

Science: Biology / Applying
SP04_01 SP72002: Unusual characteristics of echidna - MC - Key: D

| COUNTRY | N | DIFF % | A % | B % | C % | D % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 1992 | 28.4 | 12.0 | 24.4 | 12.9 | 19.5 | 14.9 | 16.2 | 30.9 | 26.1 |
| Iran, Islamic Rep. of | 1559 | 48.3 | 20.5 | 13.4 | 15.9 | 46.5 | 3.5 | 0.2 | 48.5 | 48.1 |
| Kuwait | 1078 | 40.6 | 24.4 | 18.9 | 12.9 | 38.5 | 5.1 | 0.2 | 44.1 | 37.1 |
| South Africa (9) | 2988 | 32.5 | 21.1 | 29.0 | 15.9 | 31.9 | 1.8 | 0.3 | 31.3 | 32.8 |
| International Avg. (4) | 7617 | 37.5 | 19.5 | 21.4 | 14.4 | 34.1 | 6.3 | 4.2 | 38.7 | 36.0 |

Science: Biology / Knowing

SP04_03 SP72021: 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 |
|------------------------|------|-----------|--------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 1993 | 31.9 | 18.2 | 20.4 | 15.0 | 10.4 | 17.5 | 18.6 | 32.3 | 31.6 |
| Iran, Islamic Rep. of | 1559 | 60.1 | 18.0 | 56.3 | 9.8 | 9.5 | 6.0 | 0.4 | 61.7 | 58.6 |
| Kuwait | 1078 | 39.5 | 30.2 | 37.0 | 12.9 | 13.5 | 6.1 | 0.3 | 41.0 | 38.0 |
| South Africa (9) | 2991 | 30.4 | 17.3 | 28.8 | 23.3 | 25.5 | 4.5 | 0.7 | 27.6 | 32.9 |
| International Avg. (4) | 7621 | 40.5 | 20.9 | 35.6 | 15.2 | 14.7 | 8.5 | 5.0 | 40.6 | 40.3 |

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Biology / Applying

SP04_04 SP72082: 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 |
|------------------------|------|-----------|---------|---------|----------|----------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 1994 | 8.1 | 5.8 | 66.4 | 5.8 | 66.4 | 7.5 | 20.3 | 9.6 | 6.7 |
| Iran, Islamic Rep. of | 1559 | 33.1 | 32.4 | 65.4 | 32.4 | 65.4 | 1.6 | 0.7 | 39.4 | 27.2 |
| Kuwait | 1077 | 36.2 | 35.1 | 62.0 | 35.1 | 62.0 | 2.6 | 0.3 | 39.1 | 33.3 |
| South Africa (9) | 2992 | 17.4 | 16.8 | 79.4 | 16.8 | 79.4 | 2.9 | 1.0 | 19.0 | 15.5 |
| International Avg. (4) | 7622 | 23.7 | 22.5 | 68.3 | 22.5 | 68.3 | 3.7 | 5.6 | 26.7 | 20.7 |

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Biology / Applying

SP04_05 SP72066: Identify predators in diagram - MC - Key: C

| COUNTRY | N | DIFF % | A % | B % | C % | D % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 1989 | 17.4 | 16.9 | 22.1 | 9.9 | 7.9 | 21.3 | 21.9 | 19.8 | 15.2 |
| Iran, Islamic Rep. of | 1559 | 39.6 | 26.4 | 22.8 | 35.9 | 5.6 | 8.6 | 0.8 | 38.9 | 40.3 |
| Kuwait | 1077 | 43.1 | 24.4 | 20.2 | 40.0 | 8.3 | 6.6 | 0.5 | 43.4 | 42.8 |
| South Africa (9) | 2981 | 19.6 | 27.2 | 33.8 | 18.7 | 15.9 | 3.2 | 1.2 | 19.5 | 19.8 |
| International Avg. (4) | 7606 | 29.9 | 23.7 | 24.7 | 26.1 | 9.4 | 9.9 | 6.1 | 30.4 | 29.5 |

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Biology / Knowing

SP04_06 SP72063: How carbon gets into wood - MC - Key: B

| COUNTRY | N | DIFF % | A % | B % | C % | D % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 1992 | 16.3 | 7.1 | 10.1 | 30.2 | 14.6 | 14.5 | 23.4 | 15.4 | 17.2 |
| Iran, Islamic Rep. of | 1559 | 24.5 | 19.9 | 23.2 | 36.3 | 15.0 | 4.7 | 0.9 | 20.2 | 28.6 |
| Kuwait | 1078 | 30.6 | 29.0 | 29.6 | 27.1 | 11.1 | 2.6 | 0.7 | 29.8 | 31.3 |
| South Africa (9) | 2990 | 27.4 | 23.4 | 26.5 | 30.5 | 16.2 | 1.4 | 2.0 | 27.9 | 27.2 |
| International Avg. (4) | 7619 | 24.7 | 19.9 | 22.4 | 31.0 | 14.2 | 5.8 | 6.7 | 23.3 | 26.1 |

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Chemistry / Knowing

SP04_07 SP72102: 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 |
|------------------------|------|-----------|---------|---------|----------|----------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 1995 | 1.2 | 0.5 | 36.5 | 0.5 | 36.5 | 38.1 | 24.9 | 2.5 | 0.0 |
| Iran, Islamic Rep. of | 1559 | 78.3 | 58.4 | 16.2 | 58.4 | 16.2 | 24.4 | 1.0 | 82.6 | 73.7 |
| Kuwait | 1075 | 48.7 | 42.6 | 44.9 | 42.6 | 44.9 | 11.6 | 0.9 | 46.8 | 50.9 |
| South Africa (9) | 2990 | 33.4 | 30.8 | 61.4 | 30.8 | 61.4 | 5.5 | 2.3 | 36.1 | 30.3 |
| International Avg. (4) | 7619 | 40.4 | 33.1 | 39.7 | 33.1 | 39.7 | 19.9 | 7.3 | 42.0 | 38.7 |

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Chemistry / Reasoning

SP04_08A SP72141A: 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 |
|------------------------|------|-----------|---------|---------|----------|----------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 1994 | 11.5 | 2.0 | 15.2 | 2.0 | 15.2 | 56.0 | 26.8 | 12.8 | 10.1 |
| Iran, Islamic Rep. of | 1559 | 27.3 | 11.3 | 30.1 | 11.3 | 30.1 | 57.6 | 1.0 | 29.5 | 25.0 |
| Kuwait | 1077 | 34.0 | 12.8 | 24.8 | 12.8 | 24.8 | 61.3 | 1.1 | 38.3 | 27.8 |
| South Africa (9) | 2992 | 12.8 | 11.2 | 76.5 | 11.2 | 76.5 | 9.9 | 2.4 | 14.7 | 10.7 |
| International Avg. (4) | 7622 | 21.4 | 9.3 | 36.6 | 9.3 | 36.6 | 46.2 | 7.9 | 23.8 | 18.4 |

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Chemistry / Reasoning

SP04_08B SP72141B: 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 |
|------------------------|------|-----------|---------|---------|---------|----------|----------|----------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 1994 | 4.3 | 0.2 | 2.2 | 27.8 | 0.2 | 2.2 | 27.8 | 42.1 | 27.7 | 5.4 | 3.4 |
| Iran, Islamic Rep. of | 1559 | 23.5 | 7.7 | 11.6 | 38.3 | 7.7 | 11.6 | 38.3 | 41.1 | 1.2 | 25.6 | 21.3 |
| Kuwait | 1077 | 12.6 | 4.5 | 8.9 | 57.5 | 4.5 | 8.9 | 57.5 | 27.7 | 1.4 | 14.0 | 10.6 |
| South Africa (9) | 2992 | 8.5 | 3.1 | 8.4 | 74.1 | 3.1 | 8.4 | 74.1 | 11.3 | 3.1 | 8.5 | 8.7 |
| International Avg. (4) | 7622 | 12.2 | 3.9 | 7.8 | 49.5 | 3.9 | 7.8 | 49.5 | 30.5 | 8.3 | 13.4 | 11.0 |

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Chemistry / Applying

SP04_09 SP72921: 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 |
|------------------------|------|-----------|---------|---------|----------|----------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 1995 | 1.5 | 1.0 | 65.1 | 1.0 | 65.1 | 6.0 | 27.9 | 2.3 | 0.7 |
| Iran, Islamic Rep. of | 1559 | 7.5 | 7.2 | 88.8 | 7.2 | 88.8 | 2.8 | 1.3 | 9.3 | 5.8 |
| Kuwait | 1076 | 11.6 | 10.9 | 83.5 | 10.9 | 83.5 | 4.1 | 1.4 | 14.7 | 8.4 |
| South Africa (9) | 2991 | 8.7 | 8.0 | 84.2 | 8.0 | 84.2 | 4.3 | 3.4 | 9.4 | 7.9 |
| International Avg. (4) | 7621 | 7.3 | 6.8 | 80.4 | 6.8 | 80.4 | 4.3 | 8.5 | 8.9 | 5.7 |

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Physics / Applying
SP04_10 SP72234: Energy transfer during temperature change - MC - Key: D

| COUNTRY | N | DIFF % | A % | B % | C % | D % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 1991 | 17.3 | 12.5 | 14.4 | 20.7 | 10.0 | 14.1 | 28.4 | 16.0 | 18.4 |
| Iran, Islamic Rep. of | 1559 | 19.8 | 27.6 | 24.8 | 23.5 | 18.7 | 3.8 | 1.6 | 19.7 | 19.8 |
| Kuwait | 1078 | 20.9 | 26.7 | 23.6 | 24.9 | 19.9 | 3.3 | 1.6 | 21.0 | 20.8 |
| South Africa (9) | 2989 | 20.2 | 28.6 | 19.0 | 27.0 | 18.9 | 2.8 | 3.7 | 20.9 | 19.6 |
| International Avg. (4) | 7617 | 19.5 | 23.9 | 20.4 | 24.0 | 16.9 | 6.0 | 8.8 | 19.4 | 19.7 |

DIFF = Percent correct
Because of missing gender information, some totals may appear inconsistent
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Science: Physics / Reasoning

SP04_11 SP72251: Where Megan should stand - MC - Key: A

| COUNTRY | N | DIFF % | A % | B % | C % | D % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 1991 | 28.3 | 17.4 | 16.2 | 13.5 | 14.2 | 8.7 | 30.0 | 27.3 | 29.2 |
| Iran, Islamic Rep. of | 1559 | 39.3 | 37.7 | 15.1 | 25.1 | 17.9 | 2.3 | 1.9 | 35.6 | 42.8 |
| Kuwait | 1077 | 33.0 | 31.8 | 16.5 | 27.4 | 20.8 | 1.9 | 1.6 | 30.9 | 35.0 |
| South Africa (9) | 2987 | 25.8 | 24.2 | 22.2 | 26.7 | 21.0 | 1.6 | 4.4 | 23.4 | 27.7 |
| International Avg. (4) | 7614 | 31.6 | 27.8 | 17.5 | 23.2 | 18.5 | 3.6 | 9.5 | 29.3 | 33.7 |

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Physics / Knowing
SP04_12 SP72284: 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 |
|------------------------|------|-----------|---------|---------|----------|----------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 1992 | 7.7 | 2.2 | 25.9 | 2.2 | 25.9 | 41.5 | 30.4 | 7.7 | 7.6 |
| Iran, Islamic Rep. of | 1559 | 47.8 | 36.8 | 40.2 | 36.8 | 40.2 | 20.8 | 2.2 | 48.8 | 46.9 |
| Kuwait | 1077 | 50.2 | 42.1 | 41.7 | 42.1 | 41.7 | 14.3 | 1.9 | 47.1 | 53.9 |
| South Africa (9) | 2992 | 32.0 | 28.6 | 60.9 | 28.6 | 60.9 | 5.7 | 4.8 | 30.0 | 34.0 |
| International Avg. (4) | 7620 | 34.4 | 27.4 | 42.2 | 27.4 | 42.2 | 20.6 | 9.8 | 33.4 | 35.6 |

DIFF = Percent correct
Because of missing gender information, some totals may appear inconsistent
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Science: Earth Science / Applying

SP04_13 SP72345: 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 |
|------------------------|------|-----------|---------|---------|---------|----------|----------|----------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 1990 | 12.1 | 0.9 | 8.6 | 33.5 | 0.9 | 8.6 | 33.5 | 22.8 | 34.2 | 12.7 | 11.6 |
| Iran, Islamic Rep. of | 1559 | 36.3 | 16.4 | 32.5 | 41.2 | 16.4 | 32.5 | 41.2 | 6.2 | 3.7 | 39.3 | 33.4 |
| Kuwait | 1077 | 31.6 | 13.3 | 32.3 | 47.4 | 13.3 | 32.3 | 47.4 | 4.6 | 2.4 | 35.6 | 27.5 |
| South Africa (9) | 2995 | 17.6 | 4.8 | 21.7 | 62.3 | 4.8 | 21.7 | 62.3 | 5.2 | 6.1 | 18.4 | 16.8 |
| International Avg. (4) | 7621 | 24.4 | 8.8 | 23.8 | 46.1 | 8.8 | 23.8 | 46.1 | 9.7 | 11.6 | 26.5 | 22.3 |

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

SP04_13A SP72345A: 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 |
|------------------------|------|-----------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 1993 | 59.4 | 23.7 | 8.3 | 7.9 | 26.0 | 34.1 | 60.6 | 58.4 |
| Iran, Islamic Rep. of | 1559 | 70.3 | 61.1 | 13.8 | 12.0 | 9.4 | 3.7 | 74.2 | 66.6 |
| Kuwait | 1078 | 73.5 | 66.7 | 14.5 | 9.5 | 6.8 | 2.4 | 75.1 | 71.8 |
| South Africa (9) | 2995 | 57.7 | 48.9 | 23.1 | 12.7 | 9.2 | 6.1 | 58.3 | 56.6 |
| International Avg. (4) | 7625 | 65.2 | 50.1 | 14.9 | 10.5 | 12.8 | 11.6 | 67.1 | 63.3 |

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

SP04_13B SP72345B: 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 |
|------------------------|------|-----------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 1992 | 50.7 | 8.8 | 20.2 | 10.8 | 26.0 | 34.2 | 55.0 | 46.9 |
| Iran, Islamic Rep. of | 1559 | 76.9 | 6.8 | 67.6 | 13.4 | 8.5 | 3.7 | 78.0 | 75.9 |
| Kuwait | 1077 | 65.1 | 7.2 | 58.9 | 24.3 | 7.1 | 2.4 | 67.7 | 62.3 |
| South Africa (9) | 2995 | 54.0 | 8.9 | 45.7 | 30.1 | 9.2 | 6.1 | 55.4 | 51.9 |
| International Avg. (4) | 7623 | 61.7 | 7.9 | 48.1 | 19.7 | 12.7 | 11.6 | 64.0 | 59.2 |

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

SP04_13C SP72345C: Reduce, reuse, or recycle - recharging batteries - MC - Key: B

| COUNTRY | N | DIFF % | A % | B % | C % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 1993 | 54.2 | 9.3 | 21.0 | 8.5 | 27.1 | 34.1 | 52.8 | 55.4 |
| Iran, Islamic Rep. of | 1559 | 72.7 | 11.4 | 62.6 | 12.1 | 10.2 | 3.7 | 71.6 | 73.8 |
| Kuwait | 1077 | 75.5 | 8.9 | 66.6 | 12.7 | 9.3 | 2.4 | 78.1 | 72.8 |
| South Africa (9) | 2995 | 58.1 | 21.6 | 48.3 | 13.3 | 10.7 | 6.1 | 60.1 | 56.6 |
| International Avg. (4) | 7624 | 65.1 | 12.8 | 49.6 | 11.7 | 14.3 | 11.6 | 65.6 | 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 / Applying

SP04_13D SP72345D: 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 |
|------------------------|------|-----------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 1991 | 53.4 | 6.2 | 12.4 | 21.4 | 25.8 | 34.2 | 58.5 | 49.1 |
| Iran, Islamic Rep. of | 1559 | 75.6 | 8.5 | 12.8 | 65.9 | 9.1 | 3.7 | 79.6 | 71.6 |
| Kuwait | 1077 | 77.3 | 5.9 | 14.7 | 70.1 | 6.9 | 2.4 | 81.2 | 73.0 |
| South Africa (9) | 2995 | 60.8 | 10.8 | 22.7 | 51.9 | 8.5 | 6.1 | 64.0 | 57.0 |
| International Avg. (4) | 7622 | 66.8 | 7.9 | 15.7 | 52.3 | 12.6 | 11.6 | 70.8 | 62.7 |

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

SP04_13E SP72345E: Reduce, reuse, or recycle - composting - MC - Key: C

| COUNTRY | N | DIFF % | A % | B % | C % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 1992 | 25.1 | 14.9 | 14.0 | 9.7 | 27.2 | 34.2 | 26.4 | 24.1 |
| Iran, Islamic Rep. of | 1559 | 51.3 | 20.4 | 22.1 | 44.8 | 9.0 | 3.7 | 50.9 | 51.7 |
| Kuwait | 1077 | 49.1 | 20.8 | 24.8 | 43.9 | 8.2 | 2.4 | 53.2 | 44.5 |
| South Africa (9) | 2995 | 25.3 | 38.9 | 24.0 | 21.3 | 9.7 | 6.1 | 24.8 | 25.3 |
| International Avg. (4) | 7623 | 37.7 | 23.8 | 21.2 | 29.9 | 13.5 | 11.6 | 38.8 | 36.4 |

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

SP04_13F SP72345F: 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 |
|------------------------|------|-----------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 1992 | 44.9 | 17.1 | 11.4 | 9.7 | 27.6 | 34.2 | 46.1 | 43.8 |
| Iran, Islamic Rep. of | 1559 | 65.9 | 57.0 | 21.3 | 8.1 | 9.8 | 3.7 | 71.1 | 60.8 |
| Kuwait | 1078 | 47.7 | 42.3 | 33.3 | 13.1 | 8.9 | 2.4 | 48.1 | 47.3 |
| South Africa (9) | 2995 | 52.0 | 43.5 | 30.3 | 9.9 | 10.2 | 6.1 | 52.8 | 51.0 |
| International Avg. (4) | 7624 | 52.6 | 40.0 | 24.1 | 10.2 | 14.2 | 11.6 | 54.5 | 50.7 |

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

SP04_13G SP72345G: 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 |
|------------------------|------|-----------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 1993 | 50.6 | 8.8 | 10.4 | 19.7 | 26.9 | 34.1 | 53.0 | 48.6 |
| Iran, Islamic Rep. of | 1559 | 57.4 | 12.8 | 24.3 | 50.1 | 9.0 | 3.7 | 61.3 | 53.6 |
| Kuwait | 1077 | 58.9 | 15.8 | 21.2 | 53.1 | 7.5 | 2.4 | 64.2 | 53.3 |
| South Africa (9) | 2995 | 56.0 | 12.4 | 24.9 | 47.4 | 9.2 | 6.1 | 58.8 | 53.5 |
| International Avg. (4) | 7624 | 55.7 | 12.5 | 20.2 | 42.6 | 13.1 | 11.6 | 59.3 | 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 / Reasoning

SP04_14 SP72349: 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 |
|------------------------|------|-----------|--------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 1992 | 34.9 | 18.3 | 14.3 | 10.1 | 9.6 | 11.3 | 36.4 | 35.0 | 34.8 |
| Iran, Islamic Rep. of | 1559 | 56.6 | 50.7 | 14.7 | 14.0 | 10.2 | 5.0 | 5.4 | 60.1 | 53.2 |
| Kuwait | 1074 | 47.6 | 44.6 | 22.1 | 16.8 | 10.1 | 2.6 | 3.7 | 48.5 | 46.7 |
| South Africa (9) | 2986 | 40.8 | 36.5 | 21.4 | 17.2 | 14.4 | 2.1 | 8.4 | 37.2 | 44.4 |
| International Avg. (4) | 7611 | 45.0 | 37.5 | 18.1 | 14.6 | 11.1 | 5.2 | 13.5 | 45.2 | 44.8 |

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Earth Science / Knowing

SP04_15 SP72363: How the Sun produces light - MC - Key: C

| COUNTRY | N | DIFF % | A % | B % | C % | D % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 1992 | 32.9 | 14.6 | 12.2 | 17.4 | 8.6 | 9.7 | 37.4 | 34.4 | 31.5 |
| Iran, Islamic Rep. of | 1559 | 49.3 | 10.4 | 18.7 | 43.9 | 16.0 | 4.1 | 6.8 | 50.4 | 48.3 |
| Kuwait | 1074 | 50.6 | 15.4 | 16.4 | 47.3 | 14.4 | 2.0 | 4.4 | 53.2 | 47.9 |
| South Africa (9) | 2986 | 40.5 | 19.2 | 18.7 | 36.1 | 15.3 | 1.0 | 9.7 | 41.8 | 39.8 |
| International Avg. (4) | 7611 | 43.3 | 14.9 | 16.5 | 36.2 | 13.6 | 4.2 | 14.6 | 44.9 | 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 / Applying

SP08_01 SP72070: Symbiosis between crocodiles and birds - MC - Key: D

| COUNTRY | N | DIFF % | A % | B % | C % | D % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2097 | 35.5 | 7.4 | 40.6 | 7.3 | 30.5 | 12.2 | 1.9 | 35.8 | 35.3 |
| Iran, Islamic Rep. of | 1551 | 76.5 | 2.0 | 18.2 | 2.7 | 74.2 | 2.6 | 0.3 | 74.4 | 78.4 |
| Kuwait | 1077 | 36.0 | 5.8 | 49.5 | 6.9 | 34.9 | 2.7 | 0.3 | 32.9 | 39.0 |
| South Africa (9) | 2976 | 36.7 | 4.8 | 55.0 | 3.0 | 36.4 | 0.8 | 0.1 | 35.5 | 38.5 |
| International Avg. (4) | 7701 | 46.2 | 5.0 | 40.8 | 5.0 | 44.0 | 4.6 | 0.7 | 44.7 | 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 / Knowing

SP08_02 SP72400: Match organs to body systems - CR - 1 Point

| COUNTRY | N | DIFF % | 10 % | 79 % | 1pt % | 0pt % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|---------|---------|----------|----------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2101 | 14.0 | 12.0 | 73.6 | 12.0 | 73.6 | 11.8 | 2.5 | 11.8 | 16.1 |
| Iran, Islamic Rep. of | 1551 | 44.5 | 43.7 | 54.4 | 43.7 | 54.4 | 1.5 | 0.3 | 44.5 | 44.5 |
| Kuwait | 1077 | 54.4 | 52.6 | 44.1 | 52.6 | 44.1 | 3.0 | 0.3 | 62.7 | 46.1 |
| South Africa (9) | 2978 | 11.2 | 10.6 | 83.8 | 10.6 | 83.8 | 5.6 | 0.1 | 12.4 | 9.8 |
| International Avg. (4) | 7707 | 31.0 | 29.7 | 64.0 | 29.7 | 64.0 | 5.5 | 0.8 | 32.8 | 29.1 |

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
SP08_03 SP72024: Removal of chloroplasts from a plant cell - MC - Key: D

| COUNTRY | N | DIFF % | A % | B % | C % | D % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2099 | 18.5 | 15.5 | 24.5 | 23.3 | 14.4 | 19.0 | 3.3 | 18.9 | 18.2 |
| Iran, Islamic Rep. of | 1551 | 42.6 | 18.8 | 11.0 | 23.5 | 39.6 | 6.8 | 0.3 | 45.4 | 40.0 |
| Kuwait | 1077 | 56.7 | 15.1 | 9.7 | 16.7 | 54.3 | 4.0 | 0.3 | 61.2 | 52.1 |
| South Africa (9) | 2975 | 34.7 | 17.0 | 9.5 | 37.4 | 33.9 | 2.1 | 0.1 | 34.2 | 34.9 |
| International Avg. (4) | 7702 | 38.1 | 16.6 | 13.7 | 25.2 | 35.5 | 8.0 | 1.0 | 39.9 | 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: Biology / Applying

SP08_04 SP72462: Largest transfer of energy in energy pyramid - MC - Key: C

| COUNTRY | N | DIFF % | A % | B % | C % | D % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2099 | 34.3 | 12.7 | 21.7 | 27.3 | 18.0 | 15.5 | 4.8 | 32.9 | 35.5 |
| Iran, Islamic Rep. of | 1551 | 56.6 | 15.2 | 12.6 | 53.7 | 13.3 | 4.8 | 0.3 | 54.2 | 58.8 |
| Kuwait | 1077 | 35.9 | 23.6 | 19.9 | 34.7 | 18.5 | 2.9 | 0.4 | 34.5 | 37.2 |
| South Africa (9) | 2972 | 31.9 | 25.0 | 22.3 | 31.5 | 19.8 | 1.3 | 0.1 | 31.7 | 32.2 |
| International Avg. (4) | 7699 | 39.7 | 19.1 | 19.1 | 36.8 | 17.4 | 6.1 | 1.4 | 38.3 | 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: Biology / Knowing

SP08_05 SP72443: Human DNA - MC - Key: B

| COUNTRY | N | DIFF % | A % | B % | C % | D % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2095 | 27.5 | 22.7 | 21.7 | 15.3 | 19.3 | 15.2 | 5.9 | 26.9 | 27.9 |
| Iran, Islamic Rep. of | 1551 | 58.7 | 21.7 | 57.3 | 9.6 | 9.0 | 2.0 | 0.4 | 59.8 | 57.7 |
| Kuwait | 1077 | 56.6 | 13.1 | 55.1 | 6.3 | 22.7 | 2.1 | 0.7 | 56.0 | 57.2 |
| South Africa (9) | 2975 | 29.9 | 39.1 | 29.3 | 12.6 | 17.2 | 1.4 | 0.3 | 31.4 | 28.3 |
| International Avg. (4) | 7698 | 43.2 | 24.2 | 40.8 | 10.9 | 17.0 | 5.2 | 1.8 | 43.5 | 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: Biology / Reasoning

SP08_06 SP72903: Relationship among grass, mice, and snakes in an ecosystem - CR - 2 Points

| COUNTRY | N | DIFF % | 20 % | 10 % | 79 % | 2pt % | 1pt % | 0pt % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|---------|---------|---------|----------|----------|----------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2098 | 5.8 | 0.7 | 2.1 | 28.4 | 0.7 | 2.1 | 28.4 | 62.3 | 6.4 | 4.5 | 6.9 |
| Iran, Islamic Rep. of | 1551 | 26.1 | 8.9 | 11.3 | 35.5 | 8.9 | 11.3 | 35.5 | 43.9 | 0.4 | 26.8 | 25.4 |
| Kuwait | 1078 | 21.6 | 6.7 | 13.7 | 42.3 | 6.7 | 13.7 | 42.3 | 36.6 | 0.7 | 20.3 | 23.2 |
| South Africa (9) | 2978 | 9.1 | 3.8 | 8.8 | 77.9 | 3.8 | 8.8 | 77.9 | 9.1 | 0.4 | 10.1 | 8.1 |
| International Avg. (4) | 7705 | 15.6 | 5.0 | 9.0 | 46.0 | 5.0 | 9.0 | 46.0 | 38.0 | 2.0 | 15.4 | 15.9 |

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

SP08_07 SP72145: John's mixture separation steps - CR - 1 Point

| COUNTRY | N | DIFF % | 10 % | 79 % | 1pt % | 0pt % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|---------|---------|----------|----------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2098 | 2.2 | 1.8 | 79.4 | 1.8 | 79.4 | 11.0 | 7.8 | 2.4 | 2.0 |
| Iran, Islamic Rep. of | 1551 | 12.8 | 12.5 | 84.9 | 12.5 | 84.9 | 2.1 | 0.5 | 15.3 | 10.6 |
| Kuwait | 1078 | 6.8 | 6.4 | 88.7 | 6.4 | 88.7 | 4.2 | 0.8 | 7.7 | 5.8 |
| South Africa (9) | 2978 | 8.4 | 8.1 | 88.4 | 8.1 | 88.4 | 3.0 | 0.5 | 10.3 | 6.8 |
| International Avg. (4) | 7705 | 7.5 | 7.2 | 85.3 | 7.2 | 85.3 | 5.0 | 2.4 | 8.9 | 6.3 |

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 / Applying

SP08_08 SP72100: Number of hydrogen atoms in Diagram A - MC - Key: C

| COUNTRY | N | DIFF % | A % | B % | C % | D % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2096 | 25.6 | 18.8 | 11.0 | 20.3 | 29.3 | 12.2 | 8.4 | 26.4 | 24.9 |
| Iran, Islamic Rep. of | 1551 | 49.2 | 26.8 | 10.7 | 47.6 | 11.6 | 2.8 | 0.6 | 53.0 | 45.7 |
| Kuwait | 1078 | 47.6 | 26.6 | 7.6 | 46.4 | 16.9 | 1.8 | 0.8 | 48.0 | 47.3 |
| South Africa (9) | 2974 | 35.1 | 34.1 | 9.4 | 34.7 | 20.6 | 0.6 | 0.5 | 36.8 | 33.4 |
| International Avg. (4) | 7699 | 39.4 | 26.6 | 9.7 | 37.3 | 19.6 | 4.3 | 2.6 | 41.0 | 37.8 |

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

SP08_10 SP72137: How carbon dioxide extinguishes a fire - MC - Key: B

| COUNTRY | N | DIFF % | A % | B % | C % | D % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2100 | 14.7 | 26.7 | 10.3 | 26.7 | 6.6 | 16.8 | 12.8 | 13.8 | 15.4 |
| Iran, Islamic Rep. of | 1551 | 54.6 | 13.6 | 52.6 | 20.1 | 9.9 | 3.0 | 0.8 | 54.0 | 55.2 |
| Kuwait | 1081 | 55.7 | 12.8 | 54.0 | 23.1 | 7.0 | 2.4 | 0.8 | 56.7 | 54.8 |
| South Africa (9) | 2972 | 23.4 | 30.5 | 22.8 | 33.4 | 10.5 | 1.9 | 0.9 | 22.3 | 24.6 |
| International Avg. (4) | 7704 | 37.1 | 20.9 | 34.9 | 25.8 | 8.5 | 6.0 | 3.8 | 36.7 | 37.5 |

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 / Knowing

SP08_11 SP72298: Information Kerry needs to calculate her average speed - CR - 1 Point

| COUNTRY | N | DIFF % | 10 % | 79 % | 1pt % | 0pt % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|---------|---------|----------|----------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2101 | 11.6 | 4.6 | 35.0 | 4.6 | 35.0 | 45.5 | 14.9 | 12.5 | 10.9 |
| Iran, Islamic Rep. of | 1551 | 10.4 | 5.9 | 50.9 | 5.9 | 50.9 | 42.3 | 0.9 | 14.7 | 6.6 |
| Kuwait | 1081 | 39.2 | 31.0 | 48.1 | 31.0 | 48.1 | 20.0 | 1.0 | 39.3 | 39.0 |
| South Africa (9) | 2977 | 25.0 | 22.7 | 68.3 | 22.7 | 68.3 | 7.9 | 1.1 | 25.9 | 24.3 |
| International Avg. (4) | 7710 | 21.6 | 16.1 | 50.5 | 16.1 | 50.5 | 28.9 | 4.4 | 23.1 | 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: Physics / Applying

SP08_12 SP72215: Masses of melted and solid cheese - CR - 2 Points

| COUNTRY | N | DIFF % | 20 % | 10 % | 11 % | 79 % | 2pt % | 1pt % | 0pt % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|---------|---------|---------|---------|----------|----------|----------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2098 | 2.8 | 0.9 | 2.4 | 0.0 | 70.8 | 0.9 | 2.4 | 70.8 | 8.9 | 17.0 | 3.1 | 2.5 |
| Iran, Islamic Rep. of | 1551 | 9.5 | 3.5 | 10.5 | 0.9 | 82.3 | 3.5 | 11.4 | 82.3 | 1.6 | 1.2 | 10.9 | 8.2 |
| Kuwait | 1081 | 7.0 | 3.4 | 6.2 | 0.3 | 86.1 | 3.4 | 6.5 | 86.1 | 2.7 | 1.3 | 6.7 | 7.3 |
| South Africa (9) | 2977 | 10.6 | 3.6 | 11.0 | 2.2 | 79.5 | 3.6 | 13.2 | 79.5 | 2.3 | 1.4 | 10.6 | 10.2 |
| International Avg. (4) | 7707 | 7.5 | 2.9 | 7.5 | 0.8 | 79.7 | 2.9 | 8.4 | 79.7 | 3.9 | 5.2 | 7.8 | 7.1 |

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

SP08_13 SP72260: Components Julia must use to build a circuit - CR - 1 Point

| COUNTRY | N | DIFF % | 10 % | 70 % | 79 % | 1pt % | 0pt % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|---------|---------|---------|----------|----------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2101 | 15.2 | 9.4 | 1.3 | 51.3 | 9.4 | 52.6 | 19.7 | 18.2 | 15.0 | 15.3 |
| Iran, Islamic Rep. of | 1551 | 22.7 | 21.6 | 31.5 | 41.8 | 21.6 | 73.3 | 3.8 | 1.3 | 18.9 | 26.4 |
| Kuwait | 1079 | 30.3 | 28.6 | 0.4 | 65.4 | 28.6 | 65.8 | 4.3 | 1.3 | 29.9 | 30.7 |
| South Africa (9) | 2977 | 27.5 | 25.1 | 0.9 | 65.2 | 25.1 | 66.1 | 7.1 | 1.7 | 24.8 | 29.9 |
| International Avg. (4) | 7708 | 23.9 | 21.2 | 8.5 | 55.9 | 21.2 | 64.5 | 8.7 | 5.6 | 22.1 | 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: Physics / Knowing
SP08_14 SP72265: Statements about magnets (DERIVED) - CR - 1 Point

| COUNTRY | N | DIFF % | 10 % | 79 % | 1pt % | 0pt % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|---------|---------|----------|----------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2098 | 15.0 | 9.5 | 53.7 | 9.5 | 53.7 | 15.0 | 21.8 | 13.2 | 16.6 |
| Iran, Islamic Rep. of | 1551 | 47.4 | 45.5 | 50.6 | 45.5 | 50.6 | 2.3 | 1.7 | 49.7 | 45.2 |
| Kuwait | 1081 | 32.0 | 30.6 | 65.0 | 30.6 | 65.0 | 2.9 | 1.5 | 33.0 | 30.9 |
| South Africa (9) | 2978 | 20.2 | 19.3 | 76.5 | 19.3 | 76.5 | 2.1 | 2.0 | 18.9 | 21.5 |
| International Avg. (4) | 7708 | 28.6 | 26.2 | 61.5 | 26.2 | 61.5 | 5.6 | 6.7 | 28.7 | 28.5 |

Science: Physics / Knowing

SP08_14A SP72265A: Statements about magnets - like poles repel - MC - Key: A

| COUNTRY | N | DIFF % | A % | B % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2098 | 74.3 | 45.3 | 15.7 | 17.2 | 21.8 | 72.8 | 75.7 |
| Iran, Islamic Rep. of | 1551 | 90.3 | 86.1 | 9.3 | 2.9 | 1.7 | 91.3 | 89.3 |
| Kuwait | 1081 | 75.5 | 71.3 | 23.1 | 4.0 | 1.5 | 74.2 | 76.9 |
| South Africa (9) | 2978 | 76.9 | 72.9 | 21.9 | 3.2 | 2.0 | 78.2 | 76.3 |
| International Avg. (4) | 7708 | 79.2 | 68.9 | 17.5 | 6.8 | 6.7 | 79.1 | 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 / Knowing

SP08_14B SP72265B: Statements about magnets - plastics are magnetic - MC - Key: B

| COUNTRY | N | DIFF % | A % | B % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2098 | 63.2 | 21.7 | 37.3 | 19.3 | 21.8 | 63.8 | 62.7 |
| Iran, Islamic Rep. of | 1551 | 89.2 | 10.3 | 84.8 | 3.2 | 1.7 | 90.3 | 88.2 |
| Kuwait | 1081 | 87.9 | 11.4 | 82.7 | 4.4 | 1.5 | 89.4 | 86.4 |
| South Africa (9) | 2978 | 81.2 | 17.9 | 77.2 | 3.0 | 2.0 | 81.1 | 81.4 |
| International Avg. (4) | 7708 | 80.4 | 15.3 | 70.5 | 7.5 | 6.7 | 81.1 | 79.7 |

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

SP08_14C SP72265C: Statements about magnets - strong magnets attract more - MC - Key: A

| COUNTRY | N | DIFF % | A % | B % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2098 | 74.7 | 44.1 | 14.9 | 19.3 | 21.8 | 73.7 | 75.6 |
| Iran, Islamic Rep. of | 1551 | 90.3 | 85.3 | 9.2 | 3.8 | 1.7 | 92.1 | 88.5 |
| Kuwait | 1081 | 90.0 | 85.3 | 9.5 | 3.7 | 1.5 | 91.4 | 88.6 |
| South Africa (9) | 2978 | 84.7 | 80.5 | 14.5 | 3.0 | 2.0 | 84.2 | 85.1 |
| International Avg. (4) | 7708 | 84.9 | 73.8 | 12.0 | 7.4 | 6.7 | 85.4 | 84.4 |

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

SP08_14D SP72265D: Statements about magnets - attract wood - MC - Key: B

| COUNTRY | N | DIFF % | A % | B % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2098 | 77.8 | 13.0 | 45.5 | 19.7 | 21.8 | 75.4 | 79.9 |
| Iran, Islamic Rep. of | 1551 | 95.6 | 4.1 | 90.6 | 3.6 | 1.7 | 97.8 | 93.6 |
| Kuwait | 1081 | 92.7 | 6.9 | 87.8 | 3.8 | 1.5 | 95.4 | 90.0 |
| South Africa (9) | 2978 | 87.9 | 11.5 | 83.1 | 3.5 | 2.0 | 88.7 | 87.3 |
| International Avg. (4) | 7708 | 88.5 | 8.9 | 76.7 | 7.7 | 6.7 | 89.3 | 87.7 |

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

SP08_14E SP72265E: Statements about magnets - size and strength - MC - Key: B

| COUNTRY | N | DIFF % | A % | B % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2098 | 44.8 | 31.9 | 25.9 | 20.4 | 21.8 | 42.1 | 47.1 |
| Iran, Islamic Rep. of | 1551 | 59.1 | 38.7 | 56.0 | 3.6 | 1.7 | 59.7 | 58.6 |
| Kuwait | 1081 | 48.9 | 48.3 | 46.1 | 4.1 | 1.5 | 48.1 | 49.6 |
| South Africa (9) | 2978 | 35.2 | 61.5 | 33.5 | 3.1 | 2.0 | 33.2 | 37.0 |
| International Avg. (4) | 7708 | 47.0 | 45.1 | 40.4 | 7.8 | 6.7 | 45.8 | 48.1 |

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
SP08_15 SP72347: 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 |
|------------------------|------|-----------|--------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2100 | 18.8 | 10.5 | 13.3 | 15.3 | 16.9 | 17.0 | 27.1 | 18.0 | 19.4 |
| Iran, Islamic Rep. of | 1551 | 23.5 | 22.2 | 26.4 | 15.0 | 30.9 | 3.4 | 2.2 | 20.2 | 26.5 |
| Kuwait | 1080 | 26.9 | 25.8 | 26.1 | 19.9 | 24.0 | 2.3 | 2.0 | 30.1 | 23.8 |
| South Africa (9) | 2975 | 24.6 | 23.4 | 41.7 | 16.3 | 14.0 | 1.9 | 2.6 | 23.5 | 25.5 |
| International Avg. (4) | 7706 | 23.4 | 20.5 | 26.9 | 16.6 | 21.4 | 6.1 | 8.5 | 23.0 | 23.8 |

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

SP08_16 SP72351: Why oil, gas, and coal are nonrenewable resources - CR - 1 Point

| COUNTRY | N | DIFF % | 10 % | 70 % | 79 % | 1pt % | 0pt % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|---------|---------|---------|----------|----------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2100 | 1.4 | 0.3 | 1.4 | 19.3 | 0.3 | 20.7 | 47.5 | 31.4 | 1.8 | 1.1 |
| Iran, Islamic Rep. of | 1551 | 34.9 | 22.1 | 4.3 | 37.1 | 22.1 | 41.3 | 33.9 | 2.7 | 38.4 | 31.5 |
| Kuwait | 1081 | 14.7 | 10.0 | 4.9 | 53.1 | 10.0 | 58.0 | 29.8 | 2.1 | 13.1 | 16.7 |
| South Africa (9) | 2978 | 12.8 | 11.5 | 14.9 | 63.2 | 11.5 | 78.2 | 7.3 | 3.1 | 12.8 | 12.8 |
| International Avg. (4) | 7710 | 16.0 | 11.0 | 6.4 | 43.2 | 11.0 | 49.6 | 29.6 | 9.8 | 16.5 | 15.5 |

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

SP08_17 SP72367: Main cause of changing tides - MC - Key: A

| COUNTRY | N | DIFF % | A % | B % | C % | D % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2100 | 17.4 | 9.5 | 9.7 | 30.1 | 5.4 | 10.5 | 34.7 | 16.1 | 18.5 |
| Iran, Islamic Rep. of | 1551 | 32.0 | 30.2 | 8.7 | 52.4 | 3.2 | 2.0 | 3.6 | 25.4 | 38.0 |
| Kuwait | 1081 | 36.1 | 34.5 | 6.0 | 51.0 | 4.1 | 1.6 | 2.6 | 28.3 | 43.7 |
| South Africa (9) | 2972 | 25.8 | 24.6 | 16.1 | 43.8 | 10.8 | 1.3 | 3.5 | 23.0 | 28.9 |
| International Avg. (4) | 7704 | 27.8 | 24.7 | 10.1 | 44.3 | 5.9 | 3.8 | 11.1 | 23.2 | 32.3 |

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

SP09_01 SP62099: Cell development in young animals - MC - Key: B

| COUNTRY | N | DIFF % | A % | B % | C % | D % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2075 | 14.0 | 26.5 | 9.4 | 21.7 | 9.1 | 20.8 | 12.5 | 12.5 | 15.5 |
| Iran, Islamic Rep. of | 1557 | 58.1 | 15.4 | 55.8 | 17.1 | 7.8 | 3.9 | 0.0 | 60.3 | 56.1 |
| Kuwait | 1082 | 31.5 | 33.6 | 30.9 | 23.9 | 9.7 | 1.8 | 0.1 | 31.7 | 31.4 |
| South Africa (9) | 2936 | 16.2 | 28.0 | 15.8 | 28.5 | 25.0 | 2.6 | 0.1 | 15.0 | 17.6 |
| International Avg. (4) | 7650 | 30.0 | 25.9 | 28.0 | 22.8 | 12.9 | 7.3 | 3.2 | 29.8 | 30.1 |

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Biology / Knowing

SP09_02 SP62095: 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 |
|------------------------|------|-----------|---------|---------|---------|----------|----------|----------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2084 | 15.3 | 5.3 | 8.9 | 49.5 | 5.3 | 8.9 | 49.5 | 23.0 | 13.2 | 15.9 | 14.8 |
| Iran, Islamic Rep. of | 1557 | 13.9 | 5.4 | 14.3 | 70.3 | 5.4 | 14.3 | 70.3 | 9.9 | 0.0 | 17.7 | 10.3 |
| Kuwait | 1082 | 19.8 | 10.4 | 16.2 | 66.9 | 10.4 | 16.2 | 66.9 | 6.4 | 0.1 | 19.5 | 20.1 |
| South Africa (9) | 2940 | 12.9 | 5.8 | 12.7 | 75.5 | 5.8 | 12.7 | 75.5 | 5.9 | 0.1 | 14.6 | 11.1 |
| International Avg. (4) | 7663 | 15.5 | 6.7 | 13.0 | 65.6 | 6.7 | 13.0 | 65.6 | 11.3 | 3.4 | 16.9 | 14.1 |

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

SP09_03 SP62106: Characteristics of young rabbits - MC - Key: D

| COUNTRY | N | DIFF % | A % | B % | C % | D % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2073 | 42.6 | 16.5 | 12.8 | 8.0 | 27.7 | 21.1 | 13.9 | 47.8 | 37.5 |
| Iran, Islamic Rep. of | 1556 | 70.5 | 15.9 | 7.3 | 5.0 | 67.4 | 4.4 | 0.0 | 73.7 | 67.6 |
| Kuwait | 1083 | 53.7 | 30.2 | 8.2 | 7.0 | 52.6 | 1.9 | 0.1 | 54.3 | 53.0 |
| South Africa (9) | 2939 | 50.3 | 22.4 | 18.5 | 7.7 | 49.2 | 2.0 | 0.2 | 55.7 | 45.5 |
| International Avg. (4) | 7651 | 54.3 | 21.2 | 11.7 | 6.9 | 49.2 | 7.3 | 3.6 | 57.9 | 50.9 |

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

SP09_04 SP62064: 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 |
|------------------------|------|-----------|---------|---------|----------|----------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2084 | 37.5 | 11.2 | 18.8 | 11.2 | 18.8 | 53.8 | 16.1 | 33.6 | 41.0 |
| Iran, Islamic Rep. of | 1557 | 65.0 | 48.5 | 26.1 | 48.5 | 26.1 | 25.1 | 0.2 | 64.9 | 65.1 |
| Kuwait | 1082 | 61.8 | 46.9 | 29.0 | 46.9 | 29.0 | 23.8 | 0.2 | 60.3 | 63.4 |
| South Africa (9) | 2940 | 30.0 | 27.1 | 63.3 | 27.1 | 63.3 | 9.3 | 0.3 | 30.8 | 28.8 |
| International Avg. (4) | 7663 | 48.5 | 33.4 | 34.3 | 33.4 | 34.3 | 28.0 | 4.2 | 47.4 | 49.6 |

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
SP09_05 SP62132: Water and tea graphs - MC - Key: C

| COUNTRY | N | DIFF % | A % | B % | C % | D % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2079 | 35.2 | 13.6 | 17.2 | 21.7 | 9.1 | 21.6 | 16.7 | 35.3 | 35.2 |
| Iran, Islamic Rep. of | 1557 | 37.0 | 16.4 | 16.5 | 33.2 | 23.8 | 9.7 | 0.4 | 34.5 | 39.3 |
| Kuwait | 1083 | 42.8 | 22.8 | 18.2 | 41.6 | 14.5 | 2.6 | 0.3 | 40.1 | 45.6 |
| South Africa (9) | 2939 | 44.3 | 17.8 | 19.4 | 43.1 | 17.0 | 2.3 | 0.3 | 42.0 | 46.9 |
| International Avg. (4) | 7658 | 39.8 | 17.6 | 17.8 | 34.9 | 16.1 | 9.1 | 4.4 | 38.0 | 41.7 |

Science: Physics / Reasoning

SP09_06 SP62163: 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 |
|------------------------|------|-----------|---------|---------|---------|----------|----------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2083 | 1.2 | 0.4 | 0.1 | 37.6 | 0.4 | 37.7 | 44.9 | 16.9 | 2.0 | 0.4 |
| Iran, Islamic Rep. of | 1557 | 4.3 | 3.7 | 1.0 | 82.3 | 3.7 | 83.3 | 12.5 | 0.5 | 4.6 | 4.0 |
| Kuwait | 1082 | 11.1 | 9.1 | 8.0 | 64.9 | 9.1 | 72.9 | 17.8 | 0.3 | 12.3 | 9.6 |
| South Africa (9) | 2940 | 2.5 | 2.4 | 1.0 | 92.7 | 2.4 | 93.7 | 3.4 | 0.5 | 2.1 | 2.9 |
| International Avg. (4) | 7662 | 4.8 | 3.9 | 2.5 | 69.4 | 3.9 | 71.9 | 19.6 | 4.6 | 5.3 | 4.2 |

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 / Reasoning

SP09_07 SP62153: Flashlight on blue ball - MC - Key: C

| COUNTRY | N | DIFF % | A % | B % | C % | D % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2077 | 26.5 | 10.9 | 21.0 | 16.0 | 12.4 | 21.3 | 18.4 | 26.9 | 26.2 |
| Iran, Islamic Rep. of | 1557 | 39.5 | 15.2 | 17.0 | 36.6 | 23.8 | 6.8 | 0.5 | 39.3 | 39.7 |
| Kuwait | 1083 | 36.0 | 15.4 | 21.4 | 34.4 | 24.4 | 3.9 | 0.5 | 37.0 | 35.0 |
| South Africa (9) | 2938 | 38.9 | 15.6 | 21.1 | 37.2 | 21.7 | 3.6 | 0.7 | 37.3 | 40.7 |
| International Avg. (4) | 7655 | 35.2 | 14.3 | 20.1 | 31.0 | 20.6 | 8.9 | 5.0 | 35.1 | 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 / Knowing

SP09_08 SP62018: 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 |
|------------------------|------|-----------|---------|---------|---------|----------|----------|----------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2082 | 2.4 | 0.4 | 1.5 | 44.6 | 0.4 | 1.5 | 44.6 | 34.6 | 18.9 | 2.5 | 2.2 |
| Iran, Islamic Rep. of | 1557 | 7.6 | 3.7 | 7.3 | 85.3 | 3.7 | 7.3 | 85.3 | 3.0 | 0.7 | 8.2 | 7.1 |
| Kuwait | 1081 | 14.7 | 9.0 | 10.7 | 78.0 | 9.0 | 10.7 | 78.0 | 1.7 | 0.5 | 13.9 | 15.5 |
| South Africa (9) | 2941 | 5.7 | 2.7 | 5.6 | 87.2 | 2.7 | 5.6 | 87.2 | 3.5 | 1.0 | 5.4 | 6.1 |
| International Avg. (4) | 7661 | 7.6 | 3.9 | 6.3 | 73.8 | 3.9 | 6.3 | 73.8 | 10.7 | 5.3 | 7.5 | 7.7 |

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

SP09_08A SP62018A: Element, compound, mixture: sugar - MC - Key: B

| COUNTRY | N | DIFF % | A % | B % | C % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2084 | 31.1 | 10.7 | 13.1 | 18.3 | 39.1 | 18.8 | 29.4 | 32.6 |
| Iran, Islamic Rep. of | 1557 | 35.1 | 38.9 | 32.9 | 21.9 | 5.6 | 0.7 | 34.8 | 35.4 |
| Kuwait | 1082 | 37.9 | 40.1 | 36.5 | 19.6 | 3.3 | 0.5 | 38.0 | 37.8 |
| South Africa (9) | 2941 | 29.3 | 15.2 | 27.5 | 51.2 | 5.1 | 1.0 | 28.5 | 30.3 |
| International Avg. (4) | 7664 | 33.3 | 26.2 | 27.5 | 27.8 | 13.3 | 5.2 | 32.7 | 34.0 |

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
SP09_08B SP62018B: Element, compound, mixture: iron - MC - Key: A

| COUNTRY | N | DIFF % | A % | B % | C % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2083 | 53.9 | 22.3 | 14.9 | 4.1 | 39.8 | 18.8 | 59.7 | 48.4 |
| Iran, Islamic Rep. of | 1557 | 57.0 | 53.1 | 28.3 | 11.7 | 6.2 | 0.7 | 55.7 | 58.2 |
| Kuwait | 1081 | 61.1 | 57.9 | 30.2 | 6.6 | 4.8 | 0.5 | 59.9 | 62.4 |
| South Africa (9) | 2941 | 65.1 | 61.0 | 25.5 | 7.2 | 5.4 | 1.0 | 66.8 | 63.4 |
| International Avg. (4) | 7662 | 59.3 | 48.5 | 24.8 | 7.4 | 14.0 | 5.3 | 60.5 | 58.1 |

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

SP09_08C SP62018C: Element, compound, mixture: air - MC - Key: C

| COUNTRY | N | DIFF % | A % | B % | C % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2082 | 17.2 | 19.9 | 13.9 | 7.0 | 40.3 | 18.9 | 17.5 | 17.0 |
| Iran, Islamic Rep. of | 1557 | 28.3 | 27.3 | 39.2 | 26.2 | 6.7 | 0.7 | 29.4 | 27.3 |
| Kuwait | 1082 | 39.5 | 25.9 | 31.3 | 37.3 | 5.0 | 0.5 | 38.2 | 40.8 |
| South Africa (9) | 2941 | 20.4 | 30.4 | 42.2 | 18.6 | 7.8 | 1.0 | 18.5 | 22.3 |
| International Avg. (4) | 7662 | 26.4 | 25.9 | 31.6 | 22.3 | 15.0 | 5.3 | 25.9 | 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
SP09_08D SP62018D: Element, compound, mixture: sodium bicarb - MC - Key: B

| COUNTRY | N | DIFF % | A % | B % | C % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2084 | 27.1 | 5.9 | 11.2 | 24.2 | 40.0 | 18.8 | 25.4 | 28.6 |
| Iran, Islamic Rep. of | 1557 | 36.3 | 31.3 | 32.6 | 25.8 | 9.6 | 0.7 | 37.7 | 35.0 |
| Kuwait | 1082 | 49.9 | 14.0 | 47.5 | 33.8 | 4.3 | 0.5 | 50.4 | 49.3 |
| South Africa (9) | 2941 | 33.0 | 18.8 | 30.8 | 43.8 | 5.6 | 1.0 | 33.1 | 32.8 |
| International Avg. (4) | 7664 | 36.6 | 17.5 | 30.5 | 31.9 | 14.9 | 5.2 | 36.6 | 36.4 |

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 / Knowing

SP09_08E SP62018E: Element, compound, mixture: cobalt - MC - Key: A

| COUNTRY | N | DIFF % | A % | B % | C % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2084 | 37.3 | 15.3 | 15.8 | 9.8 | 40.2 | 18.8 | 36.8 | 37.8 |
| Iran, Islamic Rep. of | 1557 | 36.9 | 32.5 | 30.5 | 25.2 | 11.2 | 0.7 | 37.5 | 36.3 |
| Kuwait | 1082 | 38.6 | 36.2 | 28.2 | 29.5 | 5.6 | 0.5 | 38.0 | 39.1 |
| South Africa (9) | 2941 | 36.9 | 34.1 | 34.6 | 23.7 | 6.6 | 1.0 | 37.4 | 36.0 |
| International Avg. (4) | 7664 | 37.4 | 29.5 | 27.3 | 22.1 | 15.9 | 5.2 | 37.4 | 37.3 |

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

SP09_09 SP62143: Heating water in test tube - CR - 1 Point

| COUNTRY | N | DIFF % | 10 % | 79 % | 1pt % | 0pt % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|---------|---------|----------|----------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2083 | 3.1 | 0.9 | 27.1 | 0.9 | 27.1 | 52.2 | 19.8 | 3.2 | 2.9 |
| Iran, Islamic Rep. of | 1557 | 13.2 | 7.3 | 48.0 | 7.3 | 48.0 | 43.9 | 0.7 | 15.3 | 11.2 |
| Kuwait | 1081 | 5.9 | 4.2 | 67.8 | 4.2 | 67.8 | 27.3 | 0.6 | 5.6 | 6.3 |
| South Africa (9) | 2940 | 4.2 | 3.9 | 87.9 | 3.9 | 87.9 | 6.9 | 1.4 | 3.5 | 5.1 |
| International Avg. (4) | 7661 | 6.6 | 4.1 | 57.7 | 4.1 | 57.7 | 32.6 | 5.6 | 6.9 | 6.4 |

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

SP09_10 SP62276: Iron object changes color - CR - 1 Point

| COUNTRY | N | DIFF % | 10 % | 79 % | 1pt % | 0pt % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|---------|---------|----------|----------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2084 | 4.7 | 3.2 | 63.8 | 3.2 | 63.8 | 12.6 | 20.5 | 5.7 | 3.8 |
| Iran, Islamic Rep. of | 1557 | 34.4 | 33.5 | 63.9 | 33.5 | 63.9 | 1.8 | 0.8 | 36.4 | 32.6 |
| Kuwait | 1080 | 18.9 | 18.1 | 77.6 | 18.1 | 77.6 | 3.4 | 0.8 | 22.9 | 14.8 |
| South Africa (9) | 2940 | 20.3 | 19.0 | 74.7 | 19.0 | 74.7 | 4.2 | 2.1 | 22.1 | 18.1 |
| International Avg. (4) | 7661 | 19.6 | 18.4 | 70.0 | 18.4 | 70.0 | 5.5 | 6.1 | 21.8 | 17.3 |

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

SP09_11 SP62050: Cabbage juice pH indicators - CR - 1 Point

| COUNTRY | N | DIFF % | 10 % | 79 % | 1pt % | 0pt % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|---------|---------|----------|----------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2081 | 1.4 | 1.0 | 64.9 | 1.0 | 64.9 | 13.3 | 20.8 | 1.1 | 1.8 |
| Iran, Islamic Rep. of | 1557 | 8.7 | 8.1 | 84.1 | 8.1 | 84.1 | 7.0 | 0.8 | 10.8 | 6.9 |
| Kuwait | 1080 | 15.5 | 14.9 | 81.3 | 14.9 | 81.3 | 2.9 | 1.0 | 18.9 | 11.9 |
| South Africa (9) | 2940 | 12.9 | 12.0 | 80.8 | 12.0 | 80.8 | 4.8 | 2.4 | 15.1 | 11.0 |
| International Avg. (4) | 7658 | 9.6 | 9.0 | 77.8 | 9.0 | 77.8 | 7.0 | 6.3 | 11.5 | 7.9 |

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

SP09_12 SP62205: Gases in Earth's atmosphere - MC - Key: A

| COUNTRY | N | DIFF % | A % | B % | C % | D % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2074 | 12.8 | 7.8 | 24.3 | 12.9 | 16.2 | 16.9 | 21.9 | 13.9 | 11.7 |
| Iran, Islamic Rep. of | 1557 | 34.7 | 33.4 | 30.0 | 11.8 | 21.1 | 2.4 | 1.3 | 33.8 | 35.5 |
| Kuwait | 1084 | 32.6 | 31.6 | 40.8 | 5.8 | 18.8 | 1.9 | 1.1 | 27.0 | 38.2 |
| South Africa (9) | 2933 | 9.6 | 9.0 | 47.0 | 13.0 | 24.5 | 3.5 | 2.9 | 9.7 | 9.5 |
| International Avg. (4) | 7648 | 22.4 | 20.5 | 35.5 | 10.9 | 20.2 | 6.2 | 6.8 | 21.1 | 23.7 |

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

SP09_13 SP62190: Disadvantage of solar energy - MC - Key: D

| COUNTRY | N | DIFF % | A % | B % | C % | D % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2076 | 19.8 | 15.1 | 8.4 | 25.0 | 12.0 | 16.0 | 23.5 | 21.0 | 18.5 |
| Iran, Islamic Rep. of | 1557 | 33.9 | 17.2 | 25.7 | 19.6 | 32.1 | 3.7 | 1.6 | 30.9 | 36.6 |
| Kuwait | 1083 | 48.3 | 14.3 | 23.8 | 11.7 | 46.6 | 2.1 | 1.4 | 46.1 | 50.5 |
| South Africa (9) | 2937 | 41.7 | 17.5 | 20.6 | 16.3 | 38.9 | 3.2 | 3.4 | 42.9 | 40.9 |
| International Avg. (4) | 7653 | 35.9 | 16.0 | 19.7 | 18.2 | 32.4 | 6.3 | 7.5 | 35.2 | 36.6 |

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

SP09_14A SP62024A: Forming layered rock - MC - Key: A

| COUNTRY | N | DIFF % | A % | B % | C % | D % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2075 | 20.0 | 13.1 | 19.0 | 19.6 | 13.7 | 10.4 | 24.2 | 20.8 | 19.3 |
| Iran, Islamic Rep. of | 1557 | 64.3 | 61.2 | 10.4 | 11.6 | 11.9 | 2.8 | 2.1 | 68.9 | 60.2 |
| Kuwait | 1083 | 53.8 | 50.0 | 12.7 | 13.9 | 16.4 | 5.3 | 1.7 | 56.8 | 50.8 |
| South Africa (9) | 2936 | 28.8 | 27.0 | 17.8 | 26.9 | 22.3 | 2.4 | 3.6 | 29.7 | 27.6 |
| International Avg. (4) | 7651 | 41.7 | 37.8 | 15.0 | 18.0 | 16.1 | 5.2 | 7.9 | 44.1 | 39.5 |

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

SP09_14B SP62024B: Shaping rock formations - CR - 1 Point

| COUNTRY | N | DIFF % | 10 % | 79 % | 1pt % | 0pt % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|---------|---------|----------|----------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2082 | 1.3 | 0.3 | 25.1 | 0.3 | 25.1 | 47.8 | 26.8 | 1.1 | 1.4 |
| Iran, Islamic Rep. of | 1557 | 11.9 | 5.9 | 43.2 | 5.9 | 43.2 | 47.5 | 3.5 | 10.9 | 13.0 |
| Kuwait | 1080 | 10.3 | 8.2 | 71.7 | 8.2 | 71.7 | 16.7 | 3.4 | 10.7 | 9.8 |
| South Africa (9) | 2938 | 9.6 | 8.7 | 82.1 | 8.7 | 82.1 | 5.2 | 4.0 | 10.1 | 9.0 |
| International Avg. (4) | 7657 | 8.3 | 5.8 | 55.5 | 5.8 | 55.5 | 29.3 | 9.4 | 8.2 | 8.3 |

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

SP10_01 SP72033: Functions of different types of cells - CR - 2 Points

| COUNTRY | N | DIFF % | 20 % | 10 % | 79 % | 2pt % | 1pt % | 0pt % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|---------|---------|---------|----------|----------|----------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2082 | 4.4 | 2.6 | 1.9 | 74.7 | 2.6 | 1.9 | 74.7 | 19.3 | 1.5 | 4.0 | 4.8 |
| Iran, Islamic Rep. of | 1558 | 25.1 | 16.6 | 14.8 | 64.0 | 16.6 | 14.8 | 64.0 | 4.3 | 0.3 | 26.8 | 23.6 |
| Kuwait | 1067 | 23.7 | 16.4 | 11.8 | 65.9 | 16.4 | 11.8 | 65.9 | 5.8 | 0.1 | 23.7 | 23.6 |
| South Africa (9) | 2944 | 12.0 | 7.9 | 6.7 | 78.8 | 7.9 | 6.7 | 78.8 | 6.6 | 0.1 | 13.4 | 10.8 |
| International Avg. (4) | 7651 | 16.3 | 10.8 | 8.8 | 70.9 | 10.8 | 8.8 | 70.9 | 9.0 | 0.5 | 17.0 | 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: Biology / Applying

SP10_02 SP72440: 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 |
|------------------------|------|-----------|---------|---------|---------|---------|----------|----------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2083 | 20.8 | 17.1 | 14.0 | 8.4 | 42.7 | 17.1 | 65.1 | 15.9 | 1.8 | 19.9 | 21.7 |
| Iran, Islamic Rep. of | 1558 | 73.1 | 70.0 | 7.4 | 5.6 | 12.8 | 70.0 | 25.8 | 3.8 | 0.3 | 77.2 | 69.1 |
| Kuwait | 1067 | 46.3 | 45.7 | 14.8 | 5.5 | 32.6 | 45.7 | 53.0 | 1.2 | 0.1 | 47.3 | 45.3 |
| South Africa (9) | 2946 | 36.3 | 35.1 | 17.7 | 14.0 | 29.8 | 35.1 | 61.5 | 3.3 | 0.1 | 38.1 | 35.0 |
| International Avg. (4) | 7654 | 44.1 | 42.0 | 13.5 | 8.4 | 29.5 | 42.0 | 51.4 | 6.1 | 0.6 | 45.6 | 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: Biology / Applying

SP10_03 SP72032: 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 |
|------------------------|------|-----------|--------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2076 | 33.3 | 18.5 | 24.2 | 25.6 | 8.6 | 19.9 | 3.2 | 33.1 | 33.5 |
| Iran, Islamic Rep. of | 1558 | 35.8 | 32.7 | 18.8 | 33.7 | 8.7 | 5.7 | 0.4 | 35.6 | 36.0 |
| Kuwait | 1068 | 43.6 | 31.6 | 14.6 | 42.4 | 8.6 | 2.5 | 0.2 | 45.4 | 41.8 |
| South Africa (9) | 2944 | 32.9 | 33.1 | 23.8 | 32.4 | 9.2 | 1.4 | 0.0 | 31.3 | 34.0 |
| International Avg. (4) | 7646 | 36.4 | 29.0 | 20.4 | 33.5 | 8.8 | 7.4 | 0.9 | 36.3 | 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: Biology / Reasoning

SP10_04 SP72031: Plant heights in woodlice habitats - MC - Key: D

| COUNTRY | N | DIFF % | A % | B % | C % | D % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2077 | 12.7 | 25.2 | 24.1 | 15.0 | 9.4 | 22.0 | 4.3 | 12.2 | 13.2 |
| Iran, Islamic Rep. of | 1558 | 21.0 | 26.1 | 25.9 | 22.0 | 19.7 | 5.8 | 0.5 | 20.9 | 21.2 |
| Kuwait | 1067 | 34.8 | 16.3 | 23.2 | 23.7 | 33.8 | 2.3 | 0.5 | 36.4 | 33.2 |
| South Africa (9) | 2942 | 35.0 | 13.5 | 27.7 | 22.8 | 34.5 | 1.3 | 0.0 | 38.6 | 31.4 |
| International Avg. (4) | 7644 | 25.9 | 20.3 | 25.2 | 20.9 | 24.4 | 7.9 | 1.3 | 27.0 | 24.8 |

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

SP10_05 SP72086: Place organisms in energy pyramid - CR - 1 Point

| COUNTRY | N | DIFF % | 10 % | 79 % | 1pt % | 0pt % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|---------|---------|----------|----------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2084 | 22.8 | 19.0 | 64.2 | 19.0 | 64.2 | 11.4 | 5.5 | 16.5 | 29.0 |
| Iran, Islamic Rep. of | 1558 | 27.6 | 26.1 | 68.6 | 26.1 | 68.6 | 4.8 | 0.5 | 24.8 | 30.1 |
| Kuwait | 1067 | 45.9 | 44.6 | 52.6 | 44.6 | 52.6 | 2.2 | 0.6 | 34.5 | 57.7 |
| South Africa (9) | 2943 | 27.8 | 27.4 | 71.0 | 27.4 | 71.0 | 1.5 | 0.1 | 25.8 | 30.6 |
| International Avg. (4) | 7652 | 31.0 | 29.3 | 64.1 | 29.3 | 64.1 | 5.0 | 1.7 | 25.4 | 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 / Applying

SP10_06 SP72005: 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 |
|------------------------|------|-----------|---------|---------|---------|----------|----------|----------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2085 | 4.5 | 1.1 | 2.4 | 48.5 | 1.1 | 2.4 | 48.5 | 41.1 | 6.8 | 5.0 | 4.1 |
| Iran, Islamic Rep. of | 1558 | 18.7 | 3.5 | 17.3 | 44.4 | 3.5 | 17.3 | 44.4 | 34.3 | 0.5 | 20.0 | 17.4 |
| Kuwait | 1067 | 17.6 | 5.8 | 15.6 | 55.8 | 5.8 | 15.6 | 55.8 | 22.2 | 0.6 | 17.7 | 17.6 |
| South Africa (9) | 2945 | 6.8 | 2.8 | 7.1 | 83.2 | 2.8 | 7.1 | 83.2 | 6.7 | 0.2 | 7.4 | 6.1 |
| International Avg. (4) | 7655 | 11.9 | 3.3 | 10.6 | 58.0 | 3.3 | 10.6 | 58.0 | 26.1 | 2.0 | 12.5 | 11.3 |

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
SP10_08 SP72123: Properties of liquid in thermometer - MC - Key: B

| COUNTRY | N | DIFF % | A % | B % | C % | D % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2075 | 32.3 | 24.8 | 24.3 | 12.8 | 13.4 | 14.6 | 10.0 | 32.3 | 32.2 |
| Iran, Islamic Rep. of | 1558 | 52.6 | 16.9 | 50.5 | 11.5 | 17.0 | 3.5 | 0.6 | 50.0 | 55.1 |
| Kuwait | 1068 | 59.4 | 16.4 | 57.7 | 12.1 | 10.9 | 2.2 | 0.7 | 60.4 | 58.4 |
| South Africa (9) | 2943 | 35.1 | 24.8 | 34.6 | 16.5 | 22.6 | 1.2 | 0.2 | 36.4 | 33.6 |
| International Avg. (4) | 7644 | 44.9 | 20.7 | 41.8 | 13.2 | 16.0 | 5.4 | 2.9 | 44.8 | 44.8 |

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

SP10_09 SP72116: Elements in Group 7 - MC - Key: A

| COUNTRY | N | DIFF % | A % | B % | C % | D % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2076 | 29.0 | 20.9 | 19.5 | 15.7 | 15.9 | 16.9 | 11.2 | 26.4 | 31.6 |
| Iran, Islamic Rep. of | 1558 | 23.9 | 22.6 | 14.7 | 36.7 | 20.7 | 4.6 | 0.6 | 22.9 | 24.7 |
| Kuwait | 1068 | 39.0 | 37.4 | 11.5 | 26.2 | 20.8 | 3.4 | 0.7 | 39.2 | 38.7 |
| South Africa (9) | 2942 | 33.7 | 33.3 | 15.4 | 23.8 | 26.3 | 1.0 | 0.3 | 35.9 | 31.8 |
| International Avg. (4) | 7644 | 31.4 | 28.5 | 15.3 | 25.6 | 20.9 | 6.5 | 3.2 | 31.1 | 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: Chemistry / Applying

SP10_10 SP72920: 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 |
|------------------------|------|-----------|---------|---------|---------|----------|----------|----------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2085 | 6.4 | 0.1 | 10.4 | 71.8 | 0.1 | 10.4 | 71.8 | 4.7 | 13.0 | 7.2 | 5.7 |
| Iran, Islamic Rep. of | 1558 | 24.8 | 1.3 | 46.0 | 50.6 | 1.3 | 46.0 | 50.6 | 1.3 | 0.8 | 27.0 | 22.8 |
| Kuwait | 1067 | 28.8 | 7.3 | 41.9 | 49.0 | 7.3 | 41.9 | 49.0 | 1.1 | 0.7 | 32.0 | 25.4 |
| South Africa (9) | 2945 | 24.6 | 1.1 | 46.4 | 51.3 | 1.1 | 46.4 | 51.3 | 0.8 | 0.4 | 27.0 | 22.5 |
| International Avg. (4) | 7655 | 21.2 | 2.5 | 36.2 | 55.7 | 2.5 | 36.2 | 55.7 | 2.0 | 3.7 | 23.3 | 19.1 |

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

SP10_11 SP72294: 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 |
|------------------------|------|-----------|---------|---------|----------|----------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2085 | 7.0 | 3.4 | 46.2 | 3.4 | 46.2 | 36.3 | 14.1 | 5.6 | 8.2 |
| Iran, Islamic Rep. of | 1558 | 37.9 | 32.5 | 53.3 | 32.5 | 53.3 | 13.2 | 1.0 | 38.1 | 37.7 |
| Kuwait | 1066 | 43.9 | 37.0 | 47.3 | 37.0 | 47.3 | 15.0 | 0.7 | 40.7 | 47.7 |
| South Africa (9) | 2943 | 18.6 | 18.1 | 79.1 | 18.1 | 79.1 | 2.2 | 0.5 | 18.4 | 18.8 |
| International Avg. (4) | 7652 | 26.8 | 22.8 | 56.5 | 22.8 | 56.5 | 16.7 | 4.1 | 25.7 | 28.1 |

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

SP10_12 SP72231: 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 |
|------------------------|------|-----------|--------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2083 | 34.8 | 11.4 | 19.0 | 20.9 | 8.7 | 19.0 | 20.9 | 36.8 | 33.0 |
| Iran, Islamic Rep. of | 1558 | 29.2 | 16.2 | 24.0 | 25.2 | 20.9 | 12.4 | 1.4 | 30.5 | 27.9 |
| Kuwait | 1068 | 31.3 | 22.2 | 27.1 | 28.9 | 14.3 | 6.3 | 1.2 | 31.8 | 30.7 |
| South Africa (9) | 2941 | 37.2 | 15.5 | 29.5 | 36.1 | 16.0 | 2.2 | 0.7 | 37.6 | 37.0 |
| International Avg. (4) | 7650 | 33.1 | 16.3 | 24.9 | 27.8 | 15.0 | 10.0 | 6.0 | 34.2 | 32.2 |

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

SP10_13 SP72261: Conductors or insulators (DERIVED) - CR - 1 Point

| COUNTRY | N | DIFF % | 10 % | 79 % | 1pt % | 0pt % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|---------|---------|----------|----------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2081 | 31.8 | 12.8 | 27.5 | 12.8 | 27.5 | 35.9 | 23.9 | 30.5 | 33.0 |
| Iran, Islamic Rep. of | 1558 | 48.9 | 44.8 | 46.7 | 44.8 | 46.7 | 6.6 | 1.9 | 48.4 | 49.4 |
| Kuwait | 1068 | 47.7 | 44.1 | 48.4 | 44.1 | 48.4 | 6.1 | 1.3 | 46.7 | 48.7 |
| South Africa (9) | 2946 | 37.7 | 35.4 | 58.6 | 35.4 | 58.6 | 4.9 | 1.0 | 35.8 | 40.2 |
| International Avg. (4) | 7653 | 41.5 | 34.3 | 45.3 | 34.3 | 45.3 | 13.4 | 7.0 | 40.4 | 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: Physics / Knowing

SP10_13A SP72261A: Conductors or insulators - Material 1 - MC - Key: A

| COUNTRY | N | DIFF % | A % | B % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2083 | 79.1 | 29.4 | 7.8 | 39.0 | 23.8 | 75.7 | 81.9 |
| Iran, Islamic Rep. of | 1558 | 93.0 | 82.9 | 6.3 | 8.8 | 1.9 | 91.7 | 94.1 |
| Kuwait | 1068 | 92.5 | 84.9 | 6.9 | 6.8 | 1.3 | 94.2 | 90.6 |
| South Africa (9) | 2946 | 85.0 | 77.0 | 13.5 | 8.5 | 1.0 | 83.5 | 86.8 |
| International Avg. (4) | 7655 | 87.4 | 68.6 | 8.6 | 15.8 | 7.0 | 86.3 | 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 / Knowing

SP10_13B SP72261B: Conductors or insulators - Material 2 - MC - Key: A

| COUNTRY | N | DIFF % | A % | B % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2083 | 57.1 | 19.8 | 14.8 | 41.6 | 23.8 | 58.9 | 55.5 |
| Iran, Islamic Rep. of | 1558 | 60.9 | 53.1 | 34.0 | 10.9 | 1.9 | 60.4 | 61.4 |
| Kuwait | 1068 | 58.7 | 52.3 | 36.8 | 9.5 | 1.3 | 54.4 | 63.4 |
| South Africa (9) | 2946 | 55.6 | 47.9 | 38.2 | 12.8 | 1.0 | 54.2 | 57.4 |
| International Avg. (4) | 7655 | 58.1 | 43.3 | 31.0 | 18.7 | 7.0 | 57.0 | 59.4 |

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

SP10_13C SP72261C: Conductors or insulators - Material 3 - MC - Key: B

| COUNTRY | N | DIFF % | A % | B % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2083 | 71.2 | 9.9 | 24.5 | 41.8 | 23.8 | 69.3 | 73.0 |
| Iran, Islamic Rep. of | 1558 | 86.0 | 12.2 | 74.6 | 11.3 | 1.9 | 87.3 | 84.7 |
| Kuwait | 1068 | 87.1 | 11.6 | 77.9 | 9.2 | 1.3 | 89.6 | 84.3 |
| South Africa (9) | 2946 | 79.9 | 17.2 | 68.1 | 13.7 | 1.0 | 78.4 | 81.4 |
| International Avg. (4) | 7655 | 81.0 | 12.7 | 61.3 | 19.0 | 7.0 | 81.1 | 80.8 |

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

SP10_13D SP72261D: Conductors or insulators - Material 4 - MC - Key: A

| COUNTRY | N | DIFF % | A % | B % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2084 | 74.4 | 25.5 | 8.8 | 42.0 | 23.8 | 72.0 | 76.5 |
| Iran, Islamic Rep. of | 1558 | 88.1 | 76.9 | 10.4 | 10.7 | 1.9 | 88.7 | 87.4 |
| Kuwait | 1068 | 87.8 | 78.9 | 11.0 | 8.8 | 1.3 | 90.2 | 85.1 |
| South Africa (9) | 2946 | 81.5 | 70.9 | 16.1 | 11.9 | 1.0 | 80.2 | 82.8 |
| International Avg. (4) | 7656 | 82.9 | 63.0 | 11.6 | 18.4 | 7.0 | 82.8 | 83.0 |

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

SP10_13E SP72261E: Conductors or insulators - Material 5 - MC - Key: B

| COUNTRY | N | DIFF % | A % | B % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2082 | 72.7 | 9.0 | 24.1 | 43.0 | 23.8 | 69.5 | 75.5 |
| Iran, Islamic Rep. of | 1558 | 86.0 | 12.1 | 74.7 | 11.2 | 1.9 | 87.4 | 84.7 |
| Kuwait | 1068 | 86.1 | 12.4 | 76.9 | 9.4 | 1.3 | 89.5 | 82.4 |
| South Africa (9) | 2946 | 79.8 | 17.2 | 67.8 | 13.9 | 1.0 | 78.7 | 81.3 |
| International Avg. (4) | 7654 | 81.2 | 12.7 | 60.9 | 19.4 | 7.0 | 81.3 | 81.0 |

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
SP10_14 SP72220: Stone's position with greatest kinetic energy - MC - Key: D

| COUNTRY | N | DIFF % | A % | B % | C % | D % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2079 | 38.8 | 12.7 | 18.5 | 7.8 | 24.7 | 9.3 | 27.1 | 41.7 | 36.1 |
| Iran, Islamic Rep. of | 1558 | 21.3 | 15.4 | 38.2 | 22.2 | 20.5 | 1.7 | 2.0 | 18.4 | 23.9 |
| Kuwait | 1068 | 17.4 | 13.1 | 36.9 | 30.3 | 16.9 | 1.3 | 1.5 | 14.3 | 20.5 |
| South Africa (9) | 2939 | 19.0 | 18.9 | 39.8 | 20.8 | 18.6 | 0.7 | 1.3 | 18.4 | 19.2 |
| International Avg. (4) | 7644 | 24.1 | 15.0 | 33.3 | 20.3 | 20.2 | 3.2 | 8.0 | 23.2 | 24.9 |

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

SP10_15 SP72348: 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 |
|------------------------|------|-----------|---------|---------|---------|---------|----------|----------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2081 | 51.9 | 14.5 | 1.1 | 2.0 | 12.5 | 15.7 | 14.5 | 41.9 | 28.0 | 56.0 | 48.2 |
| Iran, Islamic Rep. of | 1558 | 66.0 | 40.0 | 10.8 | 2.5 | 23.7 | 50.8 | 26.1 | 20.9 | 2.2 | 60.5 | 71.4 |
| Kuwait | 1067 | 71.5 | 39.6 | 19.9 | 12.8 | 10.9 | 59.5 | 23.8 | 15.3 | 1.5 | 70.4 | 72.7 |
| South Africa (9) | 2943 | 45.5 | 34.7 | 7.9 | 2.0 | 48.9 | 42.6 | 51.0 | 4.9 | 1.5 | 47.6 | 43.8 |
| International Avg. (4) | 7649 | 58.7 | 32.2 | 9.9 | 4.8 | 24.0 | 42.1 | 28.8 | 20.7 | 8.3 | 58.6 | 59.0 |

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
SP10_16 SP72720: 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 |
|------------------------|------|-----------|--------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2075 | 22.1 | 12.4 | 14.9 | 17.0 | 11.8 | 10.8 | 33.1 | 23.6 | 20.7 |
| Iran, Islamic Rep. of | 1558 | 24.5 | 23.0 | 14.4 | 40.8 | 15.7 | 2.8 | 3.3 | 22.0 | 26.9 |
| Kuwait | 1068 | 27.5 | 26.2 | 13.9 | 25.0 | 30.4 | 1.7 | 2.8 | 23.5 | 31.6 |
| South Africa (9) | 2939 | 34.2 | 32.8 | 18.6 | 22.8 | 21.6 | 2.1 | 2.1 | 35.8 | 33.4 |
| International Avg. (4) | 7640 | 27.1 | 23.6 | 15.4 | 26.4 | 19.9 | 4.4 | 10.3 | 26.2 | 28.1 |

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

SP11_01 SP62279: Healthy and balanced meal - MC - Key: A

| COUNTRY | N | DIFF % | A % | B % | C % | D % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2084 | 32.9 | 23.4 | 10.9 | 9.1 | 27.7 | 15.0 | 14.0 | 29.9 | 35.8 |
| Iran, Islamic Rep. of | 1544 | 32.6 | 31.6 | 8.5 | 34.3 | 22.7 | 2.7 | 0.3 | 30.1 | 35.0 |
| Kuwait | 1068 | 58.8 | 57.5 | 4.7 | 12.7 | 22.8 | 2.2 | 0.1 | 64.6 | 53.0 |
| South Africa (9) | 2985 | 32.4 | 32.0 | 9.6 | 9.1 | 48.1 | 1.2 | 0.1 | 34.8 | 29.6 |
| International Avg. (4) | 7681 | 39.2 | 36.1 | 8.4 | 16.3 | 30.3 | 5.3 | 3.6 | 39.8 | 38.3 |

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

SP11_02 SP62112: Tony gets the measles - CR - 1 Point

| COUNTRY | N | DIFF % | 10 % | 79 % | 1pt % | 0pt % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|---------|---------|----------|----------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2088 | 20.1 | 15.3 | 60.8 | 15.3 | 60.8 | 9.0 | 14.9 | 23.1 | 17.2 |
| Iran, Islamic Rep. of | 1544 | 38.5 | 37.5 | 59.9 | 37.5 | 59.9 | 2.2 | 0.3 | 41.5 | 35.5 |
| Kuwait | 1068 | 27.8 | 27.2 | 70.5 | 27.2 | 70.5 | 2.2 | 0.1 | 28.4 | 27.3 |
| South Africa (9) | 2984 | 18.9 | 18.5 | 79.6 | 18.5 | 79.6 | 1.7 | 0.1 | 21.1 | 17.0 |
| International Avg. (4) | 7684 | 26.3 | 24.6 | 67.7 | 24.6 | 67.7 | 3.8 | 3.9 | 28.5 | 24.2 |

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

SP11_03 SP62119: Fossils in rock layers - MC - Key: C

| COUNTRY | N | DIFF % | A % | B % | C % | D % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2079 | 25.6 | 6.7 | 19.8 | 16.4 | 21.1 | 20.1 | 16.0 | 24.8 | 26.4 |
| Iran, Islamic Rep. of | 1544 | 48.9 | 7.8 | 23.4 | 45.7 | 16.5 | 6.2 | 0.3 | 48.7 | 49.2 |
| Kuwait | 1067 | 33.6 | 16.6 | 25.2 | 32.4 | 22.2 | 3.5 | 0.1 | 35.9 | 31.3 |
| South Africa (9) | 2986 | 29.7 | 10.9 | 31.4 | 28.6 | 25.4 | 3.4 | 0.2 | 31.5 | 27.9 |
| International Avg. (4) | 7676 | 34.5 | 10.5 | 25.0 | 30.8 | 21.3 | 8.3 | 4.2 | 35.2 | 33.7 |

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

SP11_04 SP62093: 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 |
|------------------------|------|-----------|---------|---------|---------|----------|----------|----------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2088 | 15.9 | 2.5 | 5.8 | 25.7 | 2.5 | 5.8 | 25.7 | 46.7 | 19.4 | 14.1 | 17.5 |
| Iran, Islamic Rep. of | 1544 | 29.8 | 6.1 | 27.3 | 32.8 | 6.1 | 27.3 | 32.8 | 33.3 | 0.6 | 29.3 | 30.3 |
| Kuwait | 1068 | 47.0 | 19.1 | 32.0 | 23.6 | 19.1 | 32.0 | 23.6 | 25.0 | 0.2 | 47.3 | 46.6 |
| South Africa (9) | 2985 | 22.0 | 10.0 | 18.9 | 59.4 | 10.0 | 18.9 | 59.4 | 11.3 | 0.5 | 24.4 | 19.7 |
| International Avg. (4) | 7685 | 28.7 | 9.4 | 21.0 | 35.4 | 9.4 | 21.0 | 35.4 | 29.1 | 5.2 | 28.8 | 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: Biology / Knowing

SP11_05 SP62089: Symbiosis between two organisms - MC - Key: D

| COUNTRY | N | DIFF % | A % | B % | C % | D % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2082 | 12.8 | 10.3 | 32.2 | 13.4 | 8.2 | 14.9 | 20.9 | 13.3 | 12.4 |
| Iran, Islamic Rep. of | 1544 | 21.8 | 12.7 | 42.4 | 18.9 | 20.6 | 4.8 | 0.7 | 22.2 | 21.5 |
| Kuwait | 1067 | 20.2 | 13.6 | 49.1 | 14.0 | 19.4 | 3.6 | 0.3 | 19.3 | 21.0 |
| South Africa (9) | 2981 | 22.7 | 20.3 | 38.8 | 15.9 | 22.0 | 2.6 | 0.5 | 25.0 | 20.5 |
| International Avg. (4) | 7674 | 19.4 | 14.2 | 40.6 | 15.5 | 17.6 | 6.5 | 5.6 | 19.9 | 18.9 |

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

SP11_06 SP62006: Atoms in nitric acid - CR - 1 Point

| COUNTRY | N | DIFF % | 10 % | 79 % | 1pt % | 0pt % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|---------|---------|----------|----------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2088 | 6.5 | 2.6 | 37.6 | 2.6 | 37.6 | 38.3 | 21.5 | 9.3 | 3.8 |
| Iran, Islamic Rep. of | 1544 | 15.5 | 9.7 | 53.1 | 9.7 | 53.1 | 36.4 | 0.7 | 15.8 | 15.2 |
| Kuwait | 1068 | 29.0 | 24.2 | 59.2 | 24.2 | 59.2 | 16.3 | 0.3 | 35.2 | 22.3 |
| South Africa (9) | 2986 | 16.6 | 15.3 | 76.9 | 15.3 | 76.9 | 7.1 | 0.7 | 19.1 | 14.4 |
| International Avg. (4) | 7686 | 16.9 | 13.0 | 56.7 | 13.0 | 56.7 | 24.5 | 5.8 | 19.8 | 13.9 |

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

SP11_07 SP62067: Rate of sugar dissolving - CR - 1 Point

| COUNTRY | N | DIFF % | 10 % | 79 % | 1pt % | 0pt % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|---------|---------|----------|----------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2088 | 10.0 | 5.2 | 47.1 | 5.2 | 47.1 | 25.1 | 22.5 | 10.0 | 10.0 |
| Iran, Islamic Rep. of | 1544 | 32.2 | 27.4 | 57.8 | 27.4 | 57.8 | 14.0 | 0.8 | 30.4 | 34.0 |
| Kuwait | 1068 | 27.6 | 25.0 | 65.7 | 25.0 | 65.7 | 8.8 | 0.4 | 25.8 | 29.6 |
| South Africa (9) | 2988 | 14.5 | 13.5 | 79.5 | 13.5 | 79.5 | 5.8 | 1.2 | 14.2 | 14.7 |
| International Avg. (4) | 7688 | 21.1 | 17.8 | 62.5 | 17.8 | 62.5 | 13.5 | 6.2 | 20.1 | 22.0 |

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

SP11_08 SP62247: Properties of baking soda - MC - Key: B

| COUNTRY | N | DIFF % | A % | B % | C % | D % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2084 | 23.2 | 11.5 | 14.4 | 19.5 | 16.5 | 14.8 | 23.3 | 20.9 | 25.7 |
| Iran, Islamic Rep. of | 1544 | 45.1 | 13.5 | 42.3 | 15.5 | 22.6 | 5.2 | 0.9 | 43.8 | 46.3 |
| Kuwait | 1068 | 28.6 | 33.7 | 27.2 | 21.6 | 12.6 | 4.4 | 0.5 | 24.9 | 32.4 |
| South Africa (9) | 2981 | 38.6 | 14.6 | 37.1 | 13.0 | 31.5 | 2.2 | 1.5 | 41.2 | 36.0 |
| International Avg. (4) | 7677 | 33.9 | 18.3 | 30.3 | 17.4 | 20.8 | 6.6 | 6.6 | 32.7 | 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: Earth Science / Knowing

SP11_09 SP62177: Formation of oil - MC - Key: D

| COUNTRY | N | DIFF % | A % | B % | C % | D % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2083 | 13.0 | 23.9 | 10.8 | 19.0 | 8.0 | 14.5 | 23.8 | 12.9 | 13.1 |
| Iran, Islamic Rep. of | 1544 | 53.2 | 21.7 | 9.5 | 13.3 | 50.6 | 4.0 | 1.0 | 48.7 | 57.5 |
| Kuwait | 1068 | 61.8 | 14.6 | 10.5 | 12.2 | 60.3 | 1.8 | 0.7 | 62.0 | 61.6 |
| South Africa (9) | 2983 | 27.2 | 35.7 | 19.0 | 15.3 | 26.1 | 2.2 | 1.7 | 26.2 | 28.2 |
| International Avg. (4) | 7678 | 38.8 | 24.0 | 12.4 | 14.9 | 36.3 | 5.6 | 6.8 | 37.5 | 40.1 |

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
SP11_10 SP62186: Greenhouse on Mars - MC - Key: B

| COUNTRY | N | DIFF % | A % | B % | C % | D % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2083 | 26.7 | 14.5 | 15.9 | 16.2 | 12.8 | 16.1 | 24.5 | 26.3 | 27.2 |
| Iran, Islamic Rep. of | 1544 | 38.7 | 19.5 | 36.1 | 21.5 | 16.1 | 5.6 | 1.2 | 35.6 | 41.6 |
| Kuwait | 1068 | 32.6 | 22.8 | 31.5 | 11.8 | 30.6 | 2.6 | 0.7 | 27.9 | 37.2 |
| South Africa (9) | 2984 | 22.0 | 21.2 | 21.0 | 18.3 | 34.9 | 2.7 | 2.0 | 19.7 | 23.8 |
| International Avg. (4) | 7679 | 30.0 | 19.5 | 26.1 | 16.9 | 23.6 | 6.7 | 7.1 | 27.4 | 32.4 |

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

SP11_11A SP62211A: 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 |
|------------------------|------|-----------|---------|---------|----------|----------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2087 | 7.8 | 2.3 | 27.1 | 2.3 | 27.1 | 45.8 | 24.8 | 7.3 | 8.4 |
| Iran, Islamic Rep. of | 1544 | 27.9 | 20.4 | 52.7 | 20.4 | 52.7 | 25.7 | 1.3 | 27.7 | 28.2 |
| Kuwait | 1068 | 25.5 | 17.3 | 50.8 | 17.3 | 50.8 | 31.0 | 0.9 | 24.7 | 26.4 |
| South Africa (9) | 2988 | 20.5 | 19.4 | 75.3 | 19.4 | 75.3 | 3.1 | 2.2 | 21.0 | 20.2 |
| International Avg. (4) | 7687 | 20.4 | 14.9 | 51.5 | 14.9 | 51.5 | 26.4 | 7.3 | 20.2 | 20.8 |

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

SP11_11B SP62211B: Climate data are wrong - CR - 1 Point

| COUNTRY | N | DIFF % | 10 % | 79 % | 1pt % | 0pt % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|---------|---------|----------|----------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2087 | 2.2 | 1.4 | 62.5 | 1.4 | 62.5 | 10.7 | 25.4 | 3.3 | 1.1 |
| Iran, Islamic Rep. of | 1544 | 2.3 | 2.1 | 89.7 | 2.1 | 89.7 | 6.6 | 1.6 | 2.0 | 2.5 |
| Kuwait | 1068 | 5.3 | 5.0 | 89.4 | 5.0 | 89.4 | 4.6 | 1.1 | 6.3 | 4.3 |
| South Africa (9) | 2988 | 2.9 | 2.7 | 91.2 | 2.7 | 91.2 | 3.6 | 2.5 | 3.5 | 2.3 |
| International Avg. (4) | 7687 | 3.2 | 2.8 | 83.2 | 2.8 | 83.2 | 6.4 | 7.6 | 3.8 | 2.6 |

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

SP11_13 SP62033: Pressure applied to pistons - CR - 1 Point

| COUNTRY | N | DIFF % | 10 % | 11 % | 79 % | 1pt % | 0pt % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|---------|---------|---------|----------|----------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2088 | 0.8 | 0.4 | 0.1 | 64.4 | 0.5 | 64.4 | 8.2 | 26.8 | 0.9 | 0.6 |
| Iran, Islamic Rep. of | 1544 | 15.5 | 9.0 | 5.6 | 79.9 | 14.6 | 79.9 | 3.8 | 1.6 | 14.6 | 16.2 |
| Kuwait | 1067 | 15.1 | 9.9 | 4.8 | 83.2 | 14.8 | 83.2 | 0.9 | 1.1 | 16.5 | 13.6 |
| South Africa (9) | 2987 | 8.5 | 6.6 | 1.3 | 85.1 | 7.9 | 85.1 | 3.9 | 3.1 | 8.9 | 8.1 |
| International Avg. (4) | 7686 | 9.9 | 6.5 | 3.0 | 78.2 | 9.4 | 78.2 | 4.2 | 8.2 | 10.2 | 9.6 |

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

SP11_14 SP62037: Toy car powered by battery - MC - Key: A

| COUNTRY | N | DIFF % | A % | B % | C % | D % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2083 | 27.6 | 16.5 | 14.8 | 15.3 | 13.1 | 12.2 | 28.1 | 27.7 | 27.6 |
| Iran, Islamic Rep. of | 1544 | 56.2 | 54.1 | 7.8 | 5.9 | 28.5 | 1.8 | 1.8 | 54.9 | 57.4 |
| Kuwait | 1067 | 48.3 | 47.2 | 6.4 | 3.6 | 40.4 | 1.1 | 1.3 | 44.0 | 52.7 |
| South Africa (9) | 2983 | 37.5 | 35.1 | 16.8 | 20.8 | 21.0 | 2.7 | 3.6 | 38.3 | 37.0 |
| International Avg. (4) | 7677 | 42.4 | 38.2 | 11.5 | 11.4 | 25.8 | 4.4 | 8.7 | 41.2 | 43.7 |

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

SP11_15 SP62242: Waste removed by electromagnet (DERIVED) - CR - 1 Point

| COUNTRY | N | DIFF % | 10 % | 79 % | 1pt % | 0pt % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|---------|---------|----------|----------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2085 | 40.8 | 14.8 | 21.4 | 14.8 | 21.4 | 32.7 | 31.1 | 38.1 | 43.1 |
| Iran, Islamic Rep. of | 1544 | 76.8 | 69.0 | 20.8 | 69.0 | 20.8 | 7.9 | 2.2 | 78.6 | 75.1 |
| Kuwait | 1066 | 73.6 | 65.1 | 23.4 | 65.1 | 23.4 | 9.8 | 1.8 | 76.5 | 70.3 |
| South Africa (9) | 2989 | 62.4 | 55.0 | 33.1 | 55.0 | 33.1 | 7.9 | 4.0 | 64.0 | 61.5 |
| International Avg. (4) | 7684 | 63.4 | 51.0 | 24.7 | 51.0 | 24.7 | 14.6 | 9.8 | 64.3 | 62.5 |

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

SP11_15A SP62242A: Waste removed by electromagnet: cans - MC - Key: A

| COUNTRY | N | DIFF % | A % | B % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2086 | 71.2 | 22.9 | 9.3 | 36.7 | 31.1 | 68.3 | 73.6 |
| Iran, Islamic Rep. of | 1544 | 88.5 | 77.3 | 10.1 | 10.4 | 2.2 | 87.6 | 89.4 |
| Kuwait | 1067 | 89.9 | 77.8 | 8.7 | 11.7 | 1.8 | 88.3 | 91.7 |
| South Africa (9) | 2989 | 84.3 | 67.8 | 12.6 | 15.6 | 4.0 | 84.2 | 85.1 |
| International Avg. (4) | 7686 | 83.5 | 61.5 | 10.2 | 18.6 | 9.8 | 82.1 | 84.9 |

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
SP11_15B SP62242B: Waste removed by electromagnet: cups - MC - Key: B

| COUNTRY | N | DIFF % | A % | B % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2088 | 72.7 | 8.7 | 23.3 | 36.9 | 31.1 | 68.6 | 75.9 |
| Iran, Islamic Rep. of | 1544 | 93.9 | 5.3 | 81.0 | 11.5 | 2.2 | 94.5 | 93.3 |
| Kuwait | 1067 | 90.6 | 8.0 | 77.6 | 12.7 | 1.8 | 91.8 | 89.3 |
| South Africa (9) | 2989 | 84.4 | 12.2 | 66.3 | 17.5 | 4.0 | 85.7 | 84.0 |
| International Avg. (4) | 7688 | 85.4 | 8.6 | 62.0 | 19.7 | 9.8 | 85.1 | 85.6 |

Science: Physics / Applying

SP11_15D SP62242D: Waste removed by electromagnet: paper - MC - Key: B

| COUNTRY | N | DIFF % | A % | B % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2087 | 74.5 | 7.6 | 22.3 | 38.9 | 31.1 | 72.9 | 75.8 |
| Iran, Islamic Rep. of | 1544 | 93.1 | 5.9 | 79.8 | 12.0 | 2.2 | 93.9 | 92.3 |
| Kuwait | 1066 | 88.2 | 10.0 | 74.6 | 13.6 | 1.8 | 91.2 | 84.8 |
| South Africa (9) | 2989 | 86.4 | 10.5 | 66.8 | 18.7 | 4.0 | 87.6 | 85.6 |
| International Avg. (4) | 7686 | 85.6 | 8.5 | 60.9 | 20.8 | 9.8 | 86.4 | 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: Physics / Applying

SP11_15E SP62242E: Waste removed by electromagnet: nails - MC - Key: A

| COUNTRY | N | DIFF % | A % | B % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2087 | 79.1 | 24.9 | 6.6 | 37.4 | 31.1 | 81.7 | 77.0 |
| Iran, Islamic Rep. of | 1544 | 94.0 | 81.9 | 5.2 | 10.7 | 2.2 | 94.3 | 93.7 |
| Kuwait | 1067 | 90.8 | 77.1 | 7.8 | 13.3 | 1.8 | 93.1 | 88.2 |
| South Africa (9) | 2989 | 85.5 | 67.1 | 11.4 | 17.5 | 4.0 | 85.6 | 85.9 |
| International Avg. (4) | 7687 | 87.3 | 62.7 | 7.8 | 19.7 | 9.8 | 88.7 | 86.2 |

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

SP12_01 SP72078: 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 |
|------------------------|------|-----------|---------|---------|---------|---------|----------|----------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2083 | 10.9 | 5.4 | 0.1 | 0.8 | 44.1 | 5.5 | 45.0 | 46.7 | 2.8 | 11.6 | 10.2 |
| Iran, Islamic Rep. of | 1541 | 26.9 | 13.5 | 3.2 | 7.6 | 37.9 | 16.7 | 45.5 | 37.4 | 0.4 | 27.7 | 26.1 |
| Kuwait | 1080 | 30.1 | 21.2 | 0.7 | 10.4 | 40.5 | 21.9 | 50.9 | 26.8 | 0.4 | 30.4 | 29.7 |
| South Africa (9) | 2988 | 13.6 | 11.0 | 0.7 | 3.0 | 71.5 | 11.7 | 74.5 | 13.7 | 0.1 | 14.3 | 12.7 |
| International Avg. (4) | 7692 | 20.4 | 12.8 | 1.2 | 5.5 | 48.5 | 14.0 | 54.0 | 31.2 | 0.9 | 21.0 | 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: Biology / Applying

SP12_02 SP72460: 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 |
|------------------------|------|-----------|--------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2078 | 34.4 | 27.9 | 14.4 | 15.3 | 23.4 | 16.0 | 3.1 | 35.6 | 33.2 |
| Iran, Islamic Rep. of | 1541 | 46.6 | 43.8 | 11.1 | 8.9 | 30.2 | 5.6 | 0.5 | 45.2 | 48.0 |
| Kuwait | 1081 | 38.7 | 37.4 | 11.6 | 6.0 | 41.8 | 2.9 | 0.4 | 38.9 | 38.4 |
| South Africa (9) | 2985 | 27.9 | 27.4 | 23.8 | 8.1 | 38.8 | 1.7 | 0.1 | 28.8 | 27.5 |
| International Avg. (4) | 7685 | 36.9 | 34.1 | 15.2 | 9.6 | 33.5 | 6.5 | 1.0 | 37.1 | 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 / Applying

SP12_03 SP72000: Characteristics of organisms - CR - 2 Points

| COUNTRY | N | DIFF % | 20 % | 10 % | 79 % | 2pt % | 1pt % | 0pt % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|---------|---------|---------|----------|----------|----------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2083 | 6.5 | 1.9 | 5.9 | 65.8 | 1.9 | 5.9 | 65.8 | 22.7 | 3.7 | 7.3 | 5.8 |
| Iran, Islamic Rep. of | 1541 | 22.4 | 11.5 | 19.4 | 63.8 | 11.5 | 19.4 | 63.8 | 4.8 | 0.5 | 25.2 | 19.6 |
| Kuwait | 1080 | 22.0 | 13.3 | 13.9 | 64.6 | 13.3 | 13.9 | 64.6 | 7.9 | 0.4 | 21.5 | 22.6 |
| South Africa (9) | 2984 | 13.8 | 8.3 | 9.4 | 76.2 | 8.3 | 9.4 | 76.2 | 5.9 | 0.2 | 14.1 | 13.8 |
| International Avg. (4) | 7688 | 16.2 | 8.7 | 12.1 | 67.6 | 8.7 | 12.1 | 67.6 | 10.3 | 1.2 | 17.0 | 15.5 |

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

SP12_05 SP72901: 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 |
|------------------------|------|-----------|--------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2076 | 33.2 | 18.4 | 24.8 | 17.1 | 14.3 | 18.0 | 7.4 | 33.9 | 32.5 |
| Iran, Islamic Rep. of | 1541 | 42.3 | 18.5 | 39.2 | 15.4 | 19.6 | 6.6 | 0.8 | 41.0 | 43.5 |
| Kuwait | 1081 | 35.9 | 24.8 | 34.7 | 19.7 | 17.3 | 3.1 | 0.5 | 35.4 | 36.5 |
| South Africa (9) | 2983 | 43.7 | 22.2 | 42.9 | 23.5 | 9.6 | 1.5 | 0.2 | 47.3 | 40.2 |
| International Avg. (4) | 7681 | 38.8 | 21.0 | 35.4 | 18.9 | 15.2 | 7.3 | 2.2 | 39.4 | 38.2 |

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
SP12_06 SP72038: What makes fermentation unique - MC - Key: A

| COUNTRY | N | DIFF % | A % | B % | C % | D % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2080 | 33.7 | 24.3 | 14.9 | 20.3 | 12.8 | 18.7 | 8.9 | 33.3 | 34.1 |
| Iran, Islamic Rep. of | 1541 | 51.5 | 47.6 | 15.7 | 17.8 | 11.4 | 6.6 | 0.8 | 55.9 | 47.3 |
| Kuwait | 1081 | 51.4 | 50.0 | 12.6 | 17.4 | 17.3 | 2.2 | 0.5 | 52.1 | 50.7 |
| South Africa (9) | 2984 | 43.5 | 43.0 | 19.5 | 20.9 | 15.3 | 0.9 | 0.3 | 45.4 | 42.5 |
| International Avg. (4) | 7686 | 45.0 | 41.2 | 15.7 | 19.1 | 14.2 | 7.1 | 2.7 | 46.7 | 43.6 |

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
SP12_07 SP72120: Identify a chemical property - MC - Key: B

| COUNTRY | N | DIFF % | A % | B % | C % | D % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2080 | 27.7 | 10.2 | 20.7 | 28.5 | 15.4 | 14.7 | 10.4 | 27.0 | 28.4 |
| Iran, Islamic Rep. of | 1541 | 47.0 | 5.6 | 45.2 | 34.5 | 10.9 | 2.8 | 1.0 | 49.3 | 44.8 |
| Kuwait | 1081 | 66.0 | 6.4 | 64.0 | 17.1 | 9.4 | 2.4 | 0.6 | 70.0 | 61.8 |
| South Africa (9) | 2986 | 26.2 | 13.0 | 25.6 | 33.5 | 25.5 | 2.0 | 0.4 | 26.5 | 26.1 |
| International Avg. (4) | 7688 | 41.7 | 8.8 | 38.9 | 28.4 | 15.3 | 5.5 | 3.1 | 43.2 | 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: Chemistry / Reasoning

SP12_08 SP72143: Equipment Tom should use - CR - 1 Point

| COUNTRY | N | DIFF % | 10 % | 70 % | 79 % | 1pt % | 0pt % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|---------|---------|---------|----------|----------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2084 | 10.5 | 7.4 | 6.7 | 56.0 | 7.4 | 62.7 | 19.1 | 10.8 | 10.5 | 10.5 |
| Iran, Islamic Rep. of | 1541 | 43.5 | 39.8 | 9.6 | 42.0 | 39.8 | 51.6 | 7.6 | 1.0 | 45.3 | 41.8 |
| Kuwait | 1081 | 30.9 | 28.1 | 12.4 | 50.6 | 28.1 | 63.0 | 8.2 | 0.6 | 32.6 | 28.9 |
| South Africa (9) | 2986 | 12.6 | 12.2 | 12.1 | 72.4 | 12.2 | 84.5 | 2.9 | 0.4 | 11.9 | 13.7 |
| International Avg. (4) | 7692 | 24.4 | 21.9 | 10.2 | 55.3 | 21.9 | 65.5 | 9.5 | 3.2 | 25.1 | 23.7 |

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

SP12_09 SP72523: 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 |
|------------------------|------|-----------|---------|---------|---------|----------|----------|----------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2083 | 8.2 | 1.8 | 9.3 | 66.9 | 1.8 | 9.3 | 66.9 | 8.4 | 13.6 | 8.8 | 7.6 |
| Iran, Islamic Rep. of | 1541 | 25.7 | 4.7 | 40.1 | 51.4 | 4.7 | 40.1 | 51.4 | 2.5 | 1.3 | 29.0 | 22.5 |
| Kuwait | 1080 | 34.8 | 21.2 | 25.6 | 50.8 | 21.2 | 25.6 | 50.8 | 1.6 | 0.8 | 40.6 | 28.8 |
| South Africa (9) | 2986 | 23.3 | 11.9 | 21.4 | 63.9 | 11.9 | 21.4 | 63.9 | 2.3 | 0.6 | 24.5 | 21.8 |
| International Avg. (4) | 7690 | 23.0 | 9.9 | 24.1 | 58.2 | 9.9 | 24.1 | 58.2 | 3.7 | 4.1 | 25.7 | 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: Chemistry / Knowing

SP12_10 SP72168: Formation of iron sulfide - MC - Key: D

| COUNTRY | N | DIFF % | A % | B % | C % | D % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2079 | 20.1 | 26.4 | 11.4 | 14.5 | 13.1 | 19.0 | 15.6 | 18.6 | 21.6 |
| Iran, Islamic Rep. of | 1541 | 47.8 | 17.5 | 13.6 | 17.3 | 44.2 | 6.2 | 1.4 | 52.2 | 43.5 |
| Kuwait | 1081 | 39.4 | 35.9 | 11.0 | 11.1 | 37.8 | 3.3 | 0.8 | 39.1 | 39.8 |
| South Africa (9) | 2982 | 26.3 | 35.8 | 13.9 | 22.4 | 25.8 | 1.3 | 0.8 | 26.3 | 26.9 |
| International Avg. (4) | 7683 | 33.4 | 28.9 | 12.5 | 16.3 | 30.2 | 7.5 | 4.6 | 34.1 | 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: Physics / Knowing

SP12_11 SP72205: 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 |
|------------------------|------|-----------|--------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2078 | 24.2 | 17.2 | 20.9 | 15.3 | 10.0 | 15.8 | 20.8 | 23.3 | 25.1 |
| Iran, Islamic Rep. of | 1541 | 37.4 | 28.5 | 21.3 | 35.1 | 9.1 | 4.0 | 2.0 | 38.9 | 35.9 |
| Kuwait | 1081 | 32.9 | 30.0 | 22.3 | 31.5 | 12.0 | 3.3 | 0.9 | 31.4 | 34.4 |
| South Africa (9) | 2983 | 27.8 | 28.4 | 27.6 | 27.0 | 14.3 | 1.7 | 0.9 | 25.4 | 30.1 |
| International Avg. (4) | 7683 | 30.5 | 26.0 | 23.0 | 27.2 | 11.3 | 6.2 | 6.2 | 29.8 | 31.4 |

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

SP12_12 SP72293: 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 |
|------------------------|------|-----------|---------|---------|---------|----------|----------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2083 | 0.3 | 0.1 | 10.1 | 29.2 | 0.1 | 39.3 | 38.8 | 21.8 | 0.0 | 0.5 |
| Iran, Islamic Rep. of | 1541 | 8.5 | 7.4 | 27.3 | 52.2 | 7.4 | 79.5 | 11.2 | 2.0 | 5.6 | 11.2 |
| Kuwait | 1080 | 39.1 | 32.6 | 34.1 | 16.8 | 32.6 | 50.9 | 15.6 | 0.9 | 35.8 | 43.0 |
| South Africa (9) | 2985 | 6.0 | 5.8 | 20.5 | 69.5 | 5.8 | 90.0 | 3.2 | 1.1 | 5.2 | 6.8 |
| International Avg. (4) | 7689 | 13.5 | 11.5 | 23.0 | 41.9 | 11.5 | 64.9 | 17.2 | 6.4 | 11.6 | 15.4 |

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 / Reasoning

SP12_13A SP72280A: 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 |
|------------------------|------|-----------|---------|---------|---------|----------|----------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2082 | 1.0 | 0.7 | 16.4 | 51.1 | 0.7 | 67.4 | 6.8 | 25.1 | 0.8 | 1.3 |
| Iran, Islamic Rep. of | 1541 | 8.1 | 7.7 | 6.4 | 81.3 | 7.7 | 87.7 | 2.1 | 2.4 | 7.0 | 9.1 |
| Kuwait | 1081 | 16.2 | 15.8 | 39.9 | 41.5 | 15.8 | 81.4 | 1.9 | 0.9 | 16.5 | 15.9 |
| South Africa (9) | 2984 | 7.4 | 7.1 | 20.6 | 68.6 | 7.1 | 89.2 | 2.3 | 1.4 | 6.8 | 8.2 |
| International Avg. (4) | 7688 | 8.2 | 7.8 | 20.8 | 60.6 | 7.8 | 81.4 | 3.3 | 7.5 | 7.8 | 8.6 |

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

SP12_13B SP72280B: 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 |
|------------------------|------|-----------|--------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2078 | 42.3 | 14.6 | 25.1 | 13.8 | 5.9 | 13.6 | 27.1 | 42.6 | 42.0 |
| Iran, Islamic Rep. of | 1541 | 61.3 | 19.1 | 58.2 | 10.7 | 6.9 | 2.0 | 3.0 | 63.9 | 58.8 |
| Kuwait | 1081 | 63.4 | 21.3 | 61.7 | 8.4 | 5.8 | 1.5 | 1.2 | 61.7 | 65.1 |
| South Africa (9) | 2985 | 51.9 | 27.0 | 50.4 | 13.1 | 6.7 | 1.0 | 1.9 | 53.2 | 50.6 |
| International Avg. (4) | 7685 | 54.7 | 20.5 | 48.8 | 11.5 | 6.3 | 4.5 | 8.3 | 55.3 | 54.1 |

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

SP12_14 SP72370: What makes Saturn visible - MC - Key: C

| COUNTRY | N | DIFF % | A % | B % | C % | D % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2079 | 29.9 | 16.8 | 14.2 | 16.6 | 7.9 | 12.2 | 32.3 | 28.6 | 31.3 |
| Iran, Islamic Rep. of | 1541 | 48.3 | 11.6 | 24.9 | 45.4 | 12.1 | 2.6 | 3.4 | 47.5 | 49.0 |
| Kuwait | 1081 | 41.4 | 19.6 | 23.5 | 39.8 | 13.5 | 2.2 | 1.4 | 39.3 | 43.4 |
| South Africa (9) | 2982 | 37.4 | 18.1 | 23.5 | 36.2 | 19.1 | 1.0 | 2.2 | 37.5 | 37.3 |
| International Avg. (4) | 7683 | 39.2 | 16.5 | 21.5 | 34.5 | 13.1 | 4.5 | 9.8 | 38.2 | 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: Biology / Applying

SP13_01A SP62091A: Producers in food web - MC - Key: B

| COUNTRY | N | DIFF % | A % | B % | C % | D % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2086 | 33.4 | 5.1 | 21.9 | 8.1 | 30.5 | 17.3 | 17.1 | 34.3 | 32.6 |
| Iran, Islamic Rep. of | 1555 | 69.6 | 6.3 | 67.2 | 7.7 | 15.3 | 3.0 | 0.4 | 66.4 | 72.6 |
| Kuwait | 1086 | 76.5 | 4.3 | 75.1 | 6.9 | 12.0 | 1.7 | 0.1 | 76.3 | 76.6 |
| South Africa (9) | 3002 | 60.6 | 8.0 | 59.9 | 8.2 | 22.8 | 1.0 | 0.2 | 60.6 | 60.4 |
| International Avg. (4) | 7729 | 60.0 | 5.9 | 56.0 | 7.7 | 20.2 | 5.8 | 4.4 | 59.4 | 60.6 |

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

SP13_01B SP62091B: 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 |
|------------------------|------|-----------|--------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2086 | 47.3 | 13.5 | 9.0 | 30.8 | 11.7 | 16.0 | 19.0 | 45.9 | 48.8 |
| Iran, Islamic Rep. of | 1555 | 67.7 | 11.4 | 18.1 | 66.1 | 1.9 | 2.0 | 0.4 | 66.4 | 69.0 |
| Kuwait | 1086 | 62.8 | 12.0 | 20.1 | 61.7 | 4.5 | 1.5 | 0.2 | 61.8 | 63.8 |
| South Africa (9) | 3001 | 66.7 | 17.5 | 10.6 | 66.3 | 5.0 | 0.3 | 0.3 | 66.8 | 66.7 |
| International Avg. (4) | 7728 | 61.1 | 13.6 | 14.5 | 56.2 | 5.8 | 4.9 | 5.0 | 60.2 | 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 / Applying

SP13_02 SP62100: Cell structure of fossils - CR - 1 Point

| COUNTRY | N | DIFF % | 10 % | 79 % | 1pt % | 0pt % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|---------|---------|----------|----------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2088 | 3.8 | 2.6 | 65.5 | 2.6 | 65.5 | 11.7 | 20.1 | 4.3 | 3.4 |
| Iran, Islamic Rep. of | 1555 | 12.3 | 11.5 | 81.9 | 11.5 | 81.9 | 6.1 | 0.5 | 13.7 | 11.0 |
| Kuwait | 1086 | 31.4 | 30.3 | 66.0 | 30.3 | 66.0 | 3.4 | 0.4 | 36.5 | 26.4 |
| South Africa (9) | 3001 | 36.7 | 35.1 | 60.7 | 35.1 | 60.7 | 3.9 | 0.3 | 41.3 | 31.7 |
| International Avg. (4) | 7730 | 21.1 | 19.9 | 68.5 | 19.9 | 68.5 | 6.3 | 5.3 | 24.0 | 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

SP13_03 SP62097: 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 |
|------------------------|------|-----------|--------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2087 | 24.0 | 13.8 | 13.3 | 22.8 | 7.5 | 21.5 | 21.1 | 26.1 | 22.0 |
| Iran, Islamic Rep. of | 1555 | 36.8 | 32.0 | 23.2 | 24.7 | 7.2 | 12.2 | 0.8 | 34.2 | 39.3 |
| Kuwait | 1085 | 40.5 | 38.4 | 23.7 | 26.7 | 6.1 | 4.8 | 0.4 | 40.7 | 40.3 |
| South Africa (9) | 2995 | 29.6 | 28.2 | 19.6 | 38.8 | 8.8 | 4.1 | 0.5 | 30.8 | 28.8 |
| International Avg. (4) | 7722 | 32.7 | 28.1 | 19.9 | 28.2 | 7.4 | 10.7 | 5.7 | 32.9 | 32.6 |

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

SP13_04 SP62101: Stomach tissue and function - CR - 2 Points

| COUNTRY | N | DIFF % | 20 % | 10 % | 79 % | 2pt % | 1pt % | 0pt % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|---------|---------|---------|----------|----------|----------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2083 | 18.0 | 3.5 | 13.8 | 40.4 | 3.5 | 13.8 | 40.4 | 18.0 | 24.3 | 18.6 | 17.3 |
| Iran, Islamic Rep. of | 1555 | 32.6 | 14.3 | 29.8 | 45.4 | 14.3 | 29.8 | 45.4 | 9.3 | 1.2 | 33.5 | 31.8 |
| Kuwait | 1086 | 31.9 | 13.2 | 32.0 | 46.3 | 13.2 | 32.0 | 46.3 | 8.1 | 0.5 | 33.9 | 29.8 |
| South Africa (9) | 3001 | 21.8 | 7.6 | 24.1 | 58.1 | 7.6 | 24.1 | 58.1 | 9.0 | 1.2 | 23.3 | 20.3 |
| International Avg. (4) | 7725 | 26.1 | 9.6 | 24.9 | 47.5 | 9.6 | 24.9 | 47.5 | 11.1 | 6.8 | 27.3 | 24.8 |

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

SP13_06 SP62128: Densities of three liquids - CR - 1 Point

| COUNTRY | N | DIFF % | 10 % | 79 % | 1pt % | 0pt % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|---------|---------|----------|----------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2086 | 13.5 | 7.0 | 44.6 | 7.0 | 44.6 | 20.5 | 27.9 | 12.8 | 14.2 |
| Iran, Islamic Rep. of | 1555 | 40.0 | 32.2 | 48.2 | 32.2 | 48.2 | 17.7 | 1.8 | 36.3 | 43.9 |
| Kuwait | 1086 | 42.8 | 39.0 | 52.1 | 39.0 | 52.1 | 8.3 | 0.6 | 40.1 | 45.7 |
| South Africa (9) | 2999 | 19.3 | 18.0 | 75.5 | 18.0 | 75.5 | 4.0 | 2.5 | 17.5 | 21.2 |
| International Avg. (4) | 7726 | 28.9 | 24.0 | 55.1 | 24.0 | 55.1 | 12.6 | 8.2 | 26.6 | 31.2 |

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

SP13_07 SP62047: Absorbed or reflected light (DERIVED) - CR - 1 Point

| COUNTRY | N | DIFF % | 10 % | 79 % | 1pt % | 0pt % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|---------|---------|----------|----------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2088 | 25.3 | 10.5 | 31.1 | 10.5 | 31.1 | 28.6 | 29.7 | 26.3 | 24.3 |
| Iran, Islamic Rep. of | 1555 | 31.5 | 28.1 | 61.1 | 28.1 | 61.1 | 8.8 | 1.9 | 28.8 | 34.1 |
| Kuwait | 1079 | 35.1 | 32.4 | 59.9 | 32.4 | 59.9 | 6.8 | 0.8 | 36.4 | 33.7 |
| South Africa (9) | 3003 | 26.8 | 24.8 | 67.8 | 24.8 | 67.8 | 4.4 | 3.0 | 26.9 | 27.0 |
| International Avg. (4) | 7725 | 29.7 | 24.0 | 55.0 | 24.0 | 55.0 | 12.2 | 8.9 | 29.6 | 29.8 |

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
SP13_07A SP62047A: Absorbed or reflected light: green - MC - Key: A

| COUNTRY | N | DIFF % | A % | B % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2088 | 57.7 | 19.8 | 14.6 | 35.9 | 29.7 | 59.4 | 55.9 |
| Iran, Islamic Rep. of | 1555 | 58.4 | 48.0 | 34.2 | 15.9 | 1.9 | 54.5 | 62.4 |
| Kuwait | 1080 | 59.4 | 52.9 | 36.2 | 10.1 | 0.8 | 58.1 | 60.7 |
| South Africa (9) | 3003 | 56.4 | 47.0 | 36.4 | 13.7 | 3.0 | 55.8 | 57.0 |
| International Avg. (4) | 7726 | 58.0 | 41.9 | 30.3 | 18.9 | 8.9 | 57.0 | 59.0 |

Science: Physics / Knowing

SP13_07B SP62047B: Absorbed or reflected light: red - MC - Key: B

| COUNTRY | N | DIFF % | A % | B % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2088 | 46.8 | 20.2 | 17.7 | 32.4 | 29.7 | 48.3 | 45.4 |
| Iran, Islamic Rep. of | 1555 | 47.4 | 45.7 | 41.3 | 11.1 | 1.9 | 43.4 | 51.3 |
| Kuwait | 1083 | 54.8 | 41.2 | 50.0 | 7.9 | 0.8 | 54.4 | 55.2 |
| South Africa (9) | 3003 | 54.3 | 40.3 | 47.9 | 8.8 | 3.0 | 54.9 | 53.9 |
| International Avg. (4) | 7729 | 50.8 | 36.9 | 39.2 | 15.0 | 8.9 | 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: Physics / Knowing

SP13_07C SP62047C: Absorbed or reflected light: blue - MC - Key: A

| COUNTRY | N | DIFF % | A % | B % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2088 | 59.1 | 20.8 | 14.4 | 35.1 | 29.7 | 60.0 | 58.2 |
| Iran, Islamic Rep. of | 1555 | 53.5 | 44.1 | 38.3 | 15.7 | 1.9 | 51.1 | 55.8 |
| Kuwait | 1081 | 57.3 | 50.6 | 37.8 | 10.7 | 0.8 | 56.7 | 57.9 |
| South Africa (9) | 3003 | 56.9 | 48.1 | 36.5 | 12.5 | 3.0 | 56.3 | 58.0 |
| International Avg. (4) | 7727 | 56.7 | 40.9 | 31.7 | 18.5 | 8.9 | 56.0 | 57.5 |

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

SP13_08 SP62042: Parts of incandescent light bulb - CR - 1 Point

| COUNTRY | N | DIFF % | 10 % | 70 % | 79 % | 1pt % | 0pt % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|---------|---------|---------|----------|----------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2088 | 11.3 | 4.0 | 2.5 | 28.7 | 4.0 | 31.2 | 33.8 | 31.1 | 9.7 | 12.9 |
| Iran, Islamic Rep. of | 0 | . | . | . | . | . | . | . | . | . | . |
| Kuwait | 1085 | 33.6 | 27.8 | 15.2 | 39.7 | 27.8 | 54.9 | 16.4 | 0.9 | 31.4 | 36.2 |
| South Africa (9) | 2999 | 21.3 | 16.4 | 10.9 | 49.8 | 16.4 | 60.7 | 18.9 | 3.9 | 20.0 | 22.8 |
| International Avg. (3) | 6172 | 22.1 | 16.1 | 9.5 | 39.4 | 16.1 | 48.9 | 23.0 | 12.0 | 20.4 | 24.0 |

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

SP13_09 SP62250: Paint prevents rust - CR - 1 Point

| COUNTRY | N | DIFF % | 10 % | 11 % | 79 % | 1pt % | 0pt % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|---------|---------|---------|----------|----------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2089 | 15.1 | 0.8 | 1.8 | 14.6 | 2.6 | 14.6 | 51.3 | 31.5 | 18.7 | 11.9 |
| Iran, Islamic Rep. of | 1555 | 54.2 | 3.7 | 29.4 | 28.0 | 33.0 | 28.0 | 36.5 | 2.5 | 56.7 | 52.0 |
| Kuwait | 1084 | 28.1 | 11.9 | 6.9 | 48.0 | 18.8 | 48.0 | 32.1 | 1.1 | 30.3 | 25.7 |
| South Africa (9) | 2997 | 25.3 | 10.9 | 10.6 | 63.3 | 21.5 | 63.3 | 10.8 | 4.4 | 27.0 | 23.5 |
| International Avg. (4) | 7725 | 30.7 | 6.8 | 12.2 | 38.5 | 19.0 | 38.5 | 32.7 | 9.8 | 33.2 | 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
SP13_10 SP62246: True of all neutral atoms - MC - Key: C

| COUNTRY | N | DIFF % | A % | B % | C % | D % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2088 | 35.8 | 10.2 | 14.5 | 17.9 | 7.3 | 18.2 | 31.9 | 37.2 | 34.3 |
| Iran, Islamic Rep. of | 1555 | 50.4 | 23.9 | 11.8 | 46.6 | 10.2 | 4.7 | 2.8 | 55.2 | 45.8 |
| Kuwait | 1085 | 35.9 | 36.0 | 15.8 | 34.4 | 9.7 | 2.8 | 1.3 | 36.6 | 35.2 |
| South Africa (9) | 2981 | 33.0 | 27.5 | 22.7 | 30.3 | 11.4 | 3.6 | 4.5 | 34.6 | 31.3 |
| International Avg. (4) | 7709 | 38.8 | 24.4 | 16.2 | 32.3 | 9.6 | 7.3 | 10.1 | 40.9 | 36.7 |

Science: Chemistry / Reasoning
SP13_11 SP62056: Mary has a light stick - CR - 1 Point

| COUNTRY | N | DIFF % | 10 % | 79 % | 1pt % | 0pt % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|---------|---------|----------|----------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2089 | 2.0 | 1.2 | 60.1 | 1.2 | 60.1 | 6.4 | 32.3 | 2.7 | 1.3 |
| Iran, Islamic Rep. of | 1555 | 8.7 | 7.9 | 82.9 | 7.9 | 82.9 | 6.1 | 3.0 | 8.2 | 9.2 |
| Kuwait | 1086 | 21.9 | 20.8 | 74.2 | 20.8 | 74.2 | 3.6 | 1.4 | 26.6 | 17.1 |
| South Africa (9) | 2998 | 13.3 | 12.0 | 78.0 | 12.0 | 78.0 | 4.7 | 5.3 | 12.7 | 14.0 |
| International Avg. (4) | 7728 | 11.5 | 10.5 | 73.8 | 10.5 | 73.8 | 5.2 | 10.5 | 12.6 | 10.4 |

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

SP13_12 SP62235: Negative effects of fertilizer - MC - Key: A

| COUNTRY | N | DIFF % | A % | B % | C % | D % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2087 | 32.6 | 16.7 | 10.2 | 16.0 | 8.2 | 16.3 | 32.6 | 31.5 | 33.7 |
| Iran, Islamic Rep. of | 1555 | 41.5 | 38.3 | 13.4 | 21.8 | 18.8 | 4.3 | 3.4 | 42.5 | 40.6 |
| Kuwait | 1085 | 37.4 | 35.7 | 15.8 | 26.4 | 17.6 | 2.7 | 1.8 | 40.0 | 34.8 |
| South Africa (9) | 2989 | 24.9 | 22.5 | 14.9 | 29.2 | 24.0 | 3.1 | 6.3 | 23.2 | 26.4 |
| International Avg. (4) | 7716 | 34.1 | 28.3 | 13.6 | 23.4 | 17.1 | 6.6 | 11.0 | 34.3 | 33.9 |

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 / Applying
 SP13_13 SP62180: Melting permafrost - MC - Key: A

| COUNTRY | N | DIFF % | A % | B % | C % | D % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2088 | 33.2 | 16.4 | 14.0 | 10.7 | 8.3 | 14.8 | 35.7 | 35.2 | 31.2 |
| Iran, Islamic Rep. of | 1555 | 26.1 | 23.3 | 18.7 | 21.2 | 25.8 | 7.3 | 3.6 | 22.4 | 29.8 |
| Kuwait | 1085 | 45.6 | 43.5 | 15.7 | 13.0 | 23.2 | 2.7 | 1.8 | 47.5 | 43.7 |
| South Africa (9) | 2988 | 31.8 | 28.5 | 27.8 | 14.5 | 18.9 | 3.4 | 7.0 | 32.6 | 30.6 |
| International Avg. (4) | 7716 | 34.2 | 27.9 | 19.1 | 14.8 | 19.1 | 7.1 | 12.0 | 34.4 | 33.8 |

Science: Earth Science / Knowing
SP13_14 SP62022: 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 |
|------------------------|------|-----------|---------|---------|----------|----------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2088 | 10.7 | 5.1 | 42.3 | 5.1 | 42.3 | 16.3 | 36.3 | 11.0 | 10.5 |
| Iran, Islamic Rep. of | 1555 | 27.5 | 26.0 | 68.3 | 26.0 | 68.3 | 1.9 | 3.8 | 21.9 | 32.9 |
| Kuwait | 1084 | 26.6 | 25.1 | 69.1 | 25.1 | 69.1 | 3.9 | 2.0 | 22.2 | 31.2 |
| South Africa (9) | 3003 | 25.9 | 23.3 | 66.8 | 23.3 | 66.8 | 2.4 | 7.5 | 24.1 | 28.4 |
| International Avg. (4) | 7730 | 22.7 | 19.9 | 61.6 | 19.9 | 61.6 | 6.1 | 12.4 | 19.8 | 25.8 |

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
SP13_14A SP62022A: Fresh water or salt water: snow cap - MC - Key: A

| COUNTRY | N | DIFF % | A % | B % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2088 | 57.2 | 23.3 | 17.5 | 22.9 | 36.3 | 56.5 | 57.8 |
| Iran, Islamic Rep. of | 1555 | 81.9 | 74.0 | 16.4 | 5.9 | 3.8 | 78.5 | 85.2 |
| Kuwait | 1085 | 68.2 | 62.6 | 29.1 | 6.3 | 2.0 | 66.4 | 70.2 |
| South Africa (9) | 3003 | 68.0 | 57.7 | 27.1 | 7.7 | 7.5 | 65.8 | 70.5 |
| International Avg. (4) | 7731 | 68.8 | 54.4 | 22.5 | 10.7 | 12.4 | 66.8 | 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: Earth Science / Knowing

SP13_14B SP62022B: Fresh water or salt water: cloud - MC - Key: A

| COUNTRY | N | DIFF % | A % | B % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2089 | 67.3 | 27.9 | 13.6 | 22.2 | 36.3 | 67.2 | 67.4 |
| Iran, Islamic Rep. of | 1555 | 68.2 | 60.4 | 28.1 | 7.7 | 3.8 | 63.4 | 73.0 |
| Kuwait | 1084 | 69.0 | 63.1 | 28.3 | 6.7 | 2.0 | 66.6 | 71.6 |
| South Africa (9) | 3003 | 73.6 | 62.0 | 22.2 | 8.2 | 7.5 | 73.7 | 73.8 |
| International Avg. (4) | 7731 | 69.6 | 53.4 | 23.1 | 11.2 | 12.4 | 67.7 | 71.5 |

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

SP13_14C SP62022C: Fresh water or salt water: river - MC - Key: A

| COUNTRY | N | DIFF % | A % | B % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2089 | 64.3 | 27.1 | 15.0 | 21.5 | 36.3 | 66.2 | 62.6 |
| Iran, Islamic Rep. of | 1555 | 65.0 | 58.2 | 31.4 | 6.7 | 3.8 | 64.0 | 66.0 |
| Kuwait | 1085 | 75.2 | 69.3 | 22.8 | 5.9 | 2.0 | 72.0 | 78.5 |
| South Africa (9) | 3003 | 70.4 | 60.6 | 25.5 | 6.4 | 7.5 | 70.5 | 70.7 |
| International Avg. (4) | 7732 | 68.7 | 53.8 | 23.7 | 10.1 | 12.4 | 68.2 | 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: Earth Science / Knowing

SP13_14D SP62022D: Fresh water or salt water: ocean - MC - Key: B

| COUNTRY | N | DIFF % | A % | B % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2089 | 66.0 | 14.2 | 27.6 | 21.8 | 36.3 | 64.0 | 67.8 |
| Iran, Islamic Rep. of | 1555 | 89.3 | 9.6 | 80.7 | 5.9 | 3.8 | 86.6 | 92.0 |
| Kuwait | 1084 | 80.2 | 18.2 | 74.0 | 5.8 | 2.0 | 80.0 | 80.5 |
| South Africa (9) | 3003 | 85.8 | 12.2 | 73.8 | 6.5 | 7.5 | 86.0 | 85.9 |
| International Avg. (4) | 7731 | 80.3 | 13.6 | 64.0 | 10.0 | 12.4 | 79.2 | 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: Earth Science / Reasoning

SP13_15 SP62243: Animals and habitat - CR - 2 Points

| COUNTRY | N | DIFF % | 20 % | 10 % | 79 % | 2pt % | 1pt % | 0pt % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|---------|---------|---------|----------|----------|----------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 2089 | 8.7 | 1.0 | 4.0 | 29.6 | 1.0 | 4.0 | 29.6 | 24.9 | 40.5 | 10.9 | 6.5 |
| Iran, Islamic Rep. of | 1555 | 32.4 | 18.4 | 14.3 | 46.0 | 18.4 | 14.3 | 46.0 | 15.7 | 5.6 | 33.3 | 31.6 |
| Kuwait | 1086 | 35.1 | 18.4 | 20.9 | 42.9 | 18.4 | 20.9 | 42.9 | 14.1 | 3.6 | 34.2 | 36.2 |
| South Africa (9) | 2998 | 33.4 | 15.4 | 21.3 | 41.2 | 15.4 | 21.3 | 41.2 | 12.6 | 9.5 | 32.9 | 33.8 |
| International Avg. (4) | 7728 | 27.4 | 13.3 | 15.1 | 39.9 | 13.3 | 15.1 | 39.9 | 16.8 | 14.8 | 27.8 | 27.0 |

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 / Reasoning
SP14_01 SP72011: 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 |
|------------------------|------|-----------|--------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 1985 | 22.0 | 17.7 | 5.9 | 5.8 | 50.7 | 17.3 | 2.5 | 17.6 | 26.6 |
| Iran, Islamic Rep. of | 1560 | 51.2 | 49.4 | 6.3 | 4.9 | 36.0 | 3.1 | 0.3 | 50.9 | 51.4 |
| Kuwait | 1085 | 45.6 | 43.8 | 6.4 | 8.7 | 37.1 | 3.8 | 0.3 | 44.8 | 46.4 |
| South Africa (9) | 3009 | 29.8 | 29.3 | 8.5 | 12.8 | 47.9 | 1.3 | 0.3 | 24.6 | 35.2 |
| International Avg. (4) | 7639 | 37.1 | 35.0 | 6.8 | 8.1 | 42.9 | 6.4 | 0.8 | 34.5 | 39.9 |

Science: Biology / Knowing

SP14_02 SP72905: Risk factors for disease - CR - 1 Point

| COUNTRY | N | DIFF % | 10 % | 79 % | 1pt % | 0pt % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|---------|---------|----------|----------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 1982 | 13.4 | 11.4 | 73.6 | 11.4 | 73.6 | 12.0 | 3.0 | 14.7 | 12.2 |
| Iran, Islamic Rep. of | 1560 | 57.1 | 54.4 | 40.9 | 54.4 | 40.9 | 4.3 | 0.4 | 64.2 | 50.1 |
| Kuwait | 1086 | 63.5 | 57.9 | 33.2 | 57.9 | 33.2 | 8.5 | 0.5 | 67.7 | 59.2 |
| South Africa (9) | 3016 | 37.5 | 34.5 | 57.6 | 34.5 | 57.6 | 7.6 | 0.3 | 40.8 | 33.7 |
| International Avg. (4) | 7644 | 42.9 | 39.5 | 51.3 | 39.5 | 51.3 | 8.1 | 1.0 | 46.8 | 38.8 |

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
SP14_03 SP72049: 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 |
|------------------------|------|-----------|--------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 1984 | 27.2 | 12.4 | 21.0 | 23.6 | 20.2 | 18.6 | 4.2 | 26.4 | 27.9 |
| Iran, Islamic Rep. of | 1564 | 49.4 | 12.5 | 46.9 | 13.2 | 22.4 | 4.6 | 0.5 | 50.9 | 47.9 |
| Kuwait | 1085 | 42.3 | 18.5 | 40.7 | 14.8 | 22.1 | 3.5 | 0.4 | 43.7 | 41.0 |
| South Africa (9) | 3017 | 37.5 | 13.6 | 36.8 | 22.1 | 25.5 | 1.6 | 0.4 | 37.5 | 37.8 |
| International Avg. (4) | 7650 | 39.1 | 14.2 | 36.3 | 18.4 | 22.6 | 7.1 | 1.4 | 39.6 | 38.7 |

Science: Biology / Applying

SP14_04 SP72016: 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 |
|------------------------|------|-----------|---------|---------|---------|---------|----------|----------|----------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 1973 | 4.3 | 1.1 | 0.8 | 0.5 | 38.8 | 1.1 | 1.3 | 38.8 | 52.6 | 6.1 | 5.9 | 2.8 |
| Iran, Islamic Rep. of | 1564 | 29.3 | 11.3 | 10.4 | 3.7 | 37.1 | 11.3 | 14.1 | 37.1 | 36.8 | 0.8 | 24.4 | 33.9 |
| Kuwait | 1086 | 17.6 | 7.3 | 5.0 | 9.8 | 61.3 | 7.3 | 14.7 | 61.3 | 16.0 | 0.6 | 17.2 | 18.0 |
| South Africa (9) | 3017 | 13.1 | 5.2 | 10.6 | 3.8 | 74.9 | 5.2 | 14.4 | 74.9 | 5.0 | 0.5 | 12.5 | 14.0 |
| International Avg. (4) | 7640 | 16.1 | 6.2 | 6.7 | 4.4 | 53.0 | 6.2 | 11.1 | 53.0 | 27.6 | 2.0 | 15.0 | 17.2 |

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

SP14_04A SP72016A: 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 |
|------------------------|------|-----------|---------|---------|---------|----------|----------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 1973 | 4.9 | 2.0 | 0.4 | 38.1 | 2.0 | 38.5 | 53.4 | 6.1 | 6.3 | 3.5 |
| Iran, Islamic Rep. of | 1564 | 35.5 | 21.7 | 4.7 | 34.7 | 21.7 | 39.4 | 38.2 | 0.8 | 32.7 | 38.1 |
| Kuwait | 1086 | 15.0 | 12.3 | 2.9 | 66.9 | 12.3 | 69.7 | 17.4 | 0.6 | 15.0 | 15.0 |
| South Africa (9) | 3018 | 16.8 | 15.8 | 1.9 | 76.1 | 15.8 | 78.1 | 5.6 | 0.5 | 16.5 | 17.3 |
| International Avg. (4) | 7641 | 18.0 | 12.9 | 2.5 | 53.9 | 12.9 | 56.4 | 28.7 | 2.0 | 17.6 | 18.5 |

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

SP14_04B SP72016B: 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 |
|------------------------|------|-----------|---------|---------|---------|----------|----------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 1974 | 4.6 | 1.6 | 0.4 | 32.9 | 1.6 | 33.3 | 58.9 | 6.2 | 6.9 | 2.5 |
| Iran, Islamic Rep. of | 1564 | 30.5 | 14.9 | 0.4 | 33.6 | 14.9 | 33.9 | 50.4 | 0.8 | 22.7 | 37.1 |
| Kuwait | 1086 | 24.1 | 17.1 | 0.8 | 52.8 | 17.1 | 53.7 | 28.6 | 0.6 | 22.7 | 25.9 |
| South Africa (9) | 3017 | 9.8 | 9.0 | 0.7 | 81.4 | 9.0 | 82.1 | 8.4 | 0.5 | 8.8 | 11.2 |
| International Avg. (4) | 7641 | 17.3 | 10.6 | 0.5 | 50.2 | 10.6 | 50.7 | 36.6 | 2.0 | 15.3 | 19.2 |

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
SP14_05 SP72451: Oldest fossils - CR - 1 Point

| COUNTRY | N | DIFF % | 10 % | 79 % | 1pt % | 0pt % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|---------|---------|----------|----------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 1984 | 8.0 | 6.7 | 76.7 | 6.7 | 76.7 | 8.4 | 8.3 | 7.6 | 8.4 |
| Iran, Islamic Rep. of | 1560 | 36.8 | 36.2 | 62.3 | 36.2 | 62.3 | 0.7 | 0.9 | 39.7 | 33.9 |
| Kuwait | 1082 | 18.0 | 17.3 | 78.6 | 17.3 | 78.6 | 3.4 | 0.7 | 19.9 | 16.1 |
| South Africa (9) | 3018 | 27.9 | 27.0 | 69.8 | 27.0 | 69.8 | 2.5 | 0.7 | 25.6 | 30.2 |
| International Avg. (4) | 7644 | 22.7 | 21.8 | 71.8 | 21.8 | 71.8 | 3.7 | 2.6 | 23.2 | 22.2 |

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

SP14_06 SP72074: 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 |
|------------------------|------|-----------|---------|---------|---------|----------|----------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 1984 | 8.5 | 4.6 | 12.7 | 37.4 | 4.6 | 50.1 | 36.6 | 8.6 | 9.4 | 7.7 |
| Iran, Islamic Rep. of | 1560 | 21.3 | 19.0 | 45.9 | 24.3 | 19.0 | 70.2 | 9.8 | 0.9 | 20.9 | 21.7 |
| Kuwait | 1085 | 20.2 | 18.0 | 32.4 | 38.6 | 18.0 | 71.0 | 10.3 | 0.7 | 20.8 | 19.5 |
| South Africa (9) | 3017 | 21.3 | 19.6 | 26.6 | 45.9 | 19.6 | 72.5 | 7.0 | 0.9 | 21.6 | 20.6 |
| International Avg. (4) | 7646 | 17.8 | 15.3 | 29.4 | 36.6 | 15.3 | 65.9 | 15.9 | 2.8 | 18.2 | 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: Biology / Knowing

SP14_07 SP72091: Function of white blood cells - MC - Key: C

| COUNTRY | N | DIFF % | A % | B % | C % | D % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 1982 | 40.8 | 25.5 | 11.6 | 28.7 | 4.6 | 18.5 | 11.1 | 40.2 | 41.4 |
| Iran, Islamic Rep. of | 1560 | 37.1 | 28.0 | 14.9 | 35.1 | 16.6 | 4.5 | 1.0 | 33.5 | 40.6 |
| Kuwait | 1085 | 34.2 | 41.0 | 13.9 | 32.9 | 8.4 | 3.1 | 0.8 | 30.0 | 38.4 |
| South Africa (9) | 3012 | 26.8 | 22.7 | 25.8 | 25.5 | 21.2 | 3.5 | 1.2 | 26.5 | 27.1 |
| International Avg. (4) | 7639 | 34.7 | 29.3 | 16.5 | 30.6 | 12.7 | 7.4 | 3.5 | 32.5 | 36.9 |

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

SP14_08 SP72109: 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 |
|------------------------|------|-----------|---------|---------|---------|----------|----------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 1985 | 7.0 | 4.3 | 0.0 | 57.2 | 4.3 | 57.2 | 25.9 | 12.5 | 7.2 | 6.9 |
| Iran, Islamic Rep. of | 1564 | 25.0 | 20.8 | 0.0 | 62.1 | 20.8 | 62.1 | 16.0 | 1.1 | 29.0 | 21.1 |
| Kuwait | 1084 | 27.5 | 25.3 | 0.0 | 66.6 | 25.3 | 66.6 | 7.3 | 0.8 | 27.4 | 27.7 |
| South Africa (9) | 3016 | 37.1 | 35.2 | 0.2 | 60.0 | 35.4 | 60.0 | 3.2 | 1.4 | 40.5 | 33.3 |
| International Avg. (4) | 7649 | 24.2 | 21.4 | 0.0 | 61.5 | 21.4 | 61.5 | 13.1 | 4.0 | 26.0 | 22.3 |

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
SP14_09 SP72140: How substances are grouped - MC - Key: C

| COUNTRY | N | DIFF % | A % | B % | C % | D % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 1981 | 26.5 | 12.3 | 12.2 | 16.4 | 20.8 | 22.4 | 15.9 | 27.5 | 25.5 |
| Iran, Islamic Rep. of | 1565 | 40.9 | 15.4 | 23.9 | 37.8 | 15.3 | 6.3 | 1.3 | 41.3 | 40.5 |
| Kuwait | 1084 | 42.5 | 13.1 | 21.1 | 40.4 | 20.6 | 4.1 | 0.8 | 39.9 | 45.0 |
| South Africa (9) | 3010 | 39.1 | 21.2 | 15.9 | 37.7 | 21.6 | 1.9 | 1.7 | 41.4 | 36.9 |
| International Avg. (4) | 7640 | 37.2 | 15.5 | 18.3 | 33.1 | 19.6 | 8.7 | 4.9 | 37.5 | 37.0 |

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
SP14_10 SP72132: 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 |
|------------------------|------|-----------|---------|---------|---------|----------|----------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 1985 | 1.1 | 0.8 | 0.8 | 71.9 | 0.8 | 72.7 | 7.6 | 18.9 | 1.3 | 0.9 |
| Iran, Islamic Rep. of | 1565 | 7.2 | 7.0 | 5.9 | 83.3 | 7.0 | 89.3 | 2.4 | 1.4 | 8.4 | 6.1 |
| Kuwait | 1084 | 5.7 | 5.4 | 0.9 | 89.7 | 5.4 | 90.6 | 3.0 | 0.9 | 5.8 | 5.5 |
| South Africa (9) | 3017 | 5.4 | 5.2 | 5.0 | 85.3 | 5.2 | 90.4 | 2.5 | 2.0 | 5.1 | 5.9 |
| International Avg. (4) | 7651 | 4.9 | 4.6 | 3.2 | 82.6 | 4.6 | 85.7 | 3.9 | 5.8 | 5.2 | 4.6 |

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
SP14_11 SP72209: 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 |
|------------------------|------|-----------|--------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 1985 | 26.2 | 16.4 | 17.5 | 19.6 | 9.2 | 17.0 | 20.4 | 26.8 | 25.5 |
| Iran, Islamic Rep. of | 1565 | 35.8 | 34.0 | 17.5 | 30.9 | 12.6 | 3.3 | 1.5 | 37.7 | 33.9 |
| Kuwait | 1083 | 36.9 | 35.4 | 17.5 | 34.6 | 8.5 | 2.8 | 1.1 | 33.2 | 40.5 |
| South Africa (9) | 3015 | 29.0 | 27.8 | 18.6 | 33.2 | 16.4 | 1.7 | 2.3 | 28.4 | 29.8 |
| International Avg. (4) | 7648 | 32.0 | 28.4 | 17.8 | 29.6 | 11.7 | 6.2 | 6.3 | 31.5 | 32.4 |

DIFF = Percent correct
Because of missing gender information, some totals may appear inconsistent
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Science: Physics / Applying

SP14_12 SP72210: 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 |
|------------------------|------|-----------|---------|---------|---------|----------|----------|----------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 1985 | 11.2 | 0.3 | 15.2 | 54.7 | 0.3 | 15.2 | 54.7 | 6.0 | 23.7 | 12.2 | 10.3 |
| Iran, Islamic Rep. of | 1565 | 19.9 | 1.5 | 35.4 | 59.8 | 1.5 | 35.4 | 59.8 | 1.5 | 1.7 | 23.8 | 16.2 |
| Kuwait | 1082 | 14.6 | 1.6 | 25.1 | 70.2 | 1.6 | 25.1 | 70.2 | 1.4 | 1.7 | 18.9 | 10.4 |
| South Africa (9) | 3016 | 27.1 | 2.5 | 46.3 | 45.6 | 2.5 | 46.3 | 45.6 | 2.8 | 2.8 | 28.6 | 25.8 |
| International Avg. (4) | 7648 | 18.2 | 1.5 | 30.5 | 57.6 | 1.5 | 30.5 | 57.6 | 3.0 | 7.5 | 20.9 | 15.7 |

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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Science: Physics / Knowing
SP14_13 SP72249: 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 |
|------------------------|------|-----------|--------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 1984 | 23.5 | 12.7 | 16.8 | 15.8 | 13.9 | 15.3 | 25.6 | 27.7 | 19.3 |
| Iran, Islamic Rep. of | 1565 | 14.7 | 20.6 | 32.2 | 27.0 | 13.8 | 4.2 | 2.2 | 15.2 | 14.3 |
| Kuwait | 1083 | 23.3 | 17.0 | 30.9 | 26.0 | 22.4 | 1.9 | 1.8 | 22.1 | 24.4 |
| South Africa (9) | 3015 | 22.8 | 22.6 | 28.8 | 21.5 | 21.5 | 2.2 | 3.5 | 25.3 | 19.7 |
| International Avg. (4) | 7647 | 21.1 | 18.2 | 27.2 | 22.6 | 17.9 | 5.9 | 8.3 | 22.6 | 19.5 |

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
SP14_14 SP72323: 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 |
|------------------------|------|-----------|--------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 1981 | 45.0 | 10.7 | 24.9 | 10.6 | 9.1 | 12.0 | 32.8 | 44.7 | 45.3 |
| Iran, Islamic Rep. of | 1565 | 55.9 | 19.8 | 52.4 | 9.7 | 11.9 | 3.4 | 2.8 | 56.7 | 55.0 |
| Kuwait | 1082 | 45.8 | 23.9 | 43.1 | 11.3 | 15.8 | 4.1 | 1.8 | 45.8 | 45.9 |
| South Africa (9) | 3010 | 46.3 | 17.4 | 42.4 | 16.6 | 15.2 | 4.0 | 4.4 | 47.2 | 44.9 |
| International Avg. (4) | 7638 | 48.2 | 18.0 | 40.7 | 12.0 | 13.0 | 5.9 | 10.4 | 48.6 | 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: Earth Science / Reasoning
SP14_15 SP72368: 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 |
|------------------------|------|-----------|--------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 1983 | 28.4 | 21.0 | 12.9 | 16.5 | 7.6 | 7.6 | 34.5 | 28.5 | 28.3 |
| Iran, Islamic Rep. of | 1565 | 46.8 | 28.5 | 14.5 | 44.8 | 7.9 | 1.4 | 2.8 | 41.6 | 51.7 |
| Kuwait | 1081 | 50.3 | 23.9 | 11.7 | 48.3 | 12.1 | 2.2 | 1.9 | 45.5 | 55.2 |
| South Africa (9) | 3010 | 35.8 | 33.7 | 14.3 | 33.7 | 12.4 | 1.3 | 4.6 | 32.7 | 38.3 |
| International Avg. (4) | 7639 | 40.3 | 26.8 | 13.4 | 35.8 | 10.0 | 3.1 | 10.9 | 37.1 | 43.4 |

DIFF = Percent correct
Because of missing gender information, some totals may appear inconsistent
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Science: Earth Science / Applying

SP14_16 SP72303: Diagram best representing Earth - MC - Key: D

| COUNTRY | N | DIFF % | A % | B % | C % | D % | OMITTED % | NOT REACHED % | GIRL PCT RIGHT | BOY PCT RIGHT |
|------------------------|------|-----------|--------|--------|--------|--------|--------------|---------------------|----------------------|---------------------|
| Cote d'Ivoire | 1981 | 22.8 | 12.4 | 19.4 | 9.4 | 12.2 | 9.7 | 36.9 | 22.8 | 22.8 |
| Iran, Islamic Rep. of | 1565 | 33.8 | 26.9 | 20.5 | 13.5 | 31.0 | 5.0 | 3.1 | 34.5 | 33.1 |
| Kuwait | 1081 | 27.1 | 30.3 | 26.1 | 12.5 | 25.6 | 2.8 | 2.8 | 26.3 | 27.8 |
| South Africa (9) | 3008 | 25.3 | 28.4 | 29.0 | 12.1 | 23.5 | 2.0 | 5.0 | 25.4 | 25.0 |
| International Avg. (4) | 7635 | 27.2 | 24.5 | 23.8 | 11.8 | 23.1 | 4.9 | 12.0 | 27.2 | 27.2 |

DIFF = Percent correct

Because of missing gender information, some totals may appear inconsistent

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