Content Domain	Main Topic	Cognitive Domain
EARTH SCIENCE	Earth in the Solar System and Universe	Conceptual Understanding

Appearance of Jupiter and Moon

The planet Jupiter is bigger than Earth's moon but it appears to be smaller when viewed from Earth. Why is this?

Item Number: S022283

SCORING

Note: A correct response is based on the relative distances of Jupiter and the Moon from Earth. An implicit comparison is correct as long as it is clear from the student response that a greater distance from Jupiter is implied. Actual distances may be used to convey the relative difference. The distances do not have to be completely accurate as long as the relative distances are correct. Responses that mention ONLY the great distance of Jupiter OR the close distance of the Moon without comparative language are also scored as correct.

Correct Response

• Refers to the greater distance of Jupiter and/or the shorter distance of the Moon (from Earth), implicitly or explicitly.
   Examples: Jupiter is farther away from Earth than the Moon.
        The Moon is much closer than Jupiter.
        Jupiter is farther.
        It (Jupiter) is a long distance from Earth.
        Because Jupiter is so far away.
        The Moon is so close to the Earth that it looks bigger.

• Other correct.

Incorrect Response

• Refers to distance but explanation does not clearly communicate the effect of Jupiter's or the Moon's distance on the appearance of size.
   Examples: Because of distance.
        Jupiter's moons are closer.

• Refers to the Moon being further, or Jupiter being closer to Earth.

• Other incorrect (including crossed out/erased, stray marks, illegible, or off task).

Overall Percent Correct

England	92	▲
Netherlands	88	▲
Estonia	86	▲
Australia	86	▲
New Zealand	86	▲
United States	85	▲
Russian Federation	84	▲
Korea, Republic of	83	▲
Norway	83	▲
Scotland	83	▲
Belgium (Flemish)	82	▲
Sweden	81	▲
Singapore	81	▲
Hungary	77	▲
Italy	76	▲
Moldova, Rep. of	76	▲
Hong Kong, SAR	76	▲
Japan	75	▲
Latvia	75	▲
Slovenia	74	▲
Armenia	72	▲
Lithuania	72	▲
Malaysia	70	▲
Chinese Taipei	67	O
Slovak Republic	66	O
Jordan	66	O
Indonesia	66	O
Israel	66	O
International average	**65**	
Palestinian Nat'l Auth.	64	O
Bulgaria	64	O
Iran, Islamic Republic of	63	O
Bahrain	62	O
Cyprus	61	O
Serbia and Montenegro	56	▼
Chile	55	▼
Tunisia	52	▼
Macedonia, Republic of	47	▼
Romania	45	▼
Egypt	42	▼
Saudi Arabia	41	▼
Morocco	40	▼
Philippines	39	▼
Lebanon	35	▼
Botswana	18	▼
South Africa	13	▼
Ghana	8	▼

Country average vs. International average:

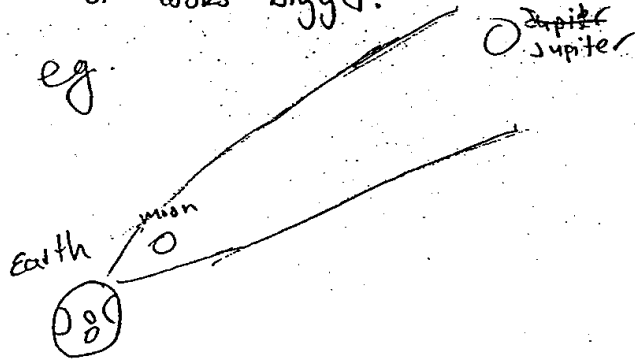|	
Higher	▲
Not different	O
Lower	▼

Appearance of Jupiter and Moon (continued)

Item Number: S022283

Student Responses

Correct Response:

The planet Jupiter is bigger than Earth's moon but it appears to be smaller when viewed from Earth. Why is this?

Because the moon is closer than Jupiter so it looks bigger.

eg.

Earth moon

Jupiter
Jupiter

Incorrect Response:

The planet Jupiter is bigger than Earth's moon but it appears to be smaller when viewed from Earth. Why is this?

Because the moon is far away from the Earth.

Content Domain	Main Topic	Cognitive Domain
EARTH SCIENCE	Earth in the Solar System and Universe	Conceptual Understanding

Why the moon changes shape

The shape of the moon appears to change regularly during each month. Which of the following best explains why the shape of the moon appears to change?

Ⓐ The Earth turns on its axis.

Ⓑ The Moon turns on its axis.

Ⓒ The Moon orbits around the Earth.

Ⓓ Clouds cover the Moon.

Item Number: S032437

Correct Response:	**C**

Overall Percent Correct

Hong Kong, SAR	72	▲
Malaysia	63	▲
Japan	58	▲
Singapore	58	▲
New Zealand	58	▲
Korea, Republic of	58	▲
Chinese Taipei	57	▲
Norway	56	▲
Hungary	55	▲
Estonia	54	▲
Serbia and Montenegro	54	▲
Australia	54	O
Bahrain	53	O
Sweden	53	O
Chile	53	O
Bulgaria	53	O
Scotland	53	O
Philippines	53	O
England	52	O
Egypt	52	O
United States	51	O
Armenia	51	O
Lithuania	51	O
Lebanon	50	O
International average	**50**	
Iran, Islamic Republic of	49	O
Italy	49	O
Jordan	49	O
Netherlands	48	O
Israel	47	O
Slovenia	47	O
Palestinian Nat'l Auth.	47	O
Saudi Arabia	47	O
Belgium (Flemish)	46	▼
Moldova, Rep. of	45	▼
Latvia	45	▼
Slovak Republic	45	▼
Russian Federation	45	▼
Ghana	44	▼
Cyprus	43	▼
Romania	43	▼
Macedonia, Republic of	42	▼
South Africa	41	▼
Morocco	40	▼
Botswana	39	▼
Tunisia	37	▼
Indonesia	31	▼

Country average vs. International average:	
Higher	▲
Not different	O
Lower	▼

Content Domain	Main Topic	Cognitive Domain
EARTH SCIENCE	Earth in the Solar System and Universe	Conceptual Understanding

Position of the moon during solar eclipse

Draw the position of the Moon on the diagram below to show what is meant by an eclipse of the Sun.

Sun

Earth

Item Number: S032532

SCORING

Note: To receive credit, the Moon should be located between the Earth and the Sun within the shaded region shown in the diagram below. Responses may also show the shadow cast by the Moon on Earth. Credit should be given for responses based on the correct position of the Moon even if incorrect shadows are shown. Because it is not explicitly required in the item, errors in the relative size or distance of the moon will not be considered.

Correct Response

- Moon is located between the Sun and Earth within the shaded region.

Incorrect Response

- Moon is drawn on the other side of Earth (lunar eclipse).
- Moon is drawn overlapping the Sun (concentric or partially "eclipsed" circles).
- Other incorrect (including crossed out/erased, stray marks, illegible, or off task).

Overall Percent Correct

Armenia	93	▲
Malaysia	79	▲
Hong Kong, SAR	76	▲
Singapore	70	▲
New Zealand	69	▲
Australia	68	▲
Estonia	66	▲
United States	66	▲
England	64	▲
Netherlands	63	▲
Sweden	63	▲
Chinese Taipei	62	▲
Japan	61	▲
Iran, Islamic Republic of	61	▲
Italy	61	▲
Slovak Republic	60	▲
Latvia	60	▲
Korea, Republic of	59	▲
Hungary	59	O
Russian Federation	59	O
Jordan	58	O
Bulgaria	58	O
Serbia and Montenegro	57	O
Palestinian Nat'l Auth.	57	O
Scotland	56	O
Indonesia	56	O
Israel	55	O
Norway	54	O
International average	**53**	
Slovenia	52	O
Bahrain	52	O
Belgium (Flemish)	52	O
Romania	49	O
Saudi Arabia	46	▼
Philippines	44	▼
Cyprus	43	▼
Egypt	42	▼
Chile	41	▼
Lithuania	40	▼
Moldova, Rep. of	35	▼
Lebanon	33	▼
Macedonia, Republic of	33	▼
Tunisia	32	▼
Morocco	22	▼
Ghana	19	▼
Botswana	17	▼
South Africa	17	▼

Country average vs. International average:

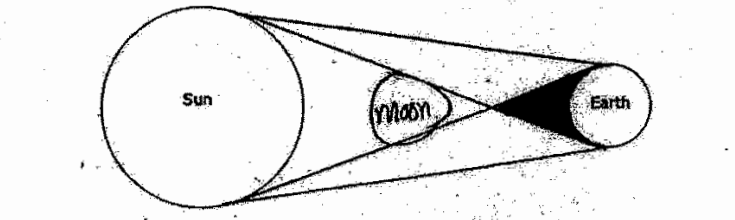|	
Higher	▲
Not different	O
Lower	▼

Position of the moon during solar eclipse (continued)

Item Number: S032532

Student Responses

Correct Response:

> Draw the position of the Moon on the diagram below to show what is meant by an eclipse of the Sun.
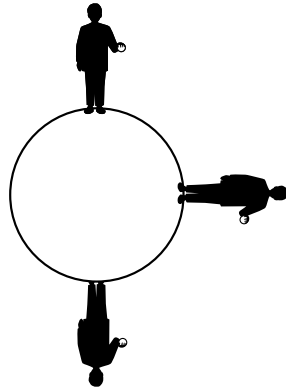

Incorrect Response:

> Draw the position of the Moon on the diagram below to show what is meant by an eclipse of the Sun.

Content Domain	Main Topic	Cognitive Domain
EARTH SCIENCE	Earth in the Solar System and Universe	Conceptual Understanding

Direction dropped ball will fall

The diagram above shows a person holding a ball standing at three different places on Earth. If the person drops the ball, gravity will make it fall.

Which of the following diagrams best shows the direction the dropped ball will fall at the three different positions?

Ⓐ   Ⓑ

Ⓒ   Ⓓ
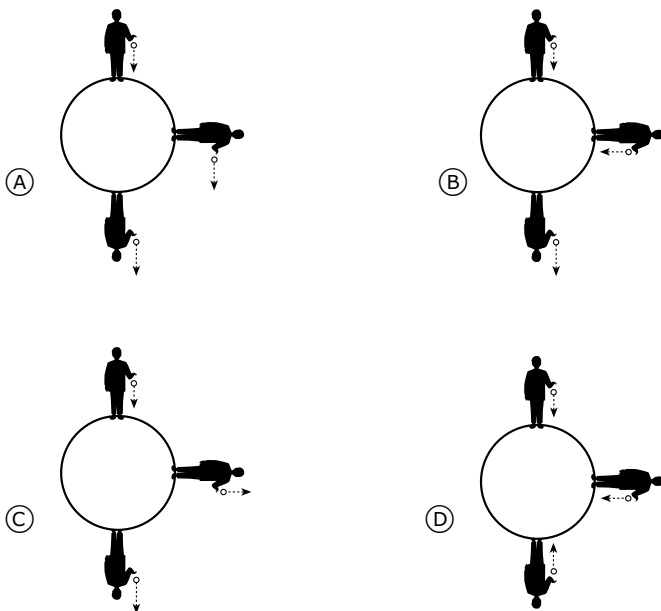
Item Number: S032714

Overall Percent Correct

Japan	92	▲
Estonia	91	▲
Korea, Republic of	90	▲
Hungary	88	▲
Sweden	87	▲
Netherlands	87	▲
Malaysia	86	▲
Chinese Taipei	86	▲
Norway	84	▲
Slovenia	83	▲
Russian Federation	82	▲
Lithuania	81	▲
New Zealand	81	▲
Hong Kong, SAR	81	▲
Latvia	80	▲
Singapore	80	▲
Slovak Republic	80	▲
Australia	79	▲
Serbia and Montenegro	78	▲
England	78	▲
Belgium (Flemish)	77	▲
United States	75	▲
Scotland	73	O
Armenia	72	O
Lebanon	72	O
Italy	71	O
International average	**70**	
Romania	70	O
Iran, Islamic Republic of	67	O
Bahrain	67	O
Jordan	66	O
Moldova, Rep. of	66	O
Israel	65	O
Philippines	65	▼
Indonesia	62	▼
Bulgaria	61	▼
Botswana	61	▼
Saudi Arabia	61	▼
Palestinian Nat'l Auth.	58	▼
Chile	58	▼
Cyprus	58	▼
Macedonia, Republic of	54	▼
Egypt	51	▼
Tunisia	47	▼
Ghana	43	▼
South Africa	40	▼
Morocco	6	▼

Country average vs. International average:	
Higher	▲
Not different	O
Lower	▼

Correct Response:	D

Content Domain	Main Topic	Cognitive Domain
EARTH SCIENCE	Earth in the Solar System and Universe	Factual Knowledge

Sun is an example of a star

The Sun is an example of which of the following?

- Ⓐ   comet
- Ⓑ   planet
- Ⓒ   galaxy
- Ⓓ   star

Item Number: S032150

Correct Response:	**D**

Overall Percent Correct

Italy	90	▲
New Zealand	87	▲
Slovak Republic	86	▲
Sweden	86	▲
United States	84	▲
Australia	83	▲
Chile	83	▲
Bulgaria	83	▲
England	82	▲
Serbia and Montenegro	80	▲
Norway	80	▲
Scotland	79	▲
Lithuania	79	▲
Latvia	78	▲
Russian Federation	77	▲
Estonia	75	▲
Slovenia	74	▲
Belgium (Flemish)	65	▲
Netherlands	65	▲
Hong Kong, SAR	65	▲
Macedonia, Republic of	62	O
Jordan	61	O
Moldova, Rep. of	61	O
Romania	60	O
International average	**60**	
Bahrain	60	O
Philippines	59	O
Hungary	58	O
Singapore	56	▼
Malaysia	54	▼
Chinese Taipei	54	▼
Iran, Islamic Republic of	52	▼
Palestinian Nat'l Auth.	52	▼
Egypt	51	▼
Armenia	48	▼
Lebanon	47	▼
Cyprus	43	▼
Botswana	41	▼
South Africa	41	▼
Indonesia	40	▼
Japan	37	▼
Saudi Arabia	33	▼
Ghana	33	▼
Morocco	29	▼
Korea, Republic of	29	▼
Israel	26	▼
Tunisia	9	▼

Country average vs. International average:	
Higher	▲
Not different	O
Lower	▼

Content Domain	Main Topic	Cognitive Domain
EARTH SCIENCE	Earth in the Solar System and Universe	Reasoning and Analysis

The surface temperatures of Venus and Mercury

The table shows some information about the planets Venus and Mercury.

	Average Surface Temperature (°C)	Atmospheric Composition	Mean Distance from the Sun (millions of km)	Time to Revolve Around the Sun (Number of Days)
Venus	470	Mostly Carbon Dioxide	108	225
Mercury	300	Trace amounts of gases	58	88

Which of the following best explains why the surface temperature of Venus is higher than that of Mercury?

Ⓐ There is less absorption of sunlight on Mercury because of the lack of atmospheric gases.

Ⓑ The high percentage of carbon dioxide in the atmosphere of Venus causes a greenhouse effect.

Ⓒ The longer time for Venus to revolve around the Sun allows it to absorb more heat from the Sun.

Ⓓ The Sun's rays are less direct on Mercury because it is closer to the Sun.

Item Number: S032301

Correct Response:	**B**

Overall Percent Correct

Korea, Republic of	70	▲
Hong Kong, SAR	69	▲
Chinese Taipei	69	▲
Singapore	60	▲
United States	49	▲
Australia	48	▲
Japan	47	▲
Egypt	46	▲
Sweden	46	▲
New Zealand	45	▲
England	44	▲
Lithuania	44	▲
Estonia	43	▲
Israel	41	▲
Hungary	41	▲
Scotland	40	O
Slovenia	39	O
Latvia	38	O
Italy	38	O
Netherlands	38	O
Slovak Republic	38	O
Belgium (Flemish)	38	O
Russian Federation	37	O
International average	**36**	
Serbia and Montenegro	34	O
Norway	34	O
Iran, Islamic Republic of	33	O
Bulgaria	33	O
Malaysia	31	▼
Chile	30	▼
Cyprus	30	▼
Palestinian Nat'l Auth.	28	▼
Bahrain	28	▼
Romania	28	▼
Philippines	28	▼
Jordan	28	▼
Botswana	24	▼
Moldova, Rep. of	24	▼
Lebanon	24	▼
South Africa	23	▼
Ghana	22	▼
Tunisia	19	▼
Saudi Arabia	18	▼
Indonesia	16	▼
Morocco	16	▼
Macedonia, Republic of	15	▼
Armenia	15	▼

Country average vs. International average:

Higher	▲
Not different	O
Lower	▼

Content Domain	Main Topic	Cognitive Domain
EARTH SCIENCE	Earth Processes, Cycles and History	Conceptual Understanding

True statement of mountain age

The pictures show two different mountains. The mountains in Picture A are rough and jagged. The mountains in Picture B are smooth and rounded.

Picture A   Picture B

Which statement about these mountains is probably true?

Ⓐ   The mountains in Picture A are older.

Ⓑ   The mountains in Picture B are older.

Ⓒ   The mountains are about the same age but were formed in different ways.

Ⓓ   The mountains are about the same age but are in different hemispheres.

Item Number: S012013

Correct Response:	**B**

Overall Percent Correct

Iran, Islamic Republic of	58	▲
Italy	58	▲
Macedonia, Republic of	55	▲
Moldova, Rep. of	51	▲
Russian Federation	50	▲
Hungary	50	▲
Lithuania	47	▲
Estonia	44	▲
Latvia	44	▲
Romania	44	▲
Armenia	43	▲
Korea, Republic of	42	▲
Slovenia	42	▲
Sweden	41	▲
Belgium (Flemish)	38	▲
United States	36	▲
Bulgaria	35	▲
Morocco	34	O
Slovak Republic	33	O
Norway	32	O
International average	**30**	
England	29	O
Netherlands	28	O
Australia	27	O
Scotland	25	▼
Tunisia	24	▼
Japan	22	▼
Egypt	22	▼
Chinese Taipei	21	▼
Palestinian Nat'l Auth.	21	▼
Malaysia	21	▼
Hong Kong, SAR	20	▼
Jordan	19	▼
Lebanon	19	▼
Israel	19	▼
New Zealand	18	▼
Serbia and Montenegro	15	▼
Philippines	14	▼
South Africa	14	▼
Cyprus	13	▼
Bahrain	13	▼
Singapore	12	▼
Ghana	12	▼
Chile	11	▼
Indonesia	7	▼
Saudi Arabia	5	▼
Botswana	0	▼

Country average vs. International average:	
Higher	▲
Not different	O
Lower	▼

Content Domain	Main Topic	Cognitive Domain
EARTH SCIENCE	Earth Processes, Cycles and History	Conceptual Understanding

Pacific Ring of Fire
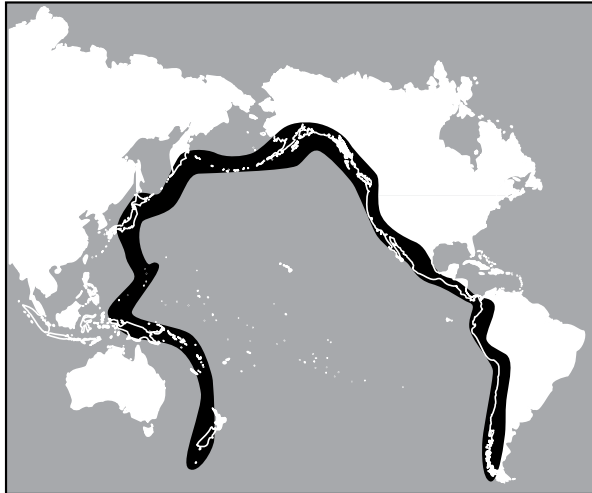
The diagram above shows the Pacific Ring of Fire. Earthquakes and volcanic activity occur along the Ring of Fire. Which of the following best explains why?

Ⓐ It is located at the boundaries of tectonic plates.

Ⓑ It is located at the boundary of deep and shallow water.

Ⓒ It is located where the major ocean currents meet.

Ⓓ It is located where ocean temperature is the highest.

Item Number: S032656

Correct Response:	**A**

Overall Percent Correct

Sweden	82	▲
Hong Kong, SAR	77	▲
England	77	▲
Russian Federation	76	▲
Scotland	75	▲
Lithuania	75	▲
Japan	74	▲
Latvia	71	▲
United States	71	▲
Chinese Taipei	70	▲
Italy	70	▲
Estonia	69	▲
Slovak Republic	66	▲
New Zealand	64	▲
Australia	64	▲
Netherlands	63	▲
Singapore	63	▲
Slovenia	62	▲
Korea, Republic of	62	▲
Romania	62	▲
Norway	60	▲
Bulgaria	56	▲
Cyprus	54	▲
Hungary	54	▲
Moldova, Rep. of	53	▲
Iran, Islamic Republic of	52	▲
International average	**48**	
Chile	44	▼
Israel	42	▼
Armenia	42	▼
Macedonia, Republic of	38	▼
Serbia and Montenegro	37	▼
Philippines	34	▼
Indonesia	33	▼
Belgium (Flemish)	31	▼
Jordan	20	▼
Morocco	20	▼
Malaysia	18	▼
Bahrain	17	▼
Saudi Arabia	16	▼
Tunisia	15	▼
Egypt	14	▼
Lebanon	13	▼
Ghana	11	▼
Palestinian Nat'l Auth.	11	▼
Botswana	10	▼
South Africa	10	▼

Country average vs. International average:	
Higher	▲
Not different	O
Lower	▼

Content Domain	Main Topic	Cognitive Domain
EARTH SCIENCE	Earth Processes, Cycles and History	Factual Knowledge

Substance NOT a fossil fuel

Which is NOT a fossil fuel?

- Ⓐ   Coal
- Ⓑ   Oil
- Ⓒ   Wood
- Ⓓ   Natural gas

Item Number: S012018

Correct Response: C

Overall Percent Correct

Lithuania	87	▲
Chinese Taipei	87	▲
Malaysia	86	▲
Bahrain	83	▲
Bulgaria	83	▲
Singapore	82	▲
Jordan	77	▲
Netherlands	76	▲
Estonia	74	▲
Belgium (Flemish)	72	▲
Armenia	71	▲
Korea, Republic of	71	▲
United States	70	▲
Russian Federation	69	▲
Slovak Republic	68	▲
Japan	67	▲
Hong Kong, SAR	67	▲
Palestinian Nat'l Auth.	67	▲
Indonesia	67	▲
Moldova, Rep. of	65	O
England	64	O
Scotland	64	O
Serbia and Montenegro	63	O
Italy	62	O
International average	**62**	
Slovenia	61	O
Botswana	61	O
Egypt	60	O
Romania	59	O
Tunisia	58	O
Australia	57	O
Philippines	57	▼
Latvia	56	▼
Lebanon	55	▼
Chile	55	▼
Sweden	54	▼
New Zealand	53	▼
Saudi Arabia	52	▼
Israel	52	▼
Iran, Islamic Republic of	52	▼
Morocco	46	▼
Macedonia, Republic of	39	▼
Norway	36	▼
Ghana	36	▼
Cyprus	35	▼
South Africa	33	▼
Hungary	25	▼

Country average vs. International average:

Higher	▲
Not different	O
Lower	▼

Content Domain	Main Topic	Cognitive Domain
EARTH SCIENCE	Earth Processes, Cycles and History	Factual Knowledge

Rock at bottom of lake/ocean

The graph shows the progress made by a beetle moving along a straight line.
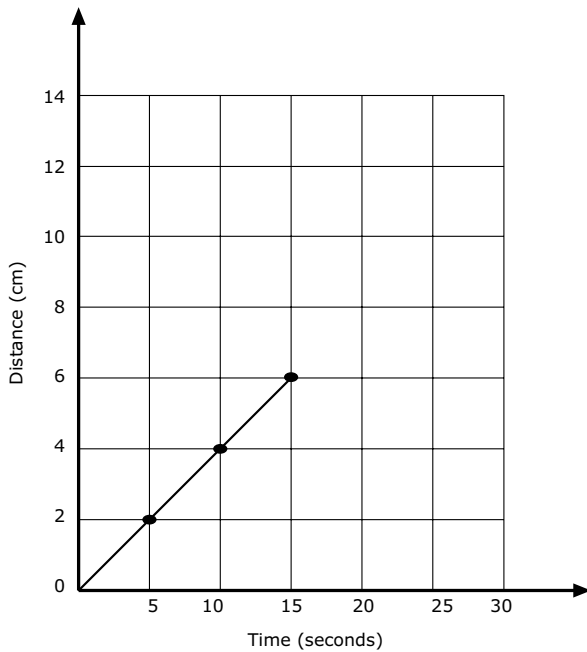
If the beetle keeps moving at the same speed, how long will it take to travel 10 cm?

(A) 4 seconds

(B) 6 seconds

(C) 20 seconds

(D) 25 seconds

Item Number: S012041

Correct Response:	**C**

Overall Percent Correct

Country	Percent	
Lithuania	89	▲
Hungary	88	▲
Korea, Republic of	85	▲
Hong Kong, SAR	85	▲
Estonia	85	▲
Chinese Taipei	80	▲
Iran, Islamic Republic of	80	▲
Tunisia	74	▲
Japan	74	▲
England	71	▲
Latvia	70	▲
Armenia	70	▲
Morocco	68	▲
Israel	65	▲
Singapore	65	▲
Russian Federation	65	▲
Jordan	65	▲
Bahrain	64	▲
United States	60	▲
Palestinian Nat'l Auth.	57	O
Italy	56	O
International average	**54**	
Philippines	52	O
Australia	52	O
Moldova, Rep. of	52	O
Saudi Arabia	51	O
Egypt	50	O
Slovenia	47	▼
Serbia and Montenegro	44	▼
Scotland	44	▼
Netherlands	43	▼
Romania	43	▼
Cyprus	41	▼
Malaysia	41	▼
Lebanon	40	▼
Bulgaria	39	▼
New Zealand	37	▼
Botswana	36	▼
Sweden	34	▼
Ghana	34	▼
Slovak Republic	31	▼
Norway	28	▼
Indonesia	27	▼
Belgium (Flemish)	26	▼
Macedonia, Republic of	22	▼
South Africa	22	▼
Chile	18	▼

Country average vs. International average:	
Higher	▲
Not different	O
Lower	▼

Content Domain	Main Topic	Cognitive Domain
EARTH SCIENCE	Earth Processes, Cycles and History	Factual Knowledge

Fossil fuels

Fossil fuels were formed from

Ⓐ volcanoes

Ⓑ the remains of living things

Ⓒ gases in the atmosphere

Ⓓ water trapped inside rocks

Item Number: S022074

Correct Response:	**B**

Overall Percent Correct

Jordan	82	▲
Singapore	81	▲
Chinese Taipei	79	▲
Hong Kong, SAR	77	▲
England	71	▲
Indonesia	69	▲
Iran, Islamic Republic of	67	▲
Serbia and Montenegro	66	▲
United States	65	▲
Estonia	64	▲
Botswana	61	▲
Macedonia, Republic of	59	▲
Italy	57	▲
Hungary	57	▲
Sweden	57	▲
Scotland	56	O
Lithuania	56	▲
Korea, Republic of	56	▲
Slovenia	54	O
Bulgaria	53	O
Romania	53	O
Norway	52	O
International average	**52**	
Armenia	51	O
Japan	51	O
Netherlands	51	O
Egypt	50	O
Palestinian Nat'l Auth.	49	O
Slovak Republic	48	O
New Zealand	46	O
Australia	46	▼
Israel	45	▼
Malaysia	45	▼
Belgium (Flemish)	45	▼
Latvia	44	▼
Russian Federation	43	▼
Moldova, Rep. of	43	▼
Lebanon	42	▼
Philippines	41	▼
Bahrain	39	▼
Chile	35	▼
Saudi Arabia	26	▼
Tunisia	22	▼
South Africa	22	▼
Cyprus	21	▼
Ghana	19	▼
Morocco	0	▼

Country average vs. International average:

Higher	▲
Not different	O
Lower	▼

Content Domain	Main Topic	Cognitive Domain
EARTH SCIENCE	Earth Processes, Cycles and History	Reasoning and Analysis

Time/temperature table

The table gives the temperature at a certain place at different times of the day for three days.

	6 a.m.	9 a.m.	12 noon	3 p.m.	6 p.m.
Monday	15°C	17°C	20°C	21°C	19°C
Tuesday	15°C	15°C	15°C	5°C	4°C
Wednesday	8°C	10°C	14°C	14°C	13°C

When did the wind become much colder?

- Ⓐ Monday morning
- Ⓑ Monday afternoon
- Ⓒ Tuesday morning
- Ⓓ Tuesday afternoon
- Ⓔ Wednesday afternoon

Item Number: S012027

Correct Response:	**D**

Overall Percent Correct

Japan	96	▲
Netherlands	93	▲
Hungary	93	▲
Australia	92	▲
Sweden	89	▲
Singapore	89	▲
Belgium (Flemish)	89	▲
England	88	▲
New Zealand	87	▲
Korea, Republic of	87	▲
Hong Kong, SAR	87	▲
Chinese Taipei	87	▲
Estonia	87	▲
Malaysia	85	▲
Slovenia	84	▲
United States	84	▲
Israel	83	▲
Italy	83	▲
Scotland	82	▲
Serbia and Montenegro	82	▲
Latvia	82	▲
Bulgaria	79	▲
Slovak Republic	79	▲
Cyprus	76	▲
Lithuania	76	O
Chile	76	O
Norway	75	O
Macedonia, Republic of	75	O
International average	**73**	
Romania	71	O
Jordan	69	O
Tunisia	69	▼
Moldova, Rep. of	68	O
Russian Federation	68	▼
Morocco	65	▼
Bahrain	63	▼
Palestinian Nat'l Auth.	60	▼
Lebanon	57	▼
Iran, Islamic Republic of	56	▼
Indonesia	44	▼
Egypt	43	▼
Armenia	39	▼
Saudi Arabia	36	▼
Botswana	35	▼
Philippines	33	▼
South Africa	26	▼
Ghana	0	▼

Country average vs. International average:

Higher	▲
Not different	O
Lower	▼

Content Domain	Main Topic	Cognitive Domain
EARTH SCIENCE	Earth Processes, Cycles and History	Reasoning and Analysis

Map of the world with lines of latitude

The diagram above shows a map of the world with the lines of latitude marked. Which of the following places marked on the map is most likely to have an average yearly temperature similar to location **X**?

(A) location A

(B) location B

(C) location C

(D) location D

Item Number: S032652

Correct Response:	A

Overall Percent Correct

Country		
Estonia	73	▲
Netherlands	70	▲
Hungary	68	▲
Malaysia	67	▲
Chinese Taipei	65	▲
Korea, Republic of	64	▲
Slovak Republic	64	▲
Singapore	63	▲
Sweden	61	▲
Slovenia	58	▲
Italy	57	▲
Australia	55	▲
Latvia	53	▲
England	53	O
Moldova, Rep. of	53	O
United States	51	▲
Serbia and Montenegro	51	O
Hong Kong, SAR	51	O
Japan	49	O
Belgium (Flemish)	49	O
New Zealand	49	O
Macedonia, Republic of	49	O
Israel	48	O
Bulgaria	48	O
Indonesia	48	O
International average	**48**	
Russian Federation	46	O
Romania	45	O
Jordan	45	O
Iran, Islamic Republic of	44	▼
Scotland	44	O
Bahrain	43	▼
Norway	42	▼
Cyprus	42	▼
Lithuania	42	▼
Chile	41	▼
Palestinian Nat'l Auth.	39	▼
Philippines	39	▼
Armenia	37	▼
Saudi Arabia	35	▼
Egypt	35	▼
Lebanon	34	▼
Morocco	30	▼
Ghana	26	▼
Botswana	25	▼
South Africa	21	▼
Tunisia	20	▼

Country average vs. International average:

Higher	▲
Not different	O
Lower	▼

Content Domain	Main Topic	Cognitive Domain
EARTH SCIENCE	Earth's Structure and Physical Features	Factual Knowledge

Stone in underground caves

Most underground caves are formed by the action of water on

Ⓐ granite

Ⓑ limestone

Ⓒ sandstone

Ⓓ shale

Item Number: S012030

Correct Response:	**B**

Overall Percent Correct

Slovenia	91	▲
Slovak Republic	85	▲
Hungary	85	▲
Korea, Republic of	78	▲
Chinese Taipei	75	▲
Serbia and Montenegro	74	▲
Cyprus	63	▲
Netherlands	62	▲
Belgium (Flemish)	59	▲
Bulgaria	58	▲
Romania	58	▲
Italy	57	▲
Sweden	56	▲
Malaysia	55	▲
England	53	▲
Macedonia, Republic of	53	▲
Lebanon	52	▲
Singapore	47	O
Israel	46	O
International average	**46**	
Norway	45	O
United States	45	O
Estonia	44	O
Australia	41	▼
Bahrain	40	▼
Russian Federation	40	▼
New Zealand	40	▼
Morocco	40	▼
Scotland	38	▼
Philippines	37	▼
Chile	36	▼
Ghana	36	▼
Moldova, Rep. of	35	▼
Botswana	35	▼
Jordan	32	▼
Iran, Islamic Republic of	31	▼
Armenia	30	▼
Egypt	30	▼
Lithuania	29	▼
Indonesia	28	▼
Japan	26	▼
Hong Kong, SAR	25	▼
South Africa	24	▼
Latvia	24	▼
Saudi Arabia	17	▼
Tunisia	6	▼
Palestinian Nat'l Auth.	0	▼

Country average vs. International average:

Higher	▲
Not different	O
Lower	▼

Content Domain	Main Topic	Cognitive Domain
EARTH SCIENCE	Earth's Structure and Physical Features	Factual Knowledge

Abundance of gases in atmosphere

Three gases found in Earth's atmosphere are carbon dioxide, nitrogen, and oxygen. What is their order of abundance from greatest to least?

Ⓐ nitrogen, oxygen, carbon dioxide

Ⓑ nitrogen, carbon dioxide, oxygen

Ⓒ oxygen, nitrogen, carbon dioxide

Ⓓ carbon dioxide, oxygen, nitrogen

Item Number: S022275

Correct Response: **A**

Overall Percent Correct

Country	Percent	
Chinese Taipei	56	▲
Hong Kong, SAR	56	▲
Japan	49	▲
Armenia	44	▲
Estonia	44	▲
Slovak Republic	43	▲
Palestinian Nat'l Auth.	43	▲
Hungary	40	▲
Singapore	39	▲
Bulgaria	38	▲
Korea, Republic of	36	▲
Malaysia	34	▲
Romania	32	O
Macedonia, Republic of	31	O
Russian Federation	31	O
Slovenia	30	O
Israel	30	O
Scotland	29	O
Philippines	29	O
Egypt	28	O
Serbia and Montenegro	28	O
International average	**28**	
England	27	O
Lithuania	27	O
Latvia	26	O
Indonesia	26	O
Italy	23	▼
Ghana	23	▼
Moldova, Rep. of	22	▼
Saudi Arabia	22	▼
Jordan	21	▼
Lebanon	21	▼
United States	21	▼
Netherlands	21	▼
Norway	20	▼
New Zealand	20	▼
Bahrain	19	▼
Australia	19	▼
Sweden	18	▼
Botswana	18	▼
Cyprus	17	▼
Morocco	16	▼
South Africa	15	▼
Iran, Islamic Republic of	13	▼
Belgium (Flemish)	12	▼
Chile	11	▼
Tunisia	6	▼

Country average vs. International average:

Higher	▲
Not different	O
Lower	▼

Content Domain	Main Topic	Cognitive Domain
EARTH SCIENCE	Earth's Structure and Physical Features	Reasoning and Analysis

Changes in river shape/speed

A small, fast-moving river is in a V-shaped valley on the slope of a mountain. If you follow the river to where it passes through a plain, what will the river most likely look like compared with how it looked on the mountain?

- Ⓐ Much the same
- Ⓑ Deeper and faster
- Ⓒ Slower and wider
- Ⓓ Straighter

Item Number: S012006

Correct Response:	**C**

Overall Percent Correct

Japan	84	▲
Russian Federation	79	▲
Estonia	79	▲
Netherlands	74	▲
Chinese Taipei	73	▲
Slovenia	73	▲
Slovak Republic	71	▲
Hungary	71	▲
Belgium (Flemish)	68	▲
Sweden	66	▲
Latvia	65	▲
Norway	65	▲
Israel	63	▲
Singapore	62	▲
Romania	62	▲
Korea, Republic of	61	▲
Iran, Islamic Republic of	59	▲
Australia	58	▲
Italy	58	▲
Malaysia	57	▲
United States	57	▲
England	57	▲
Bulgaria	56	O
Serbia and Montenegro	52	O
Scotland	52	O
International average	**52**	
Indonesia	52	O
New Zealand	50	O
Moldova, Rep. of	50	O
Lithuania	50	O
Armenia	49	O
Hong Kong, SAR	48	▼
Macedonia, Republic of	46	▼
Chile	44	▼
Cyprus	37	▼
Morocco	37	▼
Jordan	36	▼
Tunisia	36	▼
Philippines	33	▼
Botswana	31	▼
Palestinian Nat'l Auth.	27	▼
South Africa	26	▼
Lebanon	26	▼
Ghana	25	▼
Bahrain	22	▼
Egypt	22	▼
Saudi Arabia	15	▼

Country average vs. International average:

Higher	▲
Not different	O
Lower	▼

Content Domain	Main Topic	Cognitive Domain
ENVIRONMENTAL SCIENCE	Changes in Environment	Factual Knowledge

Increased carbon dioxide in atmosphere

The burning of fossil fuels has increased the carbon dioxide content of the atmosphere. What is a possible effect that the increased amount of carbon dioxide is likely to have on our planet?

Ⓐ A warmer climate

Ⓑ A cooler climate

Ⓒ Lower relative humidity

Ⓓ More ozone in the atmosphere

Item Number: S012017

Correct Response:	**A**

Overall Percent Correct

Singapore	83	▲
Japan	80	▲
Hong Kong, SAR	72	▲
Netherlands	71	▲
Malaysia	67	▲
Sweden	66	▲
Korea, Republic of	65	▲
England	65	▲
Australia	64	▲
Norway	62	▲
Chinese Taipei	62	▲
Scotland	62	▲
Estonia	58	▲
United States	56	▲
New Zealand	56	▲
Hungary	56	▲
Indonesia	52	▲
Israel	51	▲
Italy	48	O
Latvia	47	O
Moldova, Rep. of	46	O
Belgium (Flemish)	45	O
International average	**45**	
Iran, Islamic Republic of	45	O
Slovenia	44	O
Russian Federation	43	O
Bulgaria	43	O
Slovak Republic	43	O
Cyprus	42	O
Chile	40	▼
Romania	40	▼
Macedonia, Republic of	35	▼
Armenia	35	▼
Lithuania	34	▼
Philippines	32	▼
Morocco	32	▼
Serbia and Montenegro	30	▼
Botswana	27	▼
South Africa	23	▼
Lebanon	21	▼
Jordan	21	▼
Ghana	21	▼
Bahrain	18	▼
Egypt	17	▼
Tunisia	17	▼
Palestinian Nat'l Auth.	15	▼
Saudi Arabia	11	▼

Country average vs. International average:	
Higher	▲
Not different	O
Lower	▼

Content Domain	Main Topic	Cognitive Domain
ENVIRONMENTAL SCIENCE	Changes in Environment	Factual Knowledge

Main cause of acid rain

One of the main causes of acid rain is

(A) Waste from nuclear power plants

(B) Spills from chemical manufacturing plants

(C) Gases from burning fossil fuels

(D) Gases from aerosol spray cans

Item Number: S022240

Overall Percent Correct

Country		
Chinese Taipei	67	▲
Singapore	61	▲
Hong Kong, SAR	56	▲
Malaysia	51	▲
Lithuania	49	▲
Slovenia	47	▲
England	46	▲
Korea, Republic of	40	▲
Bulgaria	40	▲
Tunisia	39	▲
Scotland	39	▲
Japan	38	▲
Jordan	38	▲
Cyprus	37	▲
Egypt	36	O
Botswana	35	O
Australia	35	O
United States	35	O
Armenia	34	O
Estonia	34	O
International average	**33**	
Latvia	32	O
Slovak Republic	32	O
Indonesia	31	O
Palestinian Nat'l Auth.	30	O
Hungary	29	O
South Africa	29	▼
Sweden	28	▼
New Zealand	27	▼
Saudi Arabia	27	▼
Philippines	27	▼
Serbia and Montenegro	26	▼
Ghana	26	▼
Iran, Islamic Republic of	26	▼
Romania	25	▼
Netherlands	25	▼
Bahrain	25	▼
Chile	23	▼
Russian Federation	23	▼
Lebanon	23	▼
Israel	23	▼
Italy	20	▼
Moldova, Rep. of	19	▼
Belgium (Flemish)	19	▼
Norway	17	▼
Macedonia, Republic of	13	▼
Morocco	12	▼

Correct Response:	**C**

Country average vs. International average:

Higher	▲
Not different	O
Lower	▼

Content Domain	Main Topic	Cognitive Domain
ENVIRONMENTAL SCIENCE	Changes in Environment	Factual Knowledge

Activity to reduce air pollution in a city

Which of these daily activities can most directly help reduce air pollution in a city?

(A) turning down the volume on the television

(B) using biodegradable materials

(C) using public transportation instead of driving

(D) recycling paper

Item Number: S032446

Correct Response: C

Overall Percent Correct

Korea, Republic of	91	▲
Hong Kong, SAR	84	▲
Sweden	84	▲
Singapore	81	▲
Chinese Taipei	79	▲
Belgium (Flemish)	78	▲
Netherlands	78	▲
New Zealand	76	▲
Hungary	75	▲
England	75	▲
Scotland	73	▲
Australia	72	▲
Norway	68	▲
Iran, Islamic Republic of	67	▲
Italy	67	▲
United States	63	▲
Cyprus	61	▲
Japan	58	O
Bahrain	57	O
Slovenia	56	O
Lithuania	56	O
Jordan	56	O
International average	**55**	
Moldova, Rep. of	55	O
Russian Federation	53	O
Malaysia	53	O
Estonia	52	O
Latvia	51	O
Palestinian Nat'l Auth.	50	▼
Lebanon	49	▼
Slovak Republic	47	▼
Israel	46	▼
Saudi Arabia	44	▼
Chile	43	▼
Armenia	42	▼
Philippines	42	▼
Morocco	41	▼
Romania	38	▼
Macedonia, Republic of	38	▼
Serbia and Montenegro	36	▼
Tunisia	33	▼
Indonesia	31	▼
Bulgaria	25	▼
South Africa	24	▼
Ghana	24	▼
Botswana	20	▼
Egypt	0	▼

Country average vs. International average:

Higher	▲
Not different	O
Lower	▼

Content Domain	Main Topic	Cognitive Domain
ENVIRONMENTAL SCIENCE	Use and Conservation of Natural Resources	Conceptual Understanding

Nonrenewable natural resource

Oil is an example of a natural resource that is not renewable. Which is another example of a nonrenewable resource?

Ⓐ Wood

Ⓑ Seawater

Ⓒ Sunlight

Ⓓ Coal

Item Number: S012042

Correct Response:	**D**

Overall Percent Correct

Country		
Singapore	86	▲
Hong Kong, SAR	80	▲
Chinese Taipei	79	▲
England	69	▲
Korea, Republic of	69	▲
Scotland	68	▲
Jordan	65	▲
Italy	61	▲
Palestinian Nat'l Auth.	60	▲
Lebanon	60	▲
Bulgaria	59	▲
Estonia	59	▲
United States	59	▲
Slovenia	58	▲
Lithuania	58	▲
Romania	57	▲
Indonesia	56	▲
Moldova, Rep. of	56	O
Netherlands	56	O
Egypt	55	O
Australia	55	O
Hungary	55	O
Saudi Arabia	55	O
New Zealand	53	O
International average	**52**	
Botswana	52	O
Slovak Republic	52	O
Russian Federation	51	O
Malaysia	51	O
Bahrain	50	O
Norway	49	O
Belgium (Flemish)	48	▼
Serbia and Montenegro	46	▼
Cyprus	45	▼
Israel	45	▼
Tunisia	43	▼
Armenia	41	▼
Latvia	41	▼
Japan	39	▼
Morocco	39	▼
Macedonia, Republic of	37	▼
Chile	36	▼
Philippines	35	▼
Sweden	35	▼
South Africa	33	▼
Ghana	28	▼
Iran, Islamic Republic of	18	▼

Country average vs. International average:	
Higher	▲
Not different	O
Lower	▼

Content Domain	Main Topic	Cognitive Domain
ENVIRONMENTAL SCIENCE	Use and Conservation of Natural Resources	Conceptual Understanding

Renewable energy source

Write down one renewable energy source and describe one way that people make use of it.

Energy Source: _____

Use:

Item Number: S032242

SCORING

Note: For credit, responses must name a renewable energy source or device and a use that indicates how the energy from the source/device is applied. Credit is NOT given for responses that name a renewable source/device with no or inadequate description of its use.

Correct Response

- **Sun or sunlight** (solar energy) with a correct description of its use.
  Examples: Sun. It is used to heat water by solar panels.
  Sunlight. It keeps us warm.
- **Wind** (windmills) with a correct description of its use.
  Examples: Windmills. Are for grinding corns or for pumping water.
  Wind turbines to generate electricity.
- **Water** (waves, tides, water wheels, etc.) with a correct description of its use.
  Examples: Tidal barrage. To generate electricity.
  Water. To generate electricity.
- Other correct.
  Examples: Food. To give the body energy.
  Wood. It is used in wood stoves for cooking.

Incorrect Response

- Names any fossil fuel (e.g., coal, oil, gasoline).
  Examples: Gas. You can use it for heating.
- Names a renewable energy source/device with no or inadequate description of use.
  Examples: Water. You can heat, freeze and melt it.
  Sunlight.
  Windmill.
- Names "light" (without connection to the Sun) with or without a correct description of use.
  Examples: Light energy. It help us to see.
  Light.
- Other incorrect (including crossed out/erased, stray marks, illegible or off task)
  Examples: Electricity. Used for cooking.
  Batteries. To power a torch.

Overall Percent Correct

Hong Kong, SAR	64	▲
Singapore	47	▲
England	43	▲
Italy	41	▲
Jordan	40	▲
Slovak Republic	38	▲
Chinese Taipei	36	▲
Estonia	35	▲
Slovenia	35	▲
Palestinian Nat'l Auth.	34	▲
Hungary	34	▲
New Zealand	32	▲
Scotland	29	O
United States	29	▲
Sweden	29	O
Israel	27	O
Lebanon	27	O
Netherlands	27	O
Iran, Islamic Republic of	27	O
Australia	27	O
Latvia	26	O
Malaysia	26	O
Lithuania	26	O
International average	**25**	
Russian Federation	25	O
Romania	24	O
Macedonia, Republic of	23	O
Belgium (Flemish)	23	O
Norway	22	O
Bahrain	22	▼
Cyprus	21	▼
Korea, Republic of	21	▼
Serbia and Montenegro	20	▼
Bulgaria	19	▼
Philippines	19	▼
Egypt	18	▼
Indonesia	17	▼
Chile	17	▼
Botswana	15	▼
Tunisia	14	▼
Armenia	13	▼
Saudi Arabia	12	▼
Ghana	9	▼
Japan	9	▼
South Africa	7	▼
Morocco	4	▼
Moldova, Rep. of	2	▼

Country average vs. International average:

Higher	▲
Not different	O
Lower	▼

Renewable energy source (continued)

Item Number: S032242

Student Responses

Correct Response:

Write down one renewable energy source and describe one way that people make use of it.

Energy Source: _Sunlight_

Use: We use the sunlight to power solar powered things such as a calculator

Incorrect Response:

Write down one renewable energy source and describe one way that people make use of it.

Energy Source: _Coal_

Use: Coal can be reused again and again on your grill and also many other items.

Content Domain	Main Topic	Cognitive Domain
ENVIRONMENTAL SCIENCE	Use and Conservation of Natural Resources	Conceptual Understanding

Group of renewable energy sources

Which group of energy sources are ALL renewable?

Ⓐ   coal, oil, and natural gas

Ⓑ   solar, oil, and geothermal

Ⓒ   wind, solar, and tidal

Ⓓ   natural gas, solar, and tidal

Item Number: S032422

Correct Response:	**C**

Overall Percent Correct

Hong Kong, SAR	84	▲
Korea, Republic of	77	▲
Lithuania	76	▲
Singapore	76	▲
Hungary	74	▲
Chinese Taipei	74	▲
Estonia	73	▲
Italy	70	▲
England	70	▲
Slovenia	68	▲
Scotland	68	▲
Japan	66	▲
Russian Federation	63	▲
Malaysia	63	▲
Slovak Republic	62	▲
Sweden	61	▲
Latvia	60	▲
Netherlands	60	O
Jordan	59	▲
United States	56	O
Belgium (Flemish)	55	O
Armenia	55	O
New Zealand	55	O
International average	**53**	
Cyprus	53	O
Australia	52	O
Bahrain	52	O
Norway	50	O
Romania	50	O
Palestinian Nat'l Auth.	49	O
Serbia and Montenegro	49	O
Lebanon	47	▼
Egypt	45	▼
Bulgaria	45	▼
Indonesia	45	▼
Israel	44	▼
Moldova, Rep. of	43	▼
Macedonia, Republic of	43	▼
Iran, Islamic Republic of	40	▼
Chile	40	▼
Tunisia	30	▼
Philippines	28	▼
Botswana	27	▼
Morocco	26	▼
South Africa	21	▼
Saudi Arabia	18	▼
Ghana	18	▼

Country average vs. International average:	
Higher	▲
Not different	O
Lower	▼

Content Domain	Main Topic	Cognitive Domain
ENVIRONMENTAL SCIENCE	Use and Conservation of Natural Resources	Factual Knowledge

Overgrazing by livestock

Overgrazing of land by livestock contributes to a major problem. That problem is

Ⓐ depletion of ground water

Ⓑ increased pollution

Ⓒ erosion of soil

Ⓓ acid rain

Item Number: S012005

Overall Percent Correct

Chinese Taipei	88	▲
Botswana	80	▲
Malaysia	79	▲
Australia	74	▲
Netherlands	72	▲
Estonia	71	▲
Singapore	70	▲
Hong Kong, SAR	68	▲
Russian Federation	67	▲
United States	65	▲
Hungary	64	▲
Romania	63	▲
Japan	63	▲
Indonesia	63	▲
Ghana	63	▲
Jordan	63	▲
Latvia	61	▲
Belgium (Flemish)	60	▲
England	60	O
Italy	59	O
Palestinian Nat'l Auth.	59	O
Morocco	57	O
Slovenia	57	O
Scotland	57	O
International average	**56**	
Norway	56	O
Iran, Islamic Republic of	56	O
Bulgaria	54	O
Armenia	54	O
New Zealand	54	O
Tunisia	52	▼
Slovak Republic	52	O
Serbia and Montenegro	51	▼
Bahrain	48	▼
Macedonia, Republic of	48	▼
Cyprus	47	▼
Sweden	46	▼
Chile	46	▼
Philippines	45	▼
Lithuania	45	▼
Moldova, Rep. of	42	▼
South Africa	36	▼
Egypt	34	▼
Saudi Arabia	33	▼
Israel	32	▼
Lebanon	17	▼
Korea, Republic of	0	▼

Correct Response:	C

Country average vs. International average:

Higher	▲
Not different	O
Lower	▼

Content Domain	Main Topic	Cognitive Domain
ENVIRONMENTAL SCIENCE	Use and Conservation of Natural Resources	Reasoning and Analysis

Positive/negative effect of dam

The diagram shows a farm in a valley where a dam has just been built.

The presence of the dam can have both positive and negative effects on farming in the valley.

A. Describe one positive effect of the dam on farming.

B. Describe one negative effect of the dam on farming.

Item Number: S022088A

Overall Percent Correct

Chinese Taipei	87	▲
Korea, Republic of	83	▲
Netherlands	82	▲
Belgium (Flemish)	79	▲
Hong Kong, SAR	78	▲
United States	77	▲
Japan	77	▲
Australia	75	▲
Iran, Islamic Republic of	74	▲
Estonia	74	▲
Singapore	72	▲
Slovenia	72	▲
Latvia	72	▲
Slovak Republic	72	▲
Malaysia	71	▲
New Zealand	71	▲
England	70	▲
Italy	67	▲
Norway	67	▲
Lithuania	65	▲
Romania	64	O
Jordan	63	O
Israel	61	O
Indonesia	61	O
International average	**60**	
Macedonia, Republic of	59	O
Cyprus	59	O
Hungary	58	O
Serbia and Montenegro	57	O
Scotland	57	O
Sweden	56	O
Bulgaria	55	O
Russian Federation	55	▼
Tunisia	53	▼
Egypt	51	▼
Palestinian Nat'l Auth.	49	▼
Moldova, Rep. of	49	▼
Philippines	48	▼
Armenia	46	▼
Saudi Arabia	45	▼
Bahrain	44	▼
Botswana	39	▼
Morocco	38	▼
Chile	36	▼
Lebanon	28	▼
Ghana	20	▼
South Africa	11	▼

Country average vs. International average:

Higher	▲
Not different	O
Lower	▼

Positive/negative effect of dam (continued)

Item Number: S022088A

SCORING

Codes for Positive Effects

Note: For credit, responses must clearly indicate a positive effect of the dam related to farming in the valley.

Correct Response

  • Mentions that the dam prevents flooding.

   Examples: Without the dam, a big storm could cause a flood.
   There is no chance of flooding.
   It slows down the river so it does not overflow and ruin the crops.

  • Mentions that the dam controls the water supply.

   Examples: It stores water for the summer.
   The dam releases just the right amount of water.
   It brings more water closer to the farm.
   It would be easier to irrigate.

  • Mentions a soil-related benefit of the dam.

   Examples: More top soil.
   Controls erosion.
   The ground will be more fertile because of the large supply of water.

  • Mentions the dam as a source of power.

   Examples: The farmer will have a good power supply.
   The farm can use the hydroelectric power for energy.

  • Other correct.

Incorrect Response

  • Mentions a positive effect but does not clearly address the issue of farming or the effect of the dam.

   Examples: It provides better drinking water.
   Water is good for the crops.
   It makes the river small for swimming and fishing.

  • Gives a negative effect.

   Examples: It might prevent the farm from getting enough water.
   The water could become too high and overflow.

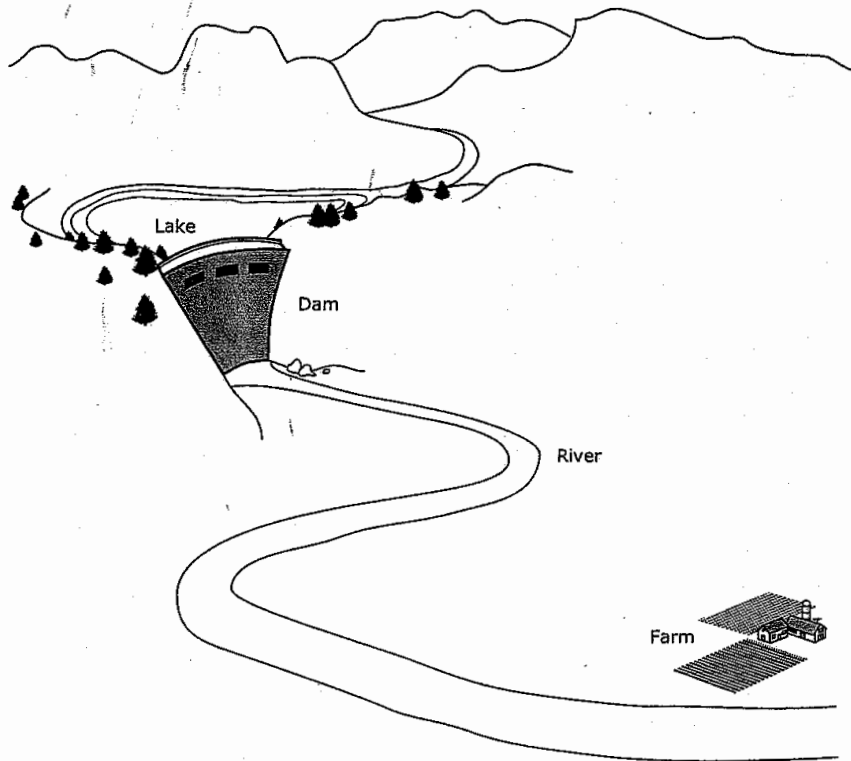 • Other incorrect (including crossed out/erased, stray marks, illegible, or off task)

Positive/negative effect of dam (continued)

Item Number: S022088A

Student Responses

Correct Response:

The diagram shows a farm in a valley where a dam has just been built.

The presence of the dam can have both positive and negative effects on farming in the valley.

A. Describe one positive effect of the dam on farming.
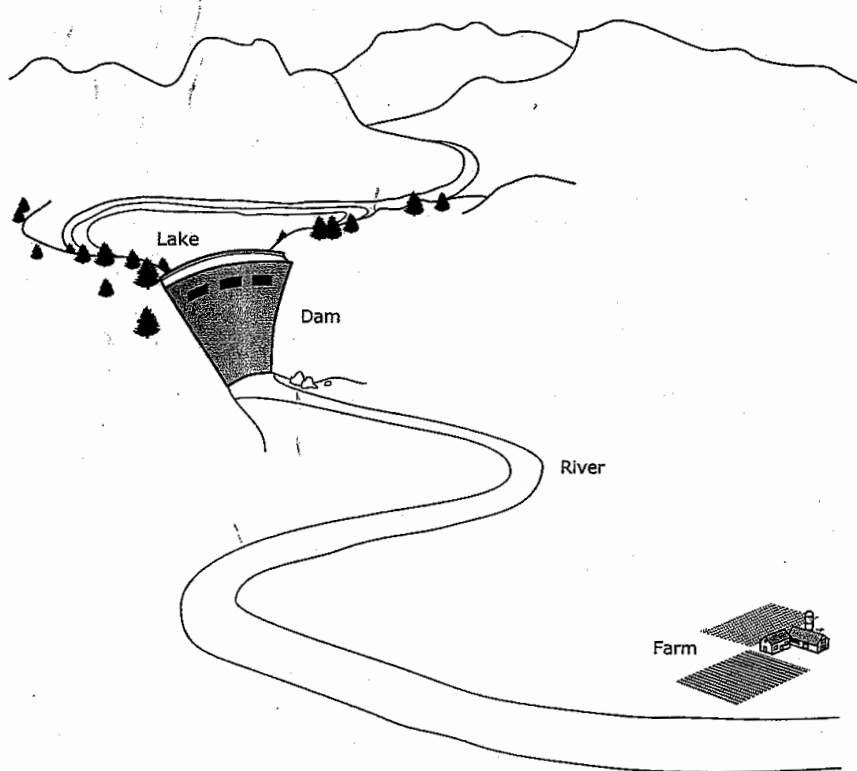
The Dam will prevent the river from Flooding the farm.

Positive/negative effect of dam (continued)

Item Number: S022088A

Student Responses (continued)

Incorrect Response:

The diagram shows a farm in a valley where a dam has just been built.

The presence of the dam can have both positive and negative effects on farming in the valley.

A. Describe one positive effect of the dam on farming.

theres more moisture in the ground