5	86.6
Ireland	718	84.4	6.7	84.4	3.2	5.8	0.0	0.0	84.8	84.0
Israel	729	61.1	15.9	60.9	13.6	9.3	0.2	0.2	65.2	56.9
Italy	646	80.2	8.8	80.1	6.2	4.6	0.2	0.0	81.1	79.5
Japan	326	81.1	10.0	80.9	3.3	5.6	0.3	0.0	79.5	83.0
Jordan	1387	59.9	16.7	59.6	11.3	11.9	0.4	0.0	66.8	53.4
Kazakhstan	893	69.5	15.6	68.9	8.1	6.5	0.8	0.1	66.6	72.0
Korea, Rep. of	363	55.0	28.6	55.0	10.9	5.6	0.0	0.0	53.6	56.5
Lithuania	750	77.9	13.5	77.9	4.9	3.6	0.0	0.0	76.2	79.5
Malaysia	1232	63.3	24.5	63.3	7.0	5.2	0.1	0.0	62.4	64.3
Malta	547	77.1	8.5	76.9	5.8	8.5	0.2	0.0	80.4	73.9
Morocco	1737	40.9	22.5	40.4	21.6	14.4	0.7	0.4	38.3	43.3
New Zealand	553	78.8	7.9	78.7	4.6	8.6	0.2	0.0	76.4	80.8
Norway (9)	890	84.1	6.0	83.2	5.5	4.3	0.4	0.7	88.6	80.1
Oman	1642	56.8	24.1	56.6	9.8	9.1	0.3	0.1	62.0	51.9
Palestinian Nat'l Auth.	1302	65.9	16.0	65.8	11.3	6.7	0.0	0.2	70.0	62.0
Portugal	769	71.1	10.8	70.6	3.9	14.1	0.4	0.3	71.5	70.6
Qatar	593	72.7	12.1	72.2	7.7	7.3	0.5	0.2	74.1	71.3
Romania	526	70.6	13.3	70.0	7.0	8.8	0.6	0.2	75.3	65.6
Saudi Arabia	1171	66.4	17.3	66.3	8.4	7.9	0.1	0.1	71.4	61.7
Singapore	400	87.7	6.4	87.7	3.9	2.0	0.0	0.0	88.3	87.2
Sweden	718	85.2	5.6	85.0	4.2	5.0	0.0	0.2	85.6	84.9
Turkiye	694	88.9	6.3	88.7	2.8	2.0	0.2	0.0	92.3	85.0
United Arab Emirates	5305	74.0	12.0	73.6	7.4	6.4	0.3	0.2	76.8	71.2
United States	1155	80.1	8.5	79.7	4.4	6.9	0.2	0.3	85.1	75.7
Uzbekistan	606	65.3	11.9	64.2	11.8	10.5	1.0	0.7	66.9	63.6
International Avg. (40)	39197	72.6	12.9	72.2	7.3	7.0	0.3	0.2	74.0	71.2
Abu Dhabi, UAE	2408	67.4	14.4	66.8	10.1	7.8	0.5	0.3	70.3	64.5
Dubai, UAE	1160	84.8	7.6	84.6	3.1	4.5	0.1	0.2	86.9	82.7
Sharjah, UAE	889	77.0	10.8	76.7	6.1	6.0	0.2	0.2	80.1	74.0

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Chemistry / Reasoning

B_SE5_08 SE82138: Differences in concentration of two solutions - MC - Key: D

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1187	78.0	6.9	9.7	5.1	77.4	0.5	0.3	82.6	74.4
Austria	643	86.4	3.2	6.3	4.1	86.2	0.2	0.0	88.5	84.7
Azerbaijan	869	60.4	13.6	11.9	10.2	54.6	8.8	0.9	64.4	56.3
Bahrain	722	60.9	12.0	15.1	11.6	60.4	0.7	0.1	64.9	57.1
Brazil	3173	58.0	15.4	14.5	11.4	56.9	1.4	0.5	58.9	57.0
Chile	638	70.3	12.2	10.0	7.3	69.7	0.7	0.1	71.1	69.5
Chinese Taipei	470	87.4	3.1	4.8	4.6	86.7	0.8	0.0	88.3	86.6
Cyprus	587	65.4	8.9	16.1	9.2	64.5	0.7	0.6	73.0	58.3
Czech Republic	1145	88.3	3.7	4.6	3.3	88.3	0.0	0.0	90.0	86.9
England	593	74.1	9.8	10.0	5.9	73.4	0.7	0.3	73.8	74.4
Finland	800	84.1	5.4	8.1	2.2	82.7	1.5	0.2	88.5	79.5
France	636	72.7	8.6	13.2	5.4	72.3	0.4	0.1	76.6	68.9
Georgia	686	67.2	12.5	11.9	8.0	66.4	1.1	0.2	71.5	62.7
Hong Kong SAR	637	83.5	4.3	8.9	3.1	82.2	1.3	0.2	86.7	80.1
Hungary	759	84.7	4.1	8.7	2.5	84.5	0.2	0.0	83.3	86.0
Ireland	718	77.1	9.8	8.8	4.3	76.9	0.3	0.0	80.3	74.0
Israel	729	65.4	14.6	13.2	6.7	65.1	0.4	0.2	70.9	59.8
Italy	646	77.7	6.3	9.4	6.4	77.0	0.9	0.0	83.5	72.5
Japan	326	87.8	5.7	3.0	3.5	87.8	0.0	0.0	87.2	88.4
Jordan	1387	47.5	23.9	15.1	13.2	47.3	0.6	0.0	54.9	40.7
Kazakhstan	893	74.3	9.6	8.8	7.0	73.7	0.7	0.1	78.1	71.1
Korea, Rep. of	363	87.9	5.0	5.1	2.0	87.9	0.0	0.0	91.7	83.7
Lithuania	750	85.9	5.3	6.5	2.3	85.8	0.2	0.0	91.8	80.3
Malaysia	1232	71.0	8.8	11.5	8.6	70.8	0.3	0.0	74.6	67.2
Malta	547	69.2	11.7	9.2	9.7	69.0	0.4	0.0	75.6	63.1
Morocco	1737	45.6	19.1	21.1	12.7	44.5	2.0	0.5	48.3	43.1
New Zealand	553	78.4	8.7	8.4	4.3	77.4	1.0	0.2	83.6	74.0
Norway (9)	890	78.5	9.4	7.0	4.6	76.8	1.5	0.7	83.8	73.9
Oman	1642	60.2	14.0	14.0	11.4	59.5	0.9	0.2	66.3	54.2
Palestinian Nat'l Auth.	1302	50.0	20.9	15.2	13.3	49.5	0.9	0.2	55.0	45.2
Portugal	769	80.3	5.4	8.6	5.7	80.0	0.0	0.3	83.1	77.5
Qatar	593	64.6	14.5	10.8	10.1	64.5	0.0	0.2	67.3	62.0
Romania	526	71.2	11.9	9.8	6.6	69.6	2.0	0.2	76.5	65.5
Saudi Arabia	1171	55.2	20.7	13.6	10.3	54.9	0.4	0.2	63.9	47.0
Singapore	400	85.4	4.3	6.1	4.2	85.4	0.0	0.0	88.6	82.8
Sweden	718	83.9	7.9	4.8	3.3	83.3	0.5	0.2	86.2	81.9
Turkiye	694	83.1	5.0	6.6	5.1	82.6	0.7	0.0	88.9	76.5
United Arab Emirates	5305	73.3	9.7	9.7	7.0	72.9	0.3	0.4	79.0	67.7
United States	1155	75.6	7.4	10.0	6.8	75.1	0.3	0.3	79.3	72.2
Uzbekistan	606	53.3	17.4	17.5	10.0	51.2	2.8	1.1	53.5	53.0
International Avg. (40)	39197	72.6	10.0	10.2	6.8	71.9	0.9	0.2	76.3	69.0
Abu Dhabi, UAE	2408	69.8	10.9	10.8	8.3	69.2	0.3	0.5	76.3	63.2
Dubai, UAE	1160	82.7	5.6	7.1	4.5	82.3	0.3	0.2	84.2	81.2
Sharjah, UAE	889	73.3	9.2	10.9	6.5	72.9	0.1	0.4	81.0	65.9

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Knowing

B_SE5_09 SE82281: Property that explains why a block floats and another sinks - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1187	84.7	84.3	7.5	6.3	1.6	0.1	0.3	84.0	85.4
Austria	643	90.1	90.1	6.4	2.6	0.9	0.0	0.0	89.8	90.4
Azerbaijan	869	62.8	60.8	21.5	8.5	6.0	1.6	1.7	63.0	62.7
Bahrain	722	68.5	68.3	18.0	8.9	4.4	0.1	0.1	67.7	69.2
Brazil	3173	58.4	57.8	14.4	21.0	5.8	0.4	0.6	54.3	62.9
Chile	638	68.0	67.4	12.8	15.8	3.2	0.6	0.1	67.4	68.4
Chinese Taipei	470	94.7	94.7	2.9	2.3	0.2	0.0	0.0	94.8	94.7
Cyprus	587	81.8	81.2	10.0	6.1	2.0	0.2	0.6	83.7	80.1
Czech Republic	1145	92.6	92.6	4.1	2.5	0.9	0.0	0.0	91.8	93.3
England	593	89.5	88.9	5.5	3.6	1.3	0.3	0.3	87.9	90.9
Finland	800	88.5	88.1	6.2	3.2	2.1	0.1	0.2	91.6	85.2
France	636	77.7	77.4	13.6	7.1	1.6	0.2	0.1	74.3	80.9
Georgia	686	79.9	79.5	13.0	5.1	1.9	0.4	0.2	79.8	80.0
Hong Kong SAR	637	87.7	86.9	6.4	4.8	1.0	0.7	0.2	85.2	90.3
Hungary	759	89.9	89.9	6.1	3.4	0.6	0.0	0.0	87.6	92.2
Ireland	718	91.7	91.7	2.9	3.5	1.8	0.0	0.0	91.6	91.7
Israel	729	82.4	82.0	6.3	8.8	2.4	0.3	0.2	80.4	84.4
Italy	646	76.8	76.3	9.0	11.4	2.7	0.6	0.0	74.0	79.3
Japan	326	93.7	93.7	2.1	3.3	0.8	0.0	0.0	92.2	95.3
Jordan	1387	75.7	75.3	13.8	7.5	2.8	0.6	0.0	80.1	71.6
Kazakhstan	893	74.3	74.0	11.2	12.1	2.3	0.3	0.1	74.0	74.6
Korea, Rep. of	363	94.1	94.1	3.3	2.4	0.3	0.0	0.0	94.2	93.9
Lithuania	750	87.1	87.1	8.9	2.8	1.3	0.0	0.0	88.1	86.1
Malaysia	1232	78.4	78.4	7.1	9.9	4.6	0.0	0.0	80.6	75.9
Malta	547	86.9	86.9	5.5	4.7	3.0	0.0	0.0	85.7	88.0
Morocco	1737	32.1	31.5	26.9	25.3	14.5	0.8	0.9	30.7	33.4
New Zealand	553	80.0	79.5	9.6	7.3	3.0	0.4	0.2	77.1	82.4
Norway (9)	890	77.7	76.1	11.9	8.0	2.0	1.3	0.7	81.5	74.4
Oman	1642	54.9	54.7	20.8	17.3	6.9	0.2	0.2	57.3	52.6
Palestinian Nat'l Auth.	1302	77.7	77.0	10.9	6.3	4.9	0.7	0.2	81.6	73.9
Portugal	769	78.4	78.0	6.1	14.0	1.5	0.2	0.3	77.6	79.1
Qatar	593	84.1	83.6	8.3	5.1	2.4	0.4	0.2	85.5	82.9
Romania	526	85.5	84.7	8.2	3.4	2.7	0.6	0.3	85.7	85.3
Saudi Arabia	1171	64.7	64.4	19.9	10.8	4.4	0.3	0.2	64.1	65.2
Singapore	400	95.4	95.4	3.4	0.7	0.5	0.0	0.0	96.1	94.8
Sweden	718	87.4	87.2	6.4	5.0	1.2	0.0	0.2	88.5	86.4
Turkiye	694	88.7	88.7	7.6	2.3	1.4	0.0	0.0	89.0	88.3
United Arab Emirates	5305	76.9	76.3	12.3	8.4	2.3	0.4	0.4	77.2	76.5
United States	1155	85.7	85.2	7.2	5.6	1.4	0.2	0.3	85.7	85.9
Uzbekistan	606	57.7	56.3	15.8	19.4	6.2	1.1	1.3	57.1	58.2
International Avg. (40)	39197	79.6	79.2	9.8	7.7	2.8	0.3	0.3	79.5	79.7
Abu Dhabi, UAE	2408	65.9	65.2	18.0	12.6	3.1	0.5	0.6	66.2	65.6
Dubai, UAE	1160	91.6	91.4	4.4	3.0	0.9	0.1	0.2	90.7	92.6
Sharjah, UAE	889	80.9	80.3	10.5	6.8	1.7	0.4	0.4	81.4	80.4

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Knowing

B_SE5_10 SE82225: Energy use in a laptop computer - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1187	92.0	91.7	2.2	3.6	2.2	0.0	0.3	93.1	91.3
Austria	643	93.7	93.7	1.3	3.7	1.3	0.0	0.0	93.8	93.6
Azerbaijan	869	90.7	88.4	1.5	4.0	3.5	0.3	2.2	93.0	88.3
Bahrain	722	86.9	86.6	2.0	5.3	5.8	0.1	0.2	89.7	84.2
Brazil	3173	88.7	88.0	1.7	5.6	3.8	0.1	0.7	88.1	89.4
Chile	638	82.3	81.8	5.1	7.9	4.6	0.4	0.3	83.5	81.3
Chinese Taipei	470	95.1	95.1	1.9	1.7	1.2	0.0	0.0	92.7	97.3
Cyprus	587	88.2	87.7	2.4	6.1	3.2	0.0	0.6	88.4	88.0
Czech Republic	1145	87.1	87.1	3.2	7.5	2.3	0.0	0.0	85.9	88.2
England	593	89.2	88.9	2.8	5.2	2.8	0.0	0.3	84.4	93.4
Finland	800	90.9	90.6	2.9	3.4	2.7	0.1	0.2	91.2	90.7
France	636	90.4	90.3	2.6	3.5	3.5	0.0	0.1	85.2	95.3
Georgia	686	92.4	92.2	4.3	2.7	0.6	0.1	0.2	93.4	91.4
Hong Kong SAR	637	94.4	93.4	3.1	1.4	1.0	0.5	0.5	93.6	95.2
Hungary	759	96.9	96.9	1.1	0.9	1.1	0.0	0.0	96.2	97.7
Ireland	718	93.2	93.2	1.8	3.6	1.4	0.0	0.0	91.9	94.4
Israel	729	92.1	91.8	1.7	2.7	3.4	0.0	0.3	93.4	90.8
Italy	646	91.6	91.6	1.7	4.3	2.3	0.0	0.0	91.0	92.2
Japan	326	87.3	87.3	1.1	7.2	4.4	0.0	0.0	84.2	90.6
Jordan	1387	78.8	78.5	3.9	13.7	3.5	0.0	0.4	75.6	81.7
Kazakhstan	893	94.8	94.6	1.7	2.6	0.9	0.1	0.2	95.8	93.9
Korea, Rep. of	363	96.9	96.9	0.1	0.5	2.5	0.0	0.0	98.1	95.5
Lithuania	750	80.2	80.2	5.7	11.2	2.9	0.0	0.0	75.9	84.2
Malaysia	1232	79.9	79.8	2.6	12.6	4.9	0.2	0.0	78.7	81.1
Malta	547	91.0	91.0	2.2	4.2	2.6	0.0	0.0	89.8	92.1
Morocco	1737	65.2	64.1	11.1	12.2	10.9	0.3	1.4	65.3	65.1
New Zealand	553	92.3	92.0	1.3	4.5	1.9	0.0	0.3	93.5	91.3
Norway (9)	890	83.9	82.9	6.9	4.9	4.1	0.4	0.8	83.8	84.0
Oman	1642	87.1	86.9	2.6	4.5	5.7	0.1	0.2	89.2	85.2
Palestinian Nat'l Auth.	1302	82.4	81.8	4.4	7.9	5.1	0.2	0.7	84.9	80.1
Portugal	769	94.6	94.2	0.9	3.1	1.4	0.0	0.4	95.4	93.8
Qatar	593	92.1	91.5	1.7	2.8	3.3	0.5	0.2	94.7	89.7
Romania	526	96.8	96.4	0.3	0.6	2.2	0.1	0.3	97.3	96.3
Saudi Arabia	1171	87.6	87.1	1.7	5.3	5.5	0.0	0.5	87.6	87.6
Singapore	400	97.9	97.9	0.5	1.1	0.6	0.0	0.0	100.0	96.2
Sweden	718	88.5	88.3	5.1	3.8	2.6	0.0	0.2	86.6	90.3
Turkiye	694	90.1	90.1	3.2	5.7	1.1	0.0	0.0	90.5	89.6
United Arab Emirates	5305	88.7	88.1	2.1	5.5	3.6	0.1	0.7	90.1	87.3
United States	1155	92.0	91.6	1.5	3.2	3.3	0.2	0.3	92.8	91.5
Uzbekistan	606	86.0	84.4	4.3	6.7	2.7	0.2	1.6	83.0	89.2
International Avg. (40)	39197	89.2	88.9	2.7	4.9	3.1	0.1	0.4	89.0	89.5
Abu Dhabi, UAE	2408	82.3	81.5	3.4	8.9	5.3	0.1	0.8	84.6	80.1
Dubai, UAE	1160	95.6	95.4	0.6	2.1	1.7	0.0	0.2	95.3	96.0
Sharjah, UAE	889	92.8	92.1	1.4	3.3	2.4	0.0	0.7	93.2	92.3

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Applying

B_SE5_11 SE82263: Magnet repulsion (DERIVED) - CR - 2 Points

COUNTRY	N	DIFF %	2 %	1 %	0 %	2pt %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1187	58.3	38.3	36.5	22.2	38.3	36.5	22.2	2.8	0.3	56.8	59.8
Austria	636	77.0	60.6	28.6	8.1	60.6	28.6	8.1	2.6	0.0	79.4	74.9
Azerbaijan	869	44.0	16.2	30.5	24.8	16.2	30.5	24.8	26.3	2.2	44.7	43.2
Bahrain	722	49.4	28.3	38.6	29.5	28.3	38.6	29.5	3.5	0.2	55.8	43.0
Brazil	3173	39.7	14.7	41.4	33.1	14.7	41.4	33.1	10.2	0.7	38.3	41.2
Chile	638	37.0	11.9	41.9	35.0	11.9	41.9	35.0	10.7	0.5	32.9	40.4
Chinese Taipei	470	78.2	64.5	27.0	8.2	64.5	27.0	8.2	0.2	0.0	78.3	78.1
Cyprus	587	55.6	36.2	30.5	25.9	36.2	30.5	25.9	6.9	0.6	55.1	56.1
Czech Republic	1145	60.6	35.3	48.0	14.6	35.3	48.0	14.6	2.0	0.0	61.9	59.4
England	592	65.0	41.1	42.6	12.3	41.1	42.6	12.3	3.6	0.3	64.7	65.2
Finland	800	56.0	26.7	55.2	15.1	26.7	55.2	15.1	2.7	0.2	59.4	52.4
France	636	50.8	10.1	76.8	8.6	10.1	76.8	8.6	4.3	0.1	50.1	51.4
Georgia	0	.	.	.	.	.	.	.	.	.	.	.
Hong Kong SAR	635	49.7	29.2	34.3	29.7	29.2	34.3	29.7	6.3	0.5	49.1	50.4
Hungary	759	77.4	61.3	30.9	7.0	61.3	30.9	7.0	0.8	0.0	77.7	77.1
Ireland	718	51.6	25.7	49.2	22.5	25.7	49.2	22.5	2.6	0.0	50.1	53.0
Israel	729	42.3	15.6	48.1	30.1	15.6	48.1	30.1	5.9	0.3	42.2	42.3
Italy	646	51.6	28.3	42.9	25.1	28.3	42.9	25.1	3.8	0.0	55.5	48.2
Japan	326	59.4	28.4	59.5	10.0	28.4	59.5	10.0	2.0	0.0	58.4	60.4
Jordan	1381	44.1	17.5	49.7	28.9	17.5	49.7	28.9	3.4	0.4	50.6	37.8
Kazakhstan	890	54.9	32.3	39.0	23.1	32.3	39.0	23.1	5.5	0.2	57.2	53.0
Korea, Rep. of	363	75.4	56.7	35.1	6.6	56.7	35.1	6.6	1.5	0.0	78.7	71.8
Lithuania	749	62.0	35.4	50.0	12.1	35.4	50.0	12.1	2.5	0.0	61.5	62.4
Malaysia	1232	37.2	19.5	34.6	44.7	19.5	34.6	44.7	1.2	0.0	38.1	36.3
Malta	547	53.8	31.1	41.3	23.7	31.1	41.3	23.7	3.9	0.0	55.3	52.4
Morocco	1737	12.9	2.8	12.5	55.2	2.8	12.5	55.2	27.9	1.6	12.7	13.0
New Zealand	552	54.8	31.6	40.7	22.5	31.6	40.7	22.5	4.8	0.3	52.7	56.5
Norway (9)	890	61.0	41.3	31.4	20.8	41.3	31.4	20.8	5.6	0.8	61.9	60.1
Oman	1642	68.8	54.6	24.7	17.9	54.6	24.7	17.9	2.5	0.2	76.6	61.1
Palestinian Nat'l Auth.	1302	41.4	23.1	31.9	39.4	23.1	31.9	39.4	4.9	0.7	46.5	36.2
Portugal	768	47.9	23.7	45.6	27.8	23.7	45.6	27.8	2.5	0.4	47.5	48.4
Qatar	593	60.4	38.7	38.8	18.7	38.7	38.8	18.7	3.4	0.4	63.0	57.8
Romania	526	47.6	26.6	35.0	31.0	26.6	35.0	31.0	7.0	0.3	52.2	42.9
Saudi Arabia	1171	39.5	15.9	45.5	36.3	15.9	45.5	36.3	1.8	0.5	47.9	31.6
Singapore	400	81.4	69.6	23.2	6.9	69.6	23.2	6.9	0.3	0.0	84.8	78.6
Sweden	718	56.8	31.3	47.2	18.2	31.3	47.2	18.2	3.1	0.2	58.5	55.2
Turkiye	694	75.9	60.3	25.2	10.5	60.3	25.2	10.5	4.0	0.0	77.9	73.7
United Arab Emirates	5305	48.1	25.1	42.2	28.7	25.1	42.2	28.7	3.4	0.7	50.1	46.2
United States	1154	58.4	40.2	34.0	23.7	40.2	34.0	23.7	1.6	0.4	60.5	56.6
Uzbekistan	606	44.1	24.4	31.4	35.2	24.4	31.4	35.2	7.4	1.6	44.7	43.5
International Avg. (39)	38488	54.6	32.7	39.0	22.9	32.7	39.0	22.9	5.0	0.4	56.1	53.1
Abu Dhabi, UAE	2408	41.2	20.6	36.6	37.2	20.6	36.6	37.2	4.8	0.8	44.5	37.9
Dubai, UAE	1160	59.0	32.8	49.7	15.2	32.8	49.7	15.2	2.0	0.2	59.1	59.0
Sharjah, UAE	889	51.0	28.6	41.8	26.8	28.6	41.8	26.8	2.1	0.7	50.7	51.2

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Applying

B_SE5_11A SE82263A: A - Observations when two magnets are brought together - CR - 1 Point

COUNTRY	N	DIFF %	1 %	0 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1187	76.3	73.9	23.0	73.9	23.0	2.8	0.3	76.5	76.2
Austria	642	85.2	83.0	14.4	83.0	14.4	2.6	0.0	88.2	82.6
Azerbaijan	869	60.5	43.1	28.1	43.1	28.1	26.5	2.2	64.4	56.4
Bahrain	722	66.5	64.1	32.2	64.1	32.2	3.5	0.2	74.2	58.9
Brazil	3173	61.3	54.6	34.5	54.6	34.5	10.2	0.7	61.4	61.1
Chile	638	57.4	51.0	37.8	51.0	37.8	10.7	0.5	50.2	63.4
Chinese Taipei	470	90.3	90.2	9.7	90.2	9.7	0.2	0.0	88.6	91.9
Cyprus	587	70.6	65.3	27.3	65.3	27.3	6.9	0.6	70.4	70.7
Czech Republic	1145	83.3	81.6	16.4	81.6	16.4	2.0	0.0	84.8	82.0
England	592	86.9	83.4	12.6	83.4	12.6	3.6	0.3	87.1	86.6
Finland	800	84.2	81.7	15.4	81.7	15.4	2.7	0.2	89.3	78.8
France	636	90.5	86.5	9.1	86.5	9.1	4.3	0.1	92.8	88.3
Georgia	0	.	.	.	.	.	.	.	.	.
Hong Kong SAR	635	57.3	53.4	39.8	53.4	39.8	6.3	0.5	55.8	58.9
Hungary	759	91.9	91.2	8.0	91.2	8.0	0.8	0.0	91.9	91.9
Ireland	718	75.2	73.2	24.1	73.2	24.1	2.6	0.0	75.3	75.2
Israel	729	66.0	61.9	31.8	61.9	31.8	5.9	0.3	67.5	64.5
Italy	646	68.7	66.1	30.1	66.1	30.1	3.8	0.0	75.7	62.5
Japan	326	78.4	76.8	21.2	76.8	21.2	2.0	0.0	75.9	81.1
Jordan	1387	69.0	66.3	29.8	66.3	29.8	3.4	0.4	75.7	62.6
Kazakhstan	890	72.0	67.9	26.4	67.9	26.4	5.5	0.2	74.4	69.9
Korea, Rep. of	363	89.0	87.7	10.8	87.7	10.8	1.5	0.0	92.9	84.6
Lithuania	749	82.0	79.9	17.6	79.9	17.6	2.5	0.0	83.9	80.2
Malaysia	1232	47.7	47.2	51.7	47.2	51.7	1.2	0.0	50.9	44.2
Malta	547	70.5	67.7	28.4	67.7	28.4	3.9	0.0	73.7	67.4
Morocco	1737	20.9	14.7	55.5	14.7	55.5	28.1	1.6	21.9	20.0
New Zealand	553	75.0	71.1	23.8	71.1	23.8	4.8	0.3	75.1	74.8
Norway (9)	890	75.0	70.2	23.4	70.2	23.4	5.6	0.8	78.4	72.1
Oman	1642	77.1	74.9	22.3	74.9	22.3	2.5	0.2	85.5	68.6
Palestinian Nat'l Auth.	1302	56.7	53.5	40.8	53.5	40.8	4.9	0.7	63.4	49.9
Portugal	768	68.8	66.8	30.3	66.8	30.3	2.5	0.4	67.9	69.7
Qatar	593	78.9	75.9	20.3	75.9	20.3	3.4	0.4	81.3	76.5
Romania	526	57.6	53.2	39.1	53.2	39.1	7.3	0.3	63.2	51.8
Saudi Arabia	1171	60.1	58.7	39.0	58.7	39.0	1.8	0.5	71.7	49.0
Singapore	400	89.9	89.7	10.0	89.7	10.0	0.3	0.0	91.7	88.5
Sweden	718	79.2	76.6	20.1	76.6	20.1	3.1	0.2	82.7	75.8
Turkiye	694	88.4	84.9	11.1	84.9	11.1	4.0	0.0	87.6	89.4
United Arab Emirates	5305	68.2	65.4	30.5	65.4	30.5	3.4	0.7	70.9	65.5
United States	1154	71.8	70.3	27.6	70.3	27.6	1.6	0.4	74.0	69.9
Uzbekistan	606	58.9	53.6	37.4	53.6	37.4	7.4	1.6	60.1	57.6
International Avg. (39)	38501	72.0	68.6	25.9	68.6	25.9	5.0	0.4	74.3	69.7
Abu Dhabi, UAE	2408	58.4	55.1	39.2	55.1	39.2	4.8	0.8	62.2	54.6
Dubai, UAE	1160	82.9	81.0	16.7	81.0	16.7	2.0	0.2	84.5	81.3
Sharjah, UAE	889	70.6	68.6	28.6	68.6	28.6	2.1	0.7	70.2	70.9

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Physics / Applying

B_SE5_11B SE82263B: B - Explanation for motion of the cart - CR - 1 Point

COUNTRY	N	DIFF %	1 %	0 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1187	40.5	39.2	57.7	39.2	57.7	2.9	0.3	37.1	43.4
Austria	636	68.8	67.0	30.4	67.0	30.4	2.6	0.0	70.7	67.3
Azerbaijan	869	27.9	19.7	51.1	19.7	51.1	27.0	2.2	25.4	30.4
Bahrain	722	32.3	31.1	65.2	31.1	65.2	3.5	0.2	37.4	27.1
Brazil	3173	18.2	16.2	72.6	16.2	72.6	10.6	0.7	15.4	21.4
Chile	638	16.7	14.8	74.1	14.8	74.1	10.7	0.5	15.7	17.5
Chinese Taipei	470	66.1	65.9	33.9	65.9	33.9	0.2	0.0	68.1	64.3
Cyprus	587	40.6	37.6	55.0	37.6	55.0	6.9	0.6	39.8	41.5
Czech Republic	1145	37.9	37.1	60.7	37.1	60.7	2.2	0.0	39.3	36.8
England	592	43.1	41.4	54.7	41.4	54.7	3.6	0.3	42.3	43.7
Finland	800	27.8	27.0	70.1	27.0	70.1	2.7	0.2	29.5	25.9
France	636	11.0	10.5	85.0	10.5	85.0	4.3	0.1	7.5	14.5
Georgia	0	.	.	.	.	.	.	.	.	.
Hong Kong SAR	635	42.2	39.3	53.9	39.3	53.9	6.3	0.5	42.4	41.9
Hungary	759	62.9	62.4	36.8	62.4	36.8	0.8	0.0	63.6	62.3
Ireland	718	28.1	27.3	69.8	27.3	69.8	2.9	0.0	24.9	31.1
Israel	729	18.6	17.4	76.1	17.4	76.1	6.3	0.3	16.9	20.3
Italy	646	34.7	33.3	62.6	33.3	62.6	4.1	0.0	35.3	34.2
Japan	326	40.5	39.6	58.1	39.6	58.1	2.3	0.0	41.0	40.0
Jordan	1381	19.0	18.3	77.8	18.3	77.8	3.4	0.4	25.4	13.0
Kazakhstan	893	37.9	35.6	58.4	35.6	58.4	5.8	0.2	40.2	36.0
Korea, Rep. of	363	62.1	60.9	37.2	60.9	37.2	1.9	0.0	64.5	59.4
Lithuania	750	42.0	40.8	56.3	40.8	56.3	2.8	0.0	39.4	44.5
Malaysia	1232	26.8	26.4	72.3	26.4	72.3	1.3	0.0	25.3	28.4
Malta	547	37.3	35.7	60.2	35.7	60.2	4.1	0.0	37.2	37.4
Morocco	1737	4.9	3.4	66.6	3.4	66.6	28.4	1.6	3.5	6.2
New Zealand	552	34.7	32.9	61.9	32.9	61.9	4.8	0.3	30.4	38.3
Norway (9)	890	47.0	43.9	49.5	43.9	49.5	5.8	0.8	45.4	48.4
Oman	1642	60.6	58.9	38.3	58.9	38.3	2.5	0.2	67.8	53.5
Palestinian Nat'l Auth.	1302	26.0	24.5	69.7	24.5	69.7	5.0	0.7	29.5	22.5
Portugal	768	27.0	26.2	70.9	26.2	70.9	2.5	0.4	27.0	27.0
Qatar	593	42.0	40.4	55.9	40.4	55.9	3.4	0.4	44.8	39.2
Romania	526	37.8	35.1	57.6	35.1	57.6	7.0	0.3	41.2	34.3
Saudi Arabia	1171	19.0	18.6	79.1	18.6	79.1	1.8	0.5	24.2	14.2
Singapore	400	72.9	72.7	27.0	72.7	27.0	0.3	0.0	78.0	68.8
Sweden	718	34.4	33.3	63.4	33.3	63.4	3.1	0.2	34.2	34.6
Turkiye	694	63.7	60.9	34.7	60.9	34.7	4.4	0.0	68.7	58.1
United Arab Emirates	5305	28.1	26.9	69.0	26.9	69.0	3.4	0.7	29.3	26.8
United States	1154	45.0	44.1	53.9	44.1	53.9	1.6	0.4	47.0	43.2
Uzbekistan	606	29.3	26.7	64.2	26.7	64.2	7.5	1.6	29.3	29.4
International Avg. (39)	38492	37.3	35.7	58.8	35.7	58.8	5.1	0.4	38.1	36.6
Abu Dhabi, UAE	2408	24.0	22.7	71.7	22.7	71.7	4.8	0.8	26.8	21.2
Dubai, UAE	1160	35.2	34.4	63.4	34.4	63.4	2.0	0.2	33.7	36.6
Sharjah, UAE	889	31.4	30.5	66.7	30.5	66.7	2.1	0.7	31.2	31.5

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Knowing

B_SE5_12 SE82307: Primary component of Earth's crust - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1187	65.0	64.8	30.3	2.7	1.9	0.0	0.3	59.6	69.5
Austria	643	81.6	81.6	13.8	3.1	1.5	0.0	0.0	80.2	82.8
Azerbaijan	869	74.9	72.6	12.7	8.9	2.6	0.7	2.3	78.4	71.5
Bahrain	722	51.4	51.2	27.9	10.5	10.1	0.2	0.2	52.8	50.0
Brazil	3173	66.2	65.0	17.2	10.7	5.3	1.0	0.8	65.7	66.8
Chile	638	64.3	63.4	21.8	9.1	4.3	0.9	0.5	62.1	66.2
Chinese Taipei	470	72.3	72.3	22.3	2.3	3.1	0.0	0.0	70.7	73.6
Cyprus	587	55.1	54.5	23.5	14.3	6.6	0.6	0.6	55.2	55.0
Czech Republic	1145	88.5	88.5	8.9	1.5	1.1	0.0	0.0	88.5	88.6
England	593	62.8	62.6	32.5	2.7	1.8	0.0	0.3	55.8	69.0
Finland	800	71.4	71.0	21.9	3.1	3.5	0.2	0.2	74.2	68.4
France	636	70.3	69.9	24.4	2.2	3.0	0.4	0.1	74.0	66.7
Georgia	686	60.7	59.8	9.9	20.7	8.2	0.7	0.7	56.4	65.2
Hong Kong SAR	637	70.0	69.4	17.9	7.3	4.5	0.4	0.5	67.0	73.2
Hungary	759	81.4	81.4	14.5	2.4	1.8	0.0	0.0	80.2	82.5
Ireland	718	65.3	65.3	29.9	2.7	2.1	0.0	0.0	61.3	68.9
Israel	729	50.1	49.4	25.5	11.1	12.6	1.1	0.3	49.3	50.9
Italy	646	78.3	78.3	17.9	2.3	1.5	0.0	0.0	81.5	75.5
Japan	326	53.3	53.1	41.2	2.8	2.5	0.4	0.0	48.3	58.6
Jordan	1387	65.0	64.4	18.7	8.5	7.6	0.5	0.4	65.0	65.0
Kazakhstan	893	81.8	81.2	10.3	6.1	1.7	0.3	0.4	82.6	81.1
Korea, Rep. of	363	90.4	90.4	6.0	2.7	1.0	0.0	0.0	94.5	85.7
Lithuania	750	74.9	74.9	15.6	6.7	2.9	0.0	0.0	76.2	73.6
Malaysia	1232	39.0	38.9	24.7	25.8	10.5	0.0	0.1	36.2	41.9
Malta	547	66.7	66.6	25.7	5.0	2.6	0.2	0.0	65.5	67.8
Morocco	1737	39.2	38.2	28.2	21.5	9.6	0.4	2.1	37.5	40.9
New Zealand	553	58.5	58.1	33.8	2.3	5.2	0.3	0.3	57.6	59.2
Norway (9)	890	60.1	59.3	12.7	17.2	9.4	0.4	1.0	56.1	63.6
Oman	1642	66.1	65.6	21.1	6.7	5.8	0.5	0.3	70.1	62.1
Palestinian Nat'l Auth.	1302	59.5	58.8	19.8	12.2	8.0	0.4	0.7	64.6	54.5
Portugal	769	67.3	67.0	26.3	2.8	3.5	0.0	0.4	68.2	66.3
Qatar	593	72.6	72.2	17.4	6.1	3.8	0.2	0.4	75.4	69.9
Romania	526	75.3	74.8	17.3	4.9	2.3	0.0	0.7	74.7	75.9
Saudi Arabia	1171	56.6	56.2	26.6	9.4	7.1	0.2	0.5	56.1	57.1
Singapore	400	58.0	58.0	35.0	1.7	5.3	0.0	0.0	53.9	61.3
Sweden	718	63.8	63.3	17.4	9.7	8.8	0.3	0.4	60.8	66.6
Turkiye	694	69.6	69.0	19.3	6.0	4.9	0.9	0.0	71.1	67.9
United Arab Emirates	5305	60.4	59.7	24.5	8.6	6.1	0.3	0.8	59.0	61.7
United States	1155	65.2	64.7	27.3	3.9	3.3	0.2	0.6	61.7	68.6
Uzbekistan	606	64.2	61.0	14.9	14.3	4.9	3.0	2.0	66.1	62.3
International Avg. (40)	39197	65.9	65.4	21.4	7.6	4.8	0.4	0.4	65.4	66.4
Abu Dhabi, UAE	2408	54.2	53.4	25.4	11.4	8.3	0.6	0.9	55.5	53.0
Dubai, UAE	1160	69.6	69.1	23.0	3.8	3.3	0.3	0.5	63.9	75.2
Sharjah, UAE	889	61.8	61.3	25.0	8.0	4.9	0.0	0.8	58.6	64.8

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Applying

B_SE5_13 SE82333: January temperatures at three places on Earth - CR - 1 Point

COUNTRY	N	DIFF %	1 %	0 %	1pt %	0pt %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1187	64.9	64.6	34.9	64.6	34.9	0.2	0.3	61.8	67.6
Austria	643	52.1	52.1	47.9	52.1	47.9	0.0	0.0	46.8	56.5
Azerbaijan	869	37.8	35.1	57.8	35.1	57.8	4.8	2.4	37.4	38.2
Bahrain	722	37.1	36.8	62.5	36.8	62.5	0.5	0.2	37.7	36.4
Brazil	3173	29.9	29.0	68.0	29.0	68.0	1.4	1.6	29.3	30.6
Chile	638	27.5	26.8	70.9	26.8	70.9	1.8	0.5	25.2	29.4
Chinese Taipei	470	57.4	57.4	42.6	57.4	42.6	0.0	0.0	57.1	57.6
Cyprus	587	51.0	50.1	48.2	50.1	48.2	1.2	0.6	48.7	53.1
Czech Republic	1145	61.6	61.5	38.4	61.5	38.4	0.1	0.0	59.0	63.8
England	593	65.6	64.5	33.8	64.5	33.8	1.4	0.3	61.0	69.7
Finland	800	69.6	69.0	30.2	69.0	30.2	0.5	0.3	70.3	68.9
France	636	47.7	47.3	51.8	47.3	51.8	0.7	0.1	43.9	51.4
Georgia	686	41.0	40.0	57.6	40.0	57.6	1.7	0.7	41.5	40.4
Hong Kong SAR	637	53.3	52.6	46.1	52.6	46.1	0.8	0.5	55.6	50.8
Hungary	759	55.9	55.9	44.1	55.9	44.1	0.0	0.0	49.4	62.2
Ireland	718	65.8	65.8	34.2	65.8	34.2	0.0	0.0	58.9	72.2
Israel	729	38.5	38.1	60.8	38.1	60.8	0.6	0.5	38.6	38.4
Italy	646	43.3	43.1	56.5	43.1	56.5	0.4	0.0	36.0	49.9
Japan	326	61.5	60.8	38.1	60.8	38.1	1.1	0.0	54.7	68.7
Jordan	1387	28.9	28.5	70.1	28.5	70.1	0.6	0.8	28.2	29.5
Kazakhstan	893	41.5	40.8	57.6	40.8	57.6	0.8	0.7	48.3	35.7
Korea, Rep. of	363	41.8	41.8	58.2	41.8	58.2	0.0	0.0	41.1	42.5
Lithuania	750	58.6	58.5	41.3	58.5	41.3	0.2	0.0	57.1	60.0
Malaysia	1232	44.4	44.4	55.6	44.4	55.6	0.0	0.1	46.9	41.7
Malta	547	48.5	48.5	51.5	48.5	51.5	0.0	0.0	47.3	49.7
Morocco	1737	28.3	27.4	69.4	27.4	69.4	1.0	2.2	26.8	29.8
New Zealand	553	60.8	60.3	38.9	60.3	38.9	0.5	0.3	54.7	65.9
Norway (9)	890	59.6	58.8	39.7	58.8	39.7	0.5	1.0	58.5	60.7
Oman	1642	35.9	35.6	63.7	35.6	63.7	0.2	0.5	35.8	35.9
Palestinian Nat'l Auth.	1302	28.5	27.9	70.2	27.9	70.2	0.8	1.1	32.1	24.9
Portugal	769	47.6	47.3	52.2	47.3	52.2	0.1	0.4	39.9	55.0
Qatar	593	41.7	41.4	57.9	41.4	57.9	0.3	0.4	40.5	42.7
Romania	526	42.4	41.4	56.3	41.4	56.3	1.6	0.7	40.7	44.3
Saudi Arabia	1171	31.0	30.8	68.6	30.8	68.6	0.1	0.5	29.8	32.0
Singapore	400	59.0	59.0	41.0	59.0	41.0	0.0	0.0	65.1	54.1
Sweden	718	62.7	62.3	37.1	62.3	37.1	0.0	0.5	57.2	67.9
Turkiye	694	39.0	38.8	60.8	38.8	60.8	0.4	0.0	43.6	33.7
United Arab Emirates	5305	45.4	44.9	53.9	44.9	53.9	0.4	0.9	45.4	45.5
United States	1155	51.5	50.9	48.0	50.9	48.0	0.3	0.8	49.8	53.2
Uzbekistan	606	32.3	30.5	64.1	30.5	64.1	1.6	3.8	31.5	33.1
International Avg. (40)	39197	47.3	46.8	52.0	46.8	52.0	0.7	0.6	45.8	48.6
Abu Dhabi, UAE	2408	39.7	39.1	59.3	39.1	59.3	0.7	1.0	41.3	38.2
Dubai, UAE	1160	58.5	58.0	41.1	58.0	41.1	0.3	0.5	56.1	60.9
Sharjah, UAE	889	44.6	44.2	54.9	44.2	54.9	0.1	0.8	44.0	45.1

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Applying

B_SE5_14 SE82304: Relationship between altitude and temperature - MC - Key: B

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1186	35.7	27.5	35.4	8.1	28.0	0.8	0.3	27.7	42.4
Austria	643	29.8	29.1	29.6	7.2	33.4	0.8	0.0	25.2	33.7
Azerbaijan	869	28.7	27.9	24.8	8.5	25.2	10.9	2.8	28.4	29.1
Bahrain	722	22.4	35.2	22.1	9.8	31.5	0.9	0.5	22.9	22.1
Brazil	3173	24.7	25.1	23.6	12.6	34.3	2.6	1.7	24.3	25.1
Chile	638	28.7	30.5	27.4	7.9	29.8	4.0	0.5	30.3	27.4
Chinese Taipei	470	63.5	22.3	63.2	1.1	13.0	0.4	0.0	64.5	62.6
Cyprus	587	27.2	29.6	26.5	11.0	30.2	2.0	0.7	25.9	28.4
Czech Republic	1145	41.2	17.7	41.1	9.5	31.4	0.3	0.0	34.5	47.0
England	593	34.0	31.3	33.6	8.2	25.7	0.9	0.3	25.3	41.6
Finland	800	40.6	19.8	39.9	12.4	26.1	1.3	0.5	35.8	45.7
France	636	35.2	25.2	34.5	7.1	31.1	1.7	0.3	31.2	39.1
Georgia	686	20.6	29.5	19.8	7.7	39.1	3.1	0.7	19.8	21.5
Hong Kong SAR	637	35.2	32.8	34.6	6.6	24.4	1.1	0.5	30.6	40.0
Hungary	759	35.3	18.2	35.2	7.9	38.3	0.4	0.0	28.6	41.8
Ireland	718	37.9	23.1	37.6	8.7	29.9	0.8	0.0	35.5	40.2
Israel	729	28.8	36.6	28.2	10.0	22.9	1.9	0.5	26.9	30.8
Italy	646	35.9	27.5	35.5	7.4	28.4	1.2	0.0	33.5	38.0
Japan	326	63.4	18.8	63.4	2.5	15.3	0.0	0.0	57.9	69.4
Jordan	1387	24.0	36.9	23.5	13.6	24.0	0.8	1.1	26.8	21.3
Kazakhstan	893	24.9	25.7	24.0	10.9	35.7	2.4	1.2	24.5	25.3
Korea, Rep. of	363	44.7	27.6	44.7	2.7	24.9	0.0	0.0	42.8	46.9
Lithuania	750	32.3	22.1	32.2	7.0	38.3	0.3	0.0	27.6	36.7
Malaysia	1232	20.7	23.8	20.7	9.2	46.2	0.0	0.1	18.8	22.7
Malta	547	26.1	29.2	25.7	10.1	33.4	1.6	0.0	22.5	29.6
Morocco	1737	16.0	33.6	15.3	8.6	38.3	1.2	3.0	16.4	15.6
New Zealand	553	32.0	28.8	31.6	9.1	29.2	1.0	0.3	28.5	35.0
Norway (9)	890	31.2	27.5	30.2	8.5	30.6	1.9	1.2	28.3	33.8
Oman	1642	28.5	43.7	28.1	6.9	19.9	0.7	0.7	32.0	25.0
Palestinian Nat'l Auth.	1302	24.8	32.0	24.3	11.2	30.3	1.1	1.1	26.8	22.9
Portugal	769	32.9	26.3	32.6	8.3	31.8	0.7	0.4	28.8	37.0
Qatar	592	24.8	38.8	24.5	9.6	25.8	0.9	0.4	29.8	20.0
Romania	526	33.8	22.6	32.5	10.5	30.4	3.3	0.7	31.1	36.6
Saudi Arabia	1171	22.8	43.9	22.6	11.5	21.1	0.4	0.5	21.3	24.2
Singapore	400	54.2	27.5	54.0	4.1	14.0	0.5	0.0	54.2	54.2
Sweden	718	35.5	30.1	35.1	9.1	24.5	0.8	0.5	30.4	40.4
Turkiye	694	37.1	38.6	36.9	5.6	18.1	0.8	0.0	32.9	42.0
United Arab Emirates	5305	33.0	37.2	32.5	6.4	22.4	0.6	1.0	29.9	36.0
United States	1155	40.4	29.0	39.9	6.8	23.0	0.4	0.9	36.5	44.2
Uzbekistan	606	14.6	28.2	13.5	14.3	36.9	2.7	4.4	14.0	15.1
International Avg. (40)	39195	32.6	29.0	32.0	8.5	28.4	1.4	0.7	30.3	34.8
Abu Dhabi, UAE	2408	29.5	36.9	29.0	8.0	24.4	0.6	1.1	28.0	31.0
Dubai, UAE	1160	43.9	33.0	43.5	4.3	18.3	0.4	0.6	38.7	49.0
Sharjah, UAE	889	31.1	38.6	30.6	6.0	23.4	0.5	0.9	27.0	35.0

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

Produced by TIMSS & PIRLS International Study Center at Boston College

Science: Earth Science / Reasoning

B_SE5_15 SE82721: Evidence of global warming - MC - Key: A

COUNTRY	N	DIFF %	A %	B %	C %	D %	OMITTED %	NOT REACHED %	GIRL PCT RIGHT	BOY PCT RIGHT
Australia	1187	70.3	69.7	9.7	9.0	10.8	0.5	0.3	68.2	72.3
Austria	643	70.8	70.8	11.2	9.4	8.5	0.0	0.1	69.4	72.1
Azerbaijan	869	45.3	42.9	14.0	16.0	21.8	1.8	3.6	43.1	47.5
Bahrain	722	46.9	46.6	15.1	20.3	17.5	0.0	0.5	49.0	44.8
Brazil	3173	39.3	38.3	15.9	13.1	30.0	0.6	2.0	38.0	40.8
Chile	638	53.9	53.1	12.1	17.7	15.6	1.0	0.5	53.4	54.4
Chinese Taipei	470	86.7	86.7	5.9	3.7	3.7	0.0	0.0	85.4	87.8
Cyprus	587	62.2	61.2	10.2	11.9	15.1	0.5	1.1	61.7	62.7
Czech Republic	1145	77.6	77.5	4.0	4.8	13.6	0.1	0.0	77.6	77.6
England	593	79.1	78.6	7.0	8.0	5.8	0.3	0.3	77.6	80.3
Finland	800	81.2	80.5	5.4	8.2	5.1	0.3	0.5	80.4	81.9
France	636	57.6	57.2	15.7	12.1	14.4	0.2	0.4	55.0	60.0
Georgia	686	50.3	49.4	10.3	10.6	28.0	1.0	0.7	52.6	47.8
Hong Kong SAR	637	79.8	79.1	8.0	5.9	6.0	0.2	0.7	80.2	79.5
Hungary	759	79.5	79.5	6.9	4.9	8.6	0.0	0.0	76.1	82.8
Ireland	718	81.3	81.0	7.8	4.5	6.5	0.1	0.3	81.3	81.2
Israel	729	56.8	56.3	20.7	11.3	10.8	0.2	0.6	52.3	61.5
Italy	646	66.3	66.1	15.2	8.5	9.8	0.3	0.0	65.0	67.5
Japan	326	78.4	78.4	3.9	10.1	7.7	0.0	0.0	75.0	82.0
Jordan	1387	40.5	39.9	15.8	17.5	25.5	0.1	1.2	40.7	40.2
Kazakhstan	893	56.9	55.4	12.8	10.6	18.6	0.5	2.2	52.7	60.4
Korea, Rep. of	363	63.3	63.3	9.6	15.1	12.0	0.0	0.0	64.7	61.7
Lithuania	750	74.4	74.3	8.1	7.7	9.7	0.2	0.0	74.2	74.7
Malaysia	1232	42.1	42.0	17.1	22.6	18.0	0.2	0.1	38.5	45.9
Malta	547	65.8	65.4	13.1	12.2	8.6	0.4	0.3	61.8	69.7
Morocco	1737	17.2	16.4	26.9	34.8	17.6	1.1	3.2	15.2	19.1
New Zealand	553	73.2	71.9	11.4	5.8	9.2	1.3	0.5	72.6	73.6
Norway (9)	890	65.7	64.5	13.3	12.1	8.2	0.5	1.4	65.9	65.6
Oman	1641	39.2	38.7	16.0	21.1	23.0	0.4	0.8	41.1	37.3
Palestinian Nat'l Auth.	1302	31.8	31.3	21.0	20.3	25.8	0.3	1.2	32.2	31.5
Portugal	769	59.1	58.7	10.9	14.2	15.5	0.2	0.5	58.2	60.0
Qatar	593	54.2	53.6	16.3	12.9	16.1	0.3	0.9	58.3	50.3
Romania	526	52.0	51.5	17.8	9.9	19.9	0.3	0.7	50.4	53.7
Saudi Arabia	1171	43.3	43.0	18.0	19.3	18.9	0.2	0.6	46.1	40.8
Singapore	400	79.9	79.9	6.5	5.3	8.2	0.0	0.0	82.7	77.7
Sweden	718	69.9	69.4	10.4	9.4	10.0	0.2	0.5	64.9	74.6
Turkiye	694	75.5	74.9	4.9	10.1	9.3	0.5	0.2	75.0	76.0
United Arab Emirates	5305	53.3	52.4	14.9	18.4	12.7	0.4	1.2	52.4	54.1
United States	1155	68.9	68.1	10.8	9.5	10.4	0.1	1.0	66.0	71.7
Uzbekistan	606	47.0	44.0	10.0	15.9	23.8	0.6	5.7	46.9	47.0
International Avg. (40)	39196	60.9	60.3	12.1	12.4	14.0	0.4	0.8	60.0	61.8
Abu Dhabi, UAE	2408	44.0	43.1	17.7	21.9	15.2	0.7	1.4	44.5	43.6
Dubai, UAE	1160	71.8	71.2	10.5	9.8	7.7	0.1	0.7	69.0	74.6
Sharjah, UAE	889	55.7	55.1	14.2	19.0	10.6	0.0	1.0	52.1	59.3

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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