

Skills Worksheet

Chapter Review

USING KEY TERMS

1. Use the following terms in the same sentence: *diffusion* and *osmosis*.
2. In your own words, write a definition for each of the following terms:
exocytosis and *endocytosis*.

Complete each of the following sentences by choosing the correct term from the word bank.

cellular respiration photosynthesis fermentation

3. Plants use _____ to make glucose.
4. During _____, oxygen is used to break down food molecules releasing large amounts of energy.

For each pair of terms, explain how the meanings of the terms differ.

5. *cytokinesis* and *mitosis*

6. *active transport* and *passive transport*

7. *cellular respiration* and *fermentation*

Chapter Review *continued*

UNDERSTANDING KEY IDEAS

Multiple Choice

- _____ 8. The process in which particles move through a membrane from a region of low concentration to a region of high concentration is
- a. diffusion.
 - b. passive transport.
 - c. active transport.
 - d. fermentation.
- _____ 9. What is the result of mitosis and cytokinesis?
- a. two identical cells
 - b. two nuclei
 - c. chloroplasts
 - d. two different cells
- _____ 10. Before the energy in food can be used by a cell, the energy must first be transferred to molecules of
- a. proteins.
 - b. carbohydrates.
 - c. DNA.
 - d. ATP.
- _____ 11. Which of the following cells would form a cell plate during the cell cycle?
- a. a human cell
 - b. a prokaryotic cell
 - c. a plant cell
 - d. All of the above

Short Answer

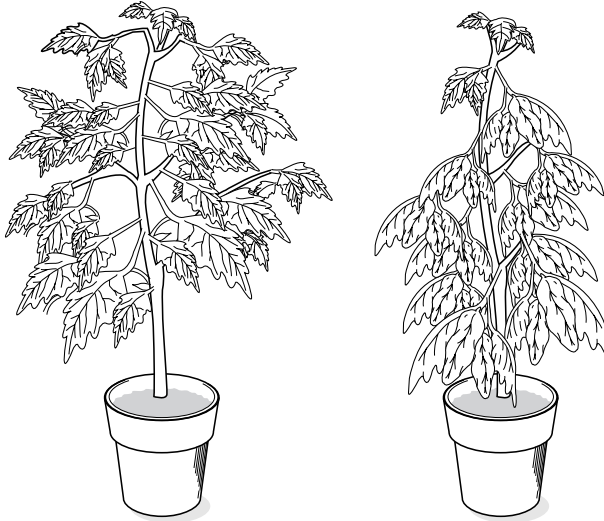
12. Are exocytosis and endocytosis examples of active or passive transport? Explain your answer.

13. Name the cell structures that are needed for photosynthesis and the cell structures that are needed for cellular respiration.

14. Describe the three stages of the cell cycle of a eukaryotic cell.

Chapter Review *continued*

16. Making Inferences Which one of the plants pictured below was given water mixed with salt, and which one was given pure water? Explain how you know, and be sure to use the word *osmosis* in your answer.



17. Identifying Relationships Why would your muscle cells need to be supplied with more food when there is a lack of oxygen than when there is plenty of oxygen present?

18. Applying Concepts A parent cell has 10 chromosomes.

a. Will the cell go through binary fission or mitosis and cytokinesis to produce new cells?

b. How many chromosomes will each new cell have after the parent cell divides?

Chapter Review *continued*

INTERPRETING GRAPHICS

The picture below shows a cell. Use the picture below to answer the questions that follow.



19. Is the cell prokaryotic or eukaryotic?

20. Which stage of the cell cycle is this cell in?

21. How many chromatids are present? How many pairs of homologous chromosomes are present?

22. How many chromosomes will be present in each of the new cells after the cell divides?
