

Appendix F.2: Average Percent Correct in the Science Content and Cognitive Domains

Country	Overall Science	Science Content Domains			Science Cognitive Domains		
		Life Science	Physical Science	Earth Science	Knowing	Applying	Reasoning
Austria	51 (0.5)	50 (0.5)	54 (0.5)	50 (0.6)	54 (0.5)	52 (0.5)	44 (0.5)
Canada	52 (0.3)	52 (0.3)	52 (0.4)	49 (0.4)	55 (0.3)	51 (0.4)	44 (0.4)
Chile	40 (0.5)	41 (0.5)	40 (0.5)	38 (0.6)	44 (0.5)	39 (0.5)	34 (0.5)
Chinese Taipei	60 (0.3)	54 (0.3)	66 (0.4)	60 (0.4)	62 (0.3)	62 (0.4)	52 (0.5)
Croatia	51 (0.4)	49 (0.4)	55 (0.5)	49 (0.5)	56 (0.5)	51 (0.5)	44 (0.6)
Czech Republic	54 (0.4)	54 (0.5)	55 (0.4)	53 (0.5)	58 (0.4)	53 (0.5)	48 (0.5)
Denmark	51 (0.4)	51 (0.5)	51 (0.5)	53 (0.6)	54 (0.4)	51 (0.5)	45 (0.6)
England	55 (0.5)	53 (0.6)	57 (0.6)	53 (0.6)	59 (0.5)	53 (0.6)	49 (0.7)
Finland	59 (0.5)	58 (0.5)	60 (0.6)	59 (0.6)	61 (0.5)	59 (0.5)	54 (0.6)
France	45 (0.6)	45 (0.6)	45 (0.6)	44 (0.7)	48 (0.7)	47 (0.6)	35 (0.6)
Georgia	38 (0.6)	37 (0.6)	40 (0.7)	35 (0.7)	42 (0.7)	37 (0.6)	31 (0.6)
Germany	51 (0.5)	51 (0.5)	53 (0.6)	47 (0.6)	54 (0.5)	51 (0.5)	44 (0.6)
Hong Kong SAR	54 (0.6)	51 (0.7)	56 (0.7)	56 (0.8)	58 (0.6)	53 (0.7)	47 (0.7)
Hungary	53 (0.5)	53 (0.5)	54 (0.6)	52 (0.7)	57 (0.6)	53 (0.6)	47 (0.6)
Italy	49 (0.6)	49 (0.6)	49 (0.6)	47 (0.7)	53 (0.6)	48 (0.6)	40 (0.6)
Korea, Rep. of	66 (0.4)	62 (0.5)	73 (0.4)	64 (0.6)	67 (0.4)	69 (0.6)	60 (0.5)
Lithuania	55 (0.5)	53 (0.5)	60 (0.6)	51 (0.7)	58 (0.5)	54 (0.6)	50 (0.6)
Malta	47 (0.3)	46 (0.4)	48 (0.3)	44 (0.4)	51 (0.4)	47 (0.3)	38 (0.4)
Netherlands	50 (0.6)	49 (0.6)	52 (0.6)	49 (0.7)	52 (0.6)	51 (0.6)	44 (0.7)
Norway (5)	55 (0.5)	56 (0.5)	55 (0.6)	56 (0.6)	59 (0.5)	55 (0.5)	48 (0.6)
Portugal	47 (0.4)	47 (0.4)	48 (0.5)	46 (0.5)	50 (0.4)	47 (0.5)	40 (0.5)
Qatar	39 (0.7)	38 (0.7)	41 (0.7)	38 (0.8)	44 (0.7)	39 (0.7)	30 (0.7)
Russian Federation	62 (0.7)	61 (0.7)	66 (0.7)	57 (0.8)	63 (0.8)	65 (0.7)	55 (0.6)
Singapore	68 (0.7)	68 (0.7)	73 (0.7)	59 (0.8)	69 (0.7)	70 (0.8)	65 (0.8)
Slovak Republic	52 (0.7)	50 (0.7)	55 (0.7)	49 (0.7)	56 (0.7)	52 (0.7)	44 (0.7)
Spain	49 (0.4)	48 (0.3)	50 (0.5)	48 (0.5)	53 (0.4)	49 (0.5)	40 (0.5)
Sweden	55 (0.7)	55 (0.7)	55 (0.7)	56 (0.8)	59 (0.7)	55 (0.7)	49 (0.7)
Turkey (5)	54 (0.8)	51 (0.9)	59 (0.9)	51 (0.9)	58 (0.9)	54 (0.9)	45 (0.8)
United Arab Emirates	44 (0.3)	42 (0.4)	47 (0.4)	43 (0.3)	49 (0.3)	44 (0.4)	35 (0.4)
United States	55 (0.5)	56 (0.5)	55 (0.6)	54 (0.6)	59 (0.5)	55 (0.6)	48 (0.6)
International Average	52 (0.1)	51 (0.1)	54 (0.1)	50 (0.1)	55 (0.1)	52 (0.1)	45 (0.1)
Benchmarking Participants							
Ontario, Canada	52 (0.6)	53 (0.6)	52 (0.7)	49 (0.8)	55 (0.6)	51 (0.7)	45 (0.7)
Quebec, Canada	51 (0.5)	52 (0.5)	52 (0.6)	49 (0.7)	55 (0.5)	51 (0.6)	44 (0.6)
Moscow City, Russian Fed.	68 (0.5)	66 (0.5)	71 (0.6)	65 (0.6)	69 (0.5)	71 (0.5)	61 (0.6)
Madrid, Spain	51 (0.4)	50 (0.5)	53 (0.5)	51 (0.5)	55 (0.6)	52 (0.5)	44 (0.5)
Abu Dhabi, UAE	35 (0.4)	33 (0.4)	38 (0.4)	35 (0.4)	39 (0.4)	35 (0.4)	27 (0.3)
Dubai, UAE	57 (0.3)	55 (0.3)	62 (0.4)	55 (0.3)	63 (0.3)	57 (0.3)	47 (0.4)

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

SOURCE: IEA's Trends in International Mathematics and Science Study - TIMSS 2019
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Appendix F.2: Average Percent Correct in the Science Content and Cognitive Domains

(Continued)

Country	Overall Science	Science Content Domains			Science Cognitive Domains		
		Life Science	Physical Science	Earth Science	Knowing	Applying	Reasoning
Albania	47 (0.7)	45 (0.6)	50 (0.7)	44 (0.9)	51 (0.7)	46 (0.7)	39 (0.8)
Armenia	41 (0.6)	42 (0.6)	41 (0.7)	38 (0.7)	45 (0.6)	39 (0.6)	38 (0.7)
Australia	55 (0.5)	55 (0.6)	56 (0.6)	54 (0.6)	59 (0.6)	54 (0.6)	50 (0.6)
Azerbaijan	36 (0.5)	34 (0.5)	39 (0.6)	35 (0.5)	39 (0.5)	35 (0.6)	31 (0.5)
Bahrain	48 (0.6)	47 (0.6)	51 (0.6)	44 (0.6)	52 (0.6)	48 (0.7)	38 (0.7)
Belgium (Flemish)	48 (0.4)	46 (0.4)	51 (0.5)	46 (0.5)	49 (0.5)	48 (0.5)	44 (0.5)
Bosnia and Herzegovina	40 (0.5)	41 (0.5)	41 (0.6)	35 (0.6)	42 (0.5)	40 (0.6)	34 (0.6)
Bulgaria	54 (1.0)	54 (1.0)	56 (1.1)	51 (0.9)	58 (0.9)	55 (1.0)	45 (1.0)
Cyprus	50 (0.6)	50 (0.7)	53 (0.7)	47 (0.6)	52 (0.7)	53 (0.6)	43 (0.7)
Iran, Islamic Rep. of	38 (0.7)	35 (0.7)	44 (0.8)	36 (0.7)	42 (0.7)	38 (0.7)	31 (0.6)
Ireland	54 (0.7)	53 (0.7)	55 (0.6)	55 (0.8)	58 (0.7)	54 (0.7)	47 (0.7)
Japan	61 (0.4)	57 (0.4)	68 (0.4)	60 (0.5)	58 (0.4)	66 (0.4)	60 (0.5)
Kazakhstan	47 (0.6)	44 (0.6)	52 (0.7)	44 (0.8)	49 (0.6)	47 (0.7)	41 (0.7)
Kosovo	33 (0.5)	31 (0.6)	36 (0.6)	32 (0.5)	39 (0.6)	31 (0.5)	26 (0.5)
Kuwait	33 (0.9)	32 (0.9)	35 (0.9)	32 (1.0)	38 (1.0)	32 (0.9)	25 (0.8)
Latvia	57 (0.5)	54 (0.5)	62 (0.6)	55 (0.8)	59 (0.5)	58 (0.6)	52 (0.7)
Montenegro	39 (0.4)	40 (0.4)	40 (0.4)	34 (0.5)	42 (0.3)	40 (0.5)	32 (0.4)
Ψ Morocco	30 (0.8)	29 (0.7)	32 (0.9)	29 (0.9)	33 (0.8)	30 (0.9)	24 (0.7)
New Zealand	49 (0.4)	49 (0.5)	49 (0.5)	48 (0.5)	52 (0.4)	48 (0.5)	43 (0.5)
North Macedonia	36 (1.0)	34 (0.9)	40 (1.2)	33 (1.0)	39 (1.0)	35 (1.0)	30 (0.9)
Northern Ireland	52 (0.4)	51 (0.5)	53 (0.5)	52 (0.5)	56 (0.4)	51 (0.5)	45 (0.6)
Oman	39 (0.7)	38 (0.7)	42 (0.8)	36 (0.7)	42 (0.7)	38 (0.8)	33 (0.7)
* Pakistan	21 (1.1)	20 (1.1)	23 (1.4)	22 (0.7)	24 (1.2)	21 (1.2)	18 (0.9)
* Philippines	20 (0.5)	18 (0.5)	21 (0.6)	21 (0.5)	22 (0.6)	20 (0.5)	16 (0.4)
Poland	55 (0.5)	54 (0.5)	56 (0.6)	53 (0.6)	56 (0.5)	58 (0.5)	47 (0.7)
Saudi Arabia	34 (0.5)	32 (0.5)	37 (0.6)	32 (0.5)	39 (0.6)	33 (0.5)	25 (0.5)
Serbia	52 (0.7)	52 (0.7)	56 (0.8)	45 (0.8)	53 (0.6)	55 (0.8)	45 (0.7)
* South Africa (5)	25 (0.6)	24 (0.6)	26 (0.6)	26 (0.5)	27 (0.7)	25 (0.6)	21 (0.5)
International Average	43 (0.1)	41 (0.1)	45 (0.1)	41 (0.1)	46 (0.1)	43 (0.1)	37 (0.1)

Ψ Reservations about reliability because the percentage of students with achievement too low for estimation exceeds 15% but does not exceed 25%.

* Reservations about reliability because the percentage of students with achievement too low for estimation exceeds 25%.

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

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