

Name: \_\_\_\_\_

Date: \_\_\_\_\_

## Cellular Respiration Animation

Go to [www.biologybynapiet.com](http://www.biologybynapiet.com), click on the Cellular Energy & Plants Unit link in the left margin and scroll down to the "Cellular Respiration Animation" button OR type the following link into your browser:

[http://www.mhhe.com/biosci/bio\\_animations/MH01\\_CellularRespiration\\_Web/index.html](http://www.mhhe.com/biosci/bio_animations/MH01_CellularRespiration_Web/index.html)

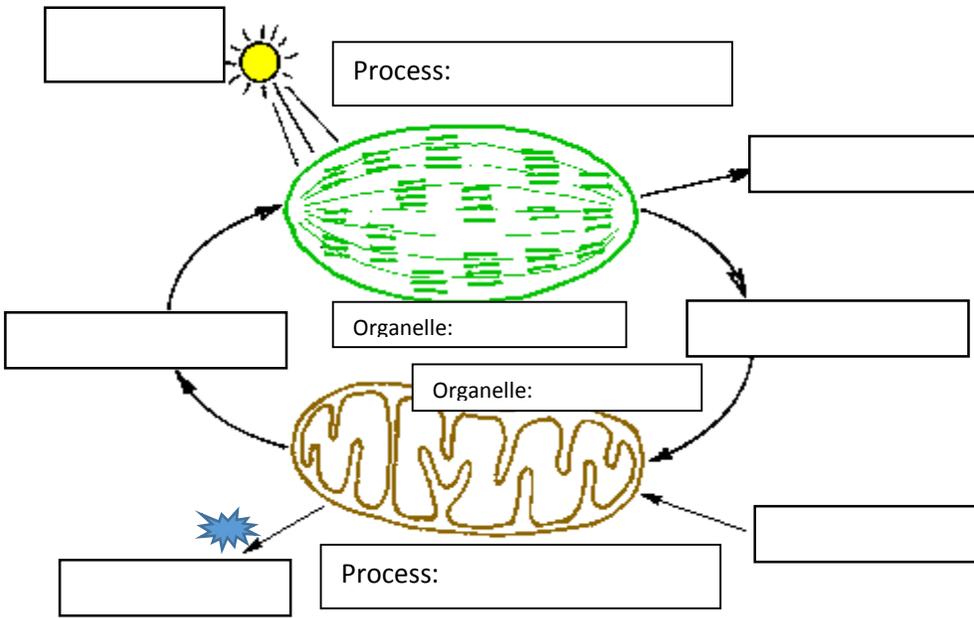
Play the 3D animation. Answer the questions below while watching the video. You are only responsible for knowing the information in the questions below. ☺ You do NOT need to know all the stages and steps of this process.

1. What process turns your food into chemical compounds that you can use for energy?
2. What process turns your food into useful energy?
3. What is removed from your food and transported in the blood stream to the cells?
4. What leaves the blood stream and enters the cells?
5. What is the overall goal of cellular respiration?
6. What is the storage molecule of energy called?
7. What atomic molecule is active in cellular respiration?
8. Does any portion of cellular respiration occur in the cytoplasm?
9. In what organelle does cellular respiration take place?
10. What is another name for cellular respiration (HINT: cellular respiration uses oxygen)?
11. How many ATP molecules are made by one glucose on average?
12. Where does oxygen come from that enters the cell for cellular respiration?
13. What is released into the bloodstream as a waste product of cellular respiration?
14. What is the goal of cellular respiration?

### Additional Questions:

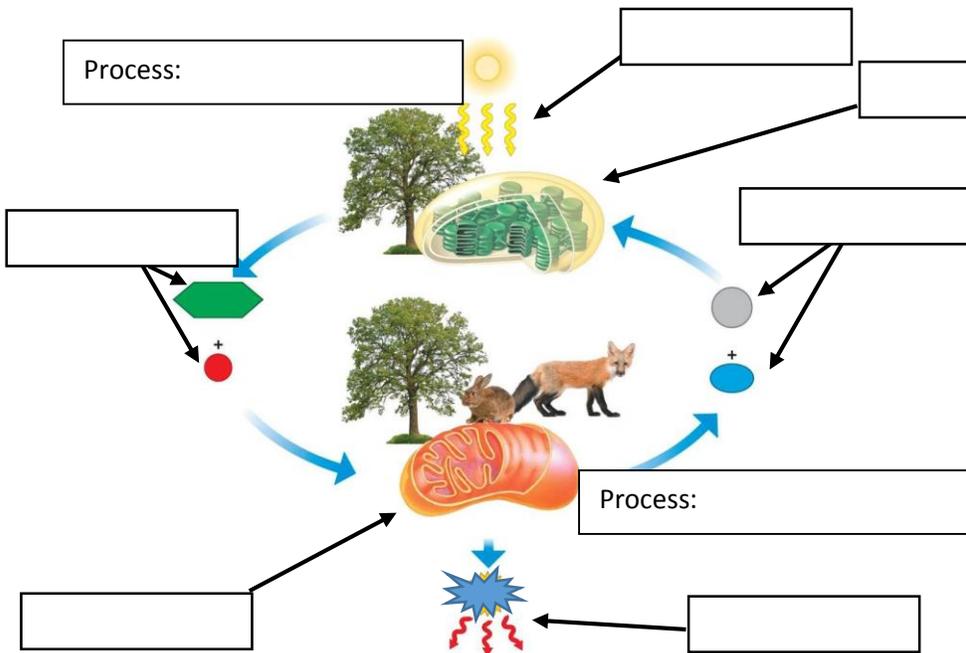
1. Carbohydrates are used to make energy. What other biomolecule provides your body with energy?  
\_\_\_\_\_
2. Cellular respiration occurs in the mitochondria. Do plants go through cellular respiration? \_\_\_\_\_ In what organelle does photosynthesis take place? \_\_\_\_\_ Do animals go through photosynthesis? \_\_\_\_\_
3. How are cellular respiration and photosynthesis related? (use the terms **reactant** and **product** in your explanation). \_\_\_\_\_  
\_\_\_\_\_

Label the diagrams below:



WRITE out the following words in the correct boxes on the diagram to the left!

- Photosynthesis
- Cellular Respiration
- Oxygen (use twice)
- Carbon Dioxide & Water
- ATP
- Glucose
- Radiant Energy
- Mitochondrion
- Chloroplast

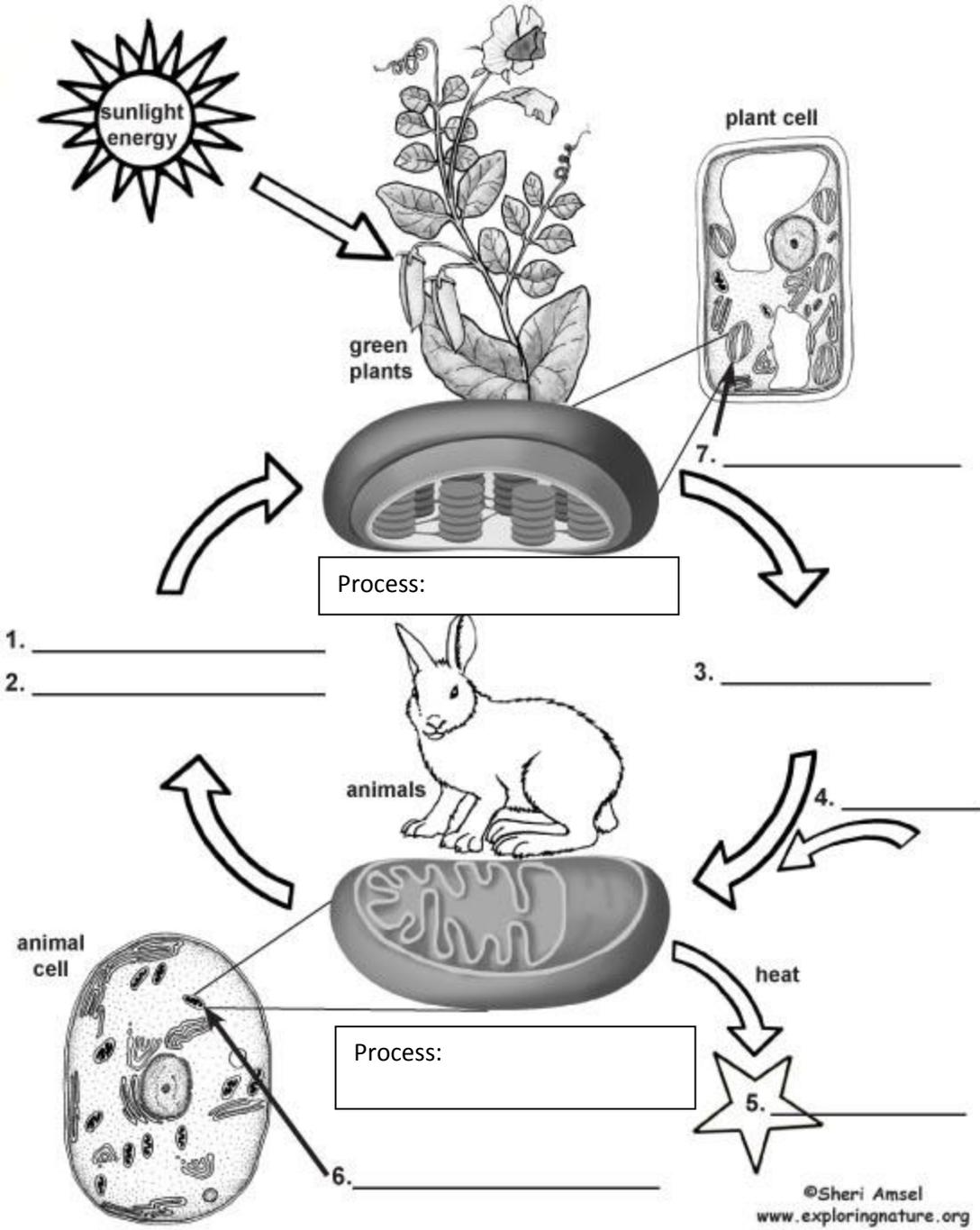


WRITE out the following words in the correct boxes on the diagram to the left!

- Photosynthesis
- Cellular Respiration
- Oxygen & Glucose
- Carbon Dioxide & Water
- ATP
- Radiant Energy
- Mitochondrion
- Chloroplast

# Photosynthesis and Cellular Respiration Quiz

Fill in the Blanks



## Need a little more clarification on Cellular Respiration?

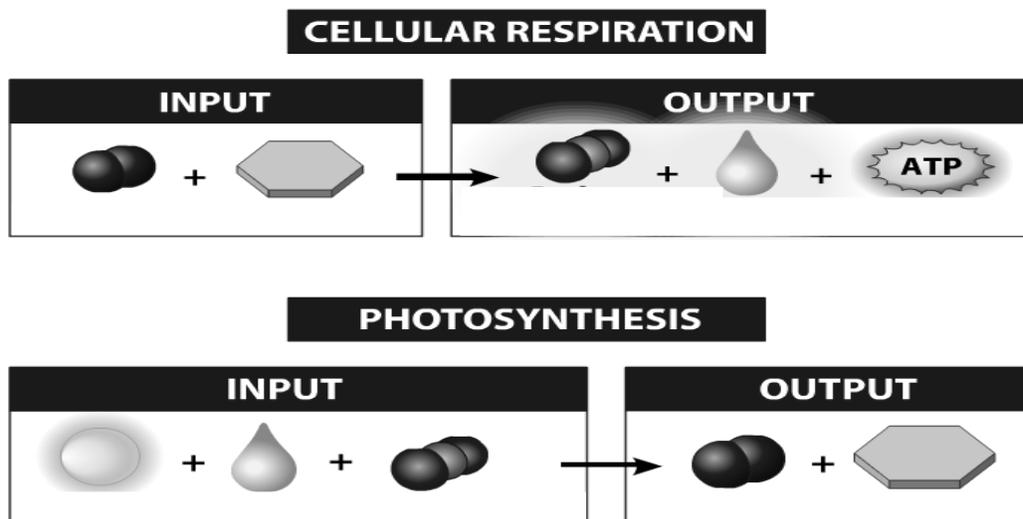
### Cellular Respiration Take Two – The Big Picture

Go to [www.biologybynapier.com](http://www.biologybynapier.com), click on the Cellular Energy & Plants Unit link in the left margin and scroll down to the “Cellular Respiration The Big Picture” button OR type the following link into your browser:

<http://www.sumanasinc.com/webcontent/animations/content/cellularrespiration.html>

1. Why do organisms need energy?
2. Where does our energy come from?
3. What are the two main reactants of Cellular Respiration?
4. What are the three products of Cellular Respiration?
5. How does Cellular Respiration compare to Photosynthesis?

Label all of the reactants (input) and the products (output) of the two processes below.



6. How does energy differ in the above processes? Be specific.
7. Where does Glycolysis (the first step of cellular respiration) take place?
8. What happens to glucose in the cytoplasm?

**Skip the rest of the video and click on KREBS CYCLE**

9. Where does Krebs Cycle (the second step of cellular respiration) take place?

**Skip the rest of the video and click on ELECTRON TRANSPORT CHAIN**

1. Where does the Electron Transport Chain (the last step of cellular respiration) take place?
2. Why is this last step essential? **(Skip the rest of the video)**