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End of Unit Test
Answers

Unit 1

A 1 All except the boy in the blue shirt using the microscope are wearing goggles for eye protection.
2 The girl at right. She is wearing goggles, gloves and a lab coat.

B 1 d); 2 a); 3 c); 4 d)

C 1 b); 2 c)

D a) I; b) O; c) O; d) P; e) I; f) I; g) P; h) I; i) P

Unit 2

1 d); 2 b); 3 c); 4 a); 5 d); 6 b) and c); 7 c); 8 a); 9 b); 10 d)

11 Debra's plant wilted and withered while Dana's plant remained healthy.

12 Debra did not provide her plant with its basic needs such as water, while Dana ensured that her plant was given everything it needed to survive.

13 Debra most likely predicted: "If plants get music played to them each day, they will grow well." The results showed that her prediction was not supported.

14 a)

Statement	Living	Non-living
Fish swam in the pond. Air bubbles came out of their mouth.	✔	
The farmer's **wooden chair** was on the verandah.		✔
His son's **ball** rolled across the ground.		✔
The branches of the little **cherry tree** beside the house grew over the fence.	✔	
A bunch of **gas balloons** got away at the Community Fair nearby and moved up and across the sky.		✔
The farmer's **dog** jumped up and down, barking, as they passed the house.	✔	
A **truck** drove down the street, letting out black smoke.		✔
In the afternoon, a big, dark **cloud** burst into rain.		✔
A **bird** fed her babies in their nest.	✔	
A **frog** looked around, jumped out of the pond, then hid behind a rock.	✔	

b) Yes. The children observed living things, because some showed the characteristics of living things, such as respiration, movement, growth, nutrition and response.

15

Statement	Agree	Disagree
This test had positive and correct results.		●
The results showed that plants grew taller in week 2.		●
The test was to observe growth in height.	●	

Statement	Agree	Disagree
The variable that was kept the same is the measurement.		●
This test can be considered a fair test.		●

16

a) If we cover all the lower surface of the green leaves with petroleum jelly, they will die.

b) The holes or pores on the backs of leaves through which the green plants get carbon dioxide to make their food, and oxygen for respiration, were all covered. The plant could not get any air, which is a basic need for it to live.

c) They remained fresh and alive. Those leaves still had their pores on the lower side open, so they could get all the air they need.

d) The type and size of leaves; the leaf covered with petroleum jelly; the length of time each plant was left and observed.

e) We agree with what Madison says, because it is a fair test, with the same leaves used in A and C, but different surfaces had petroleum jelly on them

17

Statement	Agree	Disagree
This was not a fair test.	●	
The investigation did not last long enough.		●
The group should have compared two different plants in the investigation.		●
The group should have watered one plant and left a similar plant unwatered.	●	
The test was fair because they gave both the pea seed and the pea seedling the same amount of water.		●
The variables for this test were water, sunlight, the amount of soil in the pot and pea plants.	●	

18 Plants need water to grow.

Unit 3

1

Statement	True	False
Roots hold plants firmly in the soil.	●	
Flowers can become seeds.		●
A carrot is a stem that stores food.		●
A seed contains a baby plant and food.	●	
Stems hold up leaves and some can also store food.	●	
Flowers contain the male and female reproductive parts of the plant.	●	
An Irish (white) potato is a storage root.		●
Flowers cannot attract insects for pollination.		●

2 a) The same size cup was used for all three; the same size plant was used in B and C but one, C, had its roots cut off. Cup A was left as a control, with the same amount of water and without a plant.

b) To find out if the roots are the important parts through which water is absorbed.

c) A plant with no roots is not likely to absorb water as one with roots will do.

3 Set C shows what they most likely observed.

4 a) Yes, this was a fair test. The same size cups were used, the same amount of water in each cup and a similar-sized plant. Roots were cut off from only one plant.

b) Cup A was to enable us to see that the water level would not just change by itself, so if there were a change in the level, it would have been because of one of the plants taking up the water.

5 c)

6 She placed the stems of the white flowers into pink and red-coloured water and left them for a while for water to be absorbed through the cut stem. The water was carried

through the water-transporting tubes in the stem up into the flowers. The dye changed the white petals to pink and red as it travelled through the tubes in the flowers.

7 a) Their body covering.

b) Group A has a body covering of scales. Group B has a body covering of feathers. Group C has a body covering of hairs or fur. Group D has a body covering that is a shell.

c) No. The slimy scales on the goldfish are different than those on a lizard or crocodile. The internal body parts of a goldfish differs from those of the lizard and crocodile that are alike. The shell for a shrimp is quite different than that for a turtle or a snail, so although they each have a shell, their body structure differs in many other important ways. Based on their inside body structure, a turtle should be grouped with a crocodile and a lizard.

8 a) A jacket, an inner blouse, a scarf wrapped around her neck and a cap entirely covering the top of her head.

b) That habitat appears to have snow on the rocks, and just a few mosses growing. From that, it can be inferred that it would be a very cold place. Alaska is in the Arctic desert so it is also dry.

c) She should make sure to carry insulating protective clothing that will protect her from the cold and keep her warm, for example a lined jacket, neck scarf, gloves and a head covering.

d) The student who wears similar clothes in a hot island would be extremely, hot and would be continuously sweating.

9 a) Vertebrates only = All have a backbone, all have an internal skeleton. Invertebrates = No backbone. Have either an internal or external skeleton.

b) Both = Grow, reproduce and in fact carry out all life processes

10 b) is correct answer.

Unit 4

1 Showering daily and drinking water

2 a) ii; b) i

3 b)

4 a) It wiped away the chemical trail that the ants had left.

b) The ants would run around in confusion, because they could no longer sense one trail, but would sense the chemical spread around by Ashton wiping his fingers several times across their path.

5 The red ants would attack the black ant. The red ants would probably sting it, because the red ants did not sense their chemical on that black ant.

6 I would use a material did not have a smooth or hard surface to bounce back sound and cause an echo.

7 Our sense of smell is part of what gives us our appetite for food, along with its taste and how it looks. If we have a cold and cannot smell food, it is no longer appetizing, so we do not feel like eating it.

8 a) and b)

9 b) and c)

10 a) iii; b) i

11 a) iv; b) iii

Unit 5

1 c); 2 a); 3 b); 4 c)

5 X = Transparent; Y = Opaque; Z = Translucent

6 a); 7 a) ; 8 d);

9 a) Roasted chicken; c) the plastic fork; and e) the dried leaf are each a solid because each has a definite size/volume and shape.
b) Syrup; and d) bleach inside a bottle are both liquid because both flows, and each has a definite volume/amount but has no shape of their own.

f) Inside a balloon there is gas, which has no definite size nor shape, and fills up its container which is the balloon.

10 Circle the following as examples of matter: desk, deodorant, rice, socks, a mango seed, vinegar, callaloo, ice cream, a doll, urine and a cat.

11

Statement	Good material	Poor material
A garden hose is made of rubber which makes it flexible.	✔	
To make the pages of a book, you should use ceramic materials which will not tear.		✔
Plastic chairs can remain outside because they do not absorb water.	✔	
You use metal to make a garden fork because it is hard and can be sharpened into a point to dig the soil.	✔	
You could make a raincoat from metal which is waterproof.		✔

12 Natural objects are: air, cotton T-shirt, silk scarf

Man-made objects are: nylon carpet, bubbles in a 'soft drink', cooked rice, cellphone, flour dough, electric wire.

13

Statement	Agree	Disagree
To confirm that water is a liquid, you can observe if it flows.	●	
Liquid and solid water have their own shape.		●
When water changes to a gas, it has no definite shape of its own.	●	
Even if water changes shape, it has a set volume.	●	
Solids will take the shape of their containers.		●
The variables for this test were water, sunlight, the amount of soil in the pot and pea plants.	●	

Unit 6

1 b), 2 d), 3 a); 4 d), 5 a); 6 d); 7 a); 8 a) and c); 9 b); 10 c); 11 c)

12

Statement	Supported	Not supported
The air can be polluted by burning fuel and acid rain.	●	
Factories that burn fuel directly pollute aquatic habitats.		●
Acids fall to the earth sometimes.		●
Sharks, shrimp and whales may be affected by acid rain in their habitats.	●	
Glass window and rubber tyres are quickly destroyed by acid rain.		●