

Skills Worksheet

Active Reading

Section: From Cell to Organism

Read the passage below. Then answer the questions that follow.

Many prokaryotes and unicellular eukaryotes live on their own. These organisms thrive independently. However, other unicellular organisms form cell groups. For example, some types of bacteria form cell groups. The cell walls of such bacteria adhere to one another, and the bacteria form filaments, sheets, or three-dimensional formations of cells. Such groupings are considered colonial organisms. A **colonial organism** is a group of cells that are permanently associated but do not communicate with one another. Colonial organisms differ from multicellular organisms in the following way: The cells in a colonial organism can survive on their own. But the cells of a multicellular organism are dependent on other cells of the organism. They cannot survive on their own.

An aggregation is a temporary collection of cells that come together for a period of time and then separate. For example, a slime mold is an organism that spends most of its life moving about and feeding as an independent amoeba-like cell. When starved, however, slime mold cells aggregate into a large group and become a large mass. In this form, the slime mold produces spores that disperse to distant locations, where there may be more food.

SKILL: READING EFFECTIVELY

Read each question, and write your answer in the space provided.

1. Define *colonial organism*.

2. Describe some of the different forms colonial organisms can take.

Active Reading *continued*

3. How is a colonial organism similar to a unicellular organism? How is it different from a unicellular organism?

4. How is a colonial organism similar to a multicellular organism? How is it different from a multicellular organism?

5. What is an aggregation? Describe an organism that takes this form. Tell how the organism changes over its life cycle and why.

In the space provided, write the letter of the phrase that best completes the statement.

- _____ 6. Colonial organisms and aggregations differ in the
- a. duration of cell association.
 - b. number of cells joined together.
 - c. manner in which the cells communicate with one another.
 - d. manner in which the cells reproduce.