

Skills Worksheet

Active Reading

Section: Cellular Respiration

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

Cellular respiration begins with the breakdown of glucose. This process is called **glycolysis**, and it occurs in the cytoplasm of cells. Glycolysis is an enzyme-assisted, anaerobic process. During glycolysis, one six-carbon molecule of glucose is converted to two three-carbon molecules of pyruvate. The pyruvate molecules produced during glycolysis still contain some of the energy that was stored in the glucose molecule when it was first made through photosynthesis. In the process of glycolysis, two molecules of ATP are used and four molecules of ATP are produced.

SKILL: READING EFFECTIVELY

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

1. How and where does cellular respiration begin?

2. Glycolysis is classified as an anaerobic process. What does this indicate?

3. What happens to a six-carbon molecule of glucose during glycolysis?

4. What is the original source of the energy contained in the pyruvate molecules produced through glycolysis?

In the space provided, write the letter of the phrase that best answers the question.

- _____ 5. Which of the following are produced as a result of glycolysis?
- a. two molecules of pyruvate
 - b. six ATP molecules
 - c. two glucose molecules
 - d. Both (a) and (b)