Name _____ Class _____ Date _____

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.

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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.