

**SECTION 1-1 REVIEW**

# THEMES OF BIOLOGY

**VOCABULARY REVIEW** Define the following terms.

1. DNA \_\_\_\_\_  
\_\_\_\_\_
2. sexual reproduction \_\_\_\_\_  
\_\_\_\_\_
3. autotroph \_\_\_\_\_  
\_\_\_\_\_
4. heterotroph \_\_\_\_\_  
\_\_\_\_\_

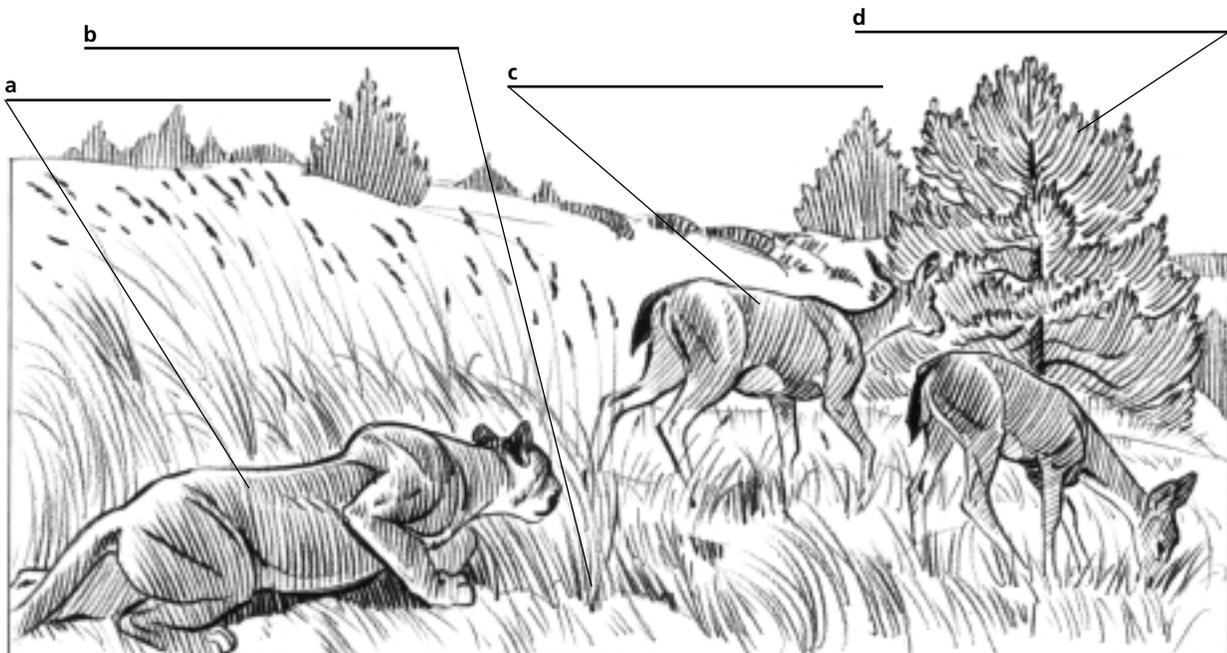
**MULTIPLE CHOICE** Write the correct letter in the blank.

- \_\_\_\_\_ 1. Biology is the study of
  - a. animals.
  - b. plants and animals.
  - c. all living things.
  - d. energy transfer.
- \_\_\_\_\_ 2. A short segment of DNA that contains instructions for the development of a single trait of an organism is known as a
  - a. DNA loop.
  - b. gene.
  - c. library.
  - d. membrane.
- \_\_\_\_\_ 3. As the cells in a multicellular organism multiply, they become different from each other in a process called
  - a. sexual reproduction.
  - b. descent with modification.
  - c. photosynthesis.
  - d. differentiation.
- \_\_\_\_\_ 4. Homeostasis refers to the
  - a. organization of cellular structures.
  - b. stable level of internal conditions in organisms.
  - c. organized structure of crystals.
  - d. destruction of tropical rain forests.
- \_\_\_\_\_ 5. The theory of evolution by natural selection states that
  - a. organisms with certain favorable traits are better able to reproduce.
  - b. all individuals are able to live and reproduce to the same degree.
  - c. individuals do not compete for resources such as food.
  - d. individuals evolve but populations of organisms remain the same.

**SHORT ANSWER** Answer the questions in the space provided.

1. Explain why the cell is called the basic unit of life. \_\_\_\_\_  
\_\_\_\_\_
2. Give a specific example of homeostasis. \_\_\_\_\_  
\_\_\_\_\_
3. How can the cells in a multicellular organism differ from each other when they all have identical DNA? \_\_\_\_\_  
\_\_\_\_\_
4. Contrast the reproduction of bacteria with that of leopard frogs. \_\_\_\_\_  
\_\_\_\_\_
5. **Critical Thinking** The organization of salt crystals is much simpler than that of living things. By what other criteria can salt crystals be distinguished from living things? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**STRUCTURES AND FUNCTIONS** Write the correct term—*autotroph* or *heterotroph*—in the space referring to each of the organisms pictured below.



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