Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**I CAN** explain photosynthesis and cellular respiration.

Period \_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

This will also be your STUDY GUIDE for Chapter 4 Section 2—Cell Energy

* **complete this study guide,**
* **study—this study guide**

If you **do not receive a Proficient**

grade on this test, in order to retake

you are required to:

**have your parent sign this study guide.**

My child had completed this study guide, studied, and is ready to retake this test.

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

parent signature

**PHOTOSYNTHESIS**



 1. What kind of organisms have photosynthesis?

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

 2. Where does the energy come from for photosynthesis?\_\_\_\_\_

 3. What is the main product of photosynthesis? \_\_\_\_\_\_\_\_\_\_\_\_

4. What useful gas is released to the air during photosynthesis? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

GIVE A CHEMICAL DEFINITION OF PHOTOSYNTHESIS using these chemical element symbols **C H O** which stand for Carbon, Hydrogen, and Oxygen.

6.

9.

8.

5.

7.

9.

 + + +

RAW MATERIALS

PRODUCT

PRODUCT

10. In which plant part does photosynthesis take place? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 (The answer is NOT chloroplasts.)

11. What do chloroplasts do? \_make \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

12-16. Sketch a plant and place arrows in the sketch showing the photosynthesis cycle. Label arrows with the chemical symbols you used in 5-9 above.

Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**I CAN** explain photosynthesis and cellular respiration.

Period \_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**CELL RESPIRATION**



 1. Cell respiration takes place in what organelle? \_\_\_\_\_\_\_\_\_\_\_\_\_

 2. Cell respiration requires what gas to be present? \_\_\_\_\_\_\_\_\_\_

3. 3. Cell respiration uses what food? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4. Cell respiration produces what waste and side product? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5. Cell respiration accomplishes what (main product)? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

GIVE A CHEMICAL DEFINITION OF CELL RESPIRATION using these chemical element symbols **C H O** which stand for Carbon, Hydrogen, and Oxygen.

6.

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P R O D U C T S

RAW MATERIALS

10-14. Sketch a stick figure and place arrows in the sketch showing the cellular respiration cycle. Label the arrows with the chemical symbols you used in 5-9 above.