

**Review and Reinforce**

# Photosynthesis

## Understanding Main Ideas

Fill in the blanks in the photosynthesis equation below with the names of the missing elements or compounds. Then answer the questions that follow on a separate sheet of paper.

1. \_\_\_\_\_ + 2. \_\_\_\_\_ + light energy →
3. \_\_\_\_\_ + 4. \_\_\_\_\_
5. What are the raw materials of photosynthesis?
6. What are the products of photosynthesis?
7. Why is *light energy* written on the left side of the equation?
8. Where does photosynthesis generally occur?

## Building Vocabulary

Fill in the blank to complete each statement.

9. The process by which a cell captures the energy of sunlight and uses it to make food is called \_\_\_\_\_.
10. \_\_\_\_\_ are colored chemical compounds that absorb light.
11. The main pigment found in the chloroplasts of plants is \_\_\_\_\_.
12. An organism that makes its own food is a(n) \_\_\_\_\_.
13. A(n) \_\_\_\_\_ is an organism that cannot make its own food.
14. One sugar produced by photosynthesis is \_\_\_\_\_.

## Lesson Quiz

# Photosynthesis

Write the letter of the correct answer on the line at the left.

1. \_\_\_\_ Another name for a heterotroph is a  
A producer  
B raw material  
C consumer  
D plant
2. \_\_\_\_ Which of the following is not true about the products of photosynthesis?  
A Some of the sugar is made into other compounds, such as cellulose.  
B Some of the sugar is stored in the plant's cells for later use.  
C The waste product carbon dioxide is given off through tiny openings on the underside of the leaves.  
D The products are used by both plants and animals for energy.
3. \_\_\_\_ Which of the following represents the raw materials of photosynthesis?  
A carbon dioxide and oxygen  
B carbon dioxide and water  
C glucose and oxygen  
D water and glucose
4. \_\_\_\_ The main characteristic of the first stage of photosynthesis is  
A the production of hydrogen and energy  
B the production of hydrogen and glucose  
C the release of oxygen and carbon dioxide  
D the storage of glucose in the plant's cells

If the statement is true, write *true*. If the statement is false, change the underlined word or words to make the statement true.

5. \_\_\_\_\_ Autotrophs are also known as producers.
6. \_\_\_\_\_ The ultimate source of energy for all living things is the leaf.
7. \_\_\_\_\_ Plants are able to carry out photosynthesis because they contain the organelle known as a(n) mitochondrion.
8. \_\_\_\_\_ One important sugar that results from photosynthesis is cellulose.
9. \_\_\_\_\_ Light energy is changed to cell energy in Stage 1 of photosynthesis.
10. \_\_\_\_\_ The green pigment that absorbs light energy is chlorophyll.

**Review and Reinforce**

# Cellular Respiration

**Understanding Main Ideas**

Fill in the blanks in the table below.

**Respiration**

Raw Materials	Products
Glucose	1.
2.	Water
	3.

Answer the following questions in the spaces provided.

4. Where in the cell does the first stage of respiration take place?

\_\_\_\_\_

5. Where in the cell does the second stage of respiration take place?

\_\_\_\_\_

6. Which type of fermentation occurs in yeast?

\_\_\_\_\_

7. Which type of fermentation sometimes occurs in human muscle cells?

\_\_\_\_\_

**Building Vocabulary**

Answer the following questions on a separate sheet of paper.

8. Why are cellular respiration and photosynthesis opposite processes?

9. In what ways are cellular respiration and fermentation alike? In what ways are they different?

## Lesson Quiz

# Cellular Respiration

If the statement is true, write *true*. If the statement is false, change the underlined word or words to make the statement true.

1. \_\_\_\_\_ Fermentation is the opposite process of cellular respiration.
2. \_\_\_\_\_ Fermentation in yeast produces lactic acid.
3. \_\_\_\_\_ In the first stage of respiration, very little energy is released.
4. \_\_\_\_\_ Oxygen is a product of cellular respiration.
5. \_\_\_\_\_ Glucose is a product of photosynthesis.

Fill in the blank to complete each statement.

6. Pain and weakness in human muscles cells are often the result of the buildup of \_\_\_\_\_.
7. Plant and animal cells release energy from food as a result of the process of \_\_\_\_\_.
8. The energy-releasing process that does not require oxygen is \_\_\_\_\_.
9. \_\_\_\_\_ are the powerhouses of the cell because they are the organelles in which the second stage of cellular respiration takes place.
10. The products of photosynthesis are the \_\_\_\_\_ of cellular respiration.