

Cell Biology

Name:

Characteristics of Life Benchmark Review

Period:

Use your brain to answer the following questions, then check your work using Chapter 2.

_____ 1. Choose the appropriate form of the word *similar* for the following sentence: "Cells function in all organisms."

- a. similarity b. similar c. similarly d. dissimilar

Complete each of the following sentences by choosing the correct terms from the words below.

metabolism homeostasis

2. All of the chemical activities of an organism are the organism's _____.

3. _____ is the ability of an organism to control its internal environment.

_____ 4. Which of the following statements about cells is true?

- a. Cells are the smallest structural unit of life.
b. All organisms are made up of cells.
c. Sometimes, cells are specialized for particular functions.
d. All of the above

_____ 5. Which of the following statements about all living things is true?

- a. All living things reproduce sexually. c. All living things must make their own food.
b. All living things have one or more cells. d. All living things reproduce asexually.

_____ 6. Organisms must have food because

- a. food is a source of energy. c. organisms never make their own food.
b. food supplies cells with oxygen. d. All of the above

_____ 7. The molecule that contains the information about how to make proteins is

- a. ATP. b. a carbohydrate. c. DNA. d. a phospholipid.

8. What is the difference between asexual reproduction and sexual reproduction?

9. In one or two sentences, explain why living things must have water.

10. Your friend tells you that the stimulus of music makes his goldfish swim faster. How would you design a controlled experiment to test your friend's claim?

11. A flame can move, grow larger, and give off heat. Is a flame alive? Explain.

12. Some reptiles are able to grow a new tail if their original tail has been damaged or lost. Does this ability fit the description of asexual reproduction? Why or why not?

turn the page over for more questions

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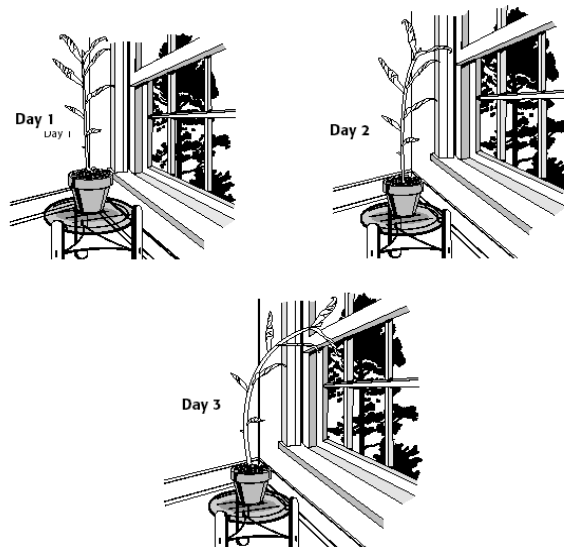
Use the table below to answer the next two questions.

Characteristics of Three Living Organisms			
Organism	A	B	C
comparison to parent(s)	slightly different	similar	identical

13. A student is studying three different organisms so that they can classify them according to how much each organism is like its parent. The table shows the characteristics of the three different organisms. Which of the organisms that the student studied could have been produced from a single parent?

14. The student adds organism D to the table. The organism has been produced through sexual reproduction. How will organism D compare to its parent(s)?

The pictures below show the same plant over a period of three days. Use the pictures below to answer the next two questions.



15. What is the plant doing?

16. What characteristic(s) of living things is the plant exhibiting?