

Chapter 9 Cellular Respiration

Vocabulary Review

Matching *In the space provided, write the letter of the definition that best matches each term.*

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|-------------------------------|--|
| _____ 1. calorie | a. electron carrier |
| _____ 2. glycolysis | b. pathway that releases energy from food in the absence of oxygen |
| _____ 3. cellular respiration | c. requires oxygen |
| _____ 4. NAD ⁺ | d. process in which one molecule of glucose is broken in half, producing two molecules of pyruvic acid |
| _____ 5. fermentation | e. does not require oxygen |
| _____ 6. anaerobic | f. amount of energy needed to raise 1 gram of water 1 degree Celsius |
| _____ 7. aerobic | g. process that releases energy by breaking down food molecules in the presence of oxygen |

Answering Questions *In the space provided, write an answer to each question.*

8. What is the first stage of cellular respiration? _____

9. What is the second stage of cellular respiration? _____

10. What is the third stage of cellular respiration? _____

11. How many ATP molecules can the cell produce from a single molecule of glucose through glycolysis? _____
12. How many ATP molecules can the cell produce from a single molecule of glucose through the complete process of cellular respiration? _____

Completion *Write an equation for each of the pathways below.*

13. lactic acid fermentation after glycolysis _____

14. alcoholic fermentation after glycolysis _____

15. cellular respiration _____
