

## **Cellular Respiration Study Guide**

Answer the following questions. Then, complete the assignment check for cellular respiration.

### **Chemical Energy and Food**

1. Cellular respiration begins with a pathway called\_\_\_\_\_.
2. Is the following sentence true or false? Glycolysis produces less energy than aerobic respiration.

### **Overview of Cellular Respiration**

3. Explain cellular respiration in your own words.
4. What is the equation for cellular respiration, using chemical formulas?

### **Fermentation**

5. What is fermentation?
6. Because fermentation does not require oxygen, it is said to be\_\_\_\_\_.
7. What are the two main types of fermentation?
  - a.
  - b.
8. Explain the process of alcoholic fermentation.
9. During rapid exercise, how do your muscle cells produce ATP?

### **Energy and Exercise**

10. When a runner needs quick energy for a short race, what source can supply enough ATP for about 90 seconds?
11. Why does a sprinter have an oxygen debt to repay after the race is over?

### **Comparing Photosynthesis and Cellular Respiration**

12. If photosynthesis is the process that deposits energy in a savings account, then what is cellular respiration?
13. How are photosynthesis and cellular respiration opposite in terms of carbon dioxide?
14. How are photosynthesis and cellular respiration opposite in terms of oxygen?