

## Chapter 9 Cellular Respiration

### Vocabulary Review

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

- |                               |  |
|-------------------------------|--|
| _____ 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 <sup>+</sup>     | 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 \_\_\_\_\_  
\_\_\_\_\_