



Directed Reading for
Content Mastery

Section 1 ■ Chemistry of Life
Section 2 ■ Moving Cellular Materials

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Directions: Use the words in the lists to fill in the blanks in the paragraphs below.

compounds inorganic proteins atoms
carbon elements organic molecules water

All matter is made up of 1. _____ 2. _____ are made up of only one kind of atom. These atoms may bond together to form 3. _____. Two or more kinds of atoms form 4. _____. Living things and their products are 5. _____ compounds. They all contain 6. _____ and hydrogen. 7. _____ called enzymes are organic compounds that help regulate chemical reactions in cells. 8. _____ compounds are made from elements other than carbon. One of the most important inorganic compounds for living things is 9. _____.

endocytosis passive active permeable
diffusion exocytosis osmosis

Cells have selectively 10. _____ membranes. Some molecules can pass through, but others can't. Movement through a cell membrane without using energy is 11. _____ transport. 12. _____ is passive transport that moves particles away from areas with more particles into areas with fewer particles in order to spread them out. Diffusion of water in and out of cells is called 13. _____. Large particles may need to use energy to pass through cell membranes. This is called 14. _____ transport. 15. _____ uses energy to take particles into a cell. 16. _____ releases particles out of a cell.

SECTION

2

Reinforcement

Moving Cellular Materials

Directions: Answer the following questions on the lines provided.

1. What is osmosis?

2. How does osmosis explain the fact that a watery syrup forms when you put sugar on strawberries?

3. a. How are glucose molecules moved into a cell?

b. What type of transport is this? _____

4. a. What are vesicles?

b. What happens to a vesicle in exocytosis?

5. What is a selectively permeable membrane?

Directions: Label the diagrams of cells with the terms **diffusion**, **active transport**, **osmosis**, **equilibrium**, **facilitated diffusion**. The arrows show the direction of transport.

