Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Bell \_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_

**Cellular Respiration Webquest**

Go to your teacher’s website and find the page for this webquest. Click on the links to answer the questions.

**Part 1 – Define.** http://science-class.net/archive/science-class/PowerPoints/PandR\_files/frame.htm

Navigate the slides to find the answers to the following questions.

1. What is Cellular Respiration? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. What is the chemical equation for Cellular Respiration?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. Where do humans take in oxygen? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Where do plants take in oxygen? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5. Write a list of chemical compounds that are involved in Photosynthesis on the left and the chemicals involved in cellular respiration on the right.

Photosynthesis Cellular Respiration

**Part 2 – Where does this happen?** <http://www.biology4kids.com/files/cell_mito.html>

1. What structure in human and animal cells is known as the “powerhouses of the cell”?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. This organelle acts like what? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. Why do some cells have more mitochondria than other cells? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4. Complete the sentences as you read the paragraph titled “Using Oxygen to Release Energy”

How are mitochondria used in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_? The matrix is filled with \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. These proteins take food molecules and combine them with \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. The mitochondria are the only cell where \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ can be combined with the \_\_\_\_\_\_\_ molecules. After oxygen is added, the material can be \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. They are working \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ that keep the cell full of energy.

5. Sketch the structure and label the three main parts and shown in the image on this website.

**Part 3 – What is this energy called?**

<http://www.biologyinmotion.com/atp/index.html>

1. What is the full name for ATP? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. What do they compare ATP to? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. When you eat, your body changes to food into usable energy called ATP. What do you need ATP or energy for? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Part 4: Check for Understanding**

For the following statements, write P if it describes photosynthesis, or write R if it describes respiration.

1. Occurs in the chloroplast \_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Occurs in the mitochondria \_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Uses Oxygen \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. Produces Oxygen \_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. Uses Water \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. Produces water \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
7. Relies directly on the sun \_\_\_\_\_\_\_\_\_\_\_
8. Producers are dependent on this process to produce food \_\_\_\_\_\_\_\_\_\_\_\_\_
9. Only plants do this process \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
10. Plant and Animals do this process \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
11. The goal of this process is to get ATP \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
12. The goal of this process is to make glucose \_\_\_\_\_\_\_\_\_\_\_\_\_\_