

# Lesson One: Living Things & the Environment

6.LS2.4: Using evidence from climate data, draw conclusions about the patterns of abiotic and biotic factors in different biomes, specifically the tundra, taiga, deciduous forest, desert, grasslands, rainforest, marine, and freshwater ecosystems.

## Engage

### Mother Nature

1. Why do we call nature, "Mother" nature?


### Bill Nye Jenga Demonstration

2. What is the relationship between nature and humans?


### Circle of Life

3. What is our role as humans, the dominant species, on Earth?


4. Why is it important to be knowledgeable about and understand how nature works and what it needs to be able to thrive?


## Explore and Explain

**Directions:** Read pages 63–67 and answer the following questions as they guide you in understanding living things and environments.

### Page 63

1. What is an organism?


2. Fill in the blanks: An organism gets \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, and other things it needs to \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_ from its environment.

3. What is a habitat?


4. Why do organisms live in different habitats?


### Figure 1

5. What are three reasons why the prairie dog would not survive in this habitat?


### Page 64

6. Fill in the blanks: An organism interacts with both the \_\_\_\_\_ and \_\_\_\_\_ parts of its habitat.

7. What are biotic factors?


8. What are some examples of the biotic figures in figure 2?


9. What are abiotic factors?


10. What are some examples of the abiotic factors in figure 2?


Figure 2

11. Tell why each of the following abiotic factors are important in a habitat.

Sunlight	
Soil	
Temperature	
Oxygen	
Water	

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Apply It

12. In which beakers did the eggs, shown as purple as circles, hatch?

13. The manipulated (changing) variable was \_\_\_\_\_.

14. The responding variable was \_\_\_\_\_.

15. Beaker \_\_\_\_\_ was the control.

16. What can you conclude about the amount of salt in the shrimps natural habitat?


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17. What is a species?


18. What is a population?


19. What is a community?


20. What is an ecosystem?


21. What are some examples of ecosystems?

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Figure 3

22. Provide an example of each of the following organizational elements of an environment.

	Example	Picture
Organism		
Population		
Community		
Ecosystem		

**Evaluate**

Directions: Answer the following questions using your notes

1. What are three things that an organism's environment provides?


2. Which of the following is a biotic factor?

- A. temperature
- B. sunlight
- C. bacteria
- D. water

3. The nonliving things that interact with an organism are called \_\_\_\_\_.

4. What are two ways a biotic factor interacts with an abiotic factor?

1.

2.

5. Which of the following lists the levels of an ecosystem in order from largest to smallest?

- A. population, organism, community, ecosystem
- B. ecosystem, community, organism, population
- C. organism, community, population, ecosystem
- D. ecosystem, community, population, organism

6. Circle the correct answer: All of the different kinds of organisms in a forest are a (community, population).

7. Name three populations found in a prairie ecosystem. (Use figure 3)

1.

2.

3.

8. An organism gets food, water, shelter, and other things it needs to live, grow, and reproduce from its...

- A. population
- B. habitat
- C. abiotic factors
- D. species

9. All the living and nonliving things that interact in a particular area make up an \_\_\_\_\_.

10. The study of how organisms interact with each other and with their environment is called \_\_\_\_\_.