

Plant Structure and Function

Chapter 2 Study Guide

Section 1: Vocabulary

Write the word or words that make the statement correct.

Vocabulary List

1. A root's food is stored in the _____.
2. Anything in the environment that produces a response is called a(n) _____.
3. Threadlike parts of cells on the surface of a root are called _____.
4. Something that helps an organism survive in its environment is called a(n) _____.
5. The part of the plant that separates the phloem from the xylem is the _____.
6. The outermost layer of a root, stem, or leaf is called a(n) _____.
7. A plant bending or curving away from or toward a stimulus is called a _____.
8. The food-making process in plants is called _____.
9. The process where water evaporates from the leaves, and more water moves up through the plant to replace lost water is called _____.
10. Tissue through which water and minerals flow up through the plant is called a(n) _____.

xylem

cortex

root hairs

cambium

adaptation

epidermis

tropism

transpiration

stimulus

photosynthesis

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Section 2: Science Concepts

Circle the letter of the best answer.

11. Which is not a function of stems?

- A. transpiration
- B. food storage
- C. water absorption
- D. support

12. Food flows down from the leaves of a plant through the _____.

- A. cortex
- B. xylem
- C. phloem
- D. cambium

13. Sunlight, water, minerals, and carbon dioxide are used by plants to make food.

Plant cells do this in parts called _____.

- A. fungus
- B. chlorophyll
- C. bacterium
- D. chloroplasts

14. Water and minerals flow up a plant through the _____.

- A. cortex
- B. xylem
- C. cambium
- D. phloem

15. Which statement is true?

- A. Both photosynthesis and respiration store energy.
- B. Both photosynthesis and respiration release energy.
- C. Photosynthesis releases energy; respiration stores energy.
- D. Photosynthesis stores energy; respiration releases energy.

16. Which part holds the transportation system for plants?

- A. xylem
- B. roots
- C. stems
- D. leaves

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Section 3: Science Process Skills

Answer each question using complete sentences.

17. **Infer** In what kind of environment is a plant with aerial roots likely to grow? Why?

Section 4: Using Science Concepts

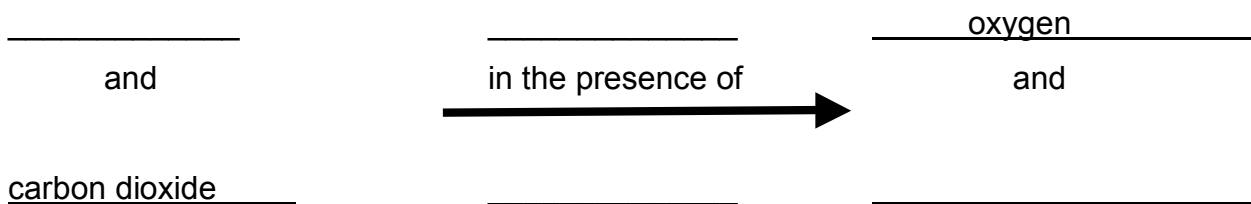
Answer each question using complete sentences.

18. What are three adaptations that help plants survive water shortages?

Section 5: Using Diagrams and Charts

Complete the “formulas” for photosynthesis and respiration.

Photosynthesis:



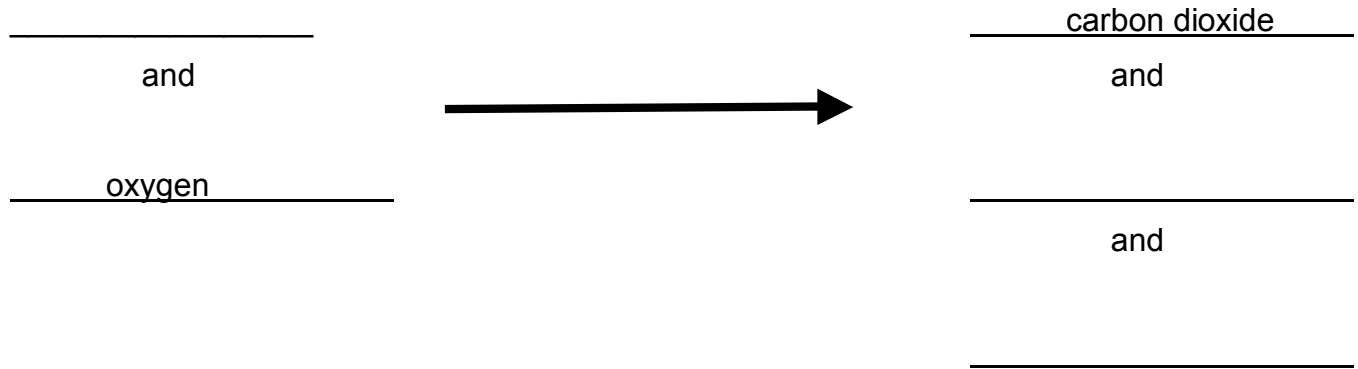
Terms:

food (sugar) water chlorophyll light energy

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Respiration:



Terms:

food (sugar) water energy

Write the correct tropism to label each diagram.

Terms: hydrotropism gravitropism phototropism thigmotropism

