

Name: _____

Photosynthesis

Directions: Answer the questions about photosynthesis.

Photosynthesis is the process by which plants make food to eat. In Greek, *photo* means "light", and *synthesis* means "putting together." Plants use the sun's light, as well as water and carbon dioxide, to make their own food. The food plants create through this process is a type of sugar. Another product of photosynthesis is oxygen. When plants make food, they use the carbon dioxide we exhale, and produce the oxygen we breathe.

Plants drink water through their roots, and "breathe" in CO_2 through small holes in the leaves called stomata. These holes only open when photosynthesis must occur. Otherwise, the open holes will allow water to escape.

Once the plant has water and CO_2 , chloroplasts in the cells of the leaves take in the water, CO_2 , and light, and turn them into sugar and oxygen.

Here is the chemical reaction of photosynthesis:



6 molecules of water + 6 molecules of carbon dioxide

produce

1 molecule of sugar + 6 molecules of oxygen

1. What is photosynthesis?

2. Name the three things necessary for photosynthesis to occur.

3. Write each compound's name: H_2O _____ CO_2 _____

O_2 _____ $\text{C}_6\text{H}_{12}\text{O}_6$ 4 _____

4. What do you think would happen if plants became extinct? _____
