

Name:

Date:

Period:

## Cellular Respiration Scavenger Hunt

Directions: Using your Biology book, answer the following questions from Chapter 9. Good Luck! 😊

1. What is the main energy molecule for the cell? \_\_\_\_\_
2. What is glycolysis?
3. What is cellular respiration?
4. Cellular respiration consists of three (3) main stages. What are those 3 stages and where do they take place?  
\_\_\_\_\_ takes place in \_\_\_\_\_  
\_\_\_\_\_ takes place in \_\_\_\_\_  
\_\_\_\_\_ takes place in \_\_\_\_\_
5. Glycolysis uses 2 \_\_\_\_\_ to get started and then produces 4 \_\_\_\_\_,  
2 \_\_\_\_\_ and 2 \_\_\_\_\_.
6. If oxygen IS NOT present in a cell, what process follows glycolysis? \_\_\_\_\_
7. If oxygen IS present, what process follows glycolysis? \_\_\_\_\_
8. Hans Krebs discovered the \_\_\_\_\_ which is also known by his name.
9. The Krebs cycle takes place in the \_\_\_\_\_, which is the space in between the folds of membrane within the mitochondria.
10. \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_ are all products of the Krebs cycle.
11. The NADH and FADH<sub>2</sub> from the Krebs cycle are passed on to the \_\_\_\_\_  
\_\_\_\_\_ or ETC, which takes place in the inner membrane s of the mitochondria.
12. The total energy output of cellular respiration in the presence of oxygen is \_\_\_\_\_ ATP.
13. What happens to **most** of the energy that you produce everyday through cellular respiration? What happens to the rest of it?

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## Term

## Definition

- |                       |  |
|-----------------------|--|
| _____ 1. anaerobic    | A. Innermost compartment of a mitochondrion  |
| _____ 2. glycolysis   | B. Process that forms either lactic acid or ethyl alcohol when no oxygen is present        |
| _____ 3. Krebs cycle  | C. Stage of cellular respiration that starts with pyruvic acid and produces carbon dioxide |
| _____ 4. calorie      | D. Process in which glucose is broken down into two molecules of pyruvic acid              |
| _____ 5. matrix       | E. "In air"  |
| _____ 6. aerobic      | F. "Without air"   |
| _____ 7. fermentation | G. Amount of energy needed to raise the temperature of 1 gram of water 1°C                 |

For Questions 8–10, write the letter of the correct answer on the line at the left.

- \_\_\_\_\_ 8. Which is the process that releases energy by breaking down food molecules in the presence of oxygen?
- A. cellular respiration                      C. glycolysis  
B. electron transport                      D. photosynthesis
- \_\_\_\_\_ 9. Which is the electron carrier that accepts electrons during glycolysis?
- A. ADP    C. NAD<sup>+</sup>  
B. ATP    D. NADP<sup>+</sup>
- \_\_\_\_\_ 10. When comparing cellular respiration and photosynthesis, these two processes are best described as
- A. energy-releasing processes.              C. opposite processes.  
B. energy-storing processes.              D. similar processes.

11. Complete the illustration by adding the words "aerobic" or "anaerobic" on the lines provided.

