2.5

18 2.5 17

COUNTRY ID=Australia SCALE=Earth Science

Z01B

Overall Boys Girls ITEM REL LABEL % (se) % (se) % (se) A08 No What covers most of the Earth's surface? A10 No The fossils of dinosaurs can be found where? 86 0.7 85 1.1 87 0 9 B02 No Shown diagram, where is the saltiest water found? 68 1.7 67 2.3 39 1.6 39 2.2 71 1.7 72 2.7 C09 No Where are large amounts of metals like iron and aluminum found? 39 2.1 70 D04 Shown diagram of Earth, which layer is the hottest? No 2.5 E06 Which of the following is hottest? (astronomical bodies) 93 0.9 92 1.6 2.5 E09 Given several recent floods, when will it flood next? 43 2.0 36 50 2.8 F02 Each year the Earth moves once around which of the following? 61 2.1 2.7 Shown diagrams of rocks before and after being rubbed against hard steel, circle hardest rock. 63 1.8 63 2.3 F03 2.4 Shown several diagrams of a tree and its shadow, which shows the shadow at noon? 72 1.7 77 2.1 G07 G08 Which of the following pictures best shows how an iceberg floats in sea water? 28 1.8 28 2.1 2.4 38 2.0 41 2.7 H03 No Shown diagram with river, draw an arrow showing direction of water flow. 35 2 7 Yes Given temperatures and precipitation (table) in four towns, where could it have snowed? NO 1 37 1.8 38 4.1 2.9 004 Yes The Moon produces no light, and yet it shines at night. Why is this? 60 3.1 63 4.0 58 3.9 28 009 Why do mountains sometimes still have snow on their tops when the snow on lower parts has melted? 2.5 30 4.1 3.6 Yes Why do the sun and Moon appear the same size when you look at them from Earth? 29 1.7 36 2.7 Y01 2.4 Yes Shown diagram of river flowing through wide plain, write one reason this is a good place for farming Z01A 64 2.1 63 3.0 2.4

Yes Shown diagram of river flowing through wide plain, write one reason this is a bad place for farming

Yes Which of the following statements is not an observation?

Yes Which statement gives the best start toward finding which of three light bulbs is brightest?

Yes Write down two different things that people can do to help reduce air pollution. 1st reason.
Yes Write down two different things that people can do to help reduce air pollution. 2nd reason.

Yes Write as completely as possible why large oil spills in rivers and seas are harmful to the environment.

Third Grade

40 3.1 37 4.2 44 4.4

35 2.6 36 3.2 35 3.5

23 1.7 21 1.9 25 2.7

3.3

4.4

3.2

41 2.9 41 3.8 42

56

51

2.5

COUNTRY ID=Australia SCALE=Environment and other content

007

R02

W05A

W05B

X03

Overall Boys Girls ITEM REL LABEL % (se) % (se) % (se) A07 No Which plant is not usually grown for food? 81 0.9 78 1.6 42 1.3 44 2.3 C07 No Which of the following is an example of the use of a renewable source? 41 2.3 No What happens to plants and fish when a factory pours large amounts of hot water into a river? E08 78 1.8 73 2.2 82 60 3.5 57 4.6 35 2.4 34 3.7 006 Yes Write down one example of how computers help people do their work. 64 4.5 Yes To find out whether seeds grow better in light or dark, where would you put seeds? P06 36 3.9

49 2.9

58

36

60

47

62

53

2.1 61 3.1

2.4 62 2.7

49

66

77 1.7 72 2.3

81 1.7 81 2.6

2.1 61

2.4 36

2.3

3.8

2.9

3.0

2.7

3.1 71

56

63

58

44

2.8

2.4

2.8

3.2

2.5

3 0

3 1

*COUNTRY ID *= Australia SCALE=Life Science

Overall Girls Boys ITEM % (se) % (se) % (se) A 0 9 What happens if the body takes in more food than it uses? If you throw each one of these things away, which will decay fastest? 67 1.7 63 2.2 B03 70 2 1 B04 Where do humans interpret senses? 63 1.6 64 2.2 C06 No Which animal eats only plants? 89 1.0 89 1.6 90 1.5 What gas in the air do we need in order to live? 83 1.4 82 2.0 CUS 85 No 1 6 Shown diagram of mouth, which teeth are used for grinding food? 59 1.9 58 2.2 D02 2.7 Which of the following animals does not lay eggs? בחת No 94 0.9 93 1.3 94 1.1 E07 No What changes would you expect in pulse and breathing after running a 50 metre race? 49 1.7 50 2.3 48 2.7 75 1.6 72 2.3 F01 No Which of the following plants is grown for food? 2.4 Where does air go when a person breathes in? 86 1.4 85 2.2 G05 No 1.5 Shown diagram of plant, which part takes in the most water? 91 90 92 G06 0.8 1.2 1.0 89 1.2 86 H02 Nο How can washing your hands help keep you from getting sick? 2.1 92 1 0 H04 Which of the following will most likely affect your adult height? 38 1.7 35 2.2 2.5 66 2.7 62 3.4 28 2.4 28 3.8 N02 Yes Which of the following refers only to living things? 69 3.6 Yes Which of the following Celsius measures is closest to your temperature when you are not sick? 28 2.4 MU3 4.2 Yes Shown drawing of a bird's webbed foot, where would you be most likely to find such a bird? 69 3.7 70 4.4 N05 4.7 37 2.9 34 3.6 Yes Where does a baby chick get its food while inside an egg? N06 39 4.5 002 Why did seeds placed on most cotton sprout, but not those covered with water? 31 2.4 30 32 3.2 3.7 003 Yes Shown pictures of the stages of a plants growth, in which order did they occur? 67 2.6 67 3.5 66 4 6 007 Yes Which of the following animal produces milk for its young? 63 2.3 58 3.2 4.2 P01 When this caterpillar becomes an adult, which of the following pictures will it look like? 94 1.5 95 2.0 93 2.2 Yes Which of the following pictures shows plants commonly found in a desert? 1.7 91 2.5 90 P02 2.4 P08 Yes Birds are different from insects in that birds have... 61 3.3 58 4.4 4 2 Yes Seeds develop from which part of a plant? 33 2.9 32 3.7 71 2.6 70 4.0 P09 33 4.1 Yes Shown pictures of the stages in a butterfly's development, in which order did they take place? 001 71 2.6 4.0 73 3.1 002 Yes What is the best reason for including fruits and leafy vegetables in a healthy diet? 47 3.1 48 4.1 4 6 Yes When an animal breathes faster and its heart beats faster, the animal is most likely... 70 2 9 69 72 005 4 4 3.5 006 Which of the following pictures does not show an insect? 61 2.8 64 4.3 59 4.0 EU3 Yes What will likely happen when an insect carries pollen from the flowers of a tree to those of a small plant? 58 2 4 50 3 5 3 7 R04 Yes What is the most important reason for people to use a sunscreen when they are outside in sunlight? 84 2.1 78 3.8 2.7 Yes Which of the following groups contains only animals with a backbone? 3.6 42 R06 44 4.9 45 4.6 Yes Select environment a worm would prefer in terms of light and moisture. 54 3.4 54 3.7 R07 55 5.0 Yes Write down one thing your heart does that helps the other parts of your body. W02 54 2.4 54 2.9 3.3 21 1.7 21 2.8 WO3 Yes Write down the reason why we get thirsty on a hot day and have to drink a lot. 2.0 2 6

The human brain is inside the skull. Write down one advantage of the skull being thick and strong.

Yes Write down one reason why animals could not live in a world without plants.

Yes Shown pictures of stages in a frog's growth, indicate order of the stages.

Yes Identify characteristics of fish with respect to backbone and environment.

Yes Besides escaping, what are two ways animals protect themselves? 2nd answer

Yes Identify skin and skeletal features of various animals

Yes Write down two changes that occur in children's bodies as they become adults. 1st answer

Yes Write down two changes that occur in children's bodies as they become adults. 2nd answer

Yes Besides escaping, what are two ways animals protect themselves? 1st answer

REL: Release Status (Yes= Item in Released Item Set)

W04

X02

X04

x05

Y02A

Y02B

Y03A

Y03B

COUNTRY ID=Australia SCALE=Physical Science

Third Grade Overall Girls Boys ITEM % (se) % (se) % (se) A06 Shown three objects floating in water, which weighs the most? B01 No A strong magnet will separate which of the following mixtures? 63 1.6 68 2.0 2 5 59 Same brick is put on a scale in three different ways. What will the scale show? C05 65 1.5 63 2.9 D01 No Why are kettles and kitchen pans often made of copper? 60 2.3 60 2.7 61 2.9 When you make soap bubbles, what is inside the bubbles? 64 1.4 65 2.3 E05 62 No 2.1 F04 Which of the following sets of time measurements is in order from shortest to longest? 72 1.6 74 2.7 GN9 No Which of the following pairs could together cause a rainbow? 84 1.3 81 1.9 1.3 H01 What happens to water when it boils? 62 1.9 66 2.5 2.9 Yes Shown picture of block of wood floating in fresh water, select picture of block in salt water. 32 3.3 39 4.8 N04 4.0 55 3.8 51 4.8 N07 Yes Where does Keisha get the energy to push her bicycle uphill? 59 5.2 N08 What is a powder made up of both white specks and black specks is likely to be? (mixture) 71 2.8 73 3.4 4.7 55 3.7 55 4.1 NO9 Yes Shown diagrams of various boxes on scales, which has the least mass? 56 5 3 001 Yes Which picture shows the best way for 50 kg child to balance 25 kg child on seesaw? 47 4.0 49 4.6 4.9 005 Yes Shown diagram of a beam of light striking a mirror, which diagram shows reflected beam? 53 3.3 51 3.9 55 4.8 38 008 Yes Which of the following is the easiest way to separate a mixture of iron filings and sand? 2 3 42 4.2 4.1 Yes Which of the following is not used as an energy source? 27 2.7 27 3.3 P03 3.4 Yes Compare mass of beaker of water and a weight with mass of beaker of water with weight inside. 28 2.8 25 3.4 P04 31 4.2 P05 Shown pictures of magnets after being dipped into substance below it, which substance could be coffee? 44 3.0 46 4.0 4.4 46 2.6 58 3.9 P07 Yes Which of the following travels fastest? (light) 33 3 6 003 Yes Which item is most likely to stay the same after being buried in wet ground for several years? 47 3.0 46 3.4 4.4 004 When a glass jar is placed over a lighted candle, the flame goes out. Why does this happen? 60 3.5 66 4.3 53 4.9 43 3.9 008 Yes Shown picture of pencil lying in front of mirror, draw reflection of the pencil. 41 2.6 4.0 009 Yes Why does the liquid in a thermometer rise when exposed to heat? 57 3.1 55 4.3 4.1 Yes A watering can is almost filled with water. Draw line to show surface of the water when can is tipped. 15 1.8 21 3.2 R01 1.0 2.4 R05 Yes Shown picture of children playing with string telephone, one string tight and one slack, who can hear? 52 3.2 54 4.6 50 4.1 R08 Yes Which of the following makes its own light? 44 3.2 48 4.8 4 1 R09 Yes Which of the following is an advantage of solar energy? 48 3.5 45 4.5 50 4.5 W01 Shown pictures of sugar cubes and loose sugar, which will dissolve faster? Why? 29 2.1 29 2.6 2.6 3.3 Yes Shown pictures of bowls of soup, one covered and one uncovered, which will stay hot longer? Why? 49 45 $x \cap 1$ 2.8 3.2 Z03 Yes Shown diagram of blocks being compared on balances, which weighs the most? Why? 2.4 30 2.9

COUNTRY ID=Austria SCALE=Earth Science

Third Grade

			Ove	rall	Boys		Gi:	rls
ITEM	REL	LABEL	8	(se)	%	(se)	%	(se)
A08	No	What covers most of the Earth's surface?	60	2.0	65	2.6	55	2.0
A10	No	The fossils of dinosaurs can be found where?	76	1.3	79	1.6	73	1.6
B02	No	Shown diagram, where is the saltiest water found?	87	1.3	89	1.6	85	1.8
C09	No	Where are large amounts of metals like iron and aluminum found?	42	2.0	47	3.1	37	2.6
D04	No	Shown diagram of Earth, which layer is the hottest?	67	2.1	70	2.8	64	3.0
E06	No	Which of the following is hottest? (astronomical bodies)	95	1.0	96	1.0	94	1.4
E09	No	Given several recent floods, when will it flood next?	49	2.3	49	3.5	50	3.0
F02	No	Each year the Earth moves once around which of the following?	70	2.2	75	2.6	65	3.1
F03	No	Shown diagrams of rocks before and after being rubbed against hard steel, circle hardest rock.	65	1.8	63	3.1	66	2.8
G07	No	Shown several diagrams of a tree and its shadow, which shows the shadow at noon?	78	1.5	77	1.9	78	2.3
G08	No	Which of the following pictures best shows how an iceberg floats in sea water?	31	3.2	30	5.0	32	2.5
H03	No	Shown diagram with river, draw an arrow showing direction of water flow.	40	2.2	42	3.3	38	3.0
N01	Yes	Given temperatures and precipitation (table) in four towns, where could it have snowed?	44	2.9	37	4.7	50	4.5
004	Yes	The Moon produces no light, and yet it shines at night. Why is this?	64	2.9	60	4.8	69	4.1
009	Yes	Why do mountains sometimes still have snow on their tops when the snow on lower parts has melted?	20	3.5	21	6.2	17	3.2
Y01	Yes	Why do the sun and Moon appear the same size when you look at them from Earth?	29	3.1	31	5.0	26	2.7
Z01A	Yes	Shown diagram of river flowing through wide plain, write one reason this is a good place for farming	33	2.3	32	2.8	34	3.2
Z01B	Yes	Shown diagram of river flowing through wide plain, write one reason this is a bad place for farming	17	1.8	19	2.4	14	2.2

Yes Which of the following statements is not an observation?

Yes Which statement gives the best start toward finding which of three light bulbs is brightest?

Yes Write down two different things that people can do to help reduce air pollution. 1st reason.
Yes Write down two different things that people can do to help reduce air pollution. 2nd reason.

Yes Write as completely as possible why large oil spills in rivers and seas are harmful to the environment.

37 5.0

3.7

28 4.5

45

Third Grade

31 2.9 26 3.6

25 2.6 21 3.1

48

4.6

29 2.6 35 3.9 25 2.9

11 1.5 12 2.1 10 2.1

46 3.2

COUNTRY ID=Austria SCALE=Environment and other content

007

R02

W05A

W05B

X03

Overall Boys Girls ITEM REL LABEL % (se) % (se) % (se) A07 No Which plant is not usually grown for food? 87 0.9 85 1.3 50 1.9 49 2.4 C07 No Which of the following is an example of the use of a renewable source? 52 2 4 No What happens to plants and fish when a factory pours large amounts of hot water into a river? E08 65 2.4 65 3.1 43 3.3 41 5.9 19 2.5 18 3.8 006 Yes Write down one example of how computers help people do their work. 45 4.5 Yes To find out whether seeds grow better in light or dark, where would you put seeds? P06 21 3.9

COUNTRY ID=Austria SCALE=Life Science

Third Grade

			Ove	erall	ll Boys		Gi:	rls
ITEM	REL	LABEL		(se)	8	(se)	용	(se)
A09	No	What happens if the body takes in more food than it uses?	73	1.3	69	1.9	77	1.6
B03	No	If you throw each one of these things away, which will decay fastest?	83	1.2	83	1.9	83	1.7
B04	No	Where do humans interpret senses?	60	2.2	62	2.9	59	2.7
C06	No	Which animal eats only plants?	91	1.2	91	1.7	91	1.5
C08	No	What gas in the air do we need in order to live?	87	1.4	86	1.5	87	2.1
D02	No	Shown diagram of mouth, which teeth are used for grinding food?	67	1.8	66	2.5	68	2.4
D03	No	Which of the following animals does not lay eggs?	92 63	1.0	92 65	1.2	92 61	1.5
E07 F01	No No	What changes would you expect in pulse and breathing after running a 50 metre race? Which of the following plants is grown for food?	79	1.7	81	1.9	78	2.6 2.9
G05	No	Where does air go when a person breathes in?	79	1.9	80	2.5	76	2.5
G06	No	Shown diagram of plant, which part takes in the most water?	87	1.4	86	2.1	89	1.7
H02	No	How can washing your hands help keep you from getting sick?	59	2.1	59	2.6	60	2.5
H04	No	Which of the following will most likely affect your adult height?	52	2.2	50	3.0	53	2.9
N02	Yes	Which of the following refers only to living things?	66	3.1	60	4.2	72	3.6
N03	Yes	Which of the following Celsius measures is closest to your temperature when you are not sick?	49	2.8	54	4.4	44	4.8
N05	Yes	Shown drawing of a bird's webbed foot, where would you be most likely to find such a bird?	76	2.8	81	3.6	71	4.7
N06	Yes	Where does a baby chick get its food while inside an egg?	41	3.1	37	4.6	46	5.0
002	Yes	Why did seeds placed on most cotton sprout, but not those covered with water?	33	3.9	30	6.1	36	3.9
003	Yes	Shown pictures of the stages of a plants growth, in which order did they occur?	55	3.8	55	5.6	55	4.5
007		Which of the following animal produces milk for its young?	54	3.4	51	5.6	57	4.4
P01		When this caterpillar becomes an adult, which of the following pictures will it look like?	91	1.9	89	2.9	94	2.2
P02		Which of the following pictures shows plants commonly found in a desert?	92	1.6	90	2.6	95	1.7
P08	Yes	Birds are different from insects in that birds have	63	3.5	63	4.5	63	4.2
P09	Yes	Seeds develop from which part of a plant? Shown pictures of the stages in a butterfly's development, in which order did they take place?	59 57	3.5 3.7	58 58	4.6	60	4.7
Q01 Q02	Yes	Shown pictures of the stages in a butterly's development, in which order did they take place? What is the best reason for including fruits and leafy vegetables in a healthy diet?	57 79	2.7	58 77	4.9 4.2	56 80	5.3 2.9
Q02 005		When an animal breathes faster and its heart beats faster, the animal is most likely	66	3.6	64	5.2	68	2.9 5.0
006		which of the following pictures does not show an insect?	35	3.5	41	5.2	30	4.3
R03		What will likely happen when an insect carries pollen from the flowers of a tree to those of a small plant?	67		67	3.9	66	4.6
R04		What is the most important reason for people to use a sunscreen when they are outside in sunlight?	74	2.7	70	3.6	77	3.9
R06		Which of the following groups contains only animals with a backbone?	33	3.4	31	4.9	33	4.5
R07	Yes		57	3.3	55	5.2	61	4.6
W02	Yes	Write down one thing your heart does that helps the other parts of your body.	26	2.7	29	3.5	24	3.3
W03	Yes	Write down the reason why we get thirsty on a hot day and have to drink a lot.	19	2.1	23	3.9	15	2.0
W04	Yes	The human brain is inside the skull. Write down one advantage of the skull being thick and strong.	39	2.5	42	3.5	37	3.4
X02	Yes	Write down one reason why animals could not live in a world without plants.	65	2.5	61	3.5	69	3.1
X04	Yes		81	2.2	78	3.3	83	2.4
X05		Identify characteristics of fish with respect to backbone and environment.	41		41	3.7	41	3.8
Y02A		Write down two changes that occur in children's bodies as they become adults. 1st answer	62		58	4.0	66	3.2
Y02B		Write down two changes that occur in children's bodies as they become adults. 2nd answer	43	2.8	41	4.7	44	2.8
Y03A	Yes	Besides escaping, what are two ways animals protect themselves? 1st answer	52		55	3.6	47	3.7
Y03B	Yes	Besides escaping, what are two ways animals protect themselves? 2nd answer	30	2.5	30	3.3	29	3.2
Z02	Yes	Identify skin and skeletal features of various animals	62	2.7	60	3.6	63	3.3

COUNTRY ID=Austria SCALE=Physical Science

Third Grade Overall Girls Boys ITEM % (se) % (se) % (se) A06 Shown three objects floating in water, which weighs the most? B01 No A strong magnet will separate which of the following mixtures? 73 1.5 77 1.9 70 2 5 Same brick is put on a scale in three different ways. What will the scale show? C05 73 2.2 73 2.7 73 56 2.2 57 2.9 54 2.5 59 3.6 D01 No Why are kettles and kitchen pans often made of copper? 57 2.7 When you make soap bubbles, what is inside the bubbles? 49 E05 2.7 No F04 Which of the following sets of time measurements is in order from shortest to longest? 67 1.9 64 3.2 70 2.3 87 1.6 85 2.3 GN9 No Which of the following pairs could together cause a rainbow? 1.9 H01 What happens to water when it boils? 89 1.1 90 1.6 Yes Shown picture of block of wood floating in fresh water, select picture of block in salt water. N04 41 3.0 44 4.2 5.3 42 3.5 41 4.2 N07 Yes Where does Keisha get the energy to push her bicycle uphill? 5.3 N08 What is a powder made up of both white specks and black specks is likely to be? (mixture) 61 3.1 62 4.5 5.1 30 2.9 36 4.5 NO9 Yes Shown diagrams of various boxes on scales, which has the least mass? 2.4 4.0 001 Yes Which picture shows the best way for 50 kg child to balance 25 kg child on seesaw? 39 3.9 44 5.8 4.3 005 Yes Shown diagram of a beam of light striking a mirror, which diagram shows reflected beam? 54 3.6 54 6.2 52 4.4 008 Yes Which of the following is the easiest way to separate a mixture of iron filings and sand? 46 3.7 48 5.9 4.7 Yes Which of the following is not used as an energy source? 34 3.3 43 4.8 P03 3.8 Yes Compare mass of beaker of water and a weight with mass of beaker of water with weight inside. 36 4.0 42 5.6 P04 29 4.6 P05 Shown pictures of magnets after being dipped into substance below it, which substance could be coffee? 41 4.2 48 4.6 34 3.0 41 5.1 P07 Yes Which of the following travels fastest? (light) 4 3 003 Yes Which item is most likely to stay the same after being buried in wet ground for several years? 46 3.2 44 4.7 4.4 004 When a glass jar is placed over a lighted candle, the flame goes out. Why does this happen? 58 3.3 62 4.4 53 5.2 3.2 40 4.7 008 Yes Shown picture of pencil lying in front of mirror, draw reflection of the pencil. 42 4.2 009 Yes Why does the liquid in a thermometer rise when exposed to heat? 48 3.7 47 4.6 Yes A watering can is almost filled with water. Draw line to show surface of the water when can is tipped. 14 2.3 17 3.1 45 3.5 39 4.6 R01 9 2.8 R05 Yes Shown picture of children playing with string telephone, one string tight and one slack, who can hear? 45 3.5 4.6 4.5 R08 Yes Which of the following makes its own light? 70 3.1 63 4.6 78 3 8 R09 Yes Which of the following is an advantage of solar energy? 44 3.8 41 5.8 47 5.2 W01 Shown pictures of sugar cubes and loose sugar, which will dissolve faster? Why? 2.3 23 3.0 22 3.1 3.2 20 2.2 Yes Shown pictures of bowls of soup, one covered and one uncovered, which will stay hot longer? Why? $x \cap 1$ 18 3.0 Z03 Yes Shown diagram of blocks being compared on balances, which weighs the most? Why? 1.7 19 2.5

COUNTRY ID=Canada SCALE=Earth Science

Third Grade

			Ove	Overall		Boys		rls
ITEM	REL	LABEL	%	(se)	용	(se)	용	(se)
A08	No	What covers most of the Earth's surface?	66	1.0	70	1.1	62	1.1
A10	No	The fossils of dinosaurs can be found where?	79	1.0	80	1.5	77	1.4
B02	No	Shown diagram, where is the saltiest water found?	71	1.4	71	1.9	71	1.8
C09	No	Where are large amounts of metals like iron and aluminum found?	38	1.3	41	1.8	33	2.3
D04	No	Shown diagram of Earth, which layer is the hottest?	77	1.2	78	1.6	75	1.8
E06	No	Which of the following is hottest? (astronomical bodies)	92	1.2	93	1.2	93	1.0
E09	No	Given several recent floods, when will it flood next?	42	1.6	40	2.1	43	2.0
F02	No	Each year the Earth moves once around which of the following?	64	1.8	68	2.2	61	2.3
F03	No	Shown diagrams of rocks before and after being rubbed against hard steel, circle hardest rock.	60	1.6	61	2.2	61	2.2
G07	No	Shown several diagrams of a tree and its shadow, which shows the shadow at noon?	61	1.9	69	2.2	54	2.7
G08	No	Which of the following pictures best shows how an iceberg floats in sea water?	27	1.3	29	2.3	24	1.6
H03	No	Shown diagram with river, draw an arrow showing direction of water flow.	26	1.7	30	2.7	24	1.7
N01	Yes	Given temperatures and precipitation (table) in four towns, where could it have snowed?	30	2.3	28	2.9	30	3.9
004	Yes	The Moon produces no light, and yet it shines at night. Why is this?	63	2.9	64	3.5	63	3.5
009	Yes	Why do mountains sometimes still have snow on their tops when the snow on lower parts has melted?	37	2.6	34	3.1	38	4.6
Y01	Yes	Why do the sun and Moon appear the same size when you look at them from Earth?	29	1.9	35	2.5	23	2.1
Z01A	Yes	Shown diagram of river flowing through wide plain, write one reason this is a good place for farming	52	2.2	52	2.9	53	2.7
Z01B	Yes	Shown diagram of river flowing through wide plain, write one reason this is a bad place for farming	16	1.8	15	2.3	18	2.1

COUNTRY ID=Canada SCALE=Environment and other content

			Third Grade								
			Ove	erall	Boys		Gi	rls			
ITEM	REL	LABEL	왕	(se)	8	(se)	8	(se)			
A07	No	Which plant is not usually grown for food?	75	0.9	 75	1.3	76	1.0			
C07	No	Which of the following is an example of the use of a renewable source?	41	1.9	40	2.8	40	2.7			
E08	No	What happens to plants and fish when a factory pours large amounts of hot water into a river?	71	1.4	69	2.2	73	1.7			
006	Yes	Write down one example of how computers help people do their work.	61	2.2	57	3.0	64	3.7			
P06	Yes	To find out whether seeds grow better in light or dark, where would you put seeds?	30	2.2	28	3.0	32	3.5			
Q07	Yes	Which of the following statements is not an observation?	37	2.3	33	3.3	40	3.1			
R02	Yes	Which statement gives the best start toward finding which of three light bulbs is brightest?	38	2.4	37	3.1	38	3.5			
W05A	Yes	Write down two different things that people can do to help reduce air pollution. 1st reason.	31	1.4	30	2.1	33	2.2			
W05B	Yes	Write down two different things that people can do to help reduce air pollution. 2nd reason.	22	1.5	20	2.0	25	2.4			
X03	Yes	Write as completely as possible why large oil spills in rivers and seas are harmful to the environment.	20	1.3	17	2.1	22	1.6			

COUNTRY ID=Canada SCALE=Life Science

COUNTRY ID=Canada SCALE=Physical Science

			Third Grade						
			Ove	rall	Boys		Gi	rls	
ITEM		LABEL		(se)		(se)	%	(se)	
A06 B01 C05 D01 E05 F04 G09 H01 N07 N08 N09 O01 O05 O08 P03 P04 P05 P07 Q08 Q09 Q09 R05 R08 R09	No No No No No No No Yes	Shown three objects floating in water, which weighs the most? A strong magnet will separate which of the following mixtures? Same brick is put on a scale in three different ways. What will the scale show? Why are kettles and kitchen pans often made of copper? When you make soap bubbles, what is inside the bubbles? Which of the following sets of time measurements is in order from shortest to longest? Which of the following pairs could together cause a rainbow? What happens to water when it boils? Shown picture of block of wood floating in fresh water, select picture of block in salt water. Where does Keisha get the energy to push her bicycle uphill? What is a powder made up of both white specks and black specks is likely to be? (mixture) Shown diagrams of various boxes on scales, which has the least mass? Which picture shows the best way for 50 kg child to balance 25 kg child on seesaw? Shown diagram of a beam of light striking a mirror, which diagram shows reflected beam? Which of the following is the easiest way to separate a mixture of iron filings and sand? Which of the following is not used as an energy source? Compare mass of beaker of water and a weight with mass of beaker of water with weight inside. Shown pictures of magnets after being dipped into substance below it, which substance could be coffee? Which of the following travels fastest? (light) Which item is most likely to stay the same after being buried in wet ground for several years? When a glass jar is placed over a lighted candle, the flame goes out. Why does this happen? Shown picture of pencil lying in front of mirror, draw reflection of the pencil. Why does the liquid in a thermometer rise when exposed to heat? A watering can is almost filled with water. Draw line to show surface of the water when can is tipped.	57 55 55 67 63 63 64 54 54 54 53 33 46 52 453 153	0.6 1.5 1.5 1.6 0.9 1.5 2.6 2.7 2.6 2.8 2.6 2.8 2.6 2.8 2.6 2.8		1.16 2.4 1.9 1.5 1.8 1.4 2.3.6 3.6 3.5 3.4 3.5 3.4 4.2 5.5 1.2 9.3 4.2 5.5 1.2 9.3 9.3 9.3 9.3 9.3 9.3 9.3 9.3 9.3 9.3	83 558 53 63 88 62 23 55 41 53 40 33 16 32 26 49 43 55 50	1.0 2.1 2.4 2.5 2.2 2.7 1.5 2.8 3.1 3.5 4.5 3.9 3.0 2.8 3.1 3.1 3.1 3.4 4.1 3.1 2.0 4.6 3.5	
W01 X01 Z03	Yes Yes Yes	Shown pictures of bowls of soup, one covered and one uncovered, which will stay hot longer? Why?	28 42 21	1.5 2.5 1.7	26 43 25		42	2.2 3.2 1.8	

COUNTRY ID=Cyprus SCALE=Earth Science

Overall Boys Girls ITEM REL LABEL % (se) % (se) % (se) A08 No What covers most of the Earth's surface? 46 1.2 45 1.3 A10 No The fossils of dinosaurs can be found where? 54 1.1 58 1.2 50 1.6 B02 No Shown diagram, where is the saltiest water found? 80 1.1 80 1.6 46 2.0 49 2.8 57 1.5 61 2.3 C09 No Where are large amounts of metals like iron and aluminum found? 43 2.5 Shown diagram of Earth, which layer is the hottest? D04 No 53 2.2 E06 Which of the following is hottest? (astronomical bodies) 72 1.4 76 2.1 2.2 34 1.5 32 2.1 E09 Given several recent floods, when will it flood next? 36 2.2 F02 Each year the Earth moves once around which of the following? 46 1.7 Shown diagrams of rocks before and after being rubbed against hard steel, circle hardest rock. 40 1.8 41 2.4 F03 2.2 Shown several diagrams of a tree and its shadow, which shows the shadow at noon? 54 1.7 58 2.1 G07 2.5 G08 Which of the following pictures best shows how an iceberg floats in sea water? 21 1.2 17 1.5 2.1 27 1.8 27 2.5 H03 Shown diagram with river, draw an arrow showing direction of water flow. 2.1 NO1 Yes Given temperatures and precipitation (table) in four towns, where could it have snowed? 25 2.5 24 3.4 3.3 54 2.7 52 4.2 56 20 2.2 24 3.4 15 004 Yes The Moon produces no light, and yet it shines at night. Why is this? 56 3.9 009 Why do mountains sometimes still have snow on their tops when the snow on lower parts has melted? 2.7 Yes Why do the sun and Moon appear the same size when you look at them from Earth? 6 1.0 8 1.3 4 1.0 Y01 Yes Shown diagram of river flowing through wide plain, write one reason this is a good place for farming 37 2.2 40 2.8 34 2.9 Z01A Z01B Yes Shown diagram of river flowing through wide plain, write one reason this is a bad place for farming 4 0.9 4 1.1

COUNTRY ID=Cyprus SCALE=Environment and other content

			111114 01440						
			Ove	rall	Во	ys	Gi	rls	
ITEM	REL	LABEL	%	(se)	% 	(se)	왕	(se)	
A07	No	Which plant is not usually grown for food?	73	0.9	72	1.3	74	1.2	
C07	No	Which of the following is an example of the use of a renewable source?	37	1.9	38	2.2	35	3.0	
E08	No	What happens to plants and fish when a factory pours large amounts of hot water into a river?	58	1.7	58	2.2	58	2.4	
006	Yes	Write down one example of how computers help people do their work.	19	3.1	21	3.8	17	3.2	
P06	Yes	To find out whether seeds grow better in light or dark, where would you put seeds?	24	2.9	26	3.8	22	4.2	
Q07	Yes	Which of the following statements is not an observation?	22	2.3	20	3.2	24	3.2	
R02	Yes	Which statement gives the best start toward finding which of three light bulbs is brightest?	26	2.5	28	3.3	24	3.1	
W05A	Yes	Write down two different things that people can do to help reduce air pollution. 1st reason.	17	1.7	20	2.4	14	1.8	
W05B	Yes	Write down two different things that people can do to help reduce air pollution. 2nd reason.	10	1.4	12	2.0	9	1.6	
X03	Yes	Write as completely as possible why large oil spills in rivers and seas are harmful to the environment.	9	1.3	11	1.9	7	1.4	

COUNTRY ID=Cyprus SCALE=Life Science

			Third Grade						
			Ove	erall	Boys		Gi	rls	
ITEM	REL	LABEL	%	(se)	왕	(se)	왕	(se)	
A09 B03 C06 C08 D02 D03 E07 F01 G05 G06 H02 H04 N02 N03 N05 N06 O02 O03 O07 F01 P02 P08 P09 Q01 Q02 Q05 Q06 R03 R04 R06 R07	No Yes	What happens if the body takes in more food than it uses? If you throw each one of these things away, which will decay fastest? Which animal eats only plants? What gas in the air do we need in order to live? Shown diagram of mouth, which teeth are used for grinding food? Which of the following animals does not lay eggs? What changes would you expect in pulse and breathing after running a 50 metre race? Which of the following plants is grown for food? Where does air go when a person breathes in? Shown diagram of plant, which part takes in the most water? How can washing your hands help keep you from getting sick? Which of the following will most likely affect your adult height? Which of the following Celsius measures is closest to your temperature when you are not sick? Shown drawing of a bird's webbed foot, where would you be most likely to find such a bird? Why did seeds placed on most cotton sprout, but not those covered with water? Shown pictures of the stages of a plants growth, in which order did they occur? Which of the following animal produces milk for its young? Which of the following pictures shows plants commonly found in a desert? Birds are different from insects in that birds have Seeds develop from which part of a plant? Shown pictures of the stages in a butterfly's development, in which order did they take place? What is the best reason for including fruits and leafy vegetables in a healthy diet? When an animal breathes faster and its heart beats faster, the animal is most likely Which of the following pictures does not show an insect? What will likely happen when an insect carries pollen from the flowers of a tree to those of a small plant? What is the most important reason for people to use a sunscreen when they are outside in sunlight? Which of the following groups contains only animals with a backbone? Select environment a worm would prefer in terms of light and moisture.	% 32 39 90 84 57 70 34 85 71 32 46 31 47 25 49 56 54 67 33 42 42 44 43 66 67 37 65 16	(se) 1.2 1.7 1.1 1.4 1.4 1.7 1.7 1.4 1.7 2.8 2.7 2.8 2.7 2.9 3.0 2.9 2.6 3.4 3.3 3.0 2.3 2.5 3.0 2.0 2.0 1.8	% 33336 8556 566 847 334 832 413 30 50 516 266 449 555 688 555 688 433 433 959 613 339 599 613 613 614 615 615 615 615 615 615 615 615 615 615	(se) 1.5 2.4 1.5 2.1 2.1 2.2 1.6 2.2 1.6 2.2 2.0 3.5 3.8 4.2 8 3.6 3.8 4.0 3.8 4.6 3.8 4.6 3.1 3.1 3.1 4.0 2.2 2.7	\$ 31 41 41 89 83 59 68 83 44 85 51 31 18 24 45 55 53 63 55 41 45 57 71 22 14	(se) 1.5 2.3 1.7 1.9 2.4 1.8 2.2 1.7 2.3 2.3 4.3 4.1 3.7 3.6 4.3 4.1 3.7 3.6 4.3 4.1 3.7 3.8 4.3 4.1 3.8 4.3 4.1 3.8 4.3 4.1 3.8 4.3 4.1 3.8 4.3 4.1 3.8 4.3	
W02 W03 W04 X02 X04	Yes Yes Yes Yes	Write down one thing your heart does that helps the other parts of your body. Write down the reason why we get thirsty on a hot day and have to drink a lot. The human brain is inside the skull. Write down one advantage of the skull being thick and strong. Write down one reason why animals could not live in a world without plants. Shown pictures of stages in a frog's growth, indicate order of the stages.	42	1.1 1.3 1.5 2.0 2.4	7 11 17 50 46	1.5 1.8 1.9 3.1 3.1	8 12 12 50 40	1.6 1.8 2.1 2.6 2.7	
X05 Y02A Y02B Y03A Y03B Z02	Yes Yes Yes Yes Yes Yes	Identify characteristics of fish with respect to backbone and environment. Write down two changes that occur in children's bodies as they become adults. 1st answer Write down two changes that occur in children's bodies as they become adults. 2nd answer Besides escaping, what are two ways animals protect themselves? 1st answer Besides escaping, what are two ways animals protect themselves? 2nd answer Identify skin and skeletal features of various animals	36 31 16 22 11 39	2.4 2.1 1.4 2.0 1.6	32 32 19 26 13 41	3.2 2.5 2.2 2.5 1.7 2.4	39 29 14 19 9 38	2.6 3.0 1.8 3.0 2.5 2.6	

COUNTRY ID=Cyprus SCALE=Physical Science

			Third Grade						
			Ove	rall	Во	ys	Gi	rls	
ITEM	REL	LABEL		(se)	8	(se)	8	(se)	
A06	No	Shown three objects floating in water, which weighs the most?	76		78	1.2	74	1.1	
B01	No	A strong magnet will separate which of the following mixtures?	72	1.5	75	2.2	70	1.9	
C05	No	Same brick is put on a scale in three different ways. What will the scale show?	57	1.8	57	2.3	57	2.6	
D01	No	Why are kettles and kitchen pans often made of copper?	29	1.7	27	2.0	31	2.3	
E05	No	When you make soap bubbles, what is inside the bubbles?	25	1.5	26	2.0	25	2.0	
F04	No	Which of the following sets of time measurements is in order from shortest to longest?	49	1.8	50	2.5	48	2.3	
G09	No	Which of the following pairs could together cause a rainbow?	61	1.7	62	2.2	61	2.3	
H01	No	What happens to water when it boils?	69	1.7	71	2.2	66	2.4	
N04	Yes	Shown picture of block of wood floating in fresh water, select picture of block in salt water.	27	3.2	31	4.5	23	3.3	
N07	Yes		29	2.7	24	3.8		3.8	
N08	Yes	where does keisha get the energy to push her bloycle uphil? What is a powder made up of both white specks and black specks is likely to be? (mixture) Shown diagrams of various boxes on scales, which has the least mass? Which picture shows the best way for 50 kg child to balance 25 kg child on seesaw? Shown diagram of a beam of light striking a mirror, which diagram shows reflected beam? Which of the following is the essiest way to separate a mixture of iron fillings and sand?	46	3.0	44	4.2	49	4.1	
N09	Yes	Shown diagrams of various boxes on scales, which has the least mass?	39	2.7	41	4.1	36	4.1	
001	Yes	Which picture shows the best way for 50 kg child to balance 25 kg child on seesaw?	21	2.3	22	3.1	20	3.4	
005	Yes	Shown diagram of a beam of light striking a mirror, which diagram shows reflected beam?	42	3.0	40	4.3	44	4.3	
008	Yes	Which of the following is the easiest way to separate a mixture of iron filings and sand?	46	3.3	47	4.3	45	4.3	
P03	Yes	Which of the following is not used as an energy source?	27	2.8	32	4.0	23	3.6	
P04	Yes	Compare mass of beaker of water and a weight with mass of beaker of water with weight inside.	18	2.2	22	3.5	14	2.7	
P05	Yes	Shown pictures of magnets after being dipped into substance below it, which substance could be coffee?	33	2.5	36	3.4	31	4.2	
P07	Yes	Which of the following travels fastest? (light)	23	2.5	23	3.3	24	3.3	
Q03	Yes	Which item is most likely to stay the same after being buried in wet ground for several years?	43	2.8	40	4.2	46	4.0	
Q04	Yes	When a glass jar is placed over a lighted candle, the flame goes out. Why does this happen? Shown picture of pencil lying in front of mirror, draw reflection of the pencil.	25	2.7	26	3.4	22	2.7	
Q08	Yes	Shown picture of pencil lying in front of mirror, draw reflection of the pencil.	12	1.6	11	2.1	12	2.5	
Q09	Yes	Why does the liquid in a thermometer rise when exposed to heat?	40	3.1	39	4.5	40	3.6	
R01	Yes	A watering can is almost filled with water. Draw line to show surface of the water when can is tipped.	11	1.9	13	2.5	9	2.6	
R05	Yes	Shown picture of children playing with string telephone, one string tight and one slack, who can hear?	46	2.6	46	3.4	45	3.7	
R08	Yes	Which of the following makes its own light?	49	2.5	49	3.8	48	3.2	
R09	Yes	Which of the following is an advantage of solar energy?	27	1.9	26	2.9	28	3.0	
W01	Yes	Shown pictures of sugar cubes and loose sugar, which will dissolve faster? Why?	13	1.3	15	1.9	10	1.7	
X01	Yes	Shown pictures of sugar cubes and loose sugar, which will dissolve faster? Why? Shown pictures of bowls of soup, one covered and one uncovered, which will stay hot longer? Why?	17	1.8	18	2.3	17	2.4	
Z03	Yes	Shown diagram of blocks being compared on balances, which weighs the most? Why?	10	1.2	15	2.0	6	1.2	

COUNTRY ID=Czech Republic SCALE=Earth Science

			Ove	Overall		Boys		rls	
ITEM	REL	LABEL	왕	(se)	용	(se)	8	(se)	
A08 A10	No No	What covers most of the Earth's surface? The fossils of dinosaurs can be found where?	41 76	1.8	44 80	2.0		2.1	
в02	No	Shown diagram, where is the saltiest water found?	81	1.3	83	1.5	78	1.9	
C09 D04	No No	Where are large amounts of metals like iron and aluminum found? Shown diagram of Earth, which layer is the hottest?	56 70	1.5 1.5	62 71	2.2	50 68	2.3	
E06 E09	No No	Which of the following is hottest? (astronomical bodies) Given several recent floods, when will it flood next?	91 40	0.9 1.8	92 40	1.3	90 40	1.1	
F02	No	Each year the Earth moves once around which of the following?	67	1.6	69	2.2	64	2.0	
F03 G07	No No	Shown diagrams of rocks before and after being rubbed against hard steel, circle hardest rock. Shown several diagrams of a tree and its shadow, which shows the shadow at noon?	61 78	1.6 1.4	62 81	2.1 1.6	61 74	2.2	
G08 H03	No No	Which of the following pictures best shows how an iceberg floats in sea water? Shown diagram with river, draw an arrow showing direction of water flow.	27 44	1.5 1.9	27 52	1.9	27 38	2.1	
N01	Yes	Given temperatures and precipitation (table) in four towns, where could it have snowed?	44	2.9	46	3.7	42	3.9	
004 009	Yes Yes	The Moon produces no light, and yet it shines at night. Why is this? Why do mountains sometimes still have snow on their tops when the snow on lower parts has melted?	56 42	2.7	55 47	3.8	56 38	3.5 3.4	
Y01	Yes	Why do the sun and Moon appear the same size when you look at them from Earth?	20	1.7	27	2.6	14	1.8	
Z01A Z01B	Yes Yes	Shown diagram of river flowing through wide plain, write one reason this is a good place for farming Shown diagram of river flowing through wide plain, write one reason this is a bad place for farming	37 18	2.0 1.8	38 21	2.6 2.7	16	2.8 1.8	

COUNTRY ID=Czech Republic SCALE=Environment and other content

			Overall		Boys		Gi	rls	
ITEM	REL	LABEL	%	(se)	%	(se)	왕	(se)	
A07	No	Which plant is not usually grown for food?	86	0.8	84	1.2	87	1.0	
C07	No	Which of the following is an example of the use of a renewable source?	40	1.8	40	2.1	39	2.5	
E08	No	What happens to plants and fish when a factory pours large amounts of hot water into a river?	66	1.9	64	2.6	68	2.2	
006	Yes	Write down one example of how computers help people do their work.	55	2.7	51	3.5	59	3.7	
P06	Yes	To find out whether seeds grow better in light or dark, where would you put seeds?	26	2.9	23	3.5	29	4.0	
Q07	Yes	Which of the following statements is not an observation?	38	2.7	41	4.0	36	3.6	
R02	Yes	Which statement gives the best start toward finding which of three light bulbs is brightest?	35	2.8	35	3.8	35	3.9	
W05A	Yes	Write down two different things that people can do to help reduce air pollution. 1st reason.	33	1.8	35	2.6	30	2.4	
W05B	Yes	Write down two different things that people can do to help reduce air pollution. 2nd reason.	19	1.5	21	2.1	18	2.2	
X03	Yes	Write as completely as possible why large oil spills in rivers and seas are harmful to the environment.	12	1.4	12	1.9	13	1.8	

COUNTRY ID=Czech Republic SCALE=Life Science

Third Grade

			Ove	Overall		Boys		rls
ITEM	REL	LABEL		(se)	8	(se)	8	(se)
A09 B03 B04 C06 C08 D02 D03 E07 F01 G05 G06 H02	NO N	What happens if the body takes in more food than it uses? If you throw each one of these things away, which will decay fastest? Where do humans interpret senses? Which animal eats only plants? What gas in the air do we need in order to live? Shown diagram of mouth, which teeth are used for grinding food? Which of the following animals does not lay eggs? What changes would you expect in pulse and breathing after running a 50 metre race? Which of the following plants is grown for food? Where does air go when a person breathes in? Shown diagram of plant, which part takes in the most water? How can washing your hands help keep you from getting sick?		1.2 1.3 1.7 0.6 1.3 1.5 1.4 1.8 0.9 0.8	 68 79 49 96 83 59 81 53 91 92 90 81	1.3 1.6 2.0 1.0 1.5 1.9 1.9 2.1 1.4 1.1	69 71 42 95 78 63 79 46 90 91 92	1.5 1.9 2.3 0.8 1.9 2.4 1.8 2.5 1.1
H02 H04 N02 N03 N05 N06 O02 O03 O07 P01 P02 P08	No Yes Yes Yes Yes Yes Yes Yes Yes	Which of the following will most likely affect your adult height? Which of the following refers only to living things? Which of the following Celsius measures is closest to your temperature when you are not sick? Shown drawing of a bird's webbed foot, where would you be most likely to find such a bird? Where does a baby chick get its food while inside an egg? Why did seeds placed on most cotton sprout, but not those covered with water?	79 48 71 51 23 40 61 85 90 87 63 65	1.6 2.3 2.6 2.8 2.2 3.0	48 77 51 75 22 41 60 83 90 90 66 70	2.0 3.0 4.0 3.6 3.3 4.2 4.1 3.0 2.1 2.2 3.4	47 65 51 66 24 40 62 87 91 84 60	1.7 2.3 3.7 3.8 3.8 2.9 3.5 3.3 2.7 2.3 3.9
Q01 Q02 Q05 Q06 R03 R04 R06 R07 W02 W03 W04 X02 X04 X05 Y02A	Yes	Shown pictures of the stages in a butterfly's development, in which order did they take place? What is the best reason for including fruits and leafy vegetables in a healthy diet? When an animal breathes faster and its heart beats faster, the animal is most likely Which of the following pictures does not show an insect? What will likely happen when an insect carries pollen from the flowers of a tree to those of a small plant? What is the most important reason for people to use a sunscreen when they are outside in sunlight? Which of the following groups contains only animals with a backbone? Select environment a worm would prefer in terms of light and moisture. Write down one thing your heart does that helps the other parts of your body. Write down the reason why we get thirsty on a hot day and have to drink a lot. The human brain is inside the skull. Write down one advantage of the skull being thick and strong. Write down one reason why animals could not live in a world without plants. Shown pictures of stages in a frog's growth, indicate order of the stages. Identify characteristics of fish with respect to backbone and environment. Write down two changes that occur in children's bodies as they become adults. 1st answer	65 75 74 30 73 79 47 52 31 23 39 60 73 55	2.9 2.1 2.3 3.0 2.1 1.9 2.5 2.9 2.0 1.5 1.9 2.0 1.8	62 77 73 33 68 78 50 57 33 26 45 56 72 56 45	3.9 2.6 3.7 4.0 3.6 3.4 4.3 2.2 3.0 2.9 2.7 2.6	68 73 74 28 77 79 44 47 28 21 34 63 74 55 43	3.7 3.4 3.0 3.5 2.7 3.0 3.8 3.9 2.5 2.1 2.5 2.4 2.5 2.5
Y02B Y03A Y03B Z02	Yes Yes	Write down two changes that occur in children's bodies as they become adults. 2nd answer Besides escaping, what are two ways animals protect themselves? 1st answer Besides escaping, what are two ways animals protect themselves? 2nd answer Identify skin and skeletal features of various animals	20 46 29 53	1.6 1.9 1.8 2.1	20 47 30 52	2.3 2.7 2.7 2.7	20 45 28 53	2.1 2.7 2.4 3.0

1.6

21

COUNTRY ID=Czech Republic SCALE=Physical Science

Third Grade Overall Girls Boys ITEM % (se) % (se) % (se) A06 Shown three objects floating in water, which weighs the most? B01 No A strong magnet will separate which of the following mixtures? 64 1.2 68 1.7 61 1 9 Same brick is put on a scale in three different ways. What will the scale show? C05 70 1.6 70 2.2 70 1.9 D01 No Why are kettles and kitchen pans often made of copper? 49 1.8 49 2.6 65 1.7 70 2.0 48 2.2 E05 When you make soap bubbles, what is inside the bubbles? 61 No 2.3 F04 Which of the following sets of time measurements is in order from shortest to longest? 77 1.3 77 1.9 77 1.6 GN9 No Which of the following pairs could together cause a rainbow? 89 1.1 87 1.3 90 1.5 H01 What happens to water when it boils? 74 1.7 76 2.4 Yes Shown picture of block of wood floating in fresh water, select picture of block in salt water. 33 2.5 34 3.9 N04 3.3 52 3.0 52 4.1 N07 Yes Where does Keisha get the energy to push her bicycle uphill? 3.8 N08 What is a powder made up of both white specks and black specks is likely to be? (mixture) 46 2.9 47 4.2 3.9 54 2.5 55 4.4 NO9 Yes Shown diagrams of various boxes on scales, which has the least mass? 52 3.7 001 Yes Which picture shows the best way for 50 kg child to balance 25 kg child on seesaw? 49 2.9 56 4.1 3.7 51 2.6 53 3.5 46 2.9 54 3.9 005 Yes Shown diagram of a beam of light striking a mirror, which diagram shows reflected beam? 49 3.7 008 Yes Which of the following is the easiest way to separate a mixture of iron filings and sand? 39 3 5 Yes Which of the following is not used as an energy source? 24 2.0 24 3.1 P03 3.2 Yes Compare mass of beaker of water and a weight with mass of beaker of water with weight inside. P04 36 2.5 38 3.5 3.2 P05 Shown pictures of magnets after being dipped into substance below it, which substance could be coffee? 42 2.7 49 3.8 38 2.5 52 23 P07 Yes Which of the following travels fastest? (light) 3 7 3 2 003 Yes Which item is most likely to stay the same after being buried in wet ground for several years? 47 2.9 47 3.9 3.6 004 Yes When a glass jar is placed over a lighted candle, the flame goes out. Why does this happen? 80 1.7 86 2.3 44 2.8 46 3.5 75 3.0 008 Yes Shown picture of pencil lying in front of mirror, draw reflection of the pencil. 4.2 009 Yes Why does the liquid in a thermometer rise when exposed to heat? 42 2.7 41 3.9 Yes A watering can is almost filled with water. Draw line to show surface of the water when can is tipped. 22 2.5 31 4.2 13 R01 2.7 R05 Yes Shown picture of children playing with string telephone, one string tight and one slack, who can hear? 43 2.3 3.8 3.3 3.3 R08 Yes Which of the following makes its own light? 62 2.7 69 4.0 55 3 4 Yes Which of the following is an advantage of solar energy? 40 2.5 44 3.7 37 RN9 4.0 2.3 41 2.9 1.8 24 2.5 W01 Shown pictures of sugar cubes and loose sugar, which will dissolve faster? Why? 36 30 3.0 Yes Shown pictures of bowls of soup, one covered and one uncovered, which will stay hot longer? Why? 22 $x \cap 1$ 2.4

Yes Shown diagram of blocks being compared on balances, which weighs the most? Why?

REL: Release Status (Yes= Item in Released Item Set)

Z03

COUNTRY ID=Greece SCALE=Earth Science

			Ove	rall	Boys		Gi	rls
ITEM	REL	LABEL	%	(se)	용	(se)	용	(se)
A08	No	What covers most of the Earth's surface?	49	1.9	52	2.3	45	2.1
A10	No	The fossils of dinosaurs can be found where?	61	1.4	64	1.9	59	1.7
B02	No	Shown diagram, where is the saltiest water found?	55	1.8	57	2.3	54	2.5
C09	No	Where are large amounts of metals like iron and aluminum found?	34	1.7	39	2.4	30	2.2
D04	No	Shown diagram of Earth, which layer is the hottest?	61	2.0	63	2.2	59	2.9
E06	No	Which of the following is hottest? (astronomical bodies)	96	0.6	96	0.8	97	0.8
E09	No	Given several recent floods, when will it flood next?	27	1.8	24	2.3	31	2.6
F02	No	Each year the Earth moves once around which of the following?	75	2.5	80	2.8	70	2.9
F03	No	Shown diagrams of rocks before and after being rubbed against hard steel, circle hardest rock.	54	2.5	54	3.4	54	2.7
G07	No	Shown several diagrams of a tree and its shadow, which shows the shadow at noon?	48	2.3	54	3.1	43	2.8
G08	No	Which of the following pictures best shows how an iceberg floats in sea water?	25	1.6	22	2.5	27	1.8
н03	No	Shown diagram with river, draw an arrow showing direction of water flow.	31	2.1	33	3.0	28	2.5
N01	Yes	Given temperatures and precipitation (table) in four towns, where could it have snowed?	17	2.0	19	3.0	14	2.6
004	Yes	The Moon produces no light, and yet it shines at night. Why is this?	65	4.0	66	6.8	65	3.8
009	Yes	Why do mountains sometimes still have snow on their tops when the snow on lower parts has melted?	18	2.4	19	3.6	17	3.2
Y01	Yes	Why do the sun and Moon appear the same size when you look at them from Earth?	9	1.5	10	2.0	8	1.9
Z01A	Yes	Shown diagram of river flowing through wide plain, write one reason this is a good place for farming	40	2.7	38	3.4	42	3.5
Z01B	Yes	Shown diagram of river flowing through wide plain, write one reason this is a bad place for farming	8	1.3	8	1.5	8	1.7

COUNTRY ID=Greece SCALE=Environment and other content

			Ove	rall	Boys		Gi	rls
ITEM	REL	LABEL	%	(se)	%	(se)	8	(se)
A07	No	Which plant is not usually grown for food?	75	1.2	73	1.6	76	1.4
C07	No	Which of the following is an example of the use of a renewable source?	38	1.6	37	2.6	38	2.3
E08	No	What happens to plants and fish when a factory pours large amounts of hot water into a river?	58	2.4	59	3.3	58	2.8
006	Yes	Write down one example of how computers help people do their work.	29	5.3	37	8.6	21	4.4
P06	Yes	To find out whether seeds grow better in light or dark, where would you put seeds?	21	2.2	21	3.5	21	3.0
Q07	Yes	Which of the following statements is not an observation?	27	3.0	22	3.8	34	4.4
R02	Yes	Which statement gives the best start toward finding which of three light bulbs is brightest?	24	2.3	24	3.8	23	3.0
W05A	Yes	Write down two different things that people can do to help reduce air pollution. 1st reason.	17	1.8	19	2.9	14	2.2
W05B	Yes	Write down two different things that people can do to help reduce air pollution. 2nd reason.	14	1.6	16	2.4	11	1.8
X03	Yes	Write as completely as possible why large oil spills in rivers and seas are harmful to the environment.	14	1.7	15	2.6	14	1.9

COUNTRY ID=Greece SCALE=Life Science

			Third Grade						
			Ove	rall	Во	ys	Gi	rls	
ITEM		LABEL		(se)	8	(se)	8	(se)	
A09	No	What happens if the body takes in more food than it uses?	55	1.6		1.9	54	1.9	
B03	No	If you throw each one of these things away, which will decay fastest?	71		70			2.1	
B04	No	Where do humans interpret senses?	29	1.6	31	2.2		2.2	
C06	No	Which animal eats only plants?	91	1.1		1.3		1.7	
C08	No	What gas in the air do we need in order to live?	82	1.3	84	1.8	81	2.2	
D02	No	Shown diagram of mouth, which teeth are used for grinding food?	58	1.9	62	2.4	54	2.8	
D03	No	Which of the following animals does not lay eggs?	84	1.5	85	1.9	83	2.0	
E07	No	What changes would you expect in pulse and breathing after running a 50 metre race?	35	2.3	35	2.7	35	2.9	
F01	No	Which of the following plants is grown for food?	88	1.1	90	1.6	87		
G05	No	Where does air go when a person breathes in?	75	1.8	74	2.4	76	2.3	
G06	No	Shown diagram of plant, which part takes in the most water?	86	1.4	84	1.9	87		
H02	No	How can washing your hands help keep you from getting sick?	83	1.4	82	2.0		1.8	
H04 N02	No	Which of the following will most likely affect your adult height? Which of the following refers only to living things?	52 46	2.2	52 53	3.4	51 37	2.2	
N02 N03	Yes Yes		39	3.0	45	4.6	31	3.5	
N05	Yes	Which of the following Celsius measures is closest to your temperature when you are not sick? Shown drawing of a bird's webbed foot, where would you be most likely to find such a bird?		2.8	45 76	3.7	66	3.8	
N05	Yes	Shown drawing of a bird s webbed root, where would you be most likely to find such a bird? Where does a baby chick get its food while inside an egg?	38	3.0	44	4.4	31	3.9	
002	Yes	Why did seeds placed on most cotton sprout, but not those covered with water?	24	3.8	24	5.9	24	4.0	
003	Yes	Shown pictures of the stages of a plants growth, in which order did they occur?	48	4.6	55	6.9	40	4.5	
007	Yes	which of the following animal produces milk for its young?	61		65	5.8	56	4.8	
P01	Yes	When this caterpillar becomes an adult, which of the following pictures will it look like?	52		54	4.4	49	4.2	
P02	Yes	which of the following pictures shows plants commonly found in a desert?	77		78	4.4	76	3.9	
P08	Yes	Birds are different from insects in that birds have	45	2.9	44	4.6	46	4.2	
P09	Yes	Conde develop from which more of a plant?	20	3.0	29	4.3	27	3.9	
001	Yes	Shown pictures of the stages in a butterfly's development, in which order did they take place?	38	2.9	33	4.1	44	4.7	
Q02	Yes	What is the best reason for including fruits and leafy vegetables in a healthy diet?	41		42	3.4	41	4.6	
Õ05	Yes	Shown pictures of the stages in a butterfly's development, in which order did they take place? What is the best reason for including fruits and leafy vegetables in a healthy diet? When an animal breathes faster and its heart beats faster, the animal is most likely	66	2.9	65	3.9	67	3.3	
Q06	Yes	Which of the following pictures does not show an insect?	28	2.6	28	3.8	27	3.9	
R03	Yes	What will likely happen when an insect carries pollen from the flowers of a tree to those of a small plant?	45	3.4	41	4.1	50	4.8	
R04	Yes	What is the most important reason for people to use a sunscreen when they are outside in sunlight?	63	2.8	60	4.2	67	3.8	
R06	Yes	Which of the following groups contains only animals with a backbone?	52	3.3	51	4.1	54	4.6	
R07	Yes	Select environment a worm would prefer in terms of light and moisture.	17	2.2	16	2.7	20	3.4	
W02	Yes	Write down one thing your heart does that helps the other parts of your body.	16	1.6	19	2.4	13	2.2	
W03	Yes	Write down the reason why we get thirsty on a hot day and have to drink a lot.	15	1.5	16	2.2	15	2.1	
W04	Yes	The human brain is inside the skull. Write down one advantage of the skull being thick and strong.	33	2.2	40	3.0	26	2.9	
X02	Yes	Write down one reason why animals could not live in a world without plants.	4'/		48	4.4	46	3.5	
X04	Yes	Shown pictures of stages in a frog's growth, indicate order of the stages.	68	2.6	72	3.4	63	3.1	
X05	Yes	Identify characteristics of fish with respect to backbone and environment.	48		50		45	3.3	
Y02A	Yes	Write down two changes that occur in children's bodies as they become adults. 1st answer	52		52	4.3	52	3.1	
Y02B	Yes	Write down two changes that occur in children's bodies as they become adults. 2nd answer	23		21		25	2.6	
Y03A	Yes	Besides escaping, what are two ways animals protect themselves? 1st answer	38	2.7	42	4.1		2.9	
Y03B	Yes	Besides escaping, what are two ways animals protect themselves? 2nd answer	21	1.8	19		23	2.8	
Z02	Yes	Identify skin and skeletal features of various animals	48	2.5	45	3.3	51	3.1	

21 2.0

23

2.8

COUNTRY ID=Greece SCALE=Physical Science

Overall Girls Boys ITEM % (se) % (se) % (se) A06 Shown three objects floating in water, which weighs the most? B01 No A strong magnet will separate which of the following mixtures? 63 1.9 69 2.1 56 2 4 Same brick is put on a scale in three different ways. What will the scale show? C05 53 1.6 51 2.3 48 2.1 50 2.8 35 2.0 36 2.8 D01 No Why are kettles and kitchen pans often made of copper? 46 2.5 When you make soap bubbles, what is inside the bubbles? E05 No 34 2.7 F04 Which of the following sets of time measurements is in order from shortest to longest? 57 2.5 61 3.2 2.8 69 1.7 70 2.1 84 2.0 83 2.8 70 2.1 GN9 Nο Which of the following pairs could together cause a rainbow? 2.5 H01 What happens to water when it boils? Yes Shown picture of block of wood floating in fresh water, select picture of block in salt water. N04 28 2.9 30 4.4 4.0 31 3.2 29 4.1 N07 Yes Where does Keisha get the energy to push her bicycle uphill? 32 4.5 N08 What is a powder made up of both white specks and black specks is likely to be? (mixture) 39 3.1 38 4.4 4.4 36 3.4 43 4.1 NO9 Yes Shown diagrams of various boxes on scales, which has the least mass? 29 4 3 001 Yes Which picture shows the best way for 50 kg child to balance 25 kg child on seesaw? 22 4.8 24 8.4 19 4.0 005 Yes Shown diagram of a beam of light striking a mirror, which diagram shows reflected beam? 41 4.3 42 7.0 41 4.3 7.1 008 Yes Which of the following is the easiest way to separate a mixture of iron filings and sand? 41 4.4 49 33 3.9 Yes Which of the following is not used as an energy source? 31 2.7 31 3.4 P03 4.2 24 2.6 25 3.0 Yes Compare mass of beaker of water and a weight with mass of beaker of water with weight inside. P04 23 3.6 P05 Shown pictures of magnets after being dipped into substance below it, which substance could be coffee? 21 2.7 3.7 3.5 21 2.6 25 3.9 17 P07 Yes Which of the following travels fastest? (light) 3 5 003 Yes Which item is most likely to stay the same after being buried in wet ground for several years? 46 2.9 49 3.9 4.9 20 2.2 21 3.3 18 2.6 19 3.8 004 When a glass jar is placed over a lighted candle, the flame goes out. Why does this happen? 19 3.0 008 Yes Shown picture of pencil lying in front of mirror, draw reflection of the pencil. 3.2 009 Yes Why does the liquid in a thermometer rise when exposed to heat? 40 2.8 41 3.6 16 2.4 18 3.5 14 43 2.9 46 3.9 39 Yes A watering can is almost filled with water. Draw line to show surface of the water when can is tipped. R01 3.0 R05 Yes Shown picture of children playing with string telephone, one string tight and one slack, who can hear? 4.4 R08 Yes Which of the following makes its own light? 41 3.1 42 4.4 40 3 4 R09 Yes Which of the following is an advantage of solar energy? 26 2.5 21 3.3 32 3.8 W01 Shown pictures of sugar cubes and loose sugar, which will dissolve faster? Why? 14 1.7 14 2.2 30 5.1 14 2.2 Yes Shown pictures of bowls of soup, one covered and one uncovered, which will stay hot longer? Why? 26 3.1 $x \cap 1$ 2.6

Yes Shown diagram of blocks being compared on balances, which weighs the most? Why?

REL: Release Status (Yes= Item in Released Item Set)

Z03

4 0.9

4 0.6

COUNTRY ID=Hong Kong SCALE=Earth Science

Z01B

Boys Overall Girls ITEM REL LABEL % (se) % (se) % (se) A08 No What covers most of the Earth's surface? 57 1.7 64 1.6 A10 No The fossils of dinosaurs can be found where? 86 0.7 88 0.9 83 1 0 B02 No Shown diagram, where is the saltiest water found? 67 1.6 72 1.9 C09 No Where are large amounts of metals like iron and aluminum found? 66 1.8 66 2.2 70 1.5 73 1.7 66 2.5 D04 Shown diagram of Earth, which layer is the hottest? 66 No 2.4 E06 Which of the following is hottest? (astronomical bodies) 75 1.4 80 1.8 E09 Given several recent floods, when will it flood next? 34 1.3 33 1.7 36 1.6 F02 Each year the Earth moves once around which of the following? 67 1.3 Shown diagrams of rocks before and after being rubbed against hard steel, circle hardest rock. 57 1.8 56 2.5 F03 2.1 Shown several diagrams of a tree and its shadow, which shows the shadow at noon? 86 0.9 89 1.0 G07 G08 Which of the following pictures best shows how an iceberg floats in sea water? 16 1.3 16 1.8 2.0 29 1.6 33 2.0 H03 No Shown diagram with river, draw an arrow showing direction of water flow. 24 2.5 N01 Yes Given temperatures and precipitation (table) in four towns, where could it have snowed? 49 2.6 51 3.0 3.9 85 1.5 86 1.8 27 2.4 29 2.9 004 Yes The Moon produces no light, and yet it shines at night. Why is this? 8.3 2.6 009 Why do mountains sometimes still have snow on their tops when the snow on lower parts has melted? 5.0 Yes Why do the sun and Moon appear the same size when you look at them from Earth? 21 1.7 25 2.0 17 Y01 2.9 Yes Shown diagram of river flowing through wide plain, write one reason this is a good place for farming Z01A 45 2.3 44 2.7 45 3.1

Yes Shown diagram of river flowing through wide plain, write one reason this is a bad place for farming

COUNTRY ID=Hong Kong SCALE=Environment and other content

Third Grade

			Ove	rall	Boys		Girl	
ITEM	REL	LABEL	%	(se)	%	(se)	%	(se)
A07	No	Which plant is not usually grown for food?	72	0.9	72	1.2	72	1.2
C07	No	Which of the following is an example of the use of a renewable source?	34	1.2	37	1.8	31	1.7
E08	No	What happens to plants and fish when a factory pours large amounts of hot water into a river?	63	1.9	64	2.3	62	2.4
006	Yes	Write down one example of how computers help people do their work.	48	2.7	46	3.3	50	4.3
P06	Yes	To find out whether seeds grow better in light or dark, where would you put seeds?	25	1.8	27	2.3	24	3.3
Q07	Yes	Which of the following statements is not an observation?	35	2.6	34	3.8	36	4.3
R02	Yes	Which statement gives the best start toward finding which of three light bulbs is brightest?	47	2.6	45	4.5	50	3.7
W05A	Yes	Write down two different things that people can do to help reduce air pollution. 1st reason.	24	1.4	26	1.9	21	2.3
W05B	Yes	Write down two different things that people can do to help reduce air pollution. 2nd reason.	17	1.2	20	1.6	15	1.8
X03	Yes	Write as completely as possible why large oil spills in rivers and seas are harmful to the environment.	3	0.5	3	0.7	4	0.8

COUNTRY ID=Hong Kong SCALE=Life Science

Third	Grade

			Ove	Overall		Boys		rls
ITEM	REL	LABEL		(se)	8	(se)	8	(se)
A09 B03 B04 C06 C08	No No No No No	What happens if the body takes in more food than it uses? If you throw each one of these things away, which will decay fastest? Where do humans interpret senses? Which animal eats only plants? What gas in the air do we need in order to live?	56 53 76 93 49	0.8 1.5 1.3 1.0	57 56 77 93 52	1.0 1.7 1.4 1.5 2.2	57 49 75 93 44	1.4 1.9 2.0 1.2 2.0
D02 D03 E07 F01 G05 G06	No No No No No	Shown diagram of mouth, which teeth are used for grinding food? Which of the following animals does not lay eggs? What changes would you expect in pulse and breathing after running a 50 metre race? Which of the following plants is grown for food? Where does air go when a person breathes in? Shown diagram of plant, which part takes in the most water?	71 83 55 94 60 76 93	1.5 1.3 1.6 0.6 2.1 1.3 0.8	68 84 57 94 62 77 92	2.0 1.4 1.9 0.9 2.2 1.9	76 82 52 94 57 75	1.9 1.7 2.1 0.9 3.4 1.8
H02 H04 N02 N03 N05 N06	Yes Yes Yes Yes	How can washing your hands help keep you from getting sick? Which of the following will most likely affect your adult height? Which of the following refers only to living things? Which of the following Celsius measures is closest to your temperature when you are not sick? Shown drawing of a bird's webbed foot, where would you be most likely to find such a bird? Where does a baby chick get its food while inside an egg? Why did seeds placed on most cotton sprout, but not those covered with water?	34 73 48 55 29 27	1.2 1.9 3.1 2.6 2.4 3.1	36 75 54 57 33 28	0.9 1.7 2.7 4.9 3.8 3.7 2.9	31 71 41 52 23 26	1.0 2.3 3.1 3.7 3.1 3.1
003 007 P01 P02 P08 P09	Yes Yes Yes Yes	Which of the following animal produces milk for its young? When this caterpillar becomes an adult, which of the following pictures will it look like? Which of the following pictures shows plants commonly found in a desert? Birds are different from insects in that birds have Seeds develop from which part of a plant?	83 68 92 96 23	1.7 2.5 1.4 0.9 2.3 2.4	85 72 93 98 27 53	2.1 2.8 2.0 0.8 2.9 2.7	80 64 92 95 18 39	2.8 4.2 2.1 1.7 2.9 3.8
Q01 Q02 Q05 Q06 R03 R04	Yes Yes Yes Yes Yes	Shown pictures of the stages in a butterfly's development, in which order did they take place? What is the best reason for including fruits and leafy vegetables in a healthy diet? When an animal breathes faster and its heart beats faster, the animal is most likely Which of the following pictures does not show an insect? What will likely happen when an insect carries pollen from the flowers of a tree to those of a small plant? What is the most important reason for people to use a sunscreen when they are outside in sunlight?	68 75 81 52 41 76	2.3 2.6 2.2	74 75 79 50 41 76	2.9 3.0 2.9 2.9 3.7 3.1	61 75 85 54 40 76	3.9 3.5 2.6 3.9 3.6 2.9
R06 R07 W02 W03 W04 X02	Yes Yes Yes Yes	The human brain is inside the skull. Write down one advantage of the skull being thick and strong. Write down one reason why animals could not live in a world without plants.	24 46 6 23 53 55	1.9 2.3 0.9 1.7 2.5 2.3	24 47 6 23 53	2.4 2.6 0.9 2.2 3.4 3.2	25 45 7 23 54 58	3.5 4.2 1.5 2.3 2.7 3.2
X04 X05 Y02A Y02B Y03A Y03B Z02	Yes Yes Yes Yes	Shown pictures of stages in a frog's growth, indicate order of the stages. Identify characteristics of fish with respect to backbone and environment. Write down two changes that occur in children's bodies as they become adults. 1st answer Write down two changes that occur in children's bodies as they become adults. 2nd answer Besides escaping, what are two ways animals protect themselves? 1st answer Besides escaping, what are two ways animals protect themselves? 2nd answer Identify skin and skeletal features of various animals	93 55 54 27 35 26 91	1.9 2.0 1.7 1.9	93 55 52 27 36 28 92	1.0 2.1 2.3 2.2 2.3 2.2	93 54 56 27 34 23 90	1.4 2.8 3.5 2.8 3.0 2.4 1.6

42

2.8

COUNTRY ID=Hong Kong SCALE=Physical Science

Third Grade Overall Girls Boys ITEM % (se) % (se) % (se) A06 Shown three objects floating in water, which weighs the most? B01 No A strong magnet will separate which of the following mixtures? 65 1.4 66 1.9 63 1 8 Same brick is put on a scale in three different ways. What will the scale show? C05 68 1.7 67 2.2 D01 No Why are kettles and kitchen pans often made of copper? 58 1.9 58 2.2 53 1.6 53 2.0 57 2.7 E05 When you make soap bubbles, what is inside the bubbles? 52 No 2.0 F04 Which of the following sets of time measurements is in order from shortest to longest? 48 2.0 52 2.3 2.8 GN9 No Which of the following pairs could together cause a rainbow? 89 0.9 90 1.2 1.2 H01 What happens to water when it boils? 70 1.8 71 2.1 Yes Shown picture of block of wood floating in fresh water, select picture of block in salt water. 33 2.4 33 3.5 N04 3.6 52 3.3 51 4.5 N07 Yes Where does Keisha get the energy to push her bicycle uphill? 5.3 3.3 N08 What is a powder made up of both white specks and black specks is likely to be? (mixture) 38 2.7 42 33 4.6 3.1 75 2.2 77 2.3 NO9 Yes Shown diagrams of various boxes on scales, which has the least mass? 73 3 3 001 Yes Which picture shows the best way for 50 kg child to balance 25 kg child on seesaw? 31 2.3 32 2.6 31 4.1 61 2.2 62 3.1 005 Yes Shown diagram of a beam of light striking a mirror, which diagram shows reflected beam? 60 3.7 008 Yes Which of the following is the easiest way to separate a mixture of iron filings and sand? 32 4.2 Yes Which of the following is not used as an energy source? 21 2.0 23 3.1 P03 2.7 Yes Compare mass of beaker of water and a weight with mass of beaker of water with weight inside. 27 2.5 28 3.2 P04 3.5 P05 Shown pictures of magnets after being dipped into substance below it, which substance could be coffee? 47 2.5 45 50 4.2 28 2.0 37 3.4 P07 Yes Which of the following travels fastest? (light) 16 2 8 003 Yes Which item is most likely to stay the same after being buried in wet ground for several years? 38 1.9 36 2.6 39 3.4 004 Yes When a glass jar is placed over a lighted candle, the flame goes out. Why does this happen? 46 2.4 47 3.9 44 3.6 2.3 52 3.4 008 Yes Shown picture of pencil lying in front of mirror, draw reflection of the pencil. 51 3.6 009 Yes Why does the liquid in a thermometer rise when exposed to heat? 62 2.6 67 2.7 4.4 Yes A watering can is almost filled with water. Draw line to show surface of the water when can is tipped. 19 1.9 25 2.9 11 R01 1.8 R05 Yes Shown picture of children playing with string telephone, one string tight and one slack, who can hear? 60 3.2 59 3.8 R08 Yes Which of the following makes its own light? 39 3.5 43 4.9 35 3.3 R09 Yes Which of the following is an advantage of solar energy? 42 2.5 46 3.2 37 3.5 W01 Shown pictures of sugar cubes and loose sugar, which will dissolve faster? Why? 28 2.2 26 2.7 3.0 3.2 1.8 Yes Shown pictures of bowls of soup, one covered and one uncovered, which will stay hot longer? Why? 18 1.6 $x \cap 1$ 16 2.1

Yes Shown diagram of blocks being compared on balances, which weighs the most? Why?

REL: Release Status (Yes= Item in Released Item Set)

Z03

COUNTRY ID=Hungary SCALE=Earth Science

				-				
			Overall		Boys		Gi	rls
ITEM	REL	LABEL	%	(se)	용	(se)	왕	(se)
A08 A10 B02 C09 D04 E06 E09 F02 F03 G07 G08 H03	No N	What covers most of the Earth's surface? The fossils of dinosaurs can be found where? Shown diagram, where is the saltiest water found? Where are large amounts of metals like iron and aluminum found? Shown diagram of Earth, which layer is the hottest? Which of the following is hottest? (astronomical bodies) Given several recent floods, when will it flood next? Each year the Earth moves once around which of the following? Shown diagrams of rocks before and after being rubbed against hard steel, circle hardest rock. Shown several diagrams of a tree and its shadow, which shows the shadow at noon? Which of the following pictures best shows how an iceberg floats in sea water? Shown diagram with river, draw an arrow showing direction of water flow.	51 53 78 33 62 86 45 61 44 71 23	1.5 1.6 1.3 1.5 1.9 1.0 1.6 1.9 1.7 1.4	58 54 78 39 62 89 46 46 46 72 30	1.8 2.2 2.0 2.6 2.8 1.4 2.1 2.1 2.4 2.3 2.1	76 28 62 83 45 59 43 68 21	1.8 1.6 1.7 1.9 2.1 2.0 2.7 2.6 2.8 2.2 2.0
N01 004 009 Y01 Z01A Z01B	Yes Yes Yes Yes Yes	Given temperatures and precipitation (table) in four towns, where could it have snowed? The Moon produces no light, and yet it shines at night. Why is this? Why do mountains sometimes still have snow on their tops when the snow on lower parts has melted? Why do the sun and Moon appear the same size when you look at them from Earth? Shown diagram of river flowing through wide plain, write one reason this is a good place for farming Shown diagram of river flowing through wide plain, write one reason this is a bad place for farming	31 50 51 16 50 23	2.4 2.7 2.7 1.5 1.9	31 55 52 19 53 24	3.7 4.0 4.0 2.4 2.7 2.5	33 47 51 13 47 23	3.9 4.3 4.2 1.9 2.5 2.3

COUNTRY ID=Hungary SCALE=Environment and other content

Overall Boys Girls

			Ove	Overall		Boys		ris
ITEM	REL	LABEL	8	(se)	8	(se)	8	(se)
A07	No	Which plant is not usually grown for food?	84	1.0	84	1.1	85	1.3
C07	No	Which of the following is an example of the use of a renewable source?	24	1.4	28	2.1	21	1.9
E08	No	What happens to plants and fish when a factory pours large amounts of hot water into a river?	71	1.5	70	2.2	74	2.0
006	Yes	Write down one example of how computers help people do their work.	46	2.2	47	3.1	45	4.0
P06	Yes	To find out whether seeds grow better in light or dark, where would you put seeds?	21	2.0	23	2.9	18	2.9
Q07	Yes	Which of the following statements is not an observation?	34	2.7	33	3.8	36	3.7
R02	Yes	Which statement gives the best start toward finding which of three light bulbs is brightest?	29	2.4	26	3.5	31	3.2
W05A	Yes	Write down two different things that people can do to help reduce air pollution. 1st reason.	25	1.9	24	2.2	25	2.7
W05B		Write down two different things that people can do to help reduce air pollution. 2nd reason.	15	1.5	14	1.9	15	2.3
X03	Yes	Write as completely as possible why large oil spills in rivers and seas are harmful to the environment.	15	1.8	15	3.0	15	2.0

COUNTRY ID=Hungary SCALE=Life Science

Third Grade

			Ove	erall	.1 Boys		Gi	rls
ITEM		LABEL		(se)	용	(se)	%	(se)
ITEM A09 B03 B04 C06 C08 D02 D03 E07 F01 G05 G06 H02 H04 N02 N03 N05 N06 O02 O03	No Yes Yes Yes Yes Yes	What happens if the body takes in more food than it uses? If you throw each one of these things away, which will decay fastest? Where do humans interpret senses? Which animal eats only plants? What gas in the air do we need in order to live? Shown diagram of mouth, which teeth are used for grinding food? Which of the following animals does not lay eggs? What changes would you expect in pulse and breathing after running a 50 metre race? Which of the following plants is grown for food? Where does air go when a person breathes in? Shown diagram of plant, which part takes in the most water? How can washing your hands help keep you from getting sick? Which of the following will most likely affect your adult height? Which of the following Celsius measures is closest to your temperature when you are not sick? Shown drawing of a bird's webbed foot, where would you be most likely to find such a bird? Where does a baby chick get its food while inside an egg?		1.4 1.6 0.8 1.3 1.2 1.4 1.6 1.4 1.5 1.4 1.5 2.8 2.8 2.9 2.8		1.6 2.3 1.9	61 43 60 89 83 59	(se) 1.6 2.2 2.3 1.3 1.8 2.1 1.9 2.2 1.7 2.5 2.1 1.8 2.0 3.2 3.7 4.0 3.2 3.9 4.5 2.8
P01 P02 P08 P09 Q01 Q05 Q06 R03 R04 R06 R07 W02 W03 W04 X02 X04 X02 Y02B Y03B Y03B	Yes	When this caterpillar becomes an adult, which of the following pictures will it look like? Which of the following pictures shows plants commonly found in a desert? Birds are different from insects in that birds have Seeds develop from which part of a plant? Shown pictures of the stages in a butterfly's development, in which order did they take place? What is the best reason for including fruits and leafy vegetables in a healthy diet? When an animal breathes faster and its heart beats faster, the animal is most likely Which of the following pictures does not show an insect? What will likely happen when an insect carries pollen from the flowers of a tree to those of a small plant? Which of the following groups contains only animals with a backbone? Select environment a worm would prefer in terms of light and moisture. Write down one thing your heart does that helps the other parts of your body. Write down the reason why we get thirsty on a hot day and have to drink a lot. The human brain is inside the skull. Write down one advantage of the skull being thick and strong. Write down one reason why animals could not live in a world without plants. Shown pictures of stages in a frog's growth, indicate order of the stages. Identify characteristics of fish with respect to backbone and environment. Write down two changes that occur in children's bodies as they become adults. 1st answer Write down two changes that occur in children's bodies as they become adults. 2nd answer Besides escaping, what are two ways animals protect themselves? 1st answer	79 81 95 45 52 66 65 23 66 60 41 45 20 13 21 63 44 44 44 31 39 39 56	2.6 2.5 1.8 2.6 2.7 2.9 2.7 2.8 2.9 2.8 2.0 1.3 2.3 1.9 2.3	87 93 553 661 263 644 43 444 224 431 483 483 483 483 58	3.1 2.8 3.9 3.7 3.8 3.4 3.8 4.3 3.9 2.6 2.8 2.8 2.8 3.1	79 77 97 40 51 64 68 21 68 21 57 39 46 16 12 21 58 64 45	3.8 3.9 4.2 3.9 4.2 3.8 3.6 3.6 3.6 2.3 1.9 2.6 2.7 3.0 2.8

COUNTRY ID=Hungary SCALE=Physical Science

			Third Grade					
			Ove	erall	Во	ys	Gi	rls
ITEM	REL	LABEL	왕	(se)	왕	(se)	왕	(se)
A006 B001 C005 E005 F004 G009 H001 N007 N008 N009 O001 O005 O008 P003 P004 P005 P007 Q003 Q004 Q008 Q009 R001 R005 R008 R009 R001	No No No No No No No Yes	Shown three objects floating in water, which weighs the most? A strong magnet will separate which of the following mixtures? Same brick is put on a scale in three different ways. What will the scale show? When you make soap bubbles, what is inside the bubbles? Which of the following sets of time measurements is in order from shortest to longest? Which of the following pairs could together cause a rainbow? What happens to water when it boils? Shown picture of block of wood floating in fresh water, select picture of block in salt water. Where does Keisha get the energy to push her bicycle uphill? What is a powder made up of both white specks and black specks is likely to be? (mixture) Shown diagrams of various boxes on scales, which has the least mass? Which picture shows the best way for 50 kg child to balance 25 kg child on seesaw? Shown diagram of a beam of light striking a mirror, which diagram shows reflected beam? Which of the following is the easiest way to separate a mixture of iron fillings and sand? Which of the following is not used as an energy source? Compare mass of beaker of water and a weight with mass of beaker of water with weight inside. Shown pictures of magnets after being dipped into substance below it, which substance could be coffee? Which of the following travels fastest? (light) Which item is most likely to stay the same after being buried in wet ground for several years? When a glass jar is placed over a lighted candle, the flame goes out. Why does this happen? Shown picture of pencil lying in front of mirror, draw reflection of the pencil. Why does the liquid in a thermometer rise when exposed to heat? A watering can is almost filled with water. Draw line to show surface of the water when can is tipped. Shown picture of children playing with string telephone, one string tight and one slack, who can hear?	79 62 67 65 85 78 31 28 62 53 29 52 44 30 64 64 64 44	1.2 1.4 1.9 1.5 1.7 1.4 1.4 2.2 2.7 2.7 2.7 2.7 2.7 2.7 2.7 2.7 2.7	81 60 69 65 80 80 32 4 54 54 54 54 66 69 69 69 69 69 69 69 69 69 69 69 69	1.6 2.0 2.3 2.1 1.9 1.8 3.7 3.4 4.8 3.9 4.0 3.8 3.9 4.1 3.9 3.8 3.9 3.9 3.6 3.6 3.1 3.8 3.9	78 66 65 65 66 86 75 29 31 66 48 23	1.5 1.9 2.5 2.2 2.4 1.9 2.1 3.6 3.2 3.5 3.6 3.3 4.1 3.9 3.7
X01 Z03	Yes Yes	Which of the following is an advantage of solar energy? Shown pictures of sugar cubes and loose sugar, which will dissolve faster? Why? Shown pictures of bowls of soup, one covered and one uncovered, which will stay hot longer? Why? Shown diagram of blocks being compared on balances, which weighs the most? Why?	19 17	1.6 1.5	16 19	2.0	23 16	2.4

COUNTRY ID=Iceland SCALE=Earth Science

Third Grade

Overall Boys

			Overall		Boys		Girls	
ITEM	REL	LABEL	8	(se)	8	(se)	%	(se)
A08	No	What covers most of the Earth's surface?	55	1.8	58	2.3	53	2.0
A10	No	The fossils of dinosaurs can be found where?	66	1.6	71	1.9	60	2.4
B02	No	Shown diagram, where is the saltiest water found?	66	1.9	69	2.8	64	2.6
C09	No	Where are large amounts of metals like iron and aluminum found?	30	2.1	32	2.7	28	2.7
D04	No	Shown diagram of Earth, which layer is the hottest?	60	2.1	61	3.0	59	2.7
E06	No	Which of the following is hottest? (astronomical bodies)	89	1.1	91	1.9	88	1.7
E09	No	Given several recent floods, when will it flood next?	32	2.4	26	2.8	39	3.3
F02	No	Each year the Earth moves once around which of the following?	63	2.3	62	3.4	64	2.6
F03	No	Shown diagrams of rocks before and after being rubbed against hard steel, circle hardest rock.	45	2.4	45	3.2	44	3.1
G07	No	Shown several diagrams of a tree and its shadow, which shows the shadow at noon?	48	1.9	51	2.5	45	3.7
G08	No	Which of the following pictures best shows how an iceberg floats in sea water?	20	2.1	17	2.8	22	2.9
H03	No	Shown diagram with river, draw an arrow showing direction of water flow.	43	2.2	44	2.6	42	4.2
N01	Yes	Given temperatures and precipitation (table) in four towns, where could it have snowed?	25	3.2	29	6.0	21	4.5
004	Yes	The Moon produces no light, and yet it shines at night. Why is this?	63	3.7	63	4.9	63	6.5
009	Yes	Why do mountains sometimes still have snow on their tops when the snow on lower parts has melted?	28	2.9	34	4.0	22	3.8
Y01	Yes	Why do the sun and Moon appear the same size when you look at them from Earth?	21	2.3	26	3.5	15	2.7
Z01A	Yes	Shown diagram of river flowing through wide plain, write one reason this is a good place for farming	26	2.8	29	3.8		3.0
Z01B	Yes	Shown diagram of river flowing through wide plain, write one reason this is a bad place for farming	6	1.2	6	1.7	5	1.6

COUNTRY ID=Iceland SCALE=Environment and other content

Third Grade

Overall Boys Girls

			Overall		Boys		G1:	ris
ITEM	REL	LABEL	용	(se)	8	(se)	8	(se)
A07	No	Which plant is not usually grown for food?	73	1.4	73	1.9	74	1.9
C07	No	Which of the following is an example of the use of a renewable source?	30	1.9	31	2.8	30	3.5
E08	No	What happens to plants and fish when a factory pours large amounts of hot water into a river?	51	2.1	51	3.2	50	3.4
006	Yes	Write down one example of how computers help people do their work.	37	3.8	37	4.6	37	4.8
P06	Yes	To find out whether seeds grow better in light or dark, where would you put seeds?	30	2.7	27	4.2	33	4.7
Q07	Yes	Which of the following statements is not an observation?	19	2.5	23	4.4	15	3.3
R02	Yes	Which statement gives the best start toward finding which of three light bulbs is brightest?	26	3.5	24	4.3	28	4.9
W05A		Write down two different things that people can do to help reduce air pollution. 1st reason.	23	2.3	22	3.1	24	3.3
W05B		Write down two different things that people can do to help reduce air pollution. 2nd reason.	12	1.7	11	2.0	12	2.8
X03	Yes	Write as completely as possible why large oil spills in rivers and seas are harmful to the environment.	6	1.2	6	2.0	7	1.8

COUNTRY ID=Iceland SCALE=Life Science

Third	Grade	

			Ove	Overall		Boys		rls
ITEM		LABEL		(se)	용	(se)	용	(se)
A09	No	What happens if the body takes in more food than it uses?	48	1.6	49	1.9	48	2.3
B04	No	Where do humans interpret senses?	57	1.7	55	2.3	58	2.4
C06	No	Which animal eats only plants?	77	2.1	76	3.0	77	2.9
C08	No	What gas in the air do we need in order to live?	80	2.0	78	2.6	81	2.8
D02	No	Shown diagram of mouth, which teeth are used for grinding food?	59	2.2	59	2.7	60	3.2
D03	No	Which of the following animals does not lay eggs?	80	1.7	78	2.2	81	2.4
E07	No	What changes would you expect in pulse and breathing after running a 50 metre race?	46	2.0	48	2.4	44	3.4
F01	No	Which of the following plants is grown for food?	73	1.9	74	3.0	72	3.0
G05	No	Where does air go when a person breathes in?	71	2.5	75	2.7	67	3.9
G06	No	Shown diagram of plant, which part takes in the most water?	77	1.2	74	2.5	80	2.1
H02	No	How can washing your hands help keep you from getting sick?	68	2.0	68	2.4	68	3.1
H04	No	Which of the following will most likely affect your adult height?	48	2.5	43	3.5	54	3.0
N02	Yes	Which of the following refers only to living things?	55	2.9	57	3.8	53	4.9
N03	Yes	Which of the following Celsius measures is closest to your temperature when you are not sick?	38	2.9	45	4.2	33	4.2
N05	Yes		70	3.6	69	4.7	70	5.1
N06	Yes	Where does a baby chick get its food while inside an egg?	39	3.1	38	3.7	40	4.8
002	Yes	Why did seeds placed on most cotton sprout, but not those covered with water?	26	3.5	22	4.3	32	6.2
003	Yes	Shown pictures of the stages of a plants growth, in which order did they occur?	41	3.5	44	4.6	37	6.5
007	Yes	Which of the following animal produces milk for its young?	39	3.2	34	4.0	45	4.2
P01	Yes	When this caterpillar becomes an adult, which of the following pictures will it look like?	65	3.9	63	5.3	67	5.3
P02		Which of the following pictures shows plants commonly found in a desert?	83	2.4	87	3.0	79	4.9
P08		Birds are different from insects in that birds have	43	4.0	36	5.0	49	6.0
P09	Yes	Seeds develop from which part of a plant?	28	4.7	32	4.7	24	5.8
001	Yes	Shown pictures of the stages in a butterfly's development, in which order did they take place?	30	3.4	30	5.4	30	4.7
Q02	Yes	What is the best reason for including fruits and leafy vegetables in a healthy diet?	56	4.2	62	5.7	50	6.6
005		When an animal breathes faster and its heart beats faster, the animal is most likely	56	4.5	51	6.3	61	5.7
Õ06		Which of the following pictures does not show an insect?	19	2.8	23	4.2	15	3.7
R03		What will likely happen when an insect carries pollen from the flowers of a tree to those of a small plant?	46	4.3	49	5.7	42	5.1
R04		What is the most important reason for people to use a sunscreen when they are outside in sunlight?	55	3.3	58	4.8	53	5.1
R06		Which of the following groups contains only animals with a backbone?	26	3.3	31	4.4	22	4.3
R07		Select environment a worm would prefer in terms of light and moisture.	35	3.4	41	5.7	29	4.3
W02		Write down one thing your heart does that helps the other parts of your body.	21		21	3.9	20	3.7
W03	Vac	Write down the reason why we get thirsty on a hot day and have to drink a lot	7	1.2	9	2.0	5	1.6
W04	Yes	The human brain is inside the skull. Write down one advantage of the skull being thick and strong.	24	2.4	25	3.5	24	3.1
X02	Yes	Write down one reason why animals could not live in a world without plants.	44	2.8	42	4.1	46	3.6
X04	Yes		47		44	3.4	50	4.0
X05		Identify characteristics of fish with respect to backbone and environment.	35		37	4.8	33	3.7
Y02A		Write down two changes that occur in children's bodies as they become adults. 1st answer	43		44	4.3	42	4.2
Y02B		Write down two changes that occur in children's bodies as they become adults. 2nd answer	18	2.4	23	3.2	13	2.8
Y03A	Yes	Besides escaping, what are two ways animals protect themselves? 1st answer	33		37		30	3.4
Y03B		Besides escaping, what are two ways animals protect themselves? 2nd answer	17	1.9	19		15	2.7
Z02		Identify skin and skeletal features of various animals	22	2.4	26	3.5	18	3.1
202	100	Tubbelly British and British of Vallous animals	22		20	3.3	-0	5.1

COUNTRY ID=Iceland SCALE=Physical Science

			Third Grade					
			Ove	Overall		Boys		rls
ITEM		LABEL		(se)	%	(se)	%	(se)
A006 B011 C055 D011 E055 F044 G099 H011 N004 N007 N008 N009 O015 O008 P03 P04 P055 P077 Q003 Q004 Q008 Q009 R011 R005 R008 R009	Yes Yes Yes Yes Yes	Shown three objects floating in water, which weighs the most? A strong magnet will separate which of the following mixtures? Same brick is put on a scale in three different ways. What will the scale show? Why are kettles and kitchen pans often made of copper? When you make soap bubbles, what is inside the bubbles? Which of the following sets of time measurements is in order from shortest to longest? Which of the following pairs could together cause a rainbow? What happens to water when it boils? Shown picture of block of wood floating in fresh water, select picture of block in salt water. Where does Keisha get the energy to push her bicycle uphill? What is a powder made up of both white specks and black specks is likely to be? (mixture) Shown diagrams of various boxes on scales, which has the least mass? Which picture shows the best way for 50 kg child to balance 25 kg child on seesaw? Shown diagrams of a beam of light striking a mirror, which diagram shows reflected beam? Which of the following is the easiest way to separate a mixture of iron filings and sand? Which of the following is not used as an energy source? Compare mass of beaker of water and a weight with mass of beaker of water with weight inside. Shown pictures of magnets after being dipped into substance below it, which substance could be coffee? Which of the following travels fastest? (light) Which item is most likely to stay the same after being buried in wet ground for several years? When a glass jar is placed over a lighted candle, the flame goes out. Why does this happen? Shown picture of pencil lying in front of mirror, draw reflection of the pencil. Why does the liquid in a thermometer rise when exposed to heat? A watering can is almost filled with water. Draw line to show surface of the water when can is tipped. Shown picture of children playing with string telephone, one string tight and one slack, who can hear? Which of the following makes its own light?	76 60 48 59 48 78 60 28 59 38 50 28 29 18 24 26 32 38 32 32	1.4 2.3 2.7 2.0 2.3 2.1 1.7 2.2 3.9 4.1 3.6 4.0 3.8 3.8 3.8 3.8 3.8 3.8 3.8 3.8 3.9 4.1	77 44 56 52 51 76 64 31 53 30 59 50 228 33 24 27 34 34 34 47 46 34 41 28 43 41	1.9 3.4 2.15 3.9 2.8 3.6 4.4 5.4 6.2 5.1 5.2 5.1 6.9 4.4 6.2 3.6 6.4	76 55 55 61 46 46 79 65 28 25 48 28 24 12 21 17 29 52 13 30 32 29 52 32 32	1.7 2.9 3.6 3.4 3.0 3.1 2.3 4.8 4.1 5.2 5.0 6.5 9 4.5 5.6 4.6 6.3 4.9 4.6 6.3 4.9 4.9 4.6 6.6 4.9 4.9 4.9 4.9 4.9 4.9 4.9 4.9 4.9 4.9
W01 X01 Z03	Yes Yes Yes	Which of the following makes its own light? Which of the following is an advantage of solar energy? Shown pictures of sugar cubes and loose sugar, which will dissolve faster? Why? Shown pictures of bowls of soup, one covered and one uncovered, which will stay hot longer? Why? Shown diagram of blocks being compared on balances, which weighs the most? Why?	8 14	1.9	7 21	2.2		2.7

28 1.9 26 3.4 29 2.3

COUNTRY ID=Iran, Islamic Rep. SCALE=Earth Science

Z01A Z01B

Overall Boys Girls ITEM REL LABEL % (se) % (se) % (se) A08 No What covers most of the Earth's surface? 25 1.2 29 1.8 A10 No The fossils of dinosaurs can be found where? 23 1.3 25 1.8 22 1 8 B02 No Shown diagram, where is the saltiest water found? 30 1.5 35 2.4 33 2.2 38 3.0 47 2.2 45 2.9 C09 No Where are large amounts of metals like iron and aluminum found? 30 3.0 Shown diagram of Earth, which layer is the hottest? 49 D04 No 3.2 E06 Which of the following is hottest? (astronomical bodies) 72 1.8 70 2.4 2.3 E09 Given several recent floods, when will it flood next? 11 1.2 12 1.6 11 1.6 F02 Each year the Earth moves once around which of the following? 48 2.4 53 3.3 3.1 Shown diagrams of rocks before and after being rubbed against hard steel, circle hardest rock. 35 1.9 34 1.9 36 F03 3.1 47 1.8 52 3.2 Shown several diagrams of a tree and its shadow, which shows the shadow at noon? G07 2.5 G08 Which of the following pictures best shows how an iceberg floats in sea water? 23 1.5 24 2.6 1.8 1.0 1.4 H03 Shown diagram with river, draw an arrow showing direction of water flow. 6 6 1.6 N01 Yes Given temperatures and precipitation (table) in four towns, where could it have snowed? 21 2.8 24 3.6 18 4.1 43 3.5 47 3.9 41 20 2.9 28 3.9 14 004 Yes The Moon produces no light, and yet it shines at night. Why is this? 5.4 009 Why do mountains sometimes still have snow on their tops when the snow on lower parts has melted? 3.5 Yes Why do the sun and Moon appear the same size when you look at them from Earth? 9 2.1 8 1.4 9 3.6 Y01

Yes Shown diagram of river flowing through wide plain, write one reason this is a good place for farming

Yes Shown diagram of river flowing through wide plain, write one reason this is a bad place for farming

COUNTRY ID=Iran, Islamic Rep. SCALE=Environment and other content

			Ove	rall	Bo	ys	Gi	rls
ITEM	REL	LABEL	%	(se)	%	(se)	%	(se)
A07 C07 E08 O06 P06 Q07 R02 W05A	Yes Yes Yes	Which plant is not usually grown for food? Which of the following is an example of the use of a renewable source? What happens to plants and fish when a factory pours large amounts of hot water into a river? Write down one example of how computers help people do their work. To find out whether seeds grow better in light or dark, where would you put seeds? Which of the following statements is not an observation? Which statement gives the best start toward finding which of three light bulbs is brightest? Write down two different things that people can do to help reduce air pollution. 1st reason. Write down two different things that people can do to help reduce air pollution. 2nd reason.	66 23 24 16 18 19 19	1.4 1.5 1.2 2.2 2.6 2.5 2.3 1.8	64 25 26 15 22 16 20 9	2.2 2.3 2.1 3.2 3.6 2.8 3.2 1.7	17 15 22 18 11	1.6 1.7 1.6 3.5 3.7 3.8 3.4 3.2
X03	Yes	Write as completely as possible why large oil spills in rivers and seas are harmful to the environment.	3	0.8	3	1.1	3	1.3

COUNTRY ID=Iran, Islamic Rep. SCALE=Life Science

COUNTRY ID=Iran, Islamic Rep. SCALE=Physical Science

					Third	Grade		
			Ove	erall	Во	ys	Gi	rls
ITEM	REL	LABEL	8	(se)	8	(se)	8	(se)
A06	No	Shown three objects floating in water, which weighs the most?	64	1.7	65	2.2	62	2.4
B01	No	A strong magnet will separate which of the following mixtures?	57	1.6	58	2.0	55	2.5
C05	No	Same brick is put on a scale in three different ways. What will the scale show?	36	1.9	41	3.4	33	2.0
D01	No	Why are kettles and kitchen pans often made of copper?	29	1.8	30	2.0	27	3.1
E05	No	When you make soap bubbles, what is inside the bubbles?	36	2.1	37	2.9	35	3.0
F04	No	Which of the following sets of time measurements is in order from shortest to longest?	32	2.1	37	2.5	28	3.1
G09	No	Which of the following pairs could together cause a rainbow?	50	1.8	49	2.5	50	2.2
H01	No	What happens to water when it boils?	68	1.5	66	2.3		2.1
N04	Yes	Shown picture of block of wood floating in fresh water, select picture of block in salt water.	18	2.6	17	3.2	20	3.9
N07	Yes		27	2.9	26	3.6	28	5.1
N08	Yes	where does keisna get the energy to push her bloycle upnil!? What is a powder made up of both white specks and black specks is likely to be? (mixture) Shown diagrams of various boxes on scales, which has the least mass? Which picture shows the best way for 50 kg child to balance 25 kg child on seesaw? Shown diagram of a beam of light striking a mirror, which diagram shows reflected beam? Which of the following is the essist way to separate a mixture of iron filings and sand?	30	2.2	28	3.1	33	2.9
N09	Yes	Shown diagrams of various boxes on scales, which has the least mass?	27	2.0	25	3.0	28	3.0
001	Yes	Which picture shows the best way for 50 kg child to balance 25 kg child on seesaw?	19	2.5	22	3.7	16	2.9
005	Yes	Shown diagram of a beam of light striking a mirror, which diagram shows reflected beam?	36	2.6	30	3.5	40	3.8
800	Yes	Which of the following is the easiest way to separate a mixture of iron filings and sand?	47	3.4	49	4.2	45	5.5
P03	Yes	Which of the following is not used as an energy source?	30	4.1	27	4.5	32	6.7
P04	Yes	Compare mass of beaker of water and a weight with mass of beaker of water with weight inside.	20	2.8	20	2.6	19	4.4
P05	Yes	Shown pictures of magnets after being dipped into substance below it, which substance could be coffee?	27	2.5	31	3.6	24	3.6
P07	Yes	Which of the following travels fastest? (light)	43	3.4	47	3.6	39	5.7
Q03	Yes	Which item is most likely to stay the same after being buried in wet ground for several years?	32	2.7	32	3.7	32	4.0
Q04	Yes	When a glass jar is placed over a lighted candle, the flame goes out. Why does this happen? Shown picture of pencil lying in front of mirror, draw reflection of the pencil.	23	2.5	29	3.7	18	3.7
Q08	Yes	Shown picture of pencil lying in front of mirror, draw reflection of the pencil.	8	1.6	8	2.0	9	2.4
Q09	Yes	Why does the liquid in a thermometer rise when exposed to heat?	22	2.5	22	3.9	21	3.2
R01	Yes	A watering can is almost filled with water. Draw line to show surface of the water when can is tipped.	5	1.5	6	2.0	5	2.3
R05	Yes	Shown picture of children playing with string telephone, one string tight and one slack, who can hear?	27	2.7	24	4.2	29	3.6
R08	Yes	Which of the following makes its own light?	30	3.2	29	4.5	30	4.7
R09	Yes	Which of the following is an advantage of solar energy?	18	2.4	13	3.3	23	3.5
W01	Yes	Shown pictures of sugar cubes and loose sugar, which will dissolve faster? Why?	2	0.6	2	0.7	2	1.0
X01	Yes	Shown pictures of sugar cubes and loose sugar, which will dissolve faster? Why? Shown pictures of bowls of soup, one covered and one uncovered, which will stay hot longer? Why?	7	1.0	7	1.5	7	1.5
Z03	Yes	Shown diagram of blocks being compared on balances, which weighs the most? Why?	3	1.0	2	0.8	4	1.9

COUNTRY ID=Ireland SCALE=Earth Science

Third Grade

			Ove	rall	Boy	/S	Gi	rls
ITEM	REL	LABEL	%	(se)	%	(se)	%	(se)
A08 A10 B02 C09 D04 E06 E09 F02 F03 G07 G08 H03 N01	NO Yes Yes	What covers most of the Earth's surface? The fossils of dinosaurs can be found where? Shown diagram, where is the saltiest water found? Where are large amounts of metals like iron and aluminum found? Shown diagram of Earth, which layer is the hottest? Which of the following is hottest? (astronomical bodies) Given several recent floods, when will it flood next? Each year the Earth moves once around which of the following? Shown diagrams of rocks before and after being rubbed against hard steel, circle hardest rock. Shown several diagrams of a tree and its shadow, which shows the shadow at noon? Which of the following pictures best shows how an iceberg floats in sea water? Shown diagram with river, draw an arrow showing direction of water flow. Given temperatures and precipitation (table) in four towns, where could it have snowed? The Moon produces no light, and yet it shines at night. Why is this?	68 74 59 40 73 92 34 58 55 63 30 29 24	1.4 1.0 1.6 1.5 1.6 1.1 1.5 1.8 1.8 1.7 2.2 2.9	76	1.7 1.2 1.9 2.1 2.3 1.9 2.1 2.3 2.2 2.1 2.0 3.2 3.3	65 71 59 38 71 91 38 54 63 25 21	1.8 1.5 2.5 2.4 1.9 1.3 1.9 2.8 2.5 2.0 2.6 2.4 3.5
009 Y01 Z01A Z01B	Yes Yes Yes Yes	Why do mountains sometimes still have snow on their tops when the snow on lower parts has melted? Why do the sun and Moon appear the same size when you look at them from Earth? Shown diagram of river flowing through wide plain, write one reason this is a good place for farming Shown diagram of river flowing through wide plain, write one reason this is a bad place for farming	32 25 55 26	2.9 2.1 2.0 2.4	34 29 57 25	4.4 2.9 2.8 2.8	30 19 54 28	3.7 3.5 3.0 4.2

35

3.0

2.9

Third Grade

34 2.9

18 1.3 19 2.0 17 2.2

17 1.3 15 2.1 18 2.2

37 2.0 39 3.1

29 2.2

COUNTRY ID=Ireland SCALE=Environment and other content

R02

W05A

W05B

X03

Overall Boys Girls ITEM REL LABEL % (se) % (se) % (se) A07 No Which plant is not usually grown for food? 79 1.0 76 1.4 C07 No Which of the following is an example of the use of a renewable source? 40 1.9 39 2.4 41 2.8 No What happens to plants and fish when a factory pours large amounts of hot water into a river? E08 73 1.7 69 2.3 77 68 3.0 68 4.2 006 Yes Write down one example of how computers help people do their work. 68 3.7 Yes To find out whether seeds grow better in light or dark, where would you put seeds? 24 2.3 28 3.1 18 P06 3.2 007 Yes Which of the following statements is not an observation? 36 2.7 36 4.0 35 3.6

Yes Which statement gives the best start toward finding which of three light bulbs is brightest?

Yes Write down two different things that people can do to help reduce air pollution. 1st reason.
Yes Write down two different things that people can do to help reduce air pollution. 2nd reason.

Yes Write as completely as possible why large oil spills in rivers and seas are harmful to the environment.

COUNTRY ID=Ireland SCALE=Life Science

	Third Grade	
Overall	Boys	Girl

			Ove	erall	Во	ys	Gi	rls
ITEM	REL	LABEL	왕	(se)	용	(se)	8	(se)
A09	No	What happens if the body takes in more food than it uses?	70	1.2	68	1.4	71	1.9
B03	No	If you throw each one of these things away, which will decay fastest?	53	1.8	52	2.2	54	2.4
B04	No	Where do humans interpret senses?	56	1.7	55	2.2	57	2.4
C06	No	Which animal eats only plants?	87	1.1	90	1.2	84	1.7
C08	No	What gas in the air do we need in order to live?	75	1.5	76	1.9	74	2.2
D02	No	Shown diagram of mouth, which teeth are used for grinding food?	55	1.4	53	2.0	57	2.0
D03	No	Which of the following animals does not lay eggs?	94	0.6	93	1.0	96	0.7
E07	No	What changes would you expect in pulse and breathing after running a 50 metre race?	39	1.9	42	2.8	36	2.7
F01	No	Which of the following plants is grown for food?	80	1.4	81	1.8	79	2.0
G05	No	Where does air go when a person breathes in?	79	1.7	81	1.8	76	2.7
G06	No	Shown diagram of plant, which part takes in the most water?	86	1.3	86	1.8	86	1.7
H02	No	How can washing your hands help keep you from getting sick?	86	1.2	82	1.9	90	1.3
H04	No	Which of the following will most likely affect your adult height?	32	1.7	33	2.5	32	2.2
N02	Yes	Which of the following refers only to living things?	69	2.4	68	3.1	70	3.4
и03	Yes	Which of the following Celsius measures is closest to your temperature when you are not sick?	20	2.0	23	3.1	17	2.7
N05	Yes	Shown drawing of a bird's webbed foot, where would you be most likely to find such a bird?	70	2.2	66	3.0	74	3.1
N06	Yes	Where does a baby chick get its food while inside an egg?	26	2.2	20	2.8	32	3.4
002	Yes	Why did seeds placed on most cotton sprout, but not those covered with water?	39	2.8	39	3.9	39	3.9
003	Yes	Shown pictures of the stages of a plants growth, in which order did they occur?	59	2.7	55	3.2	64	4.6
007	Yes	Which of the following animal produces milk for its young?	61	2.9	60	3.8	62	4.3
P01	Yes	When this caterpillar becomes an adult, which of the following pictures will it look like?	89	1.7	90	1.7	87	2.9
P02	Yes	Which of the following pictures shows plants commonly found in a desert?	83	2.1	83	2.7	83	3.3
P08	Yes	Birds are different from insects in that birds have	56	2.8	55	3.6	59	4.0
P09	Yes	Seeds develop from which part of a plant?	18	2.4	21	3.4	15	3.3
Q01	Yes	Shown pictures of the stages in a butterfly's development, in which order did they take place?	51	3.2	55	4.5	46	3.4
Q02	Yes	What is the best reason for including fruits and leafy vegetables in a healthy diet?	55	2.7	57	3.6	53	4.3
Q05	Yes	When an animal breathes faster and its heart beats faster, the animal is most likely	60	2.5	53	3.7	68	3.9
Q06	Yes	Which of the following pictures does not show an insect?	36	2.7	40	3.8	31 65	4.2
R03	Yes	What will likely happen when an insect carries pollen from the flowers of a tree to those of a small plant?	58	2.6	52	3.8		3.2
R04	Yes	What is the most important reason for people to use a sunscreen when they are outside in sunlight?	72 33	2.4	68 31	3.2	76 35	3.8
R06	Yes	Which of the following groups contains only animals with a backbone?	33 47	2.6	31 46	3.7	35 47	3.5
R07	Yes	Select environment a worm would prefer in terms of light and moisture.						
W02	Yes	Write down one thing your heart does that helps the other parts of your body.	34 18	2.0 1.8	36 22	2.8	32 14	2.9
W03 W04	Yes	Write down the reason why we get thirsty on a hot day and have to drink a lot. The human brain is inside the skull. Write down one advantage of the skull being thick and strong.	29	2.0	32	2.1	25	2.6
W04 X02	Yes	The numan brain is inside the skull. Write down one advantage of the skull being thick and strong. Write down one reason why animals could not live in a world without plants.	29 68	1.9	3 Z 6 4	2.4	25 73	2.6
X02 X04	Yes Yes	write down one reason why animals could not live in a world without plants. Shown pictures of stages in a frog's growth, indicate order of the stages.	79	1.8	77	2.3	82	2.8
X04 X05	Yes	Shown pictures of stages in a frog's growth, indicate order of the stages. Identify characteristics of fish with respect to backbone and environment.	79 52	2.3	54	3.3	82 50	3.2
Y02A	Yes	Write down two changes that occur in children's bodies as they become adults. 1st answer	59	2.3	58	2.8	60	3.2
Y02B	Yes	Write down two changes that occur in children's bodies as they become adults. Ist answer Write down two changes that occur in children's bodies as they become adults. 2nd answer	33	2.3	35	2.6	30	3.3
Y03A	Yes	write down two changes that occur in children's bodies as they become adults. 2nd answer Besides escaping, what are two ways animals protect themselves? 1st answer	54	2.2	56		51	3.3
Y03B	Yes	Besides escaping, what are two ways animals protect themselves? Ist answer Besides escaping, what are two ways animals protect themselves? 2nd answer	36	2.2	40		32	2.6
Z02		Besides escaping, what are two ways animals protect themselves; 2nd answer Identify skin and skeletal features of various animals	50 50	2.2	49	3.5	52 51	2.6
404	ies	Identity Sain and Sacretar reacures of various animars	50	4.5	49	3.5	21	4.9

COUNTRY ID=Ireland SCALE=Physical Science

Third Grade Overall Girls Boys ITEM % (se) % (se) % (se) A06 Shown three objects floating in water, which weighs the most? B01 No A strong magnet will separate which of the following mixtures? 62 1.5 64 1.8 2 3 60 Same brick is put on a scale in three different ways. What will the scale show? C05 67 1.7 65 2.4 70 D01 No Why are kettles and kitchen pans often made of copper? 47 1.9 44 2.8 64 2.0 66 2.6 51 2.3 When you make soap bubbles, what is inside the bubbles? E05 62 No 2.8 F04 Which of the following sets of time measurements is in order from shortest to longest? 62 1.6 59 2.1 2.3 GN9 No Which of the following pairs could together cause a rainbow? 87 1.3 85 1.8 90 1.7 60 2.0 H01 What happens to water when it boils? 60 2.3 Yes Shown picture of block of wood floating in fresh water, select picture of block in salt water. N04 29 2.6 36 4.2 3.4 45 2.9 45 4.0 N07 Yes Where does Keisha get the energy to push her bicycle uphill? 4.1 N08 What is a powder made up of both white specks and black specks is likely to be? (mixture) 65 2.7 63 4.1 3.8 46 3.0 45 4.1 NO9 Yes Shown diagrams of various boxes on scales, which has the least mass? 48 3.8 001 Yes Which picture shows the best way for 50 kg child to balance 25 kg child on seesaw? 32 2.8 35 3.5 4.1 005 Yes Shown diagram of a beam of light striking a mirror, which diagram shows reflected beam? 49 2.7 52 4.1 3.9 37 2.9 36 2.1 008 Yes Which of the following is the easiest way to separate a mixture of iron filings and sand? 35 3.3 Yes Which of the following is not used as an energy source? 33 2.3 38 3.4 P03 3.3 Yes Compare mass of beaker of water and a weight with mass of beaker of water with weight inside. 23 2.6 27 3.1 P04 17 3.6 P05 Shown pictures of magnets after being dipped into substance below it, which substance could be coffee? 45 2.3 49 32 2.9 43 3.9 3.7 P07 Yes Which of the following travels fastest? (light) 18 003 Yes Which item is most likely to stay the same after being buried in wet ground for several years? 36 3.0 37 4.5 3.5 004 When a glass jar is placed over a lighted candle, the flame goes out. Why does this happen? 42 3.0 49 4.5 35 3.7 30 2.9 32 3.7 008 Yes Shown picture of pencil lying in front of mirror, draw reflection of the pencil. 009 Yes Why does the liquid in a thermometer rise when exposed to heat? 46 2.6 47 4.0 Yes A watering can is almost filled with water. Draw line to show surface of the water when can is tipped. 12 1.8 16 2.5 49 3.3 50 4.0 R01 8 2.2 R05 Yes Shown picture of children playing with string telephone, one string tight and one slack, who can hear? 4.7 R08 Yes Which of the following makes its own light? 48 3.0 50 4.1 45 4 8 R09 Yes Which of the following is an advantage of solar energy? 35 3.0 41 4.6 4.1 W01 Shown pictures of sugar cubes and loose sugar, which will dissolve faster? Why? 29 2.2 26 2.3 33 3.7 Yes Shown pictures of bowls of soup, one covered and one uncovered, which will stay hot longer? Why? 35 35 $x \cap 1$ 2.2 36 2.9 Z03 Yes Shown diagram of blocks being compared on balances, which weighs the most? Why? 29 2.5 18

COUNTRY ID=Japan SCALE=Earth Science

				1	iiiiu	Grade		
			Ove	rall	Во	ys	Gir	rls
ITEM	REL	LABEL	8	(se)	용	(se)	8	(se)
A08 A10	No No	What covers most of the Earth's surface? The fossils of dinosaurs can be found where?	54 80	1.0 0.7	56 83	1.2 0.8	51 76	1.3 0.9
B02 C09	No No	Shown diagram, where is the saltiest water found? Where are large amounts of metals like iron and aluminum found?	89 66	0.6 1.4	88 65	0.9	90 66	1.0
D04 E06	No No	Shown diagram of Earth, which layer is the hottest? Which of the following is hottest? (astronomical bodies)	84 89	1.0	86 92	1.3	86	1.3
E09 F02 F03	No No	Given several recent floods, when will it flood next? Each year the Earth moves once around which of the following?	57 59 78	1.3 1.4 1.0	52 65 77	1.8 1.9 1.4	53	1.9
G07 G08	No No No	Shown diagrams of rocks before and after being rubbed against hard steel, circle hardest rock. Shown several diagrams of a tree and its shadow, which shows the shadow at noon? Which of the following pictures best shows how an iceberg floats in sea water?	78 77 24	1.0 1.1 1.1	79 24	1.4	75	1.3 1.4 1.6
H03 N01	No Yes	Shown diagram with river, draw an arrow showing direction of water flow. Given temperatures and precipitation (table) in four towns, where could it have snowed?	33 49	1.3	31 53	1.8		1.8
004	Yes Yes	The Moon produces no light, and yet it shines at night. Why is this? Why do mountains sometimes still have snow on their tops when the snow on lower parts has melted?	51 61	2.2	53 61	3.3	49 60	2.9
Y01 Z01A Z01B	Yes Yes Yes	Why do the sun and Moon appear the same size when you look at them from Earth? Shown diagram of river flowing through wide plain, write one reason this is a good place for farming Shown diagram of river flowing through wide plain, write one reason this is a bad place for farming	30 60 8	1.6 1.6 0.8	32 58	2.0 2.5 1.2	28 63	2.2 2.3 1.1
201D	169	Shown dragram of fiver frowing enrough wide plain, write one feason this is a bad place for fainting	O	0.0	9	1.2	,	T. T

COUNTRY ID=Japan SCALE=Environment and other content

Overall Boys Girls ITEM REL LABEL % (se) % (se) % (se) A07 No Which plant is not usually grown for food? 56 1.4 59 1.6 C07 No Which of the following is an example of the use of a renewable source? 54 2.3 No What happens to plants and fish when a factory pours large amounts of hot water into a river? E08 81 0.9 82 1.5 79 44 1.9 43 3.3 43 2.1 37 2.9 006 Yes Write down one example of how computers help people do their work. 44 3.4 49 007 Yes Which of the following statements is not an observation? 3.1 R02 Yes Which statement gives the best start toward finding which of three light bulbs is brightest? 38 2.2 36 2.9 40 3.1 Yes Write down two different things that people can do to help reduce air pollution. 1st reason.

Yes Write down two different things that people can do to help reduce air pollution. 2nd reason. W05A 41 1.9 44 2.6 38 2.4 W05B 30 1.5 33 2.3 27 2.0 X03 Yes Write as completely as possible why large oil spills in rivers and seas are harmful to the environment. 42 1.8 2.4 43 2.0 42

COUNTRY ID=Japan SCALE=Life Science

				,	Third	Grade		
			Ove	erall	Во	ys	Gi	rls
ITEM	REL	LABEL	8	(se)	왕 	(se)	% 	(se)
	REL NO Yes		% 900 390 766 677 84 91 566 790 886 950 886 554 599 310 899 311 699 697 697 697 697 697 697 697 697 697	(se) 0.9 0.7 1.3 1.0 1.2 1.0 0.8 1.6 1.2 1.5 0.9 1.2 1.5 2.3 1.4 1.2 1.0 1.7 2.3 1.6 2.5 2.5		-		
W04 X02 X04 X05 Y02A Y02B Y03A Y03B	Yes Yes Yes Yes Yes Yes Yes Yes	Shown pictures of stages in a frog's growth, indicate order of the stages. Identify characteristics of fish with respect to backbone and environment. Write down two changes that occur in children's bodies as they become adults. 1st answer Write down two changes that occur in children's bodies as they become adults. 2nd answer Besides escaping, what are two ways animals protect themselves? 1st answer Besides escaping, what are two ways animals protect themselves? 2nd answer	91 78 83 18 87 23	1.1 1.1 1.1 0.9 1.3 1.0	55 83 92 78 84 18 88 24	2.2 1.6 1.2 1.7 1.7 1.7 2.0	86 22	2.2 1.7 1.8 1.7 1.5 1.7
Z02	Yes	Identify skin and skeletal features of various animals	76	1.4	74	2.0	78	1.8

1.7

51

2.3

COUNTRY ID=Japan SCALE=Physical Science

Third Grade Overall Girls Boys ITEM % (se) % (se) % (se) A06 Shown three objects floating in water, which weighs the most? 95 0.4 95 0.5 B01 No A strong magnet will separate which of the following mixtures? 83 1.0 83 1.4 82 1 3 Same brick is put on a scale in three different ways. What will the scale show? C05 65 1.5 62 1.7 D01 No Why are kettles and kitchen pans often made of copper? 73 1.1 70 1.7 76 1.3 When you make soap bubbles, what is inside the bubbles? 76 1.1 76 1.8 E05 77 No 1.6 F04 Which of the following sets of time measurements is in order from shortest to longest? 62 1.5 67 2.0 58 1.9 GN9 No Which of the following pairs could together cause a rainbow? 82 1.1 82 1.2 82 1.7 H01 What happens to water when it boils? 71 1.1 74 1.4 Yes Shown picture of block of wood floating in fresh water, select picture of block in salt water. 27 2.0 31 3.1 N04 2.4 56 2.6 54 3.4 N07 Yes Where does Keisha get the energy to push her bicycle uphill? 3.2 N08 What is a powder made up of both white specks and black specks is likely to be? (mixture) 44 2.1 42 3.2 3.3 78 1.5 79 2.3 NO9 Yes Shown diagrams of various boxes on scales, which has the least mass? 77 2 5 001 Yes Which picture shows the best way for 50 kg child to balance 25 kg child on seesaw? 55 1.7 54 3.1 3.0 005 Yes Shown diagram of a beam of light striking a mirror, which diagram shows reflected beam? 50 2.3 46 3.2 54 3.0 008 Yes Which of the following is the easiest way to separate a mixture of iron filings and sand? 82 2 1 80 3 1 2.4 Yes Which of the following is not used as an energy source? 40 2.3 44 3.4 P03 3.1 48 2.2 48 3.2 Yes Compare mass of beaker of water and a weight with mass of beaker of water with weight inside. P04 2.9 P05 Shown pictures of magnets after being dipped into substance below it, which substance could be coffee? 75 1.8 71 78 2.5 52 2.6 57 3.4 P07 Yes Which of the following travels fastest? (light) 48 3 4 003 Yes Which item is most likely to stay the same after being buried in wet ground for several years? 63 2.4 59 3.1 3.2 38 2.3 41 2.9 004 When a glass jar is placed over a lighted candle, the flame goes out. Why does this happen? 36 3.7 49 008 Yes Shown picture of pencil lying in front of mirror, draw reflection of the pencil. 2.4 46 3.1 3.6 009 Yes Why does the liquid in a thermometer rise when exposed to heat? 54 2.3 52 3.2 18 2.0 22 2.7 76 2.0 73 2.6 Yes A watering can is almost filled with water. Draw line to show surface of the water when can is tipped. R01 1.5 2.7 R05 Yes Shown picture of children playing with string telephone, one string tight and one slack, who can hear? R08 Yes Which of the following makes its own light? 24 2.1 30 3.1 16 2 8 R09 Yes Which of the following is an advantage of solar energy? 66 2.0 61 2.9 72 3.1 W01 Shown pictures of sugar cubes and loose sugar, which will dissolve faster? Why? 64 1.5 2.5 66 2.3 Yes Shown pictures of bowls of soup, one covered and one uncovered, which will stay hot longer? Why? 40 1.5 38 1.8 $x \cap 1$ 42 2.2

Yes Shown diagram of blocks being compared on balances, which weighs the most? Why?

REL: Release Status (Yes= Item in Released Item Set)

Z03

COUNTRY ID=Korea SCALE=Earth Science

Z01B

Overall Boys Girls ITEM REL LABEL % (se) % (se) % (se) A08 No What covers most of the Earth's surface? 51 1.3 57 1.7 A10 No The fossils of dinosaurs can be found where? 93 0.5 94 0.7 93 0.7 B02 No Shown diagram, where is the saltiest water found? 92 0.7 95 0.7 C09 No Where are large amounts of metals like iron and aluminum found? 86 1.1 88 1.4 84 1.5 81 1.2 84 1.5 D04 Shown diagram of Earth, which layer is the hottest? 78 No 2.0 E06 Which of the following is hottest? (astronomical bodies) 90 1.0 93 1.0 E09 Given several recent floods, when will it flood next? 56 1.6 56 2.1 2.2 F02 Each year the Earth moves once around which of the following? 62 1.7 Shown diagrams of rocks before and after being rubbed against hard steel, circle hardest rock. 70 1.4 71 2.1 F03 2.4 Shown several diagrams of a tree and its shadow, which shows the shadow at noon? 73 1.2 81 1.7 G07 1.9 G08 Which of the following pictures best shows how an iceberg floats in sea water? 25 1.4 27 2.0 2.0 58 1.7 60 2.2 H03 No Shown diagram with river, draw an arrow showing direction of water flow. 56 2.4 Yes Given temperatures and precipitation (table) in four towns, where could it have snowed? NO1 46 2.7 47 3.7 4.3 74 3.2 55 3.4 77 2.3 004 Yes The Moon produces no light, and yet it shines at night. Why is this? 81 3.4 54 2.9 009 Why do mountains sometimes still have snow on their tops when the snow on lower parts has melted? 4.2 Yes Why do the sun and Moon appear the same size when you look at them from Earth? 33 1.8 35 2.6 Y01 2.7 Yes Shown diagram of river flowing through wide plain, write one reason this is a good place for farming 81 1.8 80 2.0 82 25 2.1 21 2.3 29 Z01A

Yes Shown diagram of river flowing through wide plain, write one reason this is a bad place for farming

COUNTRY ID=Korea SCALE=Environment and other content

			Third Grad			Grade					
			Overall		Boys		Gi	rls			
ITEM	REL	LABEL	%	(se)	%	(se)	%	(se)			
A07	No	Which plant is not usually grown for food?	88	0.7	88	0.9	88	0.9			
C07	No	Which of the following is an example of the use of a renewable source?	37	1.6	40	2.3	35	2.2			
E08	No	What happens to plants and fish when a factory pours large amounts of hot water into a river?	91	1.2	89	1.6	92	1.4			
006	Yes	Write down one example of how computers help people do their work.	69	2.5	69	3.3	69	4.4			
P06	Yes	To find out whether seeds grow better in light or dark, where would you put seeds?	56	2.9	52	3.7	60	3.9			
Q07	Yes	Which of the following statements is not an observation?	49	2.7	48	3.8	49	3.5			
R02	Yes	Which statement gives the best start toward finding which of three light bulbs is brightest?	48	3.0	47	4.0	49	4.0			
W05A	Yes	Write down two different things that people can do to help reduce air pollution. 1st reason.	52	2.0	54	2.5	49	2.9			
W05B	Yes	Write down two different things that people can do to help reduce air pollution. 2nd reason.	39	2.4	40	3.0	38	3.3			
X03	Yes	Write as completely as possible why large oil spills in rivers and seas are harmful to the environment.	51	2.2	50	2.9	52	3.1			

COUNTRY ID=Korea SCALE=Life Science

Third	Grade

COUNTRY ID=Korea SCALE=Physical Science

31

Third Grade

33 2.5 35 3.7

15

14 1.9

COUNTRY ID=Latvia (LSS) SCALE=Earth Science

Z01A

Z01B

Overall Boys Girls ITEM REL LABEL % (se) % (se) % (se) A08 No What covers most of the Earth's surface? A10 No The fossils of dinosaurs can be found where? 63 1.4 68 2.0 59 1 9 B02 No Shown diagram, where is the saltiest water found? 71 1.6 70 1.9 72 32 2.4 33 2.8 62 2.1 65 2.9 C09 No Where are large amounts of metals like iron and aluminum found? 31 3.1 D04 Shown diagram of Earth, which layer is the hottest? 59 No 2.3 E06 Which of the following is hottest? (astronomical bodies) 91 1.0 90 1.6 93 1.3 35 1.9 31 2.2 E09 Given several recent floods, when will it flood next? 39 2.7 F02 Each year the Earth moves once around which of the following? 66 1.9 Shown diagrams of rocks before and after being rubbed against hard steel, circle hardest rock. F03 55 2.3 52 2.7 2.7 Shown several diagrams of a tree and its shadow, which shows the shadow at noon? 68 2.0 69 2.7 G07 2.8 G08 Which of the following pictures best shows how an iceberg floats in sea water? 31 2.1 30 3.0 2.6 50 2.6 52 2.9 H03 No Shown diagram with river, draw an arrow showing direction of water flow. 48 3.6 N01 Yes Given temperatures and precipitation (table) in four towns, where could it have snowed? 32 3.7 28 4.7 004 Yes The Moon produces no light, and yet it shines at night. Why is this? 57 3.4 64 4.8 50 4.5 30 3.4 009 Why do mountains sometimes still have snow on their tops when the snow on lower parts has melted? 32 5.0 4.1 Yes Why do the sun and Moon appear the same size when you look at them from Earth? 22 2.1 24 3.0 Y01 2.3

Yes Shown diagram of river flowing through wide plain, write one reason this is a good place for farming

Yes Shown diagram of river flowing through wide plain, write one reason this is a bad place for farming

COUNTRY ID=Latvia (LSS) SCALE=Environment and other content

			Ove	Overall		Boys		rls
ITEM	REL	LABEL	용	(se)	ક	(se)	왕	(se)
A07	No	Which plant is not usually grown for food?	86	0.9	85	1.2	87	1.2
C07	No	Which of the following is an example of the use of a renewable source?	37	2.0	39	2.9	35	2.6
E08	No	What happens to plants and fish when a factory pours large amounts of hot water into a river?	76	1.9	71	2.7	80	2.1
006	Yes	Write down one example of how computers help people do their work.	24	3.0	26	4.6	22	3.2
P06	Yes	To find out whether seeds grow better in light or dark, where would you put seeds?	24	2.9	24	3.9	23	4.1
Q07	Yes	Which of the following statements is not an observation?	31	3.6	30	4.3	32	4.7
R02	Yes	Which statement gives the best start toward finding which of three light bulbs is brightest?	28	2.8	30	4.2	27	3.5
W05A	Yes	Write down two different things that people can do to help reduce air pollution. 1st reason.	34	2.7	35	3.3	33	3.9
W05B	Yes	Write down two different things that people can do to help reduce air pollution. 2nd reason.	16	2.1	16	2.7	16	2.9
X03	Yes	Write as completely as possible why large oil spills in rivers and seas are harmful to the environment.	16	2.2	15	2.9	17	2.8

COUNTRY ID=Latvia (LSS) SCALE=Life Science

		Third Grade				
	Ov	erall	Во	ys	Gi	rls
ITEM REL LABEL	8	(se)	%	(se)	8	(se)
No What happens if the body takes in more food than it uses? B03 No If you throw each one of these things away, which will decay for these do humans interpret senses? C06 No Which animal eats only plants? C08 No What gas in the air do we need in order to live? D02 No Shown diagram of mouth, which teeth are used for grinding food? D03 No Which of the following animals does not lay eggs? E07 No What changes would you expect in pulse and breathing after runs of the following plants is grown for food? No Where does air go when a person breathes in? G05 No Where does air go when a person breathes in? G06 No Shown diagram of plant, which part takes in the most water? H02 No How can washing your hands help keep you from getting sick? H04 No Which of the following will most likely affect your adult height of the following refers only to living things? N03 Yes Which of the following Celsius measures is closest to your tem of yes Shown drawing of a bird's webbed foot, where would you be most yes Shown drawing of a bird's webbed foot, where would you be most Yes Shown pictures of the stages of a plants growth, in which order yes Which of the following animal produces milk for its young? Yes Who if the following animal produces milk for its young? Yes Which of the following pictures shows plants commonly found in Yes Birds are different from insects in that birds have P09 Yes Shown pictures of the stages in a butterfly's development, in Yes Shown pictures of the stages in a butterfly's development, in Yes Shown pictures of the stages in a butterfly's development, in Yes Shown pictures of the stages in a butterfly's development, in Yes Shown pictures of the stages in a butterfly's development, in Yes What is the best reason for including fruits and leafy vegetably Yes When an animal breathes faster and its heart beats faster, the Yes Which of the following pictures does not show an insect? Yes When is the most important reason for people to use a sunscree.	astest? astest? 63 88 87 69 75 ning a 50 metre race? 81 84 ht? perature when you are not sick? likely to find such a bird? red with water? r did they occur? pictures will it look like? a desert? which order did they take place? les in a healthy diet? animal is most likely flowers of a tree to those of a small plant? to when they are outside in sunlight?	(se)	•	(se) 2.0 3.1 2.5 2.0 3.5 2.6 2.5 2.9 2.4 2.3 2.6 4.5	%	(se) 2.0 2.3 2.7 1.7 2.7
R06 Yes Which of the following groups contains only animals with a back N07 Yes Select environment a worm would prefer in terms of light and mow word of the part	of the skull being thick and strong. 29 thout plants. 29 the stages. 29 the stages. 20 the stages. 21 the stages. 22 the stages. 23 the stages. 24 the stages. 25 the stages. 26 the stages. 27 the stages. 28 the stages. 29 the stages. 20 the stages. 21 the stages. 22 the stages. 23 the stages. 24 the stages. 25 the stages. 26 the stages. 27 the stages. 28 the stages. 29 the stages. 20 the stages. 20 the stages. 21 the stages. 22 the stages. 23 the stages. 24 the stages. 25 the stages. 26 the stages. 27 the stages. 28 the stages. 29 the stages. 20 the stages. 20 the stages. 21 the stages. 22 the stages. 23 the stages. 24 the stages. 25 the stages. 26 the stages. 27 the stages. 28 the stages. 29 the stages. 20 the stages. 20 the stages. 21 the stages. 22 the stages. 23 the stages. 24 the stages. 25 the stages. 26 the stages. 27 the stages. 28 the stages. 29 the stages. 20 the stages. 21 the stages. 22 the stages. 23 the stages. 24 the stages. 25 the stages. 26 the stages. 27 the stages. 28 the stages. 29 the stages. 20 the	2.4 2.4 2.2 2.5 2.4 2.2 2.3 1.9	31 60 60 43 48 16 40 24 31	3.1 3.0 3.4 3.3 2.9 2.7 3.2 2.4	26 64 63 45 46	3.5 3.2 3.3 3.1 3.3 3.5 3.0 2.7 3.3

REL: Release Status (Yes= Item in Released Item Set)

COUNTRY ID=Latvia (LSS) SCALE=Physical Science

			Third Grade					
			Overall		Воз	ys	Gi:	rls
ITEM	REL	LABEL	%	(se)	%	(se)	%	(se)
A06 B01 C05 D01 E05 F04 G09 H01 N07 N08 N09 O01 O05 O08 P03 P04 P07 Q03 Q04 Q08 Q09 R01 R05	No No No No No No No Yes	Shown three objects floating in water, which weighs the most? A strong magnet will separate which of the following mixtures? Same brick is put on a scale in three different ways. What will the scale show? Why are kettles and kitchen pans often made of copper? When you make soap bubbles, what is inside the bubbles? Which of the following sets of time measurements is in order from shortest to longest? Which of the following pairs could together cause a rainbow? What happens to water when it boils? Shown picture of block of wood floating in fresh water, select picture of block in salt water. Where does Keisha get the energy to push her bicycle uphill? What is a powder made up of both white specks and black specks is likely to be? (mixture) Shown diagrams of various boxes on scales, which has the least mass? Which picture shows the best way for 50 kg child to balance 25 kg child on seesaw? Shown diagram of a beam of light striking a mirror, which diagram shows reflected beam? Which of the following is the easiest way to separate a mixture of iron filings and sand? Which of the following is not used as an energy source? Compare mass of beaker of water and a weight with mass of beaker of water with weight inside. Shown pictures of magnets after being dipped into substance below it, which substance could be coffee? Which of the following travels fastest? (light) Which item is most likely to stay the same after being buried in wet ground for several years? When a glass jar is placed over a lighted candle, the flame goes out. Why does this happen?	78 64 70 47 55 59 80 71 26 41 51 40 43 44 27 38 27 54 55	1.1 1.7 2.1 2.4 2.2 2.1 1.5 2.18 3.5 3.4 3.4 3.3 3.5 3.6 3.7 3.8 3.7	77 64 64 55 77 65 77 70 23 44 47 28 33 49 53 49 53 66 66 66 66 66 67 67 67 67 67 67 67 67	1.5 2.8 2.8 2.9 3.1 3.9 5.1 4.0 4.7 4.3 5.4 4.7 4.3 4.9 4.6 4.7 4.6 4.7	80 64 70 49 51 82 71 20 49 42 48 83 41 26 40 38 24 60 38 24 61 20 21 21 21 22 21 21 21 21 21 21 21 21 21	1.5 2.6 2.8 3.1 2.7 2.7 2.4 3.3 4.6 3.9 4.9 4.3 5.2 3.8 4.4 4.3 5.2 4.9 4.3
R08 R09 W01 X01 Z03	Yes Yes Yes Yes Yes	Which of the following is an advantage of solar energy? Shown pictures of sugar cubes and loose sugar, which will dissolve faster? Why?	37 24 11 15	3.4 2.1 1.6 1.6	33 25 9	4.6	40 24 14	4.9 2.8 2.2

COUNTRY ID=Netherlands SCALE=Earth Science

			Third Grade					
			Overall		Boys		Girls	
ITEM	REL	LABEL	왕	(se)	8	(se)	ક	(se)
A08 A10 B02 C09 D04 E06 E09 F02 F03 G07 G08 H03 N01 O04 O09 Y01	NO Yes Yes Yes	What covers most of the Earth's surface? The fossils of dinosaurs can be found where? Shown diagram, where is the saltiest water found? Where are large amounts of metals like iron and aluminum found? Shown diagram of Earth, which layer is the hottest? Which of the following is hottest? (astronomical bodies) Given several recent floods, when will it flood next? Each year the Earth moves once around which of the following? Shown diagrams of rocks before and after being rubbed against hard steel, circle hardest rock. Shown several diagrams of a tree and its shadow, which shows the shadow at noon? Which of the following pictures best shows how an iceberg floats in sea water? Shown diagram with river, draw an arrow showing direction of water flow. Given temperatures and precipitation (table) in four towns, where could it have snowed? The Moon produces no light, and yet it shines at night. Why is this? Why do mountains sometimes still have snow on their tops when the snow on lower parts has melted? Why do the sun and Moon appear the same size when you look at them from Earth?	36 76 69 44 72 94 41 46 62 59 23 30 32 66 32 24	1.2 1.0 1.2 1.6 1.8 0.8 2.0 2.2 1.9 1.8 2.9 2.6 3.0 2.2	39 76 75 50 77 94 38 50 63 62 21 34 32 68 38	1.6 1.3 1.8 2.4 2.2 1.3 2.6 2.9 2.9 2.4 1.7 2.0 3.0 4.8 2.4	63 39 67 93 45 41 56 26 31 64	1.5 1.4 1.8 2.3 2.4 1.2 2.5 2.5 2.4 2.1 2.2 4.3 3.2 3.5 2.7
Z01A Z01B	Yes Yes	Shown diagram of river flowing through wide plain, write one reason this is a good place for farming Shown diagram of river flowing through wide plain, write one reason this is a bad place for farming	52 28	2.1		3.2		

COUNTRY ID=Netherlands SCALE=Environment and other content

			IIIII GIAGO					
			Ove	Overall		Boys		rls
ITEM	REL	LABEL	ક	(se)	%	(se)	8	(se)
A07 C07 E08 O06 P06 O07	No No No Yes Yes Yes	Which plant is not usually grown for food? Which of the following is an example of the use of a renewable source? What happens to plants and fish when a factory pours large amounts of hot water into a river? Write down one example of how computers help people do their work. To find out whether seeds grow better in light or dark, where would you put seeds? Which of the following statements is not an observation?	83 50 79 53 27	0.8 1.8 1.6 2.7 3.1	83 51 80 54 23 41	1.2 2.5 2.0 4.0 4.2 4.5	84 49 78 53 33	1.3 2.8 2.2 3.5 3.7
R02 W05A W05B X03	Yes Yes Yes Yes	Which statement gives the best start toward finding which of three light bulbs is brightest? Write down two different things that people can do to help reduce air pollution. 1st reason.	40 43 33 10	2.6 2.1 2.0 1.3	40 49 40 7	4.8 2.8 3.1 1.6	39 37 27 12	3.2 2.6 2.7 2.0

COUNTRY ID=Netherlands SCALE=Life Science

Third	Grade

			Ove	Overall		l Boys		rls
ITEM	REL	LABEL		(se)	8	(se)	8	(se)
A09 B03 B04 C06 C08 D02 D03 E07 F01 G05 G06 H02	NO N	What happens if the body takes in more food than it uses? If you throw each one of these things away, which will decay fastest? Where do humans interpret senses? Which animal eats only plants? What gas in the air do we need in order to live? Shown diagram of mouth, which teeth are used for grinding food? Which of the following animals does not lay eggs? What changes would you expect in pulse and breathing after running a 50 metre race? Which of the following plants is grown for food? Where does air go when a person breathes in? Shown diagram of plant, which part takes in the most water? How can washing your hands help keep you from getting sick?		1.1 1.4 2.0		1.6 2.0 2.5 1.1 1.3 2.1 1.4 2.6 2.5 1.7	70 79 54	1.3 1.9 2.4 1.3 1.3 1.8 1.2 2.1 2.5 1.9
H04 N02 N03 N05 N06 O02 O03 O07 P01 P02 P08	No Yes Yes Yes Yes Yes Yes Yes Yes	Which of the following will most likely affect your adult height? Which of the following refers only to living things? Which of the following Celsius measures is closest to your temperature when you are not sick? Shown drawing of a bird's webbed foot, where would you be most likely to find such a bird? Where does a baby chick get its food while inside an egg? Why did seeds placed on most cotton sprout, but not those covered with water? Shown pictures of the stages of a plants growth, in which order did they occur? Which of the following animal produces milk for its young? When this caterpillar becomes an adult, which of the following pictures will it look like? Which of the following pictures shows plants commonly found in a desert? Birds are different from insects in that birds have	59 80 45 75 35 74 68 95 94 37	1.9 2.3 3.4 2.3 3.1 2.7 2.7 2.9 1.3 1.2 2.6	54 80 48 77 47 31 72 72 94 95 35	2.9 3.4 4.7 3.2 4.3 4.0 4.2 4.4 1.7 1.8 4.3	63 80 42 73 30 40 76 66 94 40	2.4 3.0 3.9 4.2 4.0 3.4 3.1 4.0 1.6 4.1
P09 Q01 Q02 Q05 Q06 R03 R04 R06 R07 W02 W03	Yes Yes Yes Yes Yes Yes Yes Yes Yes	Seeds develop from which part of a plant? Shown pictures of the stages in a butterfly's development, in which order did they take place? What is the best reason for including fruits and leafy vegetables in a healthy diet? When an animal breathes faster and its heart beats faster, the animal is most likely Which of the following pictures does not show an insect? What will likely happen when an insect carries pollen from the flowers of a tree to those of a small plant? What is the most important reason for people to use a sunscreen when they are outside in sunlight? Which of the following groups contains only animals with a backbone? Select environment a worm would prefer in terms of light and moisture. Write down one thing your heart does that helps the other parts of your body. Write down the reason why we get thirsty on a hot day and have to drink a lot.	40 74 91 67 37 53 77 38 59 28	2.9 1.7 2.4 2.6 3.2 2.5 3.0 2.8 1.8	39 77 91 64 38 49 77 37 60 35 16	3.8 3.8 2.5 3.9 3.8 4.9 3.5 4.1 3.7 3.2 2.3	43 71 92 70 36 57 76 40 60 22 14	4.2 4.6 2.2 3.6 3.8 4.0 3.4 4.0 4.2 2.1
W04 X02 X04 X05 Y02A Y02B Y03A Y03B Z02	Yes Yes Yes Yes Yes Yes	The human brain is inside the skull. Write down one advantage of the skull being thick and strong. Write down one reason why animals could not live in a world without plants. Shown pictures of stages in a frog's growth, indicate order of the stages. Identify characteristics of fish with respect to backbone and environment. Write down two changes that occur in children's bodies as they become adults. 1st answer Write down two changes that occur in children's bodies as they become adults. 2nd answer Besides escaping, what are two ways animals protect themselves? 1st answer Besides escaping, what are two ways animals protect themselves? 2nd answer Identify skin and skeletal features of various animals	33 78 93 37 78 51 63 48 45	2.0 1.2 2.2 1.9 2.1	36 77 93 37 79 50 64 48 43	2.5 2.8 1.7 2.6 2.3 3.0 3.2 2.9	31 80 93 37 76 53 62 49	2.8 2.7 1.5 3.3 2.4 2.8 2.3 3.0 2.7

2.0

27

2.9

2.3

COUNTRY ID=Netherlands SCALE=Physical Science

Overall Girls Boys ITEM % (se) % (se) % (se) A06 Shown three objects floating in water, which weighs the most? 88 0.6 88 1.0 B01 No A strong magnet will separate which of the following mixtures? 76 1.4 81 1.6 71 2 1 C05 Same brick is put on a scale in three different ways. What will the scale show? 69 1.8 70 2.2 D01 No Why are kettles and kitchen pans often made of copper? 39 1.7 41 2.6 66 1.9 66 2.9 36 2.0 E05 When you make soap bubbles, what is inside the bubbles? 66 No 2.2 F04 Which of the following sets of time measurements is in order from shortest to longest? 75 1.5 76 1.9 2.3 95 0.7 94 1.0 GN9 No Which of the following pairs could together cause a rainbow? 96 1.0 H01 What happens to water when it boils? 76 1.8 8.0 1.8 Yes Shown picture of block of wood floating in fresh water, select picture of block in salt water. 24 2.3 27 3.1 N04 3.3 53 2.9 53 4.6 N07 Yes Where does Keisha get the energy to push her bicycle uphill? 52 4.1 N08 What is a powder made up of both white specks and black specks is likely to be? (mixture) 69 2.8 69 4.0 4.1 63 2.5 67 3.6 NO9 Yes Shown diagrams of various boxes on scales, which has the least mass? 59 4 4 001 Yes Which picture shows the best way for 50 kg child to balance 25 kg child on seesaw? 43 2.8 48 4.0 39 3.4 005 Yes Shown diagram of a beam of light striking a mirror, which diagram shows reflected beam? 46 2.6 46 4.3 46 4.0 008 Yes Which of the following is the easiest way to separate a mixture of iron filings and sand? 48 2.9 57 4.4 4.4 Yes Which of the following is not used as an energy source? 31 2.3 32 3.9 P03 3.8 Yes Compare mass of beaker of water and a weight with mass of beaker of water with weight inside. 26 2.5 28 3.8 P04 25 3.5 P05 Shown pictures of magnets after being dipped into substance below it, which substance could be coffee? 32 2.8 36 3.9 3.6 17 2.5 24 4.1 2.7 P07 Yes Which of the following travels fastest? (light) 11 003 Yes Which item is most likely to stay the same after being buried in wet ground for several years? 45 2.7 49 3.9 4.3 004 When a glass jar is placed over a lighted candle, the flame goes out. Why does this happen? 60 3.3 64 3.9 57 4.6 3.0 50 4.6 008 Yes Shown picture of pencil lying in front of mirror, draw reflection of the pencil. 44 4.6 009 Yes Why does the liquid in a thermometer rise when exposed to heat? 44 3.2 44 4.3 Yes A watering can is almost filled with water. Draw line to show surface of the water when can is tipped. 15 2.4 21 3.6 R01 9 2.6 R05 Yes Shown picture of children playing with string telephone, one string tight and one slack, who can hear? 58 2.9 57 4.7 4.0 R08 Yes Which of the following makes its own light? 56 3.0 55 4.3 3 8 R09 Yes Which of the following is an advantage of solar energy? 3.0 3.3 33 4.5 4.0 W01 Shown pictures of sugar cubes and loose sugar, which will dissolve faster? Why? 58 2.0 55 3.3 2.6 2.8 Yes Shown pictures of bowls of soup, one covered and one uncovered, which will stay hot longer? Why? 32 2.1 31 $x \cap 1$ 33 3.0

Yes Shown diagram of blocks being compared on balances, which weighs the most? Why?

REL: Release Status (Yes= Item in Released Item Set)

Z03

COUNTRY ID=New Zealand SCALE=Earth Science

			Third Grade					
			Overall		Boys		Gi	rls
ITEM	REL	LABEL	왕	(se)	용	(se)	왕	(se)
A08 A10 B02 C09 D04 E06 E09 F02 F03 G07 G08 H03 N01	No Yes	What covers most of the Earth's surface? The fossils of dinosaurs can be found where? Shown diagram, where is the saltiest water found? Where are large amounts of metals like iron and aluminum found? Shown diagram of Earth, which layer is the hottest? Which of the following is hottest? (astronomical bodies) Given several recent floods, when will it flood next? Each year the Earth moves once around which of the following? Shown diagrams of rocks before and after being rubbed against hard steel, circle hardest rock. Shown several diagrams of a tree and its shadow, which shows the shadow at noon? Which of the following pictures best shows how an iceberg floats in sea water? Shown diagram with river, draw an arrow showing direction of water flow. Given temperatures and precipitation (table) in four towns, where could it have snowed? The Moon produces no light, and yet it shines at night. Why is this?	59 76 62 36 72 90 39 54 66 22 25 24	1.6 1.4 1.9 1.8 1.7 1.5 1.8 2.1 1.9 1.6 1.5 2.3	63 76 62 39 72 87 35 55 68 25 28 26 85	2.0 1.7 2.6 3.0 2.2 2.0 2.4 2.7 2.4 2.5 2.4 2.5 2.1 3.3	63 32 72 92 44 51 53 64 20 23 21 50	1.9 1.8 2.2 2.5 2.6 2.0 2.5 2.7 3.3 2.5 1.8 2.2 4.5
009 Y01 Z01A Z01B	Yes Yes Yes Yes	Why do mountains sometimes still have snow on their tops when the snow on lower parts has melted? Why do the sun and Moon appear the same size when you look at them from Earth? Shown diagram of river flowing through wide plain, write one reason this is a good place for farming Shown diagram of river flowing through wide plain, write one reason this is a bad place for farming	24 25 57 23	2.4 2.3 2.7 2.1	25 28 57 23	3.6 3.0 3.3 2.8	22 22 57 22	3.1 3.3 3.4 3.0

COUNTRY ID=New Zealand SCALE=Environment and other content

			Third Grade						
			Ove	erall	Во	ys	Gi	rls	
ITEM	REL	LABEL	왕	(se)	8	(se)	8	(se)	
A07	No	Which plant is not usually grown for food?	76	1.2	71	1.7	80	1.4	
C07	No	Which of the following is an example of the use of a renewable source?	40	1.9	44	2.7	36	2.5	
E08	No	What happens to plants and fish when a factory pours large amounts of hot water into a river?	76	1.8	73	2.4	79	2.6	
006	Yes	Write down one example of how computers help people do their work.	51	3.4	49	5.5	53	4.1	
P06	Yes	To find out whether seeds grow better in light or dark, where would you put seeds?	33	2.8	29	4.4	36	3.8	
Q07	Yes	Which of the following statements is not an observation?	38	3.4	35	4.7	40	4.5	
R02	Yes	Which statement gives the best start toward finding which of three light bulbs is brightest?	36	3.0	42	4.3	30	4.3	
W05A	Yes	Write down two different things that people can do to help reduce air pollution. 1st reason.	28	2.2	32	3.2	23	2.5	
W05B	Yes	Write down two different things that people can do to help reduce air pollution. 2nd reason.	17	1.6	17	2.2	17	2.2	
X03	Yes	Write as completely as possible why large oil spills in rivers and seas are harmful to the environment.	24	2.1	22	2.6	26	3.1	

COUNTRY ID=New Zealand SCALE=Life Science

Third Grade

			Ove	Overall		all Boys		rls
ITEM	REL	LABEL		(se)	왕	(se)	%	(se)
A09	No	What happens if the body takes in more food than it uses?	61	1.5	57	2.0	66	1.7
в03	No	If you throw each one of these things away, which will decay fastest?	66	1.9	61	2.2	70	2.7
B04 C06	No No	Where do humans interpret senses? Which animal eats only plants?	59 85	1.7 1.5	57 83	2.4	61 87	2.4
C08	No	What gas in the air do we need in order to live?	73	2.0	73	2.1	73	3.0
D02	No	Shown diagram of mouth, which teeth are used for grinding food?	56	1.9	52	2.8	60	2.3
D03	No	Which of the following animals does not lay eggs?	90	1.4	87	1.9	93	1.4
E07	No	What changes would you expect in pulse and breathing after running a 50 metre race?	44	2.0	44	2.2	45	3.1
F01	No	Which of the following plants is grown for food?	74	1.9	74	2.4	75	2.7
G05	No	Where does air go when a person breathes in?	78	1.9	78	2.4	77	2.3
G06	No	Shown diagram of plant, which part takes in the most water?	85	1.3	81	2.1	88	1.7
H02 H04	No No	How can washing your hands help keep you from getting sick? Which of the following will most likely affect your adult height?	85 38	1.8	82 35	2.2	88 41	2.1
N02	Yes	Which of the following refers only to living things?	56	3.1	54	4.7	58	4.0
N03	Yes	Which of the following Celsius measures is closest to your temperature when you are not sick?	24	2.7	23	3.7	26	4.0
N05	Yes	Shown drawing of a bird's webbed foot, where would you be most likely to find such a bird?	60	3.1	61	4.6	59	3.8
N06	Yes	Where does a baby chick get its food while inside an egg?	39	3.1	46	4.2	31	4.3
002	Yes	Why did seeds placed on most cotton sprout, but not those covered with water?	42	3.4	34	3.9	48	5.0
003	Yes	Shown pictures of the stages of a plants growth, in which order did they occur?	64	3.4	59	4.5	68	5.1
007	Yes	Which of the following animal produces milk for its young?	74	2.5	69	4.1	78	3.1
P01 P02	Yes	When this caterpillar becomes an adult, which of the following pictures will it look like? Which of the following pictures shows plants commonly found in a desert?	89 83	2.1	86 83	3.6 4.0	92 83	2.6
P02	Yes		56	3.0	48	4.4	63	4.0
P09	Yes	Seeds develop from which part of a plant?	31	3.2	35	4.6	27	4.0
001			65	3.2	63	3.8	67	4.4
Q02		What is the best reason for including fruits and leafy vegetables in a healthy diet?	48	3.2	46	4.3	50	4.3
Q05	Yes		59	3.1	47	4.7	72	4.1
Q06	Yes	Which of the following pictures does not show an insect?	48	3.5	53	5.1	42	4.1
R03		What will likely happen when an insect carries pollen from the flowers of a tree to those of a small plant?	57		55	4.4	59	4.2
R04	Yes	What is the most important reason for people to use a sunscreen when they are outside in sunlight?	69 44	3.1	67 42	4.3	72 47	4.5
R06 R07	Yes Yes	Which of the following groups contains only animals with a backbone? Select environment a worm would prefer in terms of light and moisture.	44	3.1	50	4.5	43	4.4
W02	Yes	Select environment a worm would prefer in terms of figure and moreture. Write down one thing your heart does that helps the other parts of your body.	41	2.6	42	3.6	40	2.9
W02		Write down the reason why we get thirsty on a hot day and have to drink a lot.	15	1.5	15	2.3	14	1.8
W04	Yes	The human brain is inside the skull. Write down one advantage of the skull being thick and strong.	33	2.4	35	3.7	30	2.9
X02	Yes	Write down one reason why animals could not live in a world without plants.	68	2.1	65	3.1	72	2.6
X04	Yes	Shown pictures of stages in a frog's growth, indicate order of the stages.	73	2.5	68	3.5	78	3.1
X05		Identify characteristics of fish with respect to backbone and environment.	52		50	3.1	55	3.0
Y02A			54		49	3.1	58	3.5
Y02B	Yes	Write down two changes that occur in children's bodies as they become adults. 2nd answer	24	2.2	22	2.9	25	2.9
Y03A Y03B	Yes Yes	Besides escaping, what are two ways animals protect themselves? 1st answer Besides escaping, what are two ways animals protect themselves? 2nd answer	52 34	2.4	49 33	3.3	55 34	3.2
Z02		Besides escaping, what are two ways animals protect themselves; 2nd answer Identify skin and skeletal features of various animals	54 52		50	3.1	53	3.3
202	165	racherry skin and skeredar readures or various animars	32	۷. /	50	J.1	23	5.0

COUNTRY ID=New Zealand SCALE=Physical Science

			Third Grade					
			Overall		Boys		Gi	rls
ITEM	REL	LABEL	%	(se)	%	(se)	%	(se)
A06 B01 C05 D01 E05 F04 G09 H01 N04 N07 N08 N09 O01 O05 O08 P03 P04 P05 P07 Q04 Q08 Q09 R01	No No No No No No No Yes	Shown three objects floating in water, which weighs the most? A strong magnet will separate which of the following mixtures? Same brick is put on a scale in three different ways. What will the scale show? Why are kettles and kitchen pans often made of copper? When you make soap bubbles, what is inside the bubbles? Which of the following pairs could together cause a rainbow? Which of the following pairs could together cause a rainbow? What happens to water when it boils? Shown picture of block of wood floating in fresh water, select picture of block in salt water. Where does Keisha get the energy to push her bicycle uphill? What is a powder made up of both white specks and black specks is likely to be? (mixture) Shown diagrams of various boxes on scales, which has the least mass? Which picture shows the best way for 50 kg child to balance 25 kg child on seesaw? Shown diagram of a beam of light striking a mirror, which diagram shows reflected beam? Which of the following is the easiest way to separate a mixture of iron filings and sand? Which of the following is not used as an energy source? Compare mass of beaker of water and a weight with mass of beaker of water with weight inside. Shown pictures of magnets after being dipped into substance below it, which substance could be coffee? Which of the following travels fastest? (light) Which item is most likely to stay the same after being buried in wet ground for several years? When a glass jar is placed over a lighted candle, the flame goes out. Why does this happen? Shown picture of pencil lying in front of mirror, draw reflection of the pencil. Why does the liquid in a thermometer rise when exposed to heat? A watering can is almost filled with water. Draw line to show surface of the water when can is tipped. Shown picture of children playing with string telephone, one string tight and one slack, who can hear?	79 57 57 59 60 82 50 28 42 64 51 38 24 24	1.5 2.0 2.0 2.1 2.1 1.8 1.5 2.1 2.7 3.1 3.1 2.6 2.9 3.5 2.6 2.9	777 554 659 78 53 43 65 78 53 22 43 54 58 59	1.9 2.8 2.8 3.0 2.5 2.5 2.1 4.8 4.6 4.3 4.6 4.4 3.7 3.3 4.6 4.4 4.6 4.7 4.4 4.6 4.7	80 61 42 41 42 43 43 43 43 43 44 45 46 46 46 46 46 46 46 46 46 46	1.6 2.2 2.6 2.5 2.0 2.8 3.8 4.1 4.3 3.7 4.2 5.1 3.3 4.1 4.3 4.1 3.3 4.7
R05 R08 R09 W01 X01	Yes Yes Yes	Which of the following is an advantage of solar energy? Shown pictures of sugar cubes and loose sugar, which will dissolve faster? Why? Shown pictures of bowls of soup, one covered and one uncovered, which will stay hot longer? Why?	34 24 37	3.2 1.8 2.4	41 52 38 22 35	4.3 2.6 3.4	38	4.0 4.4 2.2 2.7
Z03	Yes	Shown diagram of blocks being compared on balances, which weighs the most? Why?	Τ/	2.1	18	2.7	16	2.6

30 2.0 31 2.7 30 3.3

8 1.3

COUNTRY ID=Norway SCALE=Earth Science

Z01A

Z01B

Overall Boys Girls ITEM REL LABEL % (se) % (se) % (se) A08 No What covers most of the Earth's surface? A10 No The fossils of dinosaurs can be found where? 43 1.4 46 2.1 41 1 8 B02 No Shown diagram, where is the saltiest water found? 70 1.6 71 2.2 34 1.9 39 2.5 69 1.8 73 2.0 C09 No Where are large amounts of metals like iron and aluminum found? 29 2.4 Shown diagram of Earth, which layer is the hottest? 64 D04 No 2.5 E06 Which of the following is hottest? (astronomical bodies) 89 1.2 90 1.7 27 1.7 24 2.6 E09 Given several recent floods, when will it flood next? 3.0 2.6 F02 Each year the Earth moves once around which of the following? 63 1.8 3.1 Shown diagrams of rocks before and after being rubbed against hard steel, circle hardest rock. F03 50 2.0 49 2.5 3.0 Shown several diagrams of a tree and its shadow, which shows the shadow at noon? 62 1.8 66 2.4 G07 G08 Which of the following pictures best shows how an iceberg floats in sea water? 20 1.7 18 2.3 2.3 45 2.0 47 2.7 H03 No Shown diagram with river, draw an arrow showing direction of water flow. 42 3 1 N01 Yes Given temperatures and precipitation (table) in four towns, where could it have snowed? 32 3.1 35 4.3 004 Yes The Moon produces no light, and yet it shines at night. Why is this? 70 2.5 69 3.9 71 4.4 38 5.5 009 Why do mountains sometimes still have snow on their tops when the snow on lower parts has melted? 44 3 5 4.9 Yes Why do the sun and Moon appear the same size when you look at them from Earth? 24 2.5 32 3.7 Y01 16 2.8

Yes Shown diagram of river flowing through wide plain, write one reason this is a good place for farming

Yes Shown diagram of river flowing through wide plain, write one reason this is a bad place for farming

COUNTRY ID=Norway SCALE=Environment and other content

			Overall		Boys		Gir	rls
ITEM	REL	LABEL	왕	(se)	왕	(se)	왕	(se)
A07 C07 E08 O06 P06 Q07 R02 W05A W05B X03	No No No Yes Yes Yes Yes Yes	Which plant is not usually grown for food? Which of the following is an example of the use of a renewable source? What happens to plants and fish when a factory pours large amounts of hot water into a river? Write down one example of how computers help people do their work. To find out whether seeds grow better in light or dark, where would you put seeds? Which of the following statements is not an observation? Which statement gives the best start toward finding which of three light bulbs is brightest? Write down two different things that people can do to help reduce air pollution. 1st reason. Write down two different things that people can do to help reduce air pollution. 2nd reason. Write as completely as possible why large oil spills in rivers and seas are harmful to the environment.	75 32 55 46 23 34 23 25	1.3 1.4 2.1 4.1 2.7 2.7 2.0 2.2 1.7	74 37 55 50 22 29 28 27 18	1.7 2.3 2.7 5.2 3.8 4.2 4.1 3.1 2.2 1.9	75 27 56 42 24 37 19 24 14	1.6 2.2 2.9 5.1 3.9 4.0 2.6 2.9 3.0

COUNTRY ID=Norway SCALE=Life Science

				erall	Boys		Girls	
ITEM	REL	LABEL		(se)	%	(se)	왕	(se)
A09	No	What happens if the body takes in more food than it uses?	59	1.5	59	2.0	59	1.8
B03	No	If you throw each one of these things away, which will decay fastest?	83	1.4	86	1.9	81	2.0
B04	No	Where do humans interpret senses?	65	1.9	68	2.8	62	2.4
C06	No	Which animal eats only plants?	85	1.4	89	1.7	79	2.1
C08	No	What gas in the air do we need in order to live?	67	2.1	69	2.8	64	2.5
D02	No	Shown diagram of mouth, which teeth are used for grinding food?	56	2.1	54	2.4	58	3.0
D03	No	Which of the following animals does not lay eggs?	82	1.5	81	2.1	83	2.1
E07	No	What changes would you expect in pulse and breathing after running a 50 metre race?	57	1.7	59	2.5	55	2.5
F01	No	Which of the following plants is grown for food?	83	1.2	84	1.5	81	1.9
G05	No	Where does air go when a person breathes in?	75	1.7	76	2.3	74	2.5
G06	No	Shown diagram of plant, which part takes in the most water?	78	1.7	79	2.2	78	2.2
H02	No	How can washing your hands help keep you from getting sick?	68	1.8	68	2.6	69	2.6
H04	No	Which of the following will most likely affect your adult height?	58	2.2	59	2.6	57	3.1
N02	Yes	Which of the following refers only to living things?	44	3.1	44	4.1	44	5.1
N03	Yes	Which of the following Celsius measures is closest to your temperature when you are not sick?	43	2.8	51	4.1	32	4.0
N05	Yes	Shown drawing of a bird's webbed foot, where would you be most likely to find such a bird?	66	2.5	66	3.8	66	4.1
N06	Yes	Where does a baby chick get its food while inside an egg?	31	2.9	27	3.7	37	4.6
002		Why did seeds placed on most cotton sprout, but not those covered with water?	37	4.3	38	5.7	33	4.8
003	Yes	Shown pictures of the stages of a plants growth, in which order did they occur?	38	3.3	36	4.9	38	4.0
007	Yes	Which of the following animal produces milk for its young?	57	3.7	62	4.7	51	5.2
P01	Yes	When this caterpillar becomes an adult, which of the following pictures will it look like?	91	1.6	91	2.0	91	2.7
P02		Which of the following pictures shows plants commonly found in a desert?	87	2.1	88	3.1	86	3.4
P08	Yes	Birds are different from insects in that birds have	49	2.9	47	4.3	53	4.7
P09	Yes	Seeds develop from which part of a plant?	28	3.2	33	5.0	23	3.7
Q01		Shown pictures of the stages in a butterfly's development, in which order did they take place?	54	3.2	56	4.7	52	4.7
Q02	Yes	What is the best reason for including fruits and leafy vegetables in a healthy diet?	59	3.3	61	4.4	55	4.2
Q05		When an animal breathes faster and its heart beats faster, the animal is most likely	59	3.0	57	4.1	61	4.9
Q06	Yes	Which of the following pictures does not show an insect?	24	2.8	26	4.4	23	3.2
R03		What will likely happen when an insect carries pollen from the flowers of a tree to those of a small plant?	44	3.4	43	4.8	46	4.8
R04	Yes	What is the most important reason for people to use a sunscreen when they are outside in sunlight?	62	3.3	58	4.8	65	4.8
R06	Yes	Which of the following groups contains only animals with a backbone?	18	2.4	21	3.9	16	2.9
R07	Yes	Select environment a worm would prefer in terms of light and moisture.	42	3.6	41	4.9	41	4.9
W02	Yes	Write down one thing your heart does that helps the other parts of your body.	30	2.2	29	3.2	31	3.0
W03	Yes	Write down the reason why we get thirsty on a hot day and have to drink a lot.	14	1.4	13	1.8	16	2.6
W04	Yes	The human brain is inside the skull. Write down one advantage of the skull being thick and strong.	20	2.2	23	2.9	16	2.9
X02		Write down one reason why animals could not live in a world without plants.	51	2.7	48	3.8	55	3.5
X04	Yes	Shown pictures of stages in a frog's growth, indicate order of the stages.	58	2.4	57	3.7	60	3.4
X05		Identify characteristics of fish with respect to backbone and environment.	37		37	3.2	38	3.7
Y02A		Write down two changes that occur in children's bodies as they become adults. 1st answer	51		49	3.9	51	3.2
Y02B		Write down two changes that occur in children's bodies as they become adults. 2nd answer	25	2.1	25	2.9	24	3.1
Y03A	Yes	Besides escaping, what are two ways animals protect themselves? 1st answer	38	2.3	41	3.6	36	3.5
Y03B	Yes	Besides escaping, what are two ways animals protect themselves? 2nd answer	27	2.1	28	2.8	27	3.2
Z02	Yes	Identify skin and skeletal features of various animals	35	2.3	31	3.0	38	3.5

REL: Release Status (Yes= Item in Released Item Set)

COUNTRY ID=Norway SCALE=Physical Science

			Third Grade					
			Ove	rall	all Boys		Gi	rls
ITEM	REL	LABEL	%	(se)	8	(se)	8	(se)
A06	No	Shown three objects floating in water, which weighs the most?	82	1.1	83	1.5	80	1.4
B01	No	A strong magnet will separate which of the following mixtures?	52	2.2	58	3.1	47	2.9
C05	No	Same brick is put on a scale in three different ways. What will the scale show?	47	2.0	49	2.5	46	3.0
D01	No	Why are kettles and kitchen pans often made of copper?	39	2.1	40	2.7	38	3.2
E05	No	When you make soap bubbles, what is inside the bubbles?	56	1.9	58	2.5	53	2.6
F04	No	Which of the following sets of time measurements is in order from shortest to longest?	56	1.8	57	2.4	55	2.5
G09	No	Which of the following pairs could together cause a rainbow?	80	1.4	78	2.1	83	2.0
H01	No	What happens to water when it boils?	80	1.4	80	1.9	79	2.5
N04	Yes	Shown picture of block of wood floating in fresh water, select picture of block in salt water.	36	3.1	36	4.3	34	4.7
N07	Yes		40	3.6	38	4.6	44	5.3
N08	Yes	What is a powder made up of both white specks and black specks is likely to be? (mixture) Shown diagrams of various boxes on scales, which has the least mass? Which picture shows the best way for 50 kg child to balance 25 kg child on seesaw? Shown diagram of a beam of light striking a mirror, which diagram shows reflected beam? Which of the following is the essiest way to separate a mixture of iron fillings and sand?	41	3.3	39	5.0	46	4.4
N09	Yes	Shown diagrams of various boxes on scales, which has the least mass?	53	3.8	52	5.1	53	4.6
001	Yes	Which picture shows the best way for 50 kg child to balance 25 kg child on seesaw?	43	3.4	46	5.2	38	4.4
005	Yes	Shown diagram of a beam of light striking a mirror, which diagram shows reflected beam?	34	3.3	36	5.0	31	4.6
800	Yes	Which of the following is the easiest way to separate a mixture of iron filings and sand?	46	3.3	49	5.3	42	5.0
P03	Yes	Which of the following is not used as an energy source?	17	2.3	21	3.3	14	3.3
P04	Yes	Compare mass of beaker of water and a weight with mass of beaker of water with weight inside.	25	3.1	22	3.6	26	4.9
P05	Yes	Shown pictures of magnets after being dipped into substance below it, which substance could be coffee?	36	3.2	44	4.5	30	5.2
P07	Yes	Which of the following travels fastest? (light)	30	2.9	37	4.2	22	4.0
Q03	Yes	Which item is most likely to stay the same after being buried in wet ground for several years?	38	3.5	39	4.7	38	4.5
Q04	Yes	When a glass jar is placed over a lighted candle, the flame goes out. Why does this happen? Shown picture of pencil lying in front of mirror, draw reflection of the pencil.	51	3.9	56	4.8	49	5.1
Q08	Yes	Shown picture of pencil lying in front of mirror, draw reflection of the pencil.	29	3.1	26	4.5	31	4.6
009	Yes	Why does the liquid in a thermometer rise when exposed to heat?	37	3.0	37	4.5	37	4.4
R01	Yes	A watering can is almost filled with water. Draw line to show surface of the water when can is tipped.	17	2.1	23	3.9	13	3.0
R05	Yes	Shown picture of children playing with string telephone, one string tight and one slack, who can hear?	42	3.3	51	4.6	35	4.4
R08	Yes	Which of the following makes its own light?	28	2.9	27	4.3	29	4.5
R09	Yes	Which of the following is an advantage of solar energy?	19	2.4	17	3.7	19	3.5
W01	Yes	Shown pictures of sugar cubes and loose sugar, which will dissolve faster? Why? Shown pictures of bowls of soup, one covered and one uncovered, which will stay hot longer? Why?	8	1.3	7	1.6	9	2.2
X01	Yes	Shown pictures of bowls of soup, one covered and one uncovered, which will stay hot longer? Why?	21	2.1	20	2.8	23	3.3
Z03	Yes	Shown diagram of blocks being compared on balances, which weighs the most? Why?	14	1.5	16	2.3	13	2.4

6

COUNTRY ID=Portugal SCALE=Earth Science

Z01B

Overall Boys Girls ITEM REL LABEL % (se) % (se) % (se) A08 No What covers most of the Earth's surface? 44 1.4 46 1.7 A10 No The fossils of dinosaurs can be found where? 56 1.6 58 2.0 54 1 8 B02 No Shown diagram, where is the saltiest water found? 61 1.9 65 2.1 32 2.0 32 2.7 58 1.9 63 2.8 C09 No Where are large amounts of metals like iron and aluminum found? 32 2.5 D04 Shown diagram of Earth, which layer is the hottest? 53 No 2.6 E06 Which of the following is hottest? (astronomical bodies) 84 1.6 87 1.7 26 1.6 27 2.3 E09 Given several recent floods, when will it flood next? 2.3 F02 Each year the Earth moves once around which of the following? 51 2.2 Shown diagrams of rocks before and after being rubbed against hard steel, circle hardest rock. 43 2.2 42 2.6 F03 2.8 Shown several diagrams of a tree and its shadow, which shows the shadow at noon? 59 2.0 64 2.4 G07 2.8 G08 Which of the following pictures best shows how an iceberg floats in sea water? 25 1.4 25 2.1 2.0 29 1.8 32 2.3 H03 No Shown diagram with river, draw an arrow showing direction of water flow. 2.7 NO1 Yes Given temperatures and precipitation (table) in four towns, where could it have snowed? 21 2.4 21 3.4 21 3.5 004 Yes The Moon produces no light, and yet it shines at night. Why is this? 71 2.6 74 3.5 68 4.2 22 3.0 25 4.1 009 Why do mountains sometimes still have snow on their tops when the snow on lower parts has melted? 1.8 3.5 Yes Why do the sun and Moon appear the same size when you look at them from Earth? 10 1.4 11 1.8 10 2.0 Y01 Yes Shown diagram of river flowing through wide plain, write one reason this is a good place for farming 25 2.3 26 3.2 24 3.0 Z01A

Yes Shown diagram of river flowing through wide plain, write one reason this is a bad place for farming

COUNTRY ID=Portugal SCALE=Environment and other content

			Third Grade								
			Ove	erall	Boys		Gi	rls			
ITEM	REL	LABEL	%	(se)	%	(se)	8	(se)			
A07	No	Which plant is not usually grown for food?	69	1.5	 69	1.7	68	1.7			
C07	No	Which of the following is an example of the use of a renewable source?	41	2.1	42	2.7	40	2.7			
E08	No	What happens to plants and fish when a factory pours large amounts of hot water into a river?	58	2.0	60	2.5	56	3.0			
006	Yes	Write down one example of how computers help people do their work.	23	2.3	24	3.2	23	3.7			
P06	Yes	To find out whether seeds grow better in light or dark, where would you put seeds?	19	2.4	17	3.3	21	3.5			
Q07	Yes	Which of the following statements is not an observation?	25	2.7	28	4.0	21	3.0			
R02	Yes	Which statement gives the best start toward finding which of three light bulbs is brightest?	18	2.3	16	2.6	19	4.1			
W05A	Yes	Write down two different things that people can do to help reduce air pollution. 1st reason.	12	1.5	13	2.0	11	1.8			
W05B	Yes	Write down two different things that people can do to help reduce air pollution. 2nd reason.	5	1.0	5	1.3	4	1.2			
X03	Yes	Write as completely as possible why large oil spills in rivers and seas are harmful to the environment.	17	1.8	17	2.3	18	2.4			

COUNTRY ID=Portugal SCALE=Life Science

			Ove	Overall		Boys		rls
ITEM	REL	LABEL		(se)	8	(se)	8	(se)
A09 B03	No No	What happens if the body takes in more food than it uses? If you throw each one of these things away, which will decay fastest?	51 69	1.7	51 68	1.9	50 71	2.1
B04 C06	No No	Where do humans interpret senses? Which animal eats only plants?	43 81	2.0 1.3	47 82	2.4 1.9	39 80	2.6 1.8
C08 D02	No No	What gas in the air do we need in order to live? Shown diagram of mouth, which teeth are used for grinding food?	72 51	1.7 2.1	71 50	2.1	73 51	2.4
D03 E07	No No	Which of the following animals does not lay eggs? What changes would you expect in pulse and breathing after running a 50 metre race?	76 43	1.9 2.1	77 49	2.3	75 36	2.8
F01 G05	No No	Which of the following plants is grown for food? Where does air go when a person breathes in?	81 82	1.3	79 83	2.0	84 80	1.9 2.1
G06 H02	No No	Shown diagram of plant, which part takes in the most water? How can washing your hands help keep you from getting sick?	75 69	1.7 1.7	75 69	1.8	74 70	2.5
H04 N02	No	Which of the following will most likely affect your adult height? Which of the following refers only to living things?	54 59	2.0	54 58	2.6	53 61	2.9
N03 N05	Yes Yes	Which of the following Celsius measures is closest to your temperature when you are not sick? Shown drawing of a bird's webbed foot, where would you be most likely to find such a bird?	32 44	2.8	38 46	4.4	26 43	3.4
N06 002	Yes Yes	Where does a baby chick get its food while inside an egg? Why did seeds placed on most cotton sprout, but not those covered with water?	25 34	2.3	26 40	3.8 4.2	23 29	3.5 4.1
003 007	Yes Yes	Shown pictures of the stages of a plants growth, in which order did they occur? Which of the following animal produces milk for its young?	45 73	3.5 2.5	42 78	4.4	47 67	4.4
P01 P02		When this caterpillar becomes an adult, which of the following pictures will it look like? Which of the following pictures shows plants commonly found in a desert?	54 74	2.8	59 76	4.2	50 71	4.1
P08 P09		Birds are different from insects in that birds have Seeds develop from which part of a plant?	39 20	3.0	44 27	4.3	34 13	4.6
Q01 002		Shown pictures of the stages in a butterfly's development, in which order did they take place? What is the best reason for including fruits and leafy vegetables in a healthy diet?	38 51	3.0	40 55	3.9	35 46	4.7
Q̃05 Q06		When an animal breathes faster and its heart beats faster, the animal is most likely Which of the following pictures does not show an insect?	49 28	3.1	50 29	4.0	47 27	4.6
R03 R04	Yes	What will likely happen when an insect carries pollen from the flowers of a tree to those of a small plant? What is the most important reason for people to use a sunscreen when they are outside in sunlight?	45 53	3.5	47 48	4.5	43 58	4.5
R06 R07	Yes	Which of the following groups contains only animals with a backbone? Select environment a worm would prefer in terms of light and moisture.	30 30	3.4	32 32	4.4	29 28	4.0
W02 W03		Write down one thing your heart does that helps the other parts of your body. Write down the reason why we get thirsty on a hot day and have to drink a lot.	19 10	2.0	22 14	2.4	17 7	2.7
W04 X02	Yes	The human brain is inside the skull. Write down one advantage of the skull being thick and strong. Write down one reason why animals could not live in a world without plants.	13 47	1.8	14 48	2.8	11 47	2.0
X04 X05	Yes	Shown pictures of stages in a frog's growth, indicate order of the stages. Identify characteristics of fish with respect to backbone and environment.	50 28	2.5	49 28	3.2	51 28	3.1
Y02A Y02B	Yes	Write down two changes that occur in children's bodies as they become adults. 1st answer Write down two changes that occur in children's bodies as they become adults. 2nd answer	37 13	2.0	39 15	3.0	35 12	3.0
Y03A Y03B	Yes Yes	Besides escaping, what are two ways animals protect themselves? 1st answer Besides escaping, what are two ways animals protect themselves? 2nd answer	30 6	2.3	32	2.8	27 7	3.0
Z02		Identify skin and skeletal features of various animals	36	2.3	34	2.9	37	3.6

COUNTRY ID=Portugal SCALE=Physical Science

			Ove	Overall		Boys		rls
ITEM	REL	LABEL		(se)	%	(se)	8	(se)
A06	No	Shown three objects floating in water, which weighs the most?	70	1.3	72	1.4	68	1.8
B01	No	A strong magnet will separate which of the following mixtures?		1.7	69	1.9	59	2.4
C05	No	Same brick is put on a scale in three different ways. What will the scale show?		1.7	58		57	2.6
D01	No	Why are kettles and kitchen pans often made of copper?	35	1.7	37	2.2	33	2.4
E05	No	When you make soap bubbles, what is inside the bubbles?	51	1.7	55	2.2		2.2
F04	No	Which of the following sets of time measurements is in order from shortest to longest?	49	2.2	53	2.7		2.8
G09	No	Which of the following pairs could together cause a rainbow?	71	1.8	72	2.3	70	2.8
H01	No	What happens to water when it boils?	76	1.6	77	2.1	75	2.1
N04	Yes	Shown picture of block of wood floating in fresh water, select picture of block in salt water.	15	1.7	14	2.7	16	2.9
N07	Yes	Where does Keisha get the energy to push her bicycle uphill?	46	3.2	43	4.1	49	4.2
и08	Yes	What is a powder made up of both white specks and black specks is likely to be? (mixture) Shown diagrams of various boxes on scales, which has the least mass? Which picture shows the best way for 50 kg child to balance 25 kg child on seesaw?	49	3.5	49	5.0	48	4.5
N09	Yes	Shown diagrams of various boxes on scales, which has the least mass?	42	3.1	43	4.3	42	4.6
001	Yes	Which picture shows the best way for 50 kg child to balance 25 kg child on seesaw?	26	2.9	27	4.4	25	3.5
005	Yes	Shown diagram of a beam of light striking a mirror, which diagram shows reflected beam? Which of the following is the easiest way to separate a mixture of iron filings and sand?	42	3.3	38	4.3	45	4.1
008	Yes	Which of the following is the easiest way to separate a mixture of iron fillings and sand?	52	3.1	58	4.7		4.8
P03	Yes	which of the following is not used as an energy source?	29	2.9	32	4.6	27	3.3
P04	Yes	Compare mass of beaker of water and a weight with mass of beaker of water with weight inside.	26	2.9	26	3.6	26	3.8
P05	Yes	Shown pictures of magnets after being dipped into substance below it, which substance could be coffee?	27	2.7	29	3.9	26	3.4
P07	Yes	Which of the following travels fastest? (light)	22 37	2.3	29	3.3	16	3.2
Q03	Yes	Which of the following travels fastest? (light) Which item is most likely to stay the same after being buried in wet ground for several years? When a glass jar is placed over a lighted candle, the flame goes out. Why does this happen? Shown picture of pencil lying in front of mirror, draw reflection of the pencil. Why does the liquid in a thermometer rise when exposed to heat?	37	3.0	41 36	4.0	32 38	4.7
Q04 Q08	Yes Yes	when a grass jar is placed over a righted candle, the frame goes out. Why does this happen?	25	2.3	25	4.4	38 26	3.4
009	Yes	Shown precure or penetr lying in Front of wirror, draw refrection of the penetr. Why does the liquid in a thermometer rise when exposed to heat?	28	2.3	30	4.0	25	3.4
R01		May does the figure in a cherimoneter fise when exposed to heat; A watering can is almost filled with water. Draw line to show surface of the water when can is tipped.		2.0	16		12	2.8
R05	Yes	A watering can is almost illied with water braw line to show with act of the water when can is tipped. Shown picture of children playing with string telephone, one string tight and one slack, who can hear?		3.5	46	4.7	50	5.2
R08		which of the following makes its own light?	46	3.1	49	4.2		5.0
R09	Yes	Which of the following is an advantage of solar energy?	29	2.9	27	3.3		4.2
W01	Yes		13	1.4	11	1.8		2.1
X01	Yes	Shown pictures of sugar cubes and loose sugar, which will dissolve faster? Why? Shown pictures of bowls of soup, one covered and one uncovered, which will stay hot longer? Why?	9	1.4	13		6	1.4
Z03	Yes	Shown diagram of blocks being compared on balances, which weighs the most? Why?	13	1.3	13	1.7	12	2.2

COUNTRY ID=Singapore SCALE=Earth Science

			IIIII GIAGE					
			Ove	rall	Boys		Gi	rls
ITEM	REL	LABEL	왕	(se)	용	(se)	%	(se)
A08 A10	No No	What covers most of the Earth's surface? The fossils of dinosaurs can be found where?	75 78	1.2 1.0	77 81	1.3	73 75	1.5 1.3
B02 C09	No No	Shown diagram, where is the saltiest water found? Where are large amounts of metals like iron and aluminum found?	42 53	1.5	46 52	1.7 1.7	39 53	1.8
D04 E06	No No	Shown diagram of Earth, which layer is the hottest? Which of the following is hottest? (astronomical bodies)	72 87	1.0	73 87	$\frac{1.4}{1.2}$	71 88	1.2
E09 F02	No No	Given several recent floods, when will it flood next? Each year the Earth moves once around which of the following?	39 63	1.1	40 66	$\frac{1.4}{2.1}$	39 61	1.8
F03 G07	No No	Shown diagrams of rocks before and after being rubbed against hard steel, circle hardest rock. Shown several diagrams of a tree and its shadow, which shows the shadow at noon?	56 69	1.6 1.3	56 73	2.1 1.6	56 64	1.9 1.8
G08 H03	No No	Which of the following pictures best shows how an iceberg floats in sea water? Shown diagram with river, draw an arrow showing direction of water flow.	31 22	1.1	31 21	1.3 1.7	24	
N01 004	Yes Yes	Given temperatures and precipitation (table) in four towns, where could it have snowed? The Moon produces no light, and yet it shines at night. Why is this?	31 81	1.8 1.5	31 80	2.5	30 82	2.4
009 Y01	Yes Yes	Why do mountains sometimes still have snow on their tops when the snow on lower parts has melted? Why do the sun and Moon appear the same size when you look at them from Earth?	19 20	1.8	22 23	2.7	17 16	2.0
Z01A Z01B	Yes Yes	Shown diagram of river flowing through wide plain, write one reason this is a good place for farming Shown diagram of river flowing through wide plain, write one reason this is a bad place for farming	64 10	1.6 0.8	64 11	$\frac{1.9}{1.1}$	64 10	$\frac{2.1}{1.1}$

COUNTRY ID=Singapore SCALE=Environment and other content

Third	Grade
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			Boys			rls
ITEM REL LABEL	%	(se)	%	(se)	%	(se)
No Which of the following is an example of the use of a renewable source? No What happens to plants and fish when a factory pours large amounts of hot water into a river? Write down one example of how computers help people do their work. To find out whether seeds grow better in light or dark, where would you put seeds? Which of the following statements is not an observation? Wres Which statement gives the best start toward finding which of three light bulbs is brightest? Wosh Yes Write down two different things that people can do to help reduce air pollution. 1st reason. Wosh Yes Write down two different things that people can do to help reduce air pollution. 2nd reason.	28	1.2 1.2 1.2 2.3 2.0 1.8 1.8 2.3	73 30 80 59 40 35 31 28	1.3 1.6 1.5 3.0 2.6 2.7 2.7	79 25 84 57 47 38 28 29	1.3 1.2 1.4 3.0 2.6 2.6 2.3 3.0 2.1

COUNTRY ID=Singapore SCALE=Life Science

			Οve	erall	Boys		Gi	rls
ITEM	REL	LABEL		(se)	용	(se)	왕	(se)
ITEM	No Yes	What happens if the body takes in more food than it uses? If you throw each one of these things away, which will decay fastest? Where do humans interpret senses? Which animal eats only plants? What gas in the air do we need in order to live? Shown diagram of mouth, which teeth are used for grinding food? Which of the following animals does not lay eggs? What changes would you expect in pulse and breathing after running a 50 metre race? Which of the following plants is grown for food? Where does air go when a person breathes in? Shown diagram of plant, which part takes in the most water? How can washing your hands help keep you from getting sick? Which of the following will most likely affect your adult height? Which of the following refers only to living things? Which of the following Celsius measures is closest to your temperature when you are not sick? Shown drawing of a bird's webbed foot, where would you be most likely to find such a bird? Where does a baby chick get its food while inside an egg? Why did seeds placed on most cotton sprout, but not those covered with water?	ક	(se) 0.8 1.7 1.4 0.7 1.5 1.3 0.7 1.5 1.2 1.6 0.8 1.2 1.1 1.7 2.0 1.6 1.7 1.9 2.1 1.9 2.1 1.7 2.0 1.6 1.7 1.9 2.1 1.7	%	-	% 62 37 41 90 68	
R07 W02 W03 W04 X02 X04 X05 Y02A Y02B Y03A	Yes	Select environment a worm would prefer in terms of light and moisture. Write down one thing your heart does that helps the other parts of your body. Write down the reason why we get thirsty on a hot day and have to drink a lot. The human brain is inside the skull. Write down one advantage of the skull being thick and strong. Write down one reason why animals could not live in a world without plants. Shown pictures of stages in a frog's growth, indicate order of the stages. Identify characteristics of fish with respect to backbone and environment. Write down two changes that occur in children's bodies as they become adults. 1st answer Write down two changes that occur in children's bodies as they become adults. 2nd answer Besides escaping, what are two ways animals protect themselves? 1st answer	40 22 25 26 70 90 58 56 41 50	2.0 2.0 1.7 2.1 1.6 0.8 1.7 1.7	41 22 25 28 67 90 57 55 38 51	3.1 2.2 2.3 2.5 2.2 1.0 2.2 2.0 2.3 2.2	39 22 24 25 73 90 60 58 44 49	2.3 2.4 2.1 2.3 1.9 1.1 2.3 2.2 2.1
Y03B Z02	Yes Yes	Besides escaping, what are two ways animals protect themselves? 2nd answer Identify skin and skeletal features of various animals	35 68	1.6 1.5	40 66	2.1	31 70	1.8 1.9

45 1.9

46

2.7

COUNTRY ID=Singapore SCALE=Physical Science

Third Grade Overall Girls Boys ITEM % (se) % (se) % (se) A06 Shown three objects floating in water, which weighs the most? 84 0.6 84 0.8 No A strong magnet will separate which of the following mixtures? 79 1.0 80 1.2 B01 77 1 3 C05 Same brick is put on a scale in three different ways. What will the scale show? 66 1.2 62 1.7 D01 No Why are kettles and kitchen pans often made of copper? 57 1.6 56 1.8 59 2.2 47 1.4 51 1.8 E05 When you make soap bubbles, what is inside the bubbles? 42 No 1.7 F04 Which of the following sets of time measurements is in order from shortest to longest? 69 1.3 70 1.6 69 1.7 80 1.1 81 1.3 GN9 No Which of the following pairs could together cause a rainbow? 79 1.5 H01 What happens to water when it boils? 68 1.0 68 1.3 Yes Shown picture of block of wood floating in fresh water, select picture of block in salt water. 32 1.6 36 2.3 N04 2.7 48 2.1 45 3.3 N07 Yes Where does Keisha get the energy to push her bicycle uphill? 2.7 N08 What is a powder made up of both white specks and black specks is likely to be? (mixture) 65 2.2 64 3.0 2.8 63 2.0 61 2.8 NO9 Yes Shown diagrams of various boxes on scales, which has the least mass? 66 2.9 001 Yes Which picture shows the best way for 50 kg child to balance 25 kg child on seesaw? 38 1.8 39 2.5 37 2.3 50 2.0 51 2.7 72 1.9 71 2.7 005 Yes Shown diagram of a beam of light striking a mirror, which diagram shows reflected beam? 50 2.1 72 1.9 008 Yes Which of the following is the easiest way to separate a mixture of iron filings and sand? 73 Yes Which of the following is not used as an energy source? 26 1.9 27 2.6 P03 2.5 Yes Compare mass of beaker of water and a weight with mass of beaker of water with weight inside. 37 1.9 39 2.5 P04 35 2.3 P05 Shown pictures of magnets after being dipped into substance below it, which substance could be coffee? 57 2.0 55 2.6 32 2.0 37 3.0 2.7 P07 Yes Which of the following travels fastest? (light) 003 Yes Which item is most likely to stay the same after being buried in wet ground for several years? 31 1.7 32 2.6 30 2.3 004 When a glass jar is placed over a lighted candle, the flame goes out. Why does this happen? 39 2.4 45 3.1 33 2.8 41 1.7 46 2.5 008 Yes Shown picture of pencil lying in front of mirror, draw reflection of the pencil. 2.2 009 Yes Why does the liquid in a thermometer rise when exposed to heat? 44 1.9 45 2.6 Yes A watering can is almost filled with water. Draw line to show surface of the water when can is tipped. 15 1.2 20 1.9 R01 11 1.4 R05 Yes Shown picture of children playing with string telephone, one string tight and one slack, who can hear? 67 1.6 67 2.2 R08 Yes Which of the following makes its own light? 47 2.0 53 2.4 3 1 R09 Yes Which of the following is an advantage of solar energy? 28 1.7 28 2.3 2.1 W01 Shown pictures of sugar cubes and loose sugar, which will dissolve faster? Why? 28 1.4 1.6 30 2.2 37 1.9 37 2.2 Yes Shown pictures of bowls of soup, one covered and one uncovered, which will stay hot longer? Why? 37 $x \cap 1$ 2.4

Yes Shown diagram of blocks being compared on balances, which weighs the most? Why?

REL: Release Status (Yes= Item in Released Item Set)

Z03

21 3.7 18

COUNTRY ID=Thailand SCALE=Earth Science

Z01B

Third Grade Overall Boys Girls ITEM REL LABEL % (se) % (se) % (se) A08 No What covers most of the Earth's surface? A10 No The fossils of dinosaurs can be found where? 55 2.2 57 2.5 54 2 4 B02 No Shown diagram, where is the saltiest water found? 60 2.6 63 3.3 33 2.0 33 2.3 59 2.3 57 2.5 C09 No Where are large amounts of metals like iron and aluminum found? 32 3.1 D04 Shown diagram of Earth, which layer is the hottest? 61 No 2.8 E06 Which of the following is hottest? (astronomical bodies) 88 1.3 88 1.6 89 1.7 35 2.1 34 2.8 E09 Given several recent floods, when will it flood next? 35 2.9 F02 Each year the Earth moves once around which of the following? 51 2.5 Shown diagrams of rocks before and after being rubbed against hard steel, circle hardest rock. 35 2.9 34 2.6 F03 4.3 Shown several diagrams of a tree and its shadow, which shows the shadow at noon? 62 2.8 64 3.3 G07 3.3 G08 Which of the following pictures best shows how an iceberg floats in sea water? 23 2.1 23 2.6 2.4 26 3.1 26 3.0 H03 No Shown diagram with river, draw an arrow showing direction of water flow. 3.9 Yes Given temperatures and precipitation (table) in four towns, where could it have snowed? NO 1 24 3.8 26 4.7 4.7 004 Yes The Moon produces no light, and yet it shines at night. Why is this? 53 3.5 52 4.8 4.3 16 10 3.2 009 Why do mountains sometimes still have snow on their tops when the snow on lower parts has melted? 3.8 5.4 Yes Why do the sun and Moon appear the same size when you look at them from Earth? 13 2.2 14 2.4 Y01 12 3.6 Yes Shown diagram of river flowing through wide plain, write one reason this is a good place for farming 49 3.1 46 4.0 Z01A 51 3.7

Yes Shown diagram of river flowing through wide plain, write one reason this is a bad place for farming

COUNTRY ID=Thailand SCALE=Environment and other content

Third Grade

			Ove	rall	Boys		Girl	
ITEM	REL	LABEL	%	(se)	%	(se)	%	(se)
A07	No	Which plant is not usually grown for food?	85	1.4	82	1.6	88	1.5
C07	No	Which of the following is an example of the use of a renewable source?	48	2.3	45	2.5	50	3.2
E08	No	What happens to plants and fish when a factory pours large amounts of hot water into a river?	65	2.9	58	3.5	72	3.1
006	Yes	Write down one example of how computers help people do their work.	41	3.6	36	4.2	45	4.8
P06	Yes	To find out whether seeds grow better in light or dark, where would you put seeds?	30	2.8	26	3.7	34	4.4
Q07	Yes	Which of the following statements is not an observation?	36	3.5	35	4.8	37	4.4
R02	Yes	Which statement gives the best start toward finding which of three light bulbs is brightest?	35	3.6	33	4.4	37	5.3
W05A	Yes	Write down two different things that people can do to help reduce air pollution. 1st reason.	30	4.2	28	5.1	31	4.9
W05B	Yes	Write down two different things that people can do to help reduce air pollution. 2nd reason.	24	3.5	25	4.6	23	3.7
X03	Yes	Write as completely as possible why large oil spills in rivers and seas are harmful to the environment.	9	1.5	8	1.8	10	2.0

COUNTRY ID=Thailand SCALE=Life Science

			Third Grade					
			Ove	Overall		ys	Gi	rls
ITEM	REL	LABEL	%	(se)	%	(se)	%	(se)
A09	No	What happens if the body takes in more food than it uses?	62	2.3	 58	2.1	66	2.8
B03	No	If you throw each one of these things away, which will decay fastest?	54	2.2	52	2.6	56	2.8
C06	No	Which animal eats only plants?	89	1.3	90	1.8		1.8
C08	No	What gas in the air do we need in order to live?	48	2.5	51	3.2	46	2.8
D02	No	Shown diagram of mouth, which teeth are used for grinding food?	66	2.4	66	2.7		3.1
D03	No	Which of the following animals does not lay eggs?	92	1.4	90	1.7	94	1.7
E07	No	What changes would you expect in pulse and breathing after running a 50 metre race?	40	2.1	42	2.6	38	3.3
F01	No	Which of the following plants is grown for food?	91	1.2	91	1.7	91	1.6
G05	No	Where does air go when a person breathes in?	51	2.8	53	3.0	50	3.7
G06	No	Shown diagram of plant, which part takes in the most water?	88	1.4	87	1.7	89	1.8
H02	No	How can washing your hands help keep you from getting sick?	59	2.6	59	3.0	60	
H04	No	Which of the following will most likely affect your adult height?	31	2.7	33	3.5	29	3.1
N02	Yes	Which of the following refers only to living things?	64	3.8	64	4.0		5.5
N03	Yes	Which of the following Celsius measures is closest to your temperature when you are not sick?	31	3.3	28	3.9		4.7
N05	Yes	Shown drawing of a bird's webbed foot, where would you be most likely to find such a bird?	31	3.9	28	4.8	34	5.5
N06	Yes	Which of the following refers only to fiving things? Which of the following Celsius measures is closest to your temperature when you are not sick? Shown drawing of a bird's webbed foot, where would you be most likely to find such a bird? Where does a baby chick get its food while inside an egg? Why did seeds placed on most cotton sprout, but not those covered with water? Shown pictures of the stages of a plants growth, in which order did they occur? Which of the following animal produces milk for its young?	26	2.4	24	3.3	28	4.7
002	Yes	Why did seeds placed on most cotton sprout, but not those covered with water?	25	3.6	17	3.4	31	5.3
003	Yes	Shown pictures of the stages of a plants growth, in which order did they occur?	60	3.7	58	5.5	62	4.5
007	Yes	Which of the following animal produces milk for its young?	, 0	3.6	70	5.4	81	3.7
P01	Yes	When this caterpillar becomes an adult, which of the following pictures will it look like?	68	3.0	69	3.6	67	3.9
P02	Yes	Which of the following animal produces milk for its young? When this caterpillar becomes an adult, which of the following pictures will it look like? Which of the following pictures shows plants commonly found in a desert? Birds are different from insects in that birds have	60	3.8	65	4.6	54	4.9
P08	Yes	Birds are different from insects in that birds have	47	3.9	51	4.7	42	4.2
P09	Yes	Seeds develop from which part of a plant? Shown pictures of the stages in a butterfly's development, in which order did they take place? What is the best reason for including fruits and leafy vegetables in a healthy diet? When an animal breathes faster and its heart beats faster, the animal is most likely Which of the following pictures does not show an insect?	52	3.7	57	4.9	45	4.2
Q01	Yes	Shown pictures of the stages in a butterfly's development, in which order did they take place?	27	3.3	30	4.5	25	4.6
Q02	Yes	What is the best reason for including fruits and leafy vegetables in a healthy diet?	40	3.0	45	3.9	36	4.2
Q05	Yes	When an animal breathes faster and its heart beats faster, the animal is most likely	57	3.7	54	5.1		4.5
Q06	Yes	Which of the following pictures does not show an insect?	12	2.1	10	2.9	13	2.7
R03	Yes	v=== -=	33		29	4.2	36	5.7
R04	Yes	What is the most important reason for people to use a sunscreen when they are outside in sunlight?	55		51	6.7		
R06	Yes	Which of the following groups contains only animals with a backbone?	63		58	4.8		5.1
R07	Yes	Select environment a worm would prefer in terms of light and moisture.	22	2.3	24	3.9	20	3.3
W02	Yes	Write down one thing your heart does that helps the other parts of your body.	8	1.8	8	1.8	9	2.2
W03	Yes	Write down the reason why we get thirsty on a hot day and have to drink a lot.	13	2.2	10	2.7	16	2.7
W04	Yes	The human brain is inside the skull. Write down one advantage of the skull being thick and strong.	31		29	5.0	34	3.8
X02	Yes	Write down one reason why animals could not live in a world without plants.	39	3.1	36	4.0	41	3.7 3.7
X04	Yes	Shown pictures of stages in a frog's growth, indicate order of the stages.	62	3.1	60		64	
X05	Yes	Identify characteristics of fish with respect to backbone and environment.	41		40	3.2		2.8
Y02A	Yes	write down two changes that occur in children's bodies as they become adults. Ist answer	28	4.2	27	4.3	28	5.1
Y02B	Yes	Which of the following groups contains only animals with a backbone? Select environment a worm would prefer in terms of light and moisture. Write down one thing your heart does that helps the other parts of your body. Write down the reason why we get thirsty on a hot day and have to drink a lot. The human brain is inside the skull. Write down one advantage of the skull being thick and strong. Write down one reason why animals could not live in a world without plants. Shown pictures of stages in a frog's growth, indicate order of the stages. Identify characteristics of fish with respect to backbone and environment. Write down two changes that occur in children's bodies as they become adults. 1st answer Write down two changes that occur in children's bodies as they become adults. 2nd answer Besides escaping, what are two ways animals protect themselves? 1st answer Besides escaping, what are two ways animals protect themselves? 2nd answer	18	2.8	15	2.3	20	
Y03A	Yes	Besides escaping, what are two ways animals protect themselves? Ist answer	11	1.9	9	1.5	12	3.2
Y03B	Yes	Besides escaping, what are two ways animals protect themselves? 2nd answer	7	1.8	6	1.6	9	3.0
Z02	Yes	Identify skin and skeletal features of various animals	18	1.7	18	2.8	17	2.1

REL: Release Status (Yes= Item in Released Item Set)

COUNTRY ID=Thailand SCALE=Physical Science

			Ove	verall Boys		Gi	rls	
ITEM	REL	LABEL	8	(se)	%	(se)	%	(se)
A06	No	Shown three objects floating in water, which weighs the most?	83	1.3	82	1.4	83	1.6
B01	No	A strong magnet will separate which of the following mixtures?	63	2.0	59	2.4	66	2.6
C05	No	Same brick is put on a scale in three different ways. What will the scale show?	57	2.9	55	3.8	59	3.0
D01	No	Why are kettles and kitchen pans often made of copper?	48	1.9	48	2.1	49	2.7
E05	No	When you make soap bubbles, what is inside the bubbles?	52	2.5	52	2.8	51	3.6
F04	No	Which of the following sets of time measurements is in order from shortest to longest?	59	2.0	58	2.5	60	2.8
G09	No	Which of the following pairs could together cause a rainbow?	67	2.1	67	2.4		2.5
H01	No	What happens to water when it boils?	61	2.2	60	3.0	62	2.5
N04	Yes	Shown picture of block of wood floating in fresh water, select picture of block in salt water.	32	2.7	37	3.1	27	3.8
N07	Yes	Where does Keisha get the energy to push her bicycle uphill?	20	3.1	22	3.5	19	4.2
N08	Yes	What is a powder made up of both white specks and black specks is likely to be? (mixture)	21	2.5	22	3.3	20	3.4
N09	Yes	Shown diagrams of various boxes on scales, which has the least mass?	43	3.8	42	5.0	45	4.3
001	Yes	Which picture shows the best way for 50 kg child to balance 25 kg child on seesaw?	27	3.7	30	4.7	25	4.5
005	Yes	Shown diagram of a beam of light striking a mirror, which diagram shows reflected beam?	60	3.1	57	4.1	63	4.3
800	Yes	Which of the following is the easiest way to separate a mixture of iron filings and sand?	42	3.6	41	4.2	43	5.5
P03	Yes	Which of the following is not used as an energy source?	28	3.7	33	4.8	22	5.3
P04	Yes	Compare mass of beaker of water and a weight with mass of beaker of water with weight inside.	13	3.1	13	3.4	12	4.6
P05	Yes	Shown pictures of magnets after being dipped into substance below it, which substance could be coffee?	26	3.3	30	4.3	22	4.1
P07	Yes	Which of the following travels fastest? (light)	16	2.5	22	3.8	9	2.4
Q03	Yes	Which item is most likely to stay the same after being buried in wet ground for several years?	45	3.1	44	4.9	45	4.3
Q04	Yes	When a glass jar is placed over a lighted candle, the flame goes out. Why does this happen?	25	4.4	26	5.1	25	6.9
Q08	Yes	Shown picture of pencil lying in front of mirror, draw reflection of the pencil.	22	4.2	19	4.2	25	6.1
Q09	Yes	Why does the liquid in a thermometer rise when exposed to heat?	35	4.0	33	5.1	37	5.3
R01	Yes	A watering can is almost filled with water. Draw line to show surface of the water when can is tipped.	8	1.6	6	2.0	9	2.2
R05	Yes	Shown picture of children playing with string telephone, one string tight and one slack, who can hear?	52	3.7	49	5.2	54	4.5
R08	Yes	Which of the following makes its own light?	29	3.1	33	4.7	27	4.3
R09	Yes	Which of the following is an advantage of solar energy?	17	2.8	19		16	4.1
W01	Yes	Shown pictures of sugar cubes and loose sugar, which will dissolve faster? Why?	23	3.4	20	4.0		3.9
Z03	Yes	Shown diagram of blocks being compared on balances, which weighs the most? Why?	10	3.5	10	3.0	11	4.2

63 2.0 62 2.7 32 2.3 31 2.8

COUNTRY ID=England SCALE=Earth Science

Z01A

Z01B

Overall Boys Girls ITEM REL LABEL % (se) % (se) % (se) A08 No What covers most of the Earth's surface? 67 1.2 70 1.7 A10 No The fossils of dinosaurs can be found where? 79 1.0 80 1.4 79 1.2 B02 No Shown diagram, where is the saltiest water found? 67 1.2 67 1.6 43 1.5 43 2.5 78 1.4 78 2.1 C09 No Where are large amounts of metals like iron and aluminum found? 42 1.9 D04 Shown diagram of Earth, which layer is the hottest? 77 1.7 No E06 Which of the following is hottest? (astronomical bodies) 93 0.9 92 1.4 2.1 E09 Given several recent floods, when will it flood next? 36 1.3 38 1.7 F02 Each year the Earth moves once around which of the following? 68 1.4 73 Shown diagrams of rocks before and after being rubbed against hard steel, circle hardest rock. F03 55 1.6 56 2.2 2.2 Shown several diagrams of a tree and its shadow, which shows the shadow at noon? 65 1.7 69 2.1 G07 2.0 G08 Which of the following pictures best shows how an iceberg floats in sea water? 24 1.7 2.3 2.1 1.7 35 H03 No Shown diagram with river, draw an arrow showing direction of water flow. 32 2.2 1 9 NO 1 Yes Given temperatures and precipitation (table) in four towns, where could it have snowed? 27 2.2 34 3.5 2.7 004 Yes The Moon produces no light, and yet it shines at night. Why is this? 75 2.5 81 3.3 70 3.9 33 2.9 009 Why do mountains sometimes still have snow on their tops when the snow on lower parts has melted? 38 4.3 4.0 Yes Why do the sun and Moon appear the same size when you look at them from Earth? 26 1.7 30 2.6 Y01 2.4

Yes Shown diagram of river flowing through wide plain, write one reason this is a good place for farming

Yes Shown diagram of river flowing through wide plain, write one reason this is a bad place for farming

3.1

3.1

21 2.0 25 2.5 18 2.3

19 1.8 21 2.9 16 2.1

39

34

3.0

2.5

2.2 35

39

36 2.2

COUNTRY ID=England SCALE=Environment and other content

R02

W05A

W05B

X03

Overall Boys Girls ITEM REL LABEL % (se) % (se) % (se) A07 No Which plant is not usually grown for food? 80 1.0 76 1.5 C07 No Which of the following is an example of the use of a renewable source? 36 1.5 39 2.3 33 1.9 No What happens to plants and fish when a factory pours large amounts of hot water into a river? E08 69 1.4 67 2.2 71 1.6 62 2.8 66 4.0 33 2.4 32 3.3 006 Yes Write down one example of how computers help people do their work. 4.2 Yes To find out whether seeds grow better in light or dark, where would you put seeds? 34 P06 3.3 007 Yes Which of the following statements is not an observation? 41 2.9 39 3.7 43 4.1 Yes Which statement gives the best start toward finding which of three light bulbs is brightest? 37

Yes Write down two different things that people can do to help reduce air pollution. 1st reason.
Yes Write down two different things that people can do to help reduce air pollution. 2nd reason.

Yes Write as completely as possible why large oil spills in rivers and seas are harmful to the environment.

COUNTRY ID=England SCALE=Life Science

Third Grade

			Ove	erall	Boys		Gi	rls
ITEM	REL	LABEL		(se)	왕	(se)	왕	(se)
A09	No	What happens if the body takes in more food than it uses?	68	1.1	68	1.5	69	1.2
в03	No	If you throw each one of these things away, which will decay fastest?	67	1.7	67	2.1	68	2.0
B04 C06	No No	Where do humans interpret senses? Which animal eats only plants?	62 85	1.2	61 88	1.8	64 83	1.7 1.6
C08	No	What gas in the air do we need in order to live?	82	1.2	84	1.8	80	2.0
D02	No	Shown diagram of mouth, which teeth are used for grinding food?	61	1.6	62	2.1	60	2.1
D03	No	Which of the following animals does not lay eggs?	92	0.9	91	1.2	92	1.1
E07	No	What changes would you expect in pulse and breathing after running a 50 metre race?	51	1.9	55	2.7	47	2.1
F01	No	Which of the following plants is grown for food?	80	1.3	81	1.6		1.7
G05	No	Where does air go when a person breathes in?	81	1.3	79	1.8	82	1.7
G06	No	Shown diagram of plant, which part takes in the most water?	84	1.0	84	1.8	84	1.5
H02 H04	No No	How can washing your hands help keep you from getting sick? Which of the following will most likely affect your adult height?	88 43	$\frac{1.1}{1.7}$	86 41	2.1	91 44	1.1
N02	Yes	Which of the following refers only to living things?	71	2.4	69	4.2	73	3.1
N03	Yes	Which of the following Celsius measures is closest to your temperature when you are not sick?	30	2.7	31	3.8	29	3.5
N05	Yes	Shown drawing of a bird's webbed foot, where would you be most likely to find such a bird?	68	2.3	69	3.4	68	3.2
N06	Yes	Where does a baby chick get its food while inside an egg?	32	2.4	34	3.8	30	3.5
002	Yes	Why did seeds placed on most cotton sprout, but not those covered with water?	33	2.6	33	3.5	33	3.8
003	Yes		61	3.2	58	4.2	65	4.2
007		Which of the following animal produces milk for its young?	63	2.8	66	3.9	60	4.0
P01 P02		When this caterpillar becomes an adult, which of the following pictures will it look like? Which of the following pictures shows plants commonly found in a desert?	92 87	1.3	92 90	2.0	93 85	1.9 2.8
P02	Yes		50	2.4	50	3.7	51	3.5
P09	Yes		29	2.6	30	3.7	27	3.6
001	Yes		61		64	3.9	58	4.3
Q02		What is the best reason for including fruits and leafy vegetables in a healthy diet?	59	2.7	55	3.7	63	3.2
Q05		When an animal breathes faster and its heart beats faster, the animal is most likely	62	2.8	61	4.0	64	3.6
Q06		Which of the following pictures does not show an insect?	40	2.7	42	3.6	38	4.0
R03		What will likely happen when an insect carries pollen from the flowers of a tree to those of a small plant?	60		56	4.2	63	3.5
R04		What is the most important reason for people to use a sunscreen when they are outside in sunlight?	75 36	2.4	74 36	3.5	75 36	2.7
R06 R07	Yes	Which of the following groups contains only animals with a backbone? Select environment a worm would prefer in terms of light and moisture.	55	3.0	54	3.6	55	3.8
W02		Select environment a worm would prefer in terms of fight and moreture. Write down one thing your heart does that helps the other parts of your body.	45	2.1	47	2.5	44	2.8
W02		Write down the reason why we get thirsty on a hot day and have to drink a lot.	19	1.5	22	2.2	16	1.7
W04		The human brain is inside the skull. Write down one advantage of the skull being thick and strong.	37	2.3	41	2.7	33	2.8
X02		Write down one reason why animals could not live in a world without plants.	77	1.7	76	2.4	77	2.5
X04	Yes	Shown pictures of stages in a frog's growth, indicate order of the stages.	81	1.4	82	2.2	81	2.0
X05		Identify characteristics of fish with respect to backbone and environment.	54		53	3.2	54	2.3
Y02A		Write down two changes that occur in children's bodies as they become adults. 1st answer	60		60	2.8	60	2.6
Y02B		Write down two changes that occur in children's bodies as they become adults. 2nd answer	29	1.8	29	2.7	29	2.5
YO3A	Yes		53 38	1.9 2.1	56 38	2.5	50 37	2.7
Y03B Z02	Yes	Besides escaping, what are two ways animals protect themselves? 2nd answer Identify skin and skeletal features of various animals	38 60	2.1	38 60	2.6	3 / 61	2.7
202	168	racherry skin and skeretar reacures or various animars	0.0	۷.1	00	۷./	OI	2.0

COUNTRY ID=England SCALE=Physical Science

Third Grade Overall Girls Boys ITEM % (se) % (se) % (se) A06 Shown three objects floating in water, which weighs the most? B01 No A strong magnet will separate which of the following mixtures? 69 1.5 69 2.0 69 2.0 Same brick is put on a scale in three different ways. What will the scale show? C05 63 1.6 61 2.2 D01 No Why are kettles and kitchen pans often made of copper? 60 1.7 60 2.2 61 2.4 66 1.6 65 2.0 When you make soap bubbles, what is inside the bubbles? E05 67 No 2.1 F04 Which of the following sets of time measurements is in order from shortest to longest? 65 1.5 67 1.9 2.2 GN9 No Which of the following pairs could together cause a rainbow? 88 1.0 86 1.6 90 1.2 H01 What happens to water when it boils? 61 1.7 66 2.1 Yes Shown picture of block of wood floating in fresh water, select picture of block in salt water. 28 2.5 33 4.2 N04 3.1 53 3.0 52 4.8 N07 Yes Where does Keisha get the energy to push her bicycle uphill? 4.0 N08 What is a powder made up of both white specks and black specks is likely to be? (mixture) 66 2.9 67 3.7 3.8 56 2.8 59 4.2 NO9 Yes Shown diagrams of various boxes on scales, which has the least mass? 53 3 3 001 Yes Which picture shows the best way for 50 kg child to balance 25 kg child on seesaw? 36 3.0 39 3.9 32 3.6 3.5 005 Yes Shown diagram of a beam of light striking a mirror, which diagram shows reflected beam? 57 2.7 56 58 4.5 44 2.6 47 008 Yes Which of the following is the easiest way to separate a mixture of iron filings and sand? 4.4 3.6 Yes Which of the following is not used as an energy source? 29 2.4 31 3.5 P03 3.5 Yes Compare mass of beaker of water and a weight with mass of beaker of water with weight inside. 23 2.6 23 3.4 P04 3.4 P05 Shown pictures of magnets after being dipped into substance below it, which substance could be coffee? 49 2.9 48 4.0 3.8 33 2.7 43 4.1 P07 Yes Which of the following travels fastest? (light) 3 3 003 Yes Which item is most likely to stay the same after being buried in wet ground for several years? 51 2.9 49 4.3 3.4 004 When a glass jar is placed over a lighted candle, the flame goes out. Why does this happen? 52 2.6 51 3.9 52 3.7 3.1 44 3.8 44 008 Yes Shown picture of pencil lying in front of mirror, draw reflection of the pencil. 4.2 009 Yes Why does the liquid in a thermometer rise when exposed to heat? 56 3.1 57 3.5 4.2 Yes A watering can is almost filled with water. Draw line to show surface of the water when can is tipped. 21 2.0 26 2.9 R01 16 2.7 55 R05 Yes Shown picture of children playing with string telephone, one string tight and one slack, who can hear? 2.9 58 3.9 53 R08 Yes Which of the following makes its own light? 46 2.7 47 3.5 3.7 R09 Yes Which of the following is an advantage of solar energy? 36 2.2 44 3.2 2.9 W01 Shown pictures of sugar cubes and loose sugar, which will dissolve faster? Why? 30 1.9 2.5 3.1 33 3.0 Yes Shown pictures of bowls of soup, one covered and one uncovered, which will stay hot longer? Why? 43 2.5 45 $x \cap 1$ 3.1 Z03 Yes Shown diagram of blocks being compared on balances, which weighs the most? Why? 1.7 29 2.4

17 1.4 18

COUNTRY ID=Scotland SCALE=Earth Science

Z01B

Overall Boys Girls ITEM REL LABEL % (se) % (se) % (se) A08 No What covers most of the Earth's surface? 64 1.6 69 1.6 A10 No The fossils of dinosaurs can be found where? 77 1.1 79 1.4 76 1 2 B02 No Shown diagram, where is the saltiest water found? 64 1.7 65 2.1 32 1.8 36 2.5 76 1.3 77 2.1 C09 No Where are large amounts of metals like iron and aluminum found? 28 2.3 D04 Shown diagram of Earth, which layer is the hottest? 75 1.8 No E06 Which of the following is hottest? (astronomical bodies) 93 0.8 93 1.3 2.0 E09 Given several recent floods, when will it flood next? 36 1.5 29 43 2.3 F02 Each year the Earth moves once around which of the following? 59 2.1 Shown diagrams of rocks before and after being rubbed against hard steel, circle hardest rock. F03 54 1.6 56 2.1 2.2 Shown several diagrams of a tree and its shadow, which shows the shadow at noon? 64 1.6 66 2.1 G07 1.9 G08 Which of the following pictures best shows how an iceberg floats in sea water? 32 2.0 32 2.4 30 1.4 32 2.5 H03 Shown diagram with river, draw an arrow showing direction of water flow. 1 9 Yes Given temperatures and precipitation (table) in four towns, where could it have snowed? NO 1 24 2.6 27 4.0 3.5 65 2.4 66 3.5 32 2.4 32 3.8 004 Yes The Moon produces no light, and yet it shines at night. Why is this? 3.5 009 Why do mountains sometimes still have snow on their tops when the snow on lower parts has melted? 3.2 Yes Why do the sun and Moon appear the same size when you look at them from Earth? 21 1.7 26 2.5 17 Y01 2.1 60 1.9 61 2.5 58 Yes Shown diagram of river flowing through wide plain, write one reason this is a good place for farming Z01A 2.7

Yes Shown diagram of river flowing through wide plain, write one reason this is a bad place for farming

COUNTRY ID=Scotland SCALE=Environment and other content

			Ove:	rall	Воз	ys	Gi	rls	
ITEM	REL	LABEL	8	(se)	용	(se)	ક	(se)	
A07	No	Which plant is not usually grown for food?	79	1.2	77	1.5	80	1.3	
C07	No	Which of the following is an example of the use of a renewable source?	36	1.6	38	1.9	35	2.4	
E08	No	What happens to plants and fish when a factory pours large amounts of hot water into a river?	72	1.4	70	2.0	73	1.5	
006	Yes	Write down one example of how computers help people do their work.	54	3.0	54	4.2	54	3.5	
P06	Yes	To find out whether seeds grow better in light or dark, where would you put seeds?	32	2.9	34	4.0	31	3.8	
Q07	Yes	Which of the following statements is not an observation?	38	2.4	37	3.3	39	3.4	
R02	Yes	Which statement gives the best start toward finding which of three light bulbs is brightest?	33	2.5	32	3.3	33	4.0	
W05A	Yes	Write down two different things that people can do to help reduce air pollution. 1st reason.	29	2.3	35	2.7	24	2.7	
W05B	Yes	Write down two different things that people can do to help reduce air pollution. 2nd reason.	18	1.8	18	2.3	18	2.2	
X03	Yes	Write as completely as possible why large oil spills in rivers and seas are harmful to the environment.	14	1.5	14	1.8	14	2.0	

COUNTRY ID=Scotland SCALE=Life Science

Third	Grade
Third	Grade

			Ove	verall		Boys		rls
ITEM	REL	LABEL		(se)	용	(se)	왕	(se)
A09 B03 B04 C06 C02 D03 E07 F01 G05 H02 H04 N02 N03 N05 N06 O02 O03 O07 P01 P02 P08 P09 Q01 Q02 Q05 Q06 R03 R04	No Yes	What happens if the body takes in more food than it uses? If you throw each one of these things away, which will decay fastest? Where do humans interpret senses? Which animal eats only plants? What gas in the air do we need in order to live? Shown diagram of mouth, which teeth are used for grinding food? Which of the following animals does not lay eggs? What changes would you expect in pulse and breathing after running a 50 metre race? Which of the following plants is grown for food? Where does air go when a person breathes in? Shown diagram of plant, which part takes in the most water? How can washing your hands help keep you from getting sick? Which of the following will most likely affect your adult height? Which of the following Celsius measures is closest to your temperature when you are not sick? Shown drawing of a bird's webbed foot, where would you be most likely to find such a bird? Why did seeds placed on most cotton sprout, but not those covered with water? Shown pictures of the stages of a plants growth, in which order did they occur? Which of the following animal produces milk for its young? When this caterpillar becomes an adult, which of the following pictures will it look like? Which of the following pictures shows plants commonly found in a desert? Birds are different from insects in that birds have Seeds develop from which part of a plant? Shown pictures of the stages in a butterfly's development, in which order did they take place? What is the best reason for including fruits and leafy vegetables in a healthy diet? When an animal breathes faster and its heart beats faster, the animal is most likely Which of the following pictures does not show an insect? What is the most important reason for people to use a sunscreen when they are outside in sunlight?	69 58 60 86 77 54 93 47 82 82 82 82 24 66 38 37 53 53 87 52 45 59 61 59 64	(se) 1.0 1.8 1.7 1.1 1.5 1.8 0.9 1.7 1.4 1.5 1.5 1.0 2.2 2.7 2.7 2.7 2.7 2.7 2.7 2.8 2.7 2.9 2.8 2.6 2.7 2.9 2.7 2.9 2.7 2.8 2.8 2.6 2.7 2.9 2.7 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8	% 70 56 87 79 92 48 83 66 23 88 95 55 4 95 56 45 56 4	(se) 1.4 2.3 2.0 1.5 2.02 1.3 2.7 1.9 2.0 3.7 4.0 3.3 3.7 4.0 3.7	%	(se) 1.4 2.1 1.7 2.1 1.9 1.8 2.0 2.1 2.5 3.4 3.7 3.6 3.7 3.6 3.7 3.6 4.3 3.7 4.0 3.8
R06 R07 W02 W03 W04 X02	Yes Yes Yes Yes	Which of the following groups contains only animals with a backbone? Select environment a worm would prefer in terms of light and moisture. Write down one thing your heart does that helps the other parts of your body. Write down the reason why we get thirsty on a hot day and have to drink a lot. The human brain is inside the skull. Write down one advantage of the skull being thick and strong. Write down one reason why animals could not live in a world without plants.	36 51 37 16 37 67	2.0 1.5	34 52 39 16 39 61	3.4 3.3 2.9 2.2 2.6 2.8	38 49 35 16 34 72	3.5 4.1 2.4 1.7 2.8 2.1
X04 X05 Y02A Y02B Y03A Y03B Z02	Yes Yes Yes Yes Yes Yes		79 49 60 31 51 33	1.6 2.2 1.8 1.9	80 51 60 32 51 36 57	2.2 3.0 2.6 2.3 2.9 2.3	78 49 59 30 51 31 58	2.1 2.8 2.5 2.6 2.4 2.8 2.8

COUNTRY ID=Scotland SCALE=Physical Science

			IIIII Grade					
			Ove	Overall		Boys		rls
ITEM	REL	LABEL	%	(se)	%	(se)	8	(se)
A06	No	Shown three objects floating in water, which weighs the most?	81	1.0	81		80	1.2
B01	No	A strong magnet will separate which of the following mixtures?	65	1.5	69	1.9	60	2.2
C05	No	Same brick is put on a scale in three different ways. What will the scale show?	65	1.9	63	2.5	66	2.2
D01	No	Why are kettles and kitchen pans often made of copper?	56	1.9	53	2.4		2.3
E05	No	When you make soap bubbles, what is inside the bubbles?	59	1.7	58	2.4		2.1
F04	No	Which of the following sets of time measurements is in order from shortest to longest?	61	1.8	60	2.3	61	2.6
G09	No	Which of the following pairs could together cause a rainbow?	84	1.1	82	1.5	86	1.5
H01	No	What happens to water when it boils?	56	1.8	58	2.2	54	2.2
N04	Yes	Shown picture of block of wood floating in fresh water, select picture of block in salt water.	29	2.5	31	3.4		3.4
N07	Yes	Where does Keisha get the energy to push her bicycle uphill?	45	3.1	47	3.7	43	3.9
N08	Yes	What is a powder made up of both white specks and black specks is likely to be? (mixture) Shown diagrams of various boxes on scales, which has the least mass? Which picture shows the best way for 50 kg child to balance 25 kg child on seesaw?	69	2.6	68	3.3	69	3.8
N09	Yes	Shown diagrams of various boxes on scales, which has the least mass?	55	3.2	60	4.3	51	4.4
001	Yes	Which picture shows the best way for 50 kg child to balance 25 kg child on seesaw?	32	2.7	35		31	3.7
005	Yes	Shown diagram of a beam of light striking a mirror, which diagram shows reflected beam? Which of the following is the easiest way to separate a mixture of iron filings and sand?	54	2.3	55		53	2.9
008	Yes		35	2.8	40		31	3.3
P03	Yes	Which of the following is not used as an energy source? Compare mass of beaker of water and a weight with mass of beaker of water with weight inside.	32	2.5	37	3.9	27	3.3
P04 P05	Yes	compare mass or peaker or water and a weight with mass or beaker or water with weight inside. Shown pictures of magnets after being dipped into substance below it, which substance could be coffee?	16 48	2.4	17 51	3.3	15 46	3.4
P05 P07	Yes	Shown pictures of magnets after being dipped into substance below it, which substance could be collee? Which of the following travels fastest? (light)	48 25	2.7	33	3.5	16	2.6
003	Yes Yes	Which item is most likely to stay the same after being buried in wet ground for several years?		2.6	42	3.9	38	3.9
004	Yes	which retail is most interly to stay the same arter being buried in wet ground for several years:	45	2.8	50	3.6	41	3.6
Q08	Yes	When a glass jar is placed over a lighted candle, the flame goes out. Why does this happen? Shown picture of pencil lying in front of mirror, draw reflection of the pencil.	43	3.1	46	4.2	40	4.1
009	Yes	Why does the liquid in a thermometer rise when exposed to heat?	49	2.4	53	3.6	45	3.6
R01		A watering can is almost filled with water. Draw line to show surface of the water when can is tipped.		2.2	21	3.2	13	2.9
R05	Yes	Shown picture of children playing with string telephone, one string tight and one slack, who can hear?	50	2.4	54	3.5	45	3.8
R08		Which of the following makes its own light?	45	2.8	46	3.9		3.5
R09	Yes	Which of the following is an advantage of solar energy?	29	2.5	32	3.6		3.5
W01	Yes		28	2.1	26	2.7		2.7
X01	Yes	Shown pictures of sugar cubes and loose sugar, which will dissolve faster? Why? Shown pictures of bowls of soup, one covered and one uncovered, which will stay hot longer? Why?	30	2.2	30	2.6		2.9
Z03	Yes	Shown diagram of blocks being compared on balances, which weighs the most? Why?	22	1.6	27		15	2.2

21 1.5 24 2.5

COUNTRY ID=United States SCALE=Earth Science

Z01B

Third Grade Overall Boys Girls ITEM REL LABEL % (se) % (se) % (se) A08 No What covers most of the Earth's surface? 73 1.3 74 1.6 A10 No The fossils of dinosaurs can be found where? 84 0.8 84 1.0 85 0 9 B02 No Shown diagram, where is the saltiest water found? 72 1.3 70 1.7 73 1.7 39 2.2 41 3.0 83 1.3 83 1.5 C09 No Where are large amounts of metals like iron and aluminum found? 37 2.0 D04 Shown diagram of Earth, which layer is the hottest? 83 No 2.0 E06 Which of the following is hottest? (astronomical bodies) 93 0.7 92 1.2 93 1.1 2.4 E09 Given several recent floods, when will it flood next? 47 1.6 47 48 2.0 F02 Each year the Earth moves once around which of the following? 69 1.6 67 2.2 Shown diagrams of rocks before and after being rubbed against hard steel, circle hardest rock. F03 59 1.9 61 2.1 2.6 Shown several diagrams of a tree and its shadow, which shows the shadow at noon? 60 1.3 64 1.7 G07 2.8 G08 Which of the following pictures best shows how an iceberg floats in sea water? 29 1.4 29 1.7 2.0 29 1.3 31 1.8 H03 No Shown diagram with river, draw an arrow showing direction of water flow. 26 2 0 NO 1 Yes Given temperatures and precipitation (table) in four towns, where could it have snowed? 37 2.8 40 3.1 4.5 71 1.6 70 2.4 36 2.5 41 3.9 004 Yes The Moon produces no light, and yet it shines at night. Why is this? 73 2.7 009 Why do mountains sometimes still have snow on their tops when the snow on lower parts has melted? 3 5 Yes Why do the sun and Moon appear the same size when you look at them from Earth? 21 1.9 25 2.4 Y01 2.0 Yes Shown diagram of river flowing through wide plain, write one reason this is a good place for farming Z01A 66 2.4 65 3.1 2.8

Yes Shown diagram of river flowing through wide plain, write one reason this is a bad place for farming

COUNTRY ID=United States SCALE=Environment and other content

			Third Grade					
			Ove	erall	.1 Boys		Gi	rls
ITEM	REL	LABEL	용	(se)	8	(se)	8	(se)
A07	No	Which plant is not usually grown for food?	81	1.0	80	1.3	83	1.1
C07	No	Which of the following is an example of the use of a renewable source?	39	1.8	41	2.6	38	2.3
E08	No	What happens to plants and fish when a factory pours large amounts of hot water into a river?	76	1.5	75	2.1	78	1.9
006	Yes	Write down one example of how computers help people do their work.	67	2.4	62	3.8	72	3.1
P06	Yes	To find out whether seeds grow better in light or dark, where would you put seeds?	43	3.2	42	4.6	45	4.1
Q07	Yes	Which of the following statements is not an observation?	43	2.6	44	3.7	42	3.4
R02	Yes	Which statement gives the best start toward finding which of three light bulbs is brightest?	42	3.8	43	4.9	41	4.2
W05A	Yes	Write down two different things that people can do to help reduce air pollution. 1st reason.	45	2.2	46	3.4	45	3.3
W05B	Yes	Write down two different things that people can do to help reduce air pollution. 2nd reason.	37	1.6	35	2.2	40	2.4
X03	Yes	Write as completely as possible why large oil spills in rivers and seas are harmful to the environment.	27	1.8	23	2.3	30	2.7

COUNTRY ID=United States SCALE=Life Science

Third	Grade

			Ove	Overall		Boys		rls
ITEM	REL	LABEL		(se)	8	(se)	%	(se)
A09 B03 B04 C06 C08 D02 D03 E07	No No No No No No No	What happens if the body takes in more food than it uses? If you throw each one of these things away, which will decay fastest? Where do humans interpret senses? Which animal eats only plants? What gas in the air do we need in order to live? Shown diagram of mouth, which teeth are used for grinding food? Which of the following animals does not lay eggs? What changes would you expect in pulse and breathing after running a 50 metre race?	64 67 63 88 82 67 93	1.1 1.7 1.2 1.0 1.5 1.8 0.7	65 68 63 89 82 66 94	1.8 2.2 1.9 1.2 1.6 2.0 0.9 2.4	88 81 69 93 46	1.4 2.2 1.8 1.5 1.9 2.1 1.0
F01 G05 G06 H02 H04 N02 N03	Yes	Which of the following plants is grown for food? Where does air go when a person breathes in? Shown diagram of plant, which part takes in the most water? How can washing your hands help keep you from getting sick? Which of the following will most likely affect your adult height? Which of the following refers only to living things? Which of the following Celsius measures is closest to your temperature when you are not sick?	78 80 83 92 36 67 46	1.3 1.3 1.1 0.9 1.3 2.5 2.4	75 79 82 89 35 68 48	2.3 1.4 1.5 1.2 1.9 3.2	80 82 85 95 38 67 44	1.5 2.3 1.6 0.9 2.2 3.8 3.9
N05 N06 O02 O03 O07 P01	Yes Yes Yes Yes	Which of the following animal produces milk for its young? When this caterpillar becomes an adult, which of the following pictures will it look like?	57 37 37 68 62 96	1.0	53 36 37 64 60 95	4.6 3.9 3.6 3.6 4.7 1.6	61 38 38 72 64 97	4.2 4.3 3.8 4.5 4.0
P02 P08 P09 Q01 Q02 Q05	Yes Yes Yes Yes Yes	Which of the following pictures shows plants commonly found in a desert? Birds are different from insects in that birds have Seeds develop from which part of a plant? Shown pictures of the stages in a butterfly's development, in which order did they take place? What is the best reason for including fruits and leafy vegetables in a healthy diet? When an animal breathes faster and its heart beats faster, the animal is most likely	94 59 30 70 50 70	2.5 3.3 2.5	93 56 31 72 53 66	1.5 3.0 3.0 3.2 3.6 3.3	95 63 29 67 46 74	1.7 3.9 3.8 3.3 5.1 3.7
Q06 R03 R04 R06 R07 W02	Yes Yes Yes Yes Yes	Which of the following pictures does not show an insect? What will likely happen when an insect carries pollen from the flowers of a tree to those of a small plant? What is the most important reason for people to use a sunscreen when they are outside in sunlight? Which of the following groups contains only animals with a backbone? Select environment a worm would prefer in terms of light and moisture. Write down one thing your heart does that helps the other parts of your body.	54 56 75 48 51 55	2.3 3.0 2.7 2.0	60 55 72 47 52 54	3.7 4.2 3.8 4.3 5.0 2.3	48 58 79 48 50 57	3.8 4.1 2.8 3.4 3.7 2.8
W03 W04 X02 X04 X05 Y02A Y02B Y03A	Yes Yes Yes Yes Yes Yes	Write down the reason why we get thirsty on a hot day and have to drink a lot. The human brain is inside the skull. Write down one advantage of the skull being thick and strong. Write down one reason why animals could not live in a world without plants. Shown pictures of stages in a frog's growth, indicate order of the stages. Identify characteristics of fish with respect to backbone and environment. Write down two changes that occur in children's bodies as they become adults. 1st answer Write down two changes that occur in children's bodies as they become adults. 2nd answer Besides escaping, what are two ways animals protect themselves? 1st answer	23 41 75 87 48 62 35	1.3 1.2 2.6 2.0 2.0 2.3	25 44 72 87 49 59 36 61	3.0	22 37 78 87 46 66 35	2.7 2.7 2.0 1.5 3.3 2.6 2.9 3.3
Y03B Z02	Yes Yes	Besides escaping, what are two ways animals protect themselves? 2nd answer Identify skin and skeletal features of various animals	48 65	2.6 1.7	49 67	3.2 2.4	47 64	3.5 2.5

2.1

31

COUNTRY ID=United States SCALE=Physical Science

Third Grade Overall Girls Boys ITEM % (se) % (se) % (se) A06 Shown three objects floating in water, which weighs the most? B01 No A strong magnet will separate which of the following mixtures? 64 1.8 65 2.0 2 2 62 Same brick is put on a scale in three different ways. What will the scale show? C05 61 1.8 63 1.9 60 1.5 57 2.3 70 1.4 72 2.0 D01 No Why are kettles and kitchen pans often made of copper? 62 2.2 When you make soap bubbles, what is inside the bubbles? E05 67 No 2.4 F04 Which of the following sets of time measurements is in order from shortest to longest? 72 1.4 70 2.0 73 2.0 GN9 No Which of the following pairs could together cause a rainbow? 85 1.2 84 1.7 1.4 H01 What happens to water when it boils? 78 1.1 78 78 Yes Shown picture of block of wood floating in fresh water, select picture of block in salt water. 25 2.7 26 3.7 N04 3.1 54 2.5 52 3.2 N07 Yes Where does Keisha get the energy to push her bicycle uphill? 57 3.8 N08 What is a powder made up of both white specks and black specks is likely to be? (mixture) 62 3.1 59 3.6 4.0 52 2.9 49 4.4 NO9 Yes Shown diagrams of various boxes on scales, which has the least mass? 56 4 0 001 Yes Which picture shows the best way for 50 kg child to balance 25 kg child on seesaw? 37 2.6 43 3.6 3.0 4.0 005 Yes Shown diagram of a beam of light striking a mirror, which diagram shows reflected beam? 47 3.7 54 4.9 40 3.8 35 2.8 008 Yes Which of the following is the easiest way to separate a mixture of iron filings and sand? 37 4.5 33 3.8 Yes Which of the following is not used as an energy source? 33 2.5 38 3.8 P03 3.7 Yes Compare mass of beaker of water and a weight with mass of beaker of water with weight inside. 17 1.9 19 2.6 P04 14 P05 Shown pictures of magnets after being dipped into substance below it, which substance could be coffee? 39 2.9 46 4.3 33 2.9 43 3.8 P07 Yes Which of the following travels fastest? (light) 3 1 003 Yes Which item is most likely to stay the same after being buried in wet ground for several years? 41 3.0 42 3.2 4.2 004 When a glass jar is placed over a lighted candle, the flame goes out. Why does this happen? 52 2.9 59 4.1 4.0 36 2.1 41 3.5 008 Yes Shown picture of pencil lying in front of mirror, draw reflection of the pencil. 4.1 009 Yes Why does the liquid in a thermometer rise when exposed to heat? 59 2.8 62 3.9 Yes A watering can is almost filled with water. Draw line to show surface of the water when can is tipped. 12 1.6 14 2.3 R01 9 1.9 R05 Yes Shown picture of children playing with string telephone, one string tight and one slack, who can hear? 65 2.8 64 3.6 4.1 R08 Yes Which of the following makes its own light? 54 3.2 56 3.6 52 4 8 R09 Yes Which of the following is an advantage of solar energy? 43 2.5 47 4.2 39 4.2 W01 Shown pictures of sugar cubes and loose sugar, which will dissolve faster? Why? 28 1.7 23 1.8 32 2.6 3.4 Yes Shown pictures of bowls of soup, one covered and one uncovered, which will stay hot longer? Why? 44 2.4 41 $x \cap 1$ 2.8

Yes Shown diagram of blocks being compared on balances, which weighs the most? Why?

REL: Release Status (Yes= Item in Released Item Set)

Z03

Yes The Moon produces no light, and yet it shines at night. Why is this?

Yes Why do the sun and Moon appear the same size when you look at them from Earth?

Why do mountains sometimes still have snow on their tops when the snow on lower parts has melted?

Yes Shown diagram of river flowing through wide plain, write one reason this is a good place for farming

Yes Shown diagram of river flowing through wide plain, write one reason this is a bad place for farming

4.6

3.9

2.6

40 3.2

Third Grade

65 3.1 65 4.0

43 2.6 46 3.9

3.0

22 2.3 26 2.7 18

3.7

2.5

2.6

22 1.9 22

28

COUNTRY ID=Slovenia SCALE=Earth Science

004

009

Y01

Z01A

Z01B

Overall Boys Girls ITEM REL LABEL % (se) % (se) % (se) A08 No What covers most of the Earth's surface? A10 No The fossils of dinosaurs can be found where? 74 1.1 78 1.1 70 1 6 B02 No Shown diagram, where is the saltiest water found? 78 1.3 81 1.6 73 33 1.8 33 2.4 67 1.8 74 2.2 C09 No Where are large amounts of metals like iron and aluminum found? 32 2.4 D04 Shown diagram of Earth, which layer is the hottest? 60 No 3.0 E06 Which of the following is hottest? (astronomical bodies) 94 0.8 95 1.2 94 1.1 56 2.0 55 2.5 51 2.1 55 2.5 E09 Given several recent floods, when will it flood next? 57 3.0 F02 Each year the Earth moves once around which of the following? Shown diagrams of rocks before and after being rubbed against hard steel, circle hardest rock. 62 1.7 59 2.4 F03 2.3 Shown several diagrams of a tree and its shadow, which shows the shadow at noon? 71 1.6 75 2.1 G07 2.5 G08 Which of the following pictures best shows how an iceberg floats in sea water? 31 1.5 30 2.2 42 2.0 45 2.7 H03 No Shown diagram with river, draw an arrow showing direction of water flow. 39 2.6 NO 1 Yes Given temperatures and precipitation (table) in four towns, where could it have snowed? 35 3.5 38 4.1 33 5.1

COUNTRY ID=Slovenia SCALE=Environment and other content

					Third	Third Grade					
			Ove	rall	Во	ys	Gi:	rls			
ITEM	REL	LABEL	%	(se)	용	(se)	%	(se)			
A07	No	Which plant is not usually grown for food?	 72	1.2	 69	1.4	74	1.6			
C07	No	Which of the following is an example of the use of a renewable source?	32	1.6	34	2.2	30	2.3			
E08	No	What happens to plants and fish when a factory pours large amounts of hot water into a river?	78	1.6	77	2.1	78	2.1			
006	Yes	Write down one example of how computers help people do their work.	60	3.4	62	4.4	58	4.6			
P06	Yes	To find out whether seeds grow better in light or dark, where would you put seeds?	28	2.7	26	3.6	31	3.8			
Q07	Yes	Which of the following statements is not an observation?	32	2.9	32	4.1	32	4.0			
R02	Yes	Which statement gives the best start toward finding which of three light bulbs is brightest?	28	2.6	29	3.9	25	4.1			
W05A	Yes	Write down two different things that people can do to help reduce air pollution. 1st reason.	44	2.3	44	2.3	43	3.9			
W05B	Yes		24	1.8	26	2.5	22	2.5			
X03	Yes	Write as completely as possible why large oil spills in rivers and seas are harmful to the environment.	12	1.8	11	2.2	13	2.1			

COUNTRY ID=Slovenia SCALE=Life Science

			Ove	Overall		l Boys		rls
ITEM	REL	LABEL		(se)	8	(se)	용	(se)
A09 B03	No No	What happens if the body takes in more food than it uses? If you throw each one of these things away, which will decay fastest?	62 37	1.5 1.7	61 37	1.7 1.9	63 37	2.0 2.6
B04 C06	No No	Where do humans interpret senses? Which animal eats only plants?	45 95	2.3	50 95	2.8	40 95	2.7
C08 D02	No No	What gas in the air do we need in order to live? Shown diagram of mouth, which teeth are used for grinding food?	86 64	1.3	86 65	2.1	87 62	1.5
D03 E07	No No	Which of the following animals does not lay eggs? What changes would you expect in pulse and breathing after running a 50 metre race?	88 68	1.1 1.9	88 68	1.5 2.9	87 67	1.5 2.5
F01 G05	No No	Which of the following plants is grown for food? Where does air go when a person breathes in?	76 89	1.5	78 88	2.0	75 90	2.2
G06 H02	No No	Shown diagram of plant, which part takes in the most water? How can washing your hands help keep you from getting sick?	86 80	0.9 1.7	85 80	1.8	88 81	1.6 2.1
H04 N02	No Yes	Which of the following will most likely affect your adult height? Which of the following refers only to living things?	57 68	1.8 2.9	58 67	2.7 4.1	56 70	2.6 3.8
N03 N05	Yes Yes	Which of the following Celsius measures is closest to your temperature when you are not sick? Shown drawing of a bird's webbed foot, where would you be most likely to find such a bird?	46 66		46 73	4.2	46 59	4.5 4.4
N06 002	Yes	Where does a baby chick get its food while inside an egg? Why did seeds placed on most cotton sprout, but not those covered with water?	41 32	3.2	46 29	3.9 4.8	36 35	3.8
003 007		Which of the following animal produces milk for its young?	57 68	2.9	55 72	4.4	59 64	4.1
P01 P02	Yes	When this caterpillar becomes an adult, which of the following pictures will it look like? Which of the following pictures shows plants commonly found in a desert?	83 76	2.5	82 81	3.5	83 71	3.1 4.1
P08 P09	Yes	Birds are different from insects in that birds have Seeds develop from which part of a plant?	31 55		35 56	4.1	26 54	4.1 3.8
Q01 Q02	Yes	Shown pictures of the stages in a butterfly's development, in which order did they take place? What is the best reason for including fruits and leafy vegetables in a healthy diet?	45 72 74	2.9 3.2 2.3	47 71 72	4.2	42 73 76	4.2
Q05 Q06 R03	Yes	When an animal breathes faster and its heart beats faster, the animal is most likely Which of the following pictures does not show an insect? What will likely happen when an insect carries pollen from the flowers of a tree to those of a small plant?	74 36 66	2.9	36 68	3.4 4.2 3.8	76 36 64	3.9 3.5 3.9
R04 R06	Yes	What is the most important reason for people to use a sunscreen when they are outside in sunlight? Which of the following groups contains only animals with a backbone?	72 29		73 30	4.1 4.0	71 27	3.5 4.6
R07 W02	Yes	White down one thing your heart does that helps the other parts of your body.	45 46	2.8	48 47	4.8	41 45	4.5
W03 W04	Yes	Write down the reason why we get thirsty on a hot day and have to drink a lot. The human brain is inside the skull. Write down one advantage of the skull being thick and strong.	29 35	2.3	31 36	2.5	28 35	3.7
X02 X04		Write down one reason why animals could not live in a world without plants. Shown pictures of stages in a frog's growth, indicate order of the stages.	75 72	2.1	74 72	2.6	76 71	2.7
X05 Y02A	Yes	Identify characteristics of fish with respect to backbone and environment. Write down two changes that occur in children's bodies as they become adults. 1st answer	58 44	2.1	63 47	3.1	53 40	2.9
Y02B Y03A		Write down two changes that occur in children's bodies as they become adults. 2nd answer Besides escaping, what are two ways animals protect themselves? 1st answer	22 47		23 48	2.7	21 45	2.8
Y03B Z02	Yes	Besides escaping, what are two ways animals protect themselves? 2nd answer Identify skin and skeletal features of various animals	27 53	2.4	28 53	3.5	26 52	2.8

COUNTRY ID=Slovenia SCALE=Physical Science

Third Grade Overall Girls Boys ITEM % (se) % (se) % (se) A06 Shown three objects floating in water, which weighs the most? B01 No A strong magnet will separate which of the following mixtures? 65 1.6 71 2.1 2 1 58 Same brick is put on a scale in three different ways. What will the scale show? C05 82 1.3 79 1.8 84 1.7 D01 No Why are kettles and kitchen pans often made of copper? 59 1.7 59 2.6 59 2.2 When you make soap bubbles, what is inside the bubbles? 62 2.1 67 2.5 57 E05 No 3.0 F04 Which of the following sets of time measurements is in order from shortest to longest? 73 1.3 75 1.9 71 2.2 GN9 No Which of the following pairs could together cause a rainbow? 88 1.2 87 1.4 1.9 H01 What happens to water when it boils? 87 1.2 86 1.9 Yes Shown picture of block of wood floating in fresh water, select picture of block in salt water. 33 2.5 42 4.6 N04 3.7 45 3.1 42 4.3 N07 Yes Where does Keisha get the energy to push her bicycle uphill? 4.5 N08 What is a powder made up of both white specks and black specks is likely to be? (mixture) 45 3.0 43 4.2 47 4.2 49 2.7 54 4.4 NO9 Yes Shown diagrams of various boxes on scales, which has the least mass? 44 3.6 001 Yes Which picture shows the best way for 50 kg child to balance 25 kg child on seesaw? 41 3.5 45 4.7 36 4.2 005 Yes Shown diagram of a beam of light striking a mirror, which diagram shows reflected beam? 45 3.0 41 4.0 48 4.4 33 2.8 40 4.2 008 Yes Which of the following is the easiest way to separate a mixture of iron filings and sand? 3.3 Yes Which of the following is not used as an energy source? 30 3.1 30 4.1 P03 4.4 41 2.6 40 3.4 Yes Compare mass of beaker of water and a weight with mass of beaker of water with weight inside. P04 4.1 P05 Shown pictures of magnets after being dipped into substance below it, which substance could be coffee? 39 2.9 47 4.1 3.8 29 2.8 36 21 P07 Yes Which of the following travels fastest? (light) 4 6 3 1 003 Yes Which item is most likely to stay the same after being buried in wet ground for several years? 62 3.1 64 4.1 4.4 004 When a glass jar is placed over a lighted candle, the flame goes out. Why does this happen? 78 2.6 3.6 77 3.5 2.9 50 4.4 45 008 Yes Shown picture of pencil lying in front of mirror, draw reflection of the pencil. 3.9 009 Yes Why does the liquid in a thermometer rise when exposed to heat? 39 3.1 45 4.1 4.0 Yes A watering can is almost filled with water. Draw line to show surface of the water when can is tipped. 18 2.5 25 3.9 R01 11 2.4 R05 Yes Shown picture of children playing with string telephone, one string tight and one slack, who can hear? 42 3.2 46 4.5 38 R08 Yes Which of the following makes its own light? 48 3.0 48 4.9 4 5 R09 Yes Which of the following is an advantage of solar energy? 48 3.3 51 4.7 45 4.1 W01 Shown pictures of sugar cubes and loose sugar, which will dissolve faster? Why? 15 1.7 15 2.1 16 2.2 Yes Shown pictures of bowls of soup, one covered and one uncovered, which will stay hot longer? Why? 24 2.1 2.7 $x \cap 1$ 2.4 2.9 Z03 Yes Shown diagram of blocks being compared on balances, which weighs the most? Why? 2.0 27