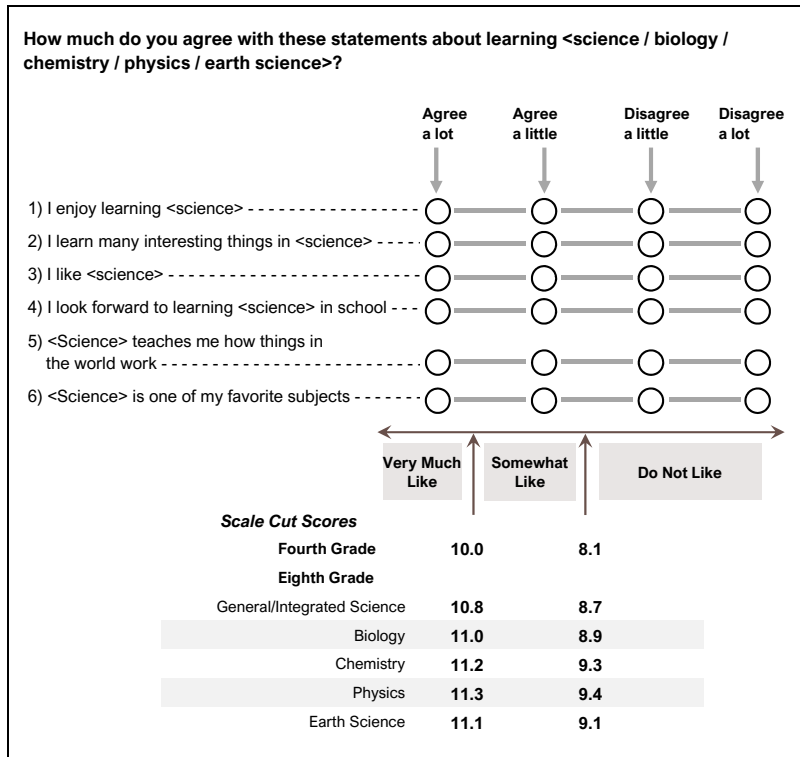


Exhibit 6.3.1: Students Like Learning Science

About the Scale

Students were scored according to their responses to six statements on the *Students Like Learning Science* scale. Cut scores divide the scale into three categories. Students who **Very Much Like Learning Science** had a score at or above the cut score corresponding to “agreeing a lot” with three of the six statements and “agreeing a little” with the other three, on average. Students who **Do Not Like Learning Science** had a score at or below the cut score corresponding to “disagreeing a little” with three of the six statements and “agreeing a little” with the other three, on average. All other students **Somewhat Like Learning Science**. At the eighth grade, a comparable approach was used for biology, chemistry, physics, and earth science in countries where these were taught as separate subjects.



SOURCE: IEA's Trends in International Mathematics and Science Study - TIMSS 2023
 Downloaded from <https://timss2023.org/results>

Exhibit 6.3.2: Students Like Learning Science

Country	Very Much Like Learning Science		Somewhat Like Learning Science		Do Not Like Learning Science		Average Scale Score
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	
Albania	79 (1.0)	498 (4.4)	16 (0.9)	494 (6.9)	4 (0.6)	470 (14.0)	11.1 (0.04)
Armenia	71 (1.1)	467 (2.4)	20 (0.9)	454 (4.4)	9 (0.5)	445 (5.2)	10.9 (0.05)
Australia	44 (1.2)	558 (3.2)	33 (1.0)	556 (3.2)	23 (1.0)	544 (3.8)	9.7 (0.05)
Azerbaijan	68 (0.9)	438 (3.1)	21 (0.7)	414 (4.6)	11 (0.5)	402 (6.0)	10.7 (0.04)
Bahrain	73 (1.3)	487 (4.0)	17 (0.8)	464 (6.3)	10 (0.7)	445 (6.7)	10.9 (0.06)
Belgium (Flemish)	41 (1.0)	502 (3.3)	34 (0.9)	489 (3.0)	25 (1.0)	474 (4.4)	9.6 (0.04)
Belgium (French)	42 (1.2)	492 (3.1)	32 (0.9)	480 (3.5)	26 (1.0)	471 (3.9)	9.5 (0.05)
Bosnia & Herzegovina	43 (1.3)	449 (4.8)	33 (1.6)	459 (4.2)	24 (1.5)	464 (5.3)	9.6 (0.06)
Brazil	55 (1.1)	447 (3.8)	28 (0.8)	436 (5.1)	17 (1.1)	424 (5.9)	10.1 (0.05)
Bulgaria	68 (1.4)	534 (5.1)	22 (1.1)	526 (6.4)	9 (0.8)	522 (10.8)	10.7 (0.06)
Canada	49 (0.7)	531 (2.1)	31 (0.6)	526 (2.8)	20 (0.6)	510 (3.3)	9.9 (0.03)
Chile	52 (1.2)	481 (2.9)	31 (0.8)	489 (3.7)	17 (1.0)	483 (4.4)	10.1 (0.05)
Chinese Taipei	49 (1.2)	577 (2.1)	28 (0.8)	575 (2.3)	23 (1.0)	563 (3.2)	9.9 (0.06)
Cyprus	37 (1.2)	500 (4.3)	28 (0.8)	485 (4.2)	35 (1.4)	484 (3.3)	9.1 (0.07)
Czech Republic	34 (0.9)	530 (2.7)	34 (0.7)	531 (3.2)	32 (1.0)	521 (2.7)	9.3 (0.05)
Denmark	29 (1.1)	531 (3.3)	36 (0.8)	526 (3.5)	35 (1.4)	518 (2.9)	8.9 (0.06)
England	45 (1.3)	566 (3.6)	31 (0.9)	565 (4.0)	24 (1.0)	543 (3.6)	9.7 (0.05)
Finland	27 (0.8)	546 (3.7)	36 (0.8)	551 (3.6)	37 (0.9)	540 (3.2)	8.9 (0.04)
France	41 (1.1)	501 (3.5)	34 (0.9)	490 (3.5)	25 (1.3)	476 (4.5)	9.6 (0.06)
Georgia	61 (1.3)	476 (3.2)	29 (0.9)	462 (4.4)	10 (0.7)	460 (6.3)	10.4 (0.05)
Germany	45 (1.1)	525 (4.0)	34 (0.8)	520 (3.5)	21 (0.9)	506 (3.6)	9.8 (0.05)
Hong Kong SAR	53 (0.9)	554 (4.0)	30 (0.8)	545 (5.2)	18 (0.9)	523 (5.3)	10.1 (0.04)
Hungary	48 (1.2)	528 (3.7)	31 (0.8)	526 (4.0)	21 (0.8)	526 (4.2)	9.8 (0.05)
Iran, Islamic Rep. of	78 (0.9)	439 (4.5)	15 (0.7)	425 (7.0)	6 (0.4)	429 (9.3)	11.1 (0.04)
Ireland	45 (1.4)	537 (3.8)	34 (0.9)	536 (3.4)	21 (0.9)	519 (4.4)	9.7 (0.05)
Italy	52 (1.2)	516 (3.1)	30 (0.9)	512 (2.9)	18 (0.8)	501 (3.7)	10.0 (0.05)
Japan	46 (1.2)	563 (2.8)	34 (0.9)	552 (2.8)	20 (1.1)	549 (3.9)	9.8 (0.05)
Jordan	69 (1.6)	435 (5.4)	19 (1.1)	400 (7.0)	11 (0.8)	380 (7.0)	10.8 (0.07)
Kazakhstan	55 (1.1)	480 (3.7)	34 (0.9)	462 (3.9)	11 (0.6)	449 (6.0)	10.3 (0.04)
Korea, Rep. of	38 (1.0)	598 (3.2)	34 (0.8)	579 (3.2)	28 (1.0)	569 (3.1)	9.5 (0.04)
Kosovo	70 (1.2)	410 (3.8)	22 (1.0)	401 (4.9)	8 (0.7)	388 (7.7)	10.7 (0.04)
Kuwait	70 (1.4)	391 (5.4)	21 (0.9)	380 (8.9)	10 (0.8)	362 (10.7)	10.8 (0.06)
Latvia	33 (1.4)	525 (4.1)	39 (1.0)	531 (3.4)	28 (1.4)	527 (4.9)	9.2 (0.06)
Lithuania	41 (1.2)	539 (3.2)	36 (0.9)	539 (3.2)	22 (0.9)	540 (4.1)	9.6 (0.05)
Macao SAR	56 (0.6)	546 (1.7)	28 (0.6)	528 (2.3)	16 (0.5)	512 (3.0)	10.2 (0.03)
Montenegro	59 (1.1)	469 (2.1)	27 (0.8)	459 (3.4)	15 (0.8)	464 (4.1)	10.3 (0.05)
Morocco	76 (1.2)	405 (5.6)	18 (0.9)	356 (7.7)	6 (0.5)	351 (8.7)	11.0 (0.05)
Netherlands	39 (1.3)	529 (3.5)	34 (0.8)	518 (4.0)	27 (1.4)	504 (3.4)	9.4 (0.06)
New Zealand	45 (1.1)	531 (3.0)	31 (0.9)	522 (4.4)	24 (0.9)	507 (3.5)	9.6 (0.05)
North Macedonia	68 (0.9)	454 (4.1)	22 (0.7)	443 (4.7)	10 (0.6)	436 (6.2)	10.7 (0.04)
Norway (5)	32 (1.2)	540 (3.3)	38 (0.9)	534 (3.1)	30 (1.2)	524 (3.4)	9.2 (0.05)
Oman	69 (0.8)	454 (4.4)	22 (0.6)	417 (4.8)	9 (0.4)	376 (6.4)	10.8 (0.03)
Poland	33 (1.2)	551 (3.5)	37 (1.0)	550 (2.8)	30 (1.4)	552 (2.8)	9.1 (0.06)
Portugal	72 (1.0)	516 (2.3)	20 (0.8)	503 (3.8)	8 (0.5)	494 (6.5)	10.8 (0.04)
Qatar	65 (0.9)	488 (3.7)	22 (0.9)	464 (4.8)	13 (0.5)	442 (6.1)	10.6 (0.04)
Romania	57 (1.3)	532 (4.7)	29 (1.1)	537 (4.8)	14 (1.2)	535 (7.4)	10.3 (0.06)
Saudi Arabia	71 (1.0)	452 (4.2)	19 (0.6)	413 (4.7)	11 (0.6)	392 (6.8)	10.9 (0.05)
Serbia	48 (1.3)	512 (3.7)	32 (1.1)	510 (3.8)	19 (0.9)	514 (3.5)	9.8 (0.05)
Singapore	51 (0.9)	614 (3.0)	31 (0.6)	608 (3.4)	18 (0.6)	590 (3.8)	10.0 (0.04)
Slovak Republic	38 (1.4)	518 (5.0)	37 (1.0)	527 (4.3)	25 (1.2)	525 (5.1)	9.5 (0.06)
Slovenia	36 (1.0)	531 (3.1)	37 (0.9)	528 (2.6)	27 (0.9)	525 (3.1)	9.4 (0.04)
South Africa (5)	57 (1.0)	328 (5.4)	29 (0.7)	286 (7.1)	13 (0.6)	261 (10.1)	10.2 (0.04)
Spain	50 (1.2)	511 (2.4)	32 (0.7)	503 (2.6)	18 (0.9)	499 (3.6)	9.9 (0.05)
Sweden	29 (1.2)	528 (3.3)	36 (0.9)	545 (3.5)	35 (1.3)	530 (3.5)	9.0 (0.06)
Türkiye (5)	71 (1.2)	575 (3.6)	21 (0.9)	560 (5.2)	8 (0.6)	564 (6.8)	10.8 (0.05)
United Arab Emirates	69 (0.5)	519 (1.8)	21 (0.4)	473 (2.9)	10 (0.3)	440 (3.5)	10.8 (0.02)
United States	55 (1.0)	546 (2.9)	27 (0.6)	533 (3.6)	18 (0.7)	520 (4.3)	10.2 (0.04)
Uzbekistan	77 (1.1)	425 (3.5)	16 (0.9)	388 (4.9)	7 (0.6)	362 (6.4)	11.1 (0.05)
International Average	53 (0.1)	504 (0.5)	29 (0.1)	493 (0.6)	18 (0.1)	482 (0.8)	
Benchmarking Participants							
Ontario, Canada	47 (1.3)	536 (2.9)	33 (1.0)	530 (4.5)	20 (1.0)	515 (5.5)	9.8 (0.06)
Quebec, Canada	49 (1.5)	513 (2.9)	28 (1.0)	512 (3.6)	23 (1.2)	500 (3.8)	9.9 (0.06)
Abu Dhabi, UAE	61 (1.0)	480 (2.6)	25 (0.7)	424 (3.7)	14 (0.5)	392 (5.0)	10.4 (0.04)
Dubai, UAE	70 (0.8)	575 (2.1)	21 (0.7)	550 (3.4)	8 (0.3)	525 (4.7)	10.9 (0.03)
Sharjah, UAE	76 (1.2)	520 (3.8)	17 (0.9)	476 (5.2)	7 (0.5)	451 (6.0)	11.1 (0.05)

This TIMSS context questionnaire scale was established in 2023 based on the combined response distribution of countries that participated in TIMSS 2023. To provide a point of reference for country comparisons, the scale centerpoint of 10 was located at the mean of the combined distribution. The units of the scale were chosen so that 2 scale score points corresponded to the standard deviation of the distribution.

() Standard errors appear in parentheses. Because of rounding some results may appear inconsistent.

An "r" indicates data are available for at least 70% but less than 85% of the students.

Exhibit 6.3.3: Students Like Learning Science

The general/integrated science panel summarizes responses for countries where students are enrolled in science as a single subject. The following panels for biology, chemistry, physics, and earth science summarize responses for countries where students are taught science as separate subjects.

Exhibit 6.3.3a: Students Like Learning General/Integrated Science

General/Integrated Science	Very Much Like Learning Science		Somewhat Like Learning Science		Do Not Like Learning Science		Average Scale Score
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	
Australia	24 (0.8)	557 (5.0)	39 (0.8)	534 (3.2)	38 (1.0)	498 (3.9)	9.4 (0.05)
Bahrain	51 (1.1)	476 (2.8)	29 (0.7)	454 (3.2)	21 (0.9)	427 (4.9)	10.5 (0.05)
Brazil	50 (0.7)	430 (2.6)	33 (0.6)	430 (3.1)	16 (0.6)	417 (3.8)	10.6 (0.03)
Chile	27 (1.3)	463 (3.6)	42 (1.1)	459 (3.2)	30 (1.4)	457 (3.4)	9.7 (0.06)
Chinese Taipei	21 (0.8)	604 (4.5)	38 (1.0)	581 (3.0)	41 (1.1)	549 (2.8)	9.3 (0.05)
England	22 (0.9)	571 (6.9)	40 (1.1)	546 (4.7)	39 (1.3)	505 (5.1)	9.3 (0.05)
Hong Kong SAR	35 (1.2)	558 (5.1)	43 (1.0)	525 (5.0)	23 (1.0)	497 (6.8)	10.1 (0.05)
Iran, Islamic Rep. of	54 (1.0)	428 (4.2)	30 (0.7)	411 (4.4)	15 (0.8)	407 (4.4)	10.7 (0.04)
Ireland	28 (1.9)	562 (4.8)	36 (0.7)	539 (4.5)	36 (1.9)	509 (3.9)	9.5 (0.09)
Israel	25 (1.0)	499 (6.0)	32 (0.9)	490 (4.2)	43 (1.5)	474 (3.6)	9.2 (0.07)
Italy	30 (1.1)	518 (3.7)	39 (0.8)	505 (3.4)	32 (1.1)	485 (4.1)	9.7 (0.05)
Japan	18 (0.9)	590 (4.8)	38 (1.1)	571 (2.9)	44 (1.4)	534 (3.5)	9.2 (0.05)
Jordan	57 (1.2)	429 (4.0)	26 (0.7)	410 (4.9)	16 (0.8)	399 (5.0)	10.8 (0.05)
Korea, Rep. of	22 (0.9)	586 (4.0)	34 (0.9)	557 (3.5)	44 (1.1)	517 (2.5)	9.3 (0.05)
Kuwait	55 (1.3)	437 (6.2)	27 (0.7)	419 (6.0)	18 (1.1)	406 (6.6)	10.7 (0.06)
Malaysia	43 (0.9)	445 (4.1)	43 (0.6)	423 (3.7)	13 (0.6)	383 (5.5)	10.5 (0.03)
Norway (9)	18 (0.7)	527 (4.3)	38 (0.9)	504 (2.6)	44 (1.1)	474 (3.2)	9.1 (0.04)
Oman	57 (1.0)	476 (2.7)	28 (0.6)	454 (3.3)	16 (0.6)	432 (4.7)	10.8 (0.04)
Palestinian Nat'l Auth.	53 (1.1)	412 (3.2)	27 (0.7)	398 (3.6)	21 (0.9)	379 (4.3)	10.5 (0.06)
Qatar	47 (1.6)	502 (5.5)	30 (1.1)	490 (5.5)	23 (1.3)	451 (5.0)	10.4 (0.07)
Saudi Arabia	58 (1.2)	433 (3.7)	25 (0.7)	427 (4.2)	16 (0.8)	423 (5.4)	10.9 (0.05)
Singapore	44 (1.1)	632 (5.6)	40 (0.8)	598 (5.8)	16 (0.7)	558 (8.0)	10.5 (0.04)
South Africa (9)	49 (0.9)	373 (4.2)	35 (0.6)	351 (4.4)	16 (0.6)	351 (5.8)	10.6 (0.03)
Türkiye	58 (1.2)	543 (3.6)	29 (0.9)	518 (4.4)	13 (0.9)	504 (6.6)	10.8 (0.05)
United Arab Emirates	54 (0.7)	509 (2.6)	29 (0.4)	492 (2.3)	17 (0.4)	452 (2.9)	10.7 (0.03)
United States	34 (1.1)	533 (4.4)	39 (0.7)	520 (4.0)	27 (0.9)	496 (3.9)	9.9 (0.05)
International Average	40 (0.2)	504 (0.9)	34 (0.2)	485 (0.8)	26 (0.2)	461 (0.9)	
Benchmarking Participants							
Abu Dhabi, UAE	49 (1.2)	478 (4.4)	30 (0.7)	453 (3.7)	21 (0.9)	412 (4.5)	10.5 (0.06)
Dubai, UAE	51 (1.2)	567 (3.3)	33 (0.9)	546 (3.8)	16 (0.7)	515 (4.0)	10.7 (0.04)
Sharjah, UAE	63 (1.8)	513 (6.8)	25 (1.1)	494 (6.3)	12 (0.9)	464 (5.9)	11.1 (0.07)

Separate Science Results

Exhibit 6.3.3b: Students Like Learning Biology

Biology	Very Much Like Learning Biology		Somewhat Like Learning Biology		Do Not Like Learning Biology		Average Scale Score
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	
Austria	22 (1.0)	529 (4.3)	35 (1.0)	515 (3.1)	43 (1.4)	503 (3.3)	9.4 (0.06)
Azerbaijan	44 (1.0)	422 (3.9)	32 (0.8)	417 (3.7)	24 (1.0)	420 (3.9)	10.4 (0.05)
Cote d'Ivoire	64 (1.5)	177 (5.6)	28 (1.1)	167 (9.6)	9 (0.6)	178 (13.6)	11.2 (0.05)
Cyprus	29 (0.9)	490 (3.9)	33 (0.8)	471 (3.8)	39 (1.0)	456 (4.0)	9.6 (0.05)
Czech Republic	21 (1.0)	539 (2.9)	40 (0.7)	530 (2.5)	39 (1.1)	525 (2.4)	9.5 (0.05)
Finland	13 (0.6)	560 (5.5)	37 (0.8)	546 (3.6)	50 (1.1)	531 (3.3)	9.0 (0.04)
France	19 (1.0)	492 (4.8)	39 (1.1)	493 (3.6)	42 (1.5)	490 (3.4)	9.4 (0.06)
Georgia	45 (1.0)	462 (3.3)	34 (0.8)	455 (3.2)	21 (1.0)	445 (4.1)	10.5 (0.05)
Hungary	27 (1.1)	525 (4.4)	35 (0.7)	518 (3.8)	39 (1.2)	525 (3.5)	9.7 (0.05)
Kazakhstan	36 (1.1)	458 (3.6)	45 (0.9)	440 (3.5)	19 (0.9)	445 (4.3)	10.4 (0.04)
Lithuania	27 (1.1)	524 (3.9)	39 (0.8)	518 (3.7)	34 (1.2)	524 (3.3)	9.7 (0.05)
Morocco	47 (1.1)	335 (4.3)	31 (0.8)	325 (3.9)	21 (0.9)	320 (4.4)	10.6 (0.05)
Portugal	38 (1.2)	519 (2.7)	40 (0.9)	504 (3.0)	22 (1.0)	495 (3.3)	10.3 (0.05)
Romania	41 (1.8)	472 (4.8)	34 (1.0)	473 (4.7)	25 (1.4)	479 (5.1)	10.3 (0.08)
Sweden	17 (0.8)	548 (6.1)	34 (1.0)	538 (3.3)	48 (1.2)	523 (3.4)	9.2 (0.04)
Uzbekistan	66 (1.3)	399 (4.0)	26 (1.0)	402 (4.6)	8 (0.5)	401 (7.0)	11.4 (0.04)
International Average	35 (0.3)	466 (1.1)	35 (0.2)	457 (1.1)	30 (0.3)	454 (1.3)	
Malta	-	-	-	-	-	-	-

This TIMSS context questionnaire scale was established in 2023 based on the combined response distribution of countries that participated in TIMSS 2023. To provide a point of reference for country comparisons, the scale centerpoint of 10 was located at the mean of the combined distribution. The units of the scale were chosen so that 2 scale score points corresponded to the standard deviation of the distribution. The separate scales for biology, chemistry, physics, and earth science were each established in 2023 using a comparable approach.

() Standard errors appear in parentheses. Because of rounding some results may appear inconsistent.

An "r" indicates data are available for at least 70% but less than 85% of the students.

A "y" indicates data are available for less than 40% of the students.

A dash (-) indicates comparable data not available.

Exhibit 6.3.3: Students Like Learning Science

Separate Science Results

(Continued)

Exhibit 6.3.3c: Students Like Learning Chemistry

Country	Very Much Like Learning Chemistry		Somewhat Like Learning Chemistry		Do Not Like Learning Chemistry		Average Scale Score
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	
Austria	18 (0.9)	532 (4.2)	31 (1.0)	518 (3.5)	51 (1.5)	507 (3.6)	9.4 (0.06)
Azerbaijan	37 (1.2)	421 (4.0)	28 (0.8)	415 (3.8)	35 (1.3)	422 (3.7)	10.1 (0.06)
Cote d'Ivoire	66 (1.1)	188 (8.6)	27 (0.9)	177 (8.8)	7 (0.5)	174 (12.2)	11.5 (0.04)
Cyprus	36 (0.9)	486 (3.2)	32 (1.0)	474 (5.3)	32 (1.0)	456 (4.2)	10.3 (0.04)
Czech Republic	17 (0.9)	542 (3.6)	32 (0.9)	535 (2.4)	50 (1.5)	522 (2.6)	9.5 (0.06)
Finland	14 (0.6)	587 (6.1)	31 (0.9)	550 (3.8)	55 (1.2)	526 (2.9)	9.2 (0.05)
France	18 (1.0)	513 (4.7)	33 (1.1)	500 (3.8)	49 (1.5)	482 (3.7)	9.5 (0.06)
Georgia	44 (1.4)	467 (3.3)	30 (0.9)	453 (3.3)	27 (1.3)	440 (3.8)	10.6 (0.06)
Hungary	18 (0.9)	535 (5.4)	29 (1.0)	524 (4.4)	53 (1.6)	519 (3.2)	9.4 (0.06)
Kazakhstan	29 (1.0)	465 (4.1)	43 (0.8)	442 (3.4)	28 (1.1)	448 (3.9)	10.3 (0.04)
Lithuania	23 (0.9)	538 (4.4)	34 (0.9)	523 (3.8)	43 (1.4)	513 (2.9)	9.7 (0.06)
Morocco	51 (1.0)	339 (3.8)	31 (0.8)	324 (4.2)	18 (0.8)	310 (4.0)	11.0 (0.04)
Portugal	29 (1.2)	531 (3.5)	36 (0.9)	510 (2.5)	35 (1.4)	488 (3.0)	10.0 (0.06)
Romania	30 (1.8)	477 (4.6)	30 (1.2)	470 (4.9)	40 (1.8)	477 (4.3)	9.9 (0.09)
Sweden	16 (0.8)	555 (6.6)	31 (0.9)	548 (4.9)	53 (1.1)	520 (3.4)	9.4 (0.04)
Uzbekistan	61 (1.3)	399 (4.4)	28 (1.0)	397 (4.3)	11 (0.7)	415 (4.9)	11.4 (0.05)
International Average	32 (0.3)	473 (1.2)	32 (0.2)	460 (1.1)	37 (0.3)	451 (1.2)	
Malta	--	--	--	--	--	--	--

Exhibit 6.3.3d: Students Like Learning Physics

Country	Very Much Like Learning Physics		Somewhat Like Learning Physics		Do Not Like Learning Physics		Average Scale Score
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	
Austria	16 (0.9)	531 (4.9)	28 (1.2)	517 (3.9)	56 (1.6)	509 (3.3)	9.3 (0.06)
Azerbaijan	43 (1.3)	430 (3.5)	30 (0.9)	413 (4.4)	27 (1.1)	412 (3.7)	10.7 (0.06)
Cote d'Ivoire	65 (1.3)	187 (7.8)	27 (0.9)	178 (8.4)	8 (0.7)	185 (18.4)	11.6 (0.04)
Cyprus	28 (0.8)	490 (4.0)	30 (0.9)	474 (4.5)	41 (1.1)	460 (3.8)	9.9 (0.05)
Czech Republic	13 (0.7)	549 (4.1)	28 (0.8)	538 (2.6)	58 (1.2)	521 (2.2)	9.3 (0.05)
Finland	11 (0.6)	580 (7.8)	28 (0.9)	556 (3.9)	60 (1.2)	532 (3.0)	9.1 (0.05)
France	18 (1.0)	513 (4.7)	33 (1.1)	500 (3.8)	49 (1.5)	482 (3.7)	9.6 (0.06)
Georgia	33 (1.4)	472 (3.9)	35 (1.1)	451 (4.6)	33 (1.3)	445 (3.4)	10.3 (0.07)
Hungary	17 (0.8)	537 (5.5)	28 (0.9)	527 (4.5)	54 (1.3)	517 (2.8)	9.4 (0.06)
Kazakhstan	30 (1.0)	469 (4.6)	44 (0.9)	442 (2.9)	26 (0.9)	445 (4.1)	10.5 (0.04)
Lithuania	19 (0.8)	540 (5.6)	31 (0.9)	521 (3.9)	50 (1.3)	516 (3.1)	9.5 (0.05)
Malta	33 (0.8)	540 (3.0)	32 (0.8)	512 (3.4)	34 (0.8)	483 (3.3)	10.2 (0.03)
Morocco	51 (1.0)	338 (3.7)	31 (0.8)	321 (4.1)	18 (0.8)	314 (4.5)	11.1 (0.04)
Portugal	29 (1.2)	531 (3.5)	36 (0.9)	510 (2.5)	35 (1.4)	488 (3.0)	10.1 (0.06)
Romania	29 (1.6)	477 (5.3)	31 (1.3)	474 (4.5)	40 (1.8)	475 (3.9)	10.0 (0.08)
Sweden	15 (0.9)	567 (5.6)	30 (1.0)	539 (4.9)	55 (1.3)	523 (3.2)	9.4 (0.05)
Uzbekistan	63 (1.3)	401 (4.1)	27 (1.0)	398 (4.7)	11 (0.8)	405 (5.5)	11.6 (0.05)
International Average	30 (0.3)	479 (1.2)	31 (0.2)	463 (1.1)	39 (0.3)	454 (1.4)	

Exhibit 6.3.3e: Students Like Learning Earth Science

Country	Very Much Like Learning Earth Science		Somewhat Like Learning Earth Science		Do Not Like Learning Earth Science		Average Scale Score
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	
Austria	19 (0.9)	519 (4.4)	32 (1.0)	514 (3.0)	49 (1.4)	512 (3.2)	9.3 (0.07)
Azerbaijan	47 (1.3)	423 (3.5)	29 (1.0)	418 (4.1)	24 (1.0)	419 (4.2)	10.6 (0.06)
Cote d'Ivoire	69 (1.3)	188 (6.5)	25 (1.0)	176 (12.2)	6 (0.5)	180 (23.1)	11.5 (0.04)
Cyprus	21 (0.8)	470 (4.4)	28 (0.9)	471 (5.5)	51 (1.2)	464 (2.9)	9.2 (0.05)
Czech Republic	24 (0.9)	529 (3.3)	34 (0.8)	529 (2.4)	42 (1.2)	530 (2.4)	9.7 (0.05)
Finland	14 (0.7)	562 (5.3)	38 (0.8)	548 (3.2)	48 (1.0)	529 (3.2)	9.3 (0.04)
France	19 (1.0)	492 (4.8)	39 (1.1)	493 (3.6)	42 (1.5)	490 (3.4)	9.5 (0.06)
Georgia	39 (1.5)	458 (3.7)	35 (1.0)	456 (3.7)	26 (1.3)	451 (3.3)	10.4 (0.06)
Hungary	22 (1.0)	528 (4.5)	32 (0.9)	519 (4.2)	46 (1.3)	523 (3.4)	9.5 (0.06)
Kazakhstan	30 (1.2)	463 (4.5)	45 (0.8)	442 (2.9)	24 (1.1)	447 (5.1)	10.3 (0.05)
Lithuania	28 (1.0)	523 (4.1)	37 (0.8)	520 (3.8)	35 (1.2)	524 (3.5)	9.9 (0.05)
Morocco	46 (1.1)	337 (4.0)	32 (0.7)	321 (4.0)	22 (0.9)	321 (4.3)	10.7 (0.05)
Portugal	38 (1.2)	519 (2.7)	40 (0.9)	504 (3.0)	22 (1.0)	495 (3.3)	10.5 (0.05)
Uzbekistan	57 (1.4)	396 (4.5)	31 (1.1)	403 (4.3)	12 (0.7)	408 (5.1)	11.2 (0.05)
International Average	34 (0.3)	458 (1.2)	34 (0.2)	451 (1.3)	32 (0.3)	450 (1.9)	
Malta	25 (1.1)	517 (5.1)	32 (1.3)	505 (4.3)	43 (1.2)	496 (4.3)	9.6 (0.05)
Romania	--	--	--	--	--	--	--
Sweden	--	--	--	--	--	--	--

This TIMSS context questionnaire scale was established in 2023 based on the combined response distribution of countries that participated in TIMSS 2023. To provide a point of reference for country comparisons, the scale centerpoint of 10 was located at the mean of the combined distribution. The units of the scale were chosen so that 2 scale score points corresponded to the standard deviation of the distribution. The separate scales for biology, chemistry, physics, and earth science were each established in 2023 using a comparable approach.

() Standard errors appear in parentheses. Because of rounding some results may appear inconsistent.

An "r" indicates data are available for at least 70% but less than 85% of the students.

An "x" indicates data are available for at least 40% but less than 50% of the students—interpret with caution. A "y" indicates data are available for less than 40% of the students.

A dash (-) indicates comparable data not available.