**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_\_**

**Study Guide 8th grade: Chapter 11 Test - Plant Processes**

1. Complete the following analogy. Water is to \_\_\_\_\_\_\_\_\_\_\_ as liquid sugar is to \_\_\_\_\_\_\_\_\_\_.

2. Terms to know: photosynthesis, cellular respiration, gravitropism, phototropism, and photoperiodism.

3. Which of the following do plants NOT do with the energy produced through cellular respiration?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | eat | c. | reproduce |
| b. | Repair tissue | d. | grow |

4. The reactants of cellular respiration are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

5. Photosynthesis occurs in most plants such as protists and algae. Animals do not undergo photosynthesis.

6. The plant structure that allows water to enter are the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

7. All organisms undergo cellular respiration.

8. After sugar is broken down in a plant, \_\_\_ \_\_\_\_ \_\_\_\_ \_\_\_\_ \_\_\_ \_\_\_\_ is released.

9. Cellular respiration produces energy in the form of adenosine triphosphate (\_\_\_ \_\_\_ \_\_\_).

10. Where does photosynthesis occur? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

11. Where does cellular respiration occur? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (found in cytoplasm).

12. In plants, oxygen, water vapor, and carbon dioxide pass into and out of the openings of leaves.

13. Most plants reflect \_\_\_\_\_\_\_\_\_\_\_\_\_\_ colored light.

14. Understand the role/function of the following chemical hormones found in plants: ethylene, cytokinins, and auxin.

***Study the following reactions. Complete the reactants vs. products section.***

I. **Photosynthesis:** [CO2 + H2O + light energy → C6H12O6 + O2]

carbon dioxide + water + light energy → glucose + oxygen

REACTANTS (left) =

PRODUCTS (right) =

II. **Cellular Respiration:** [C6H12O6 + O2 → CO2 + H2O + ATP]

glucose + oxygen → carbon dioxide + water + energy

REACTANTS (left) =

PRODUCTS (right) =