

SURVEY/POSTTEST

ENVIRONMENTS

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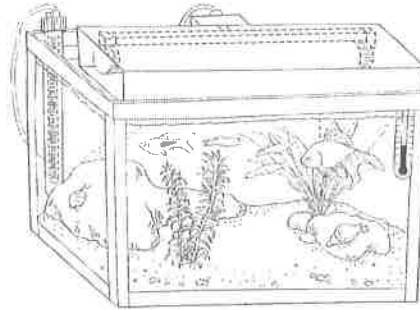
Name _____

Date _____

1. Look at the picture of the freshwater aquarium. Which of the following is a *nonliving* factor in this environment?

(Mark the one best answer.)

- ☐ A Air
- ☐ B Fish
- ☐ C Plants
- ☐ D Snails



2. Which example below describes animals competing for food?

(Mark the one best answer.)

- ☐ A A rat ignores a sunflower seed but eats a piece of cheese.
- ☐ B A snake eats a mouse, and a lizard eats an insect.
- ☐ C A gull steals a fish caught by a brown pelican.
- ☐ D A blue jay eats an acorn and then is eaten by an owl.

3. Plants get energy from _____.

(Mark the one best answer.)

- ☐ A water
- ☐ B fertilizer
- ☐ C sunlight
- ☐ D nutrients

SURVEY/POSTTEST **ENVIRONMENTS**

4. A boy wanted to find the optimum conditions for his chickens to lay eggs. He divided his 20 chickens into 2 groups, X and Y, and recorded their daily care and egg production for 2 weeks.

	Number of chickens	Daily care (conditions tested)		Results after 2 weeks
		Chicken feed for group	Calcium for group	Number of eggs laid by group
Group X	10	1,000 grams	5 grams	82
Group Y	10	1,300 grams	10 grams	104

- a. The boy did not do a good job designing this investigation. He should have _____.

(Mark the one best answer.)

- ☐ **A** used more chickens in each group
- ☐ **B** weighed the chickens each day rather than counting eggs
- ☐ **C** recorded how much water he gave the chickens
- ☐ **D** controlled the amount of feed or the amount of calcium

- b. Which of the following would most improve the boy's experiment?

(Mark the one best answer.)

- ☐ **F** Observe the chickens over a longer period of time
- ☐ **G** Test each condition one at a time
- ☐ **H** Record data for each chicken individually
- ☐ **J** Repeat the same experiment with different groups of chickens

SURVEY/POSTTEST

ENVIRONMENTS

.....

5. Moisture is an example of _____.

(Mark the one best answer.)

- ☐ A an environment
- ☐ B a preferred environment
- ☐ C an optimum condition
- ☐ D an environmental factor

6. A student planted one radish seed in each of five pots. She used the same amount and same kind of soil in each pot. She put them by the same window. The first graph shows the amount of water she put into each pot each day. The second graph shows the length of each root after 7 days.

- a. What is the *optimum* amount of water a radish seed needs each day to grow long roots? (Use the graphs to answer.)

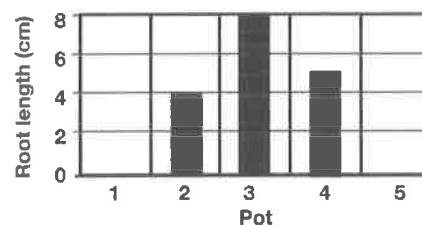
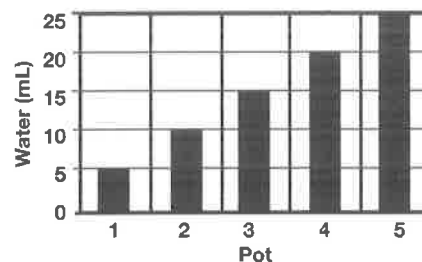
(Mark the one best answer.)

- ☐ A 25 mL
- ☐ B 20 mL
- ☐ C 15 mL
- ☐ D 5 mL

- b. What is the radish seeds' *range of tolerance* for water? (Use the graphs to answer.)

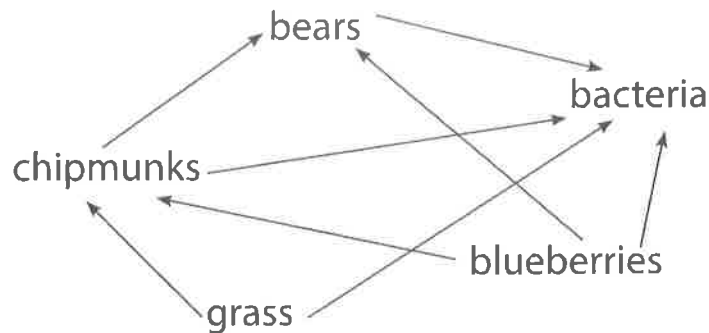
(Mark the one best answer.)

- ☐ F 5 mL to 25 mL
- ☐ G 5 mL to 20 mL
- ☐ H 10 mL to 25 mL
- ☐ J 10 mL to 20 mL



SURVEY/POSTTEST
ENVIRONMENTS
.....

7. Study the food web shown here.



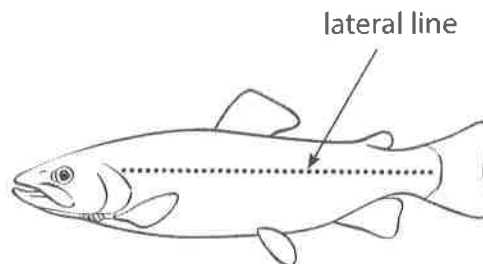
Write **P** in front of the organisms listed below that are *producers*. Write **C** in front of the organisms that are *consumers*. Write **D** in front of the organisms that are *decomposers*.

- _____ Bacteria
- _____ Bears
- _____ Blueberries
- _____ Chipmunks
- _____ Grass

8. The lateral line on a fish helps the fish sense the presence of other things around it. Which of the following would be a structure with a similar function?

(Mark the one best answer.)

- ☐ **A** A snail's tentacles
- ☐ **B** A dog's fur
- ☐ **C** A whale's fins
- ☐ **D** An octopus's mouth



SURVEY/POSTTEST
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.....

9. Organisms change over very long periods of time. Giraffes did not always have long necks. Which sentence best explains why giraffes today have long necks?

(Mark the one best answer.)

- ☐ **A** Short-necked giraffes were unable to reproduce.
 - ☐ **B** One group of giraffes grew their necks longer to reach higher leaves.
 - ☐ **C** Long-necked giraffes were predators of short-necked giraffes.
 - ☐ **D** Long-necked giraffes were better suited to the environment.
10. Penguins live in the ocean environment and eat fish. Which of the structures below describes why penguins, a type of bird, can survive in an ocean environment?

(Mark the one best answer.)

- ☐ **A** Penguins have ears that are covered with feathers.
- ☐ **B** Penguins have small wings that act like flippers.
- ☐ **C** Penguins have feathers that absorb large amounts of water.
- ☐ **D** Penguins have a sense of smell that is very limited.

SURVEY/POSTTEST ENVIRONMENTS

11. How do we know that ground sloths and saber-toothed cats (animals that no longer exist on Earth) once lived where Los Angeles, California, is now located? What evidence do we have that allows us to come to this conclusion?

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Write a step-by-step procedure that other students could use to conduct an experiment to determine which kind of food hissing cockroaches prefer.

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.