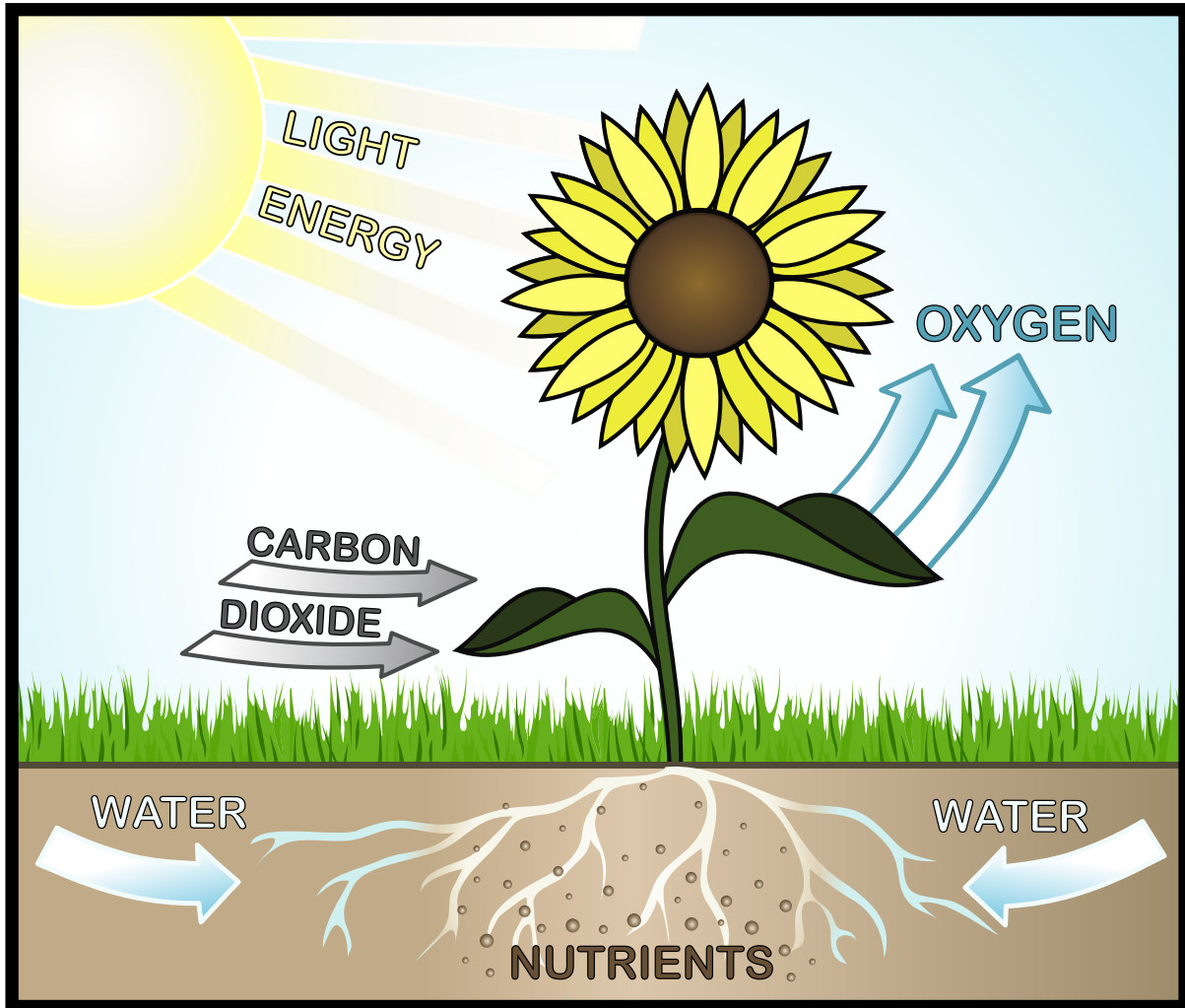
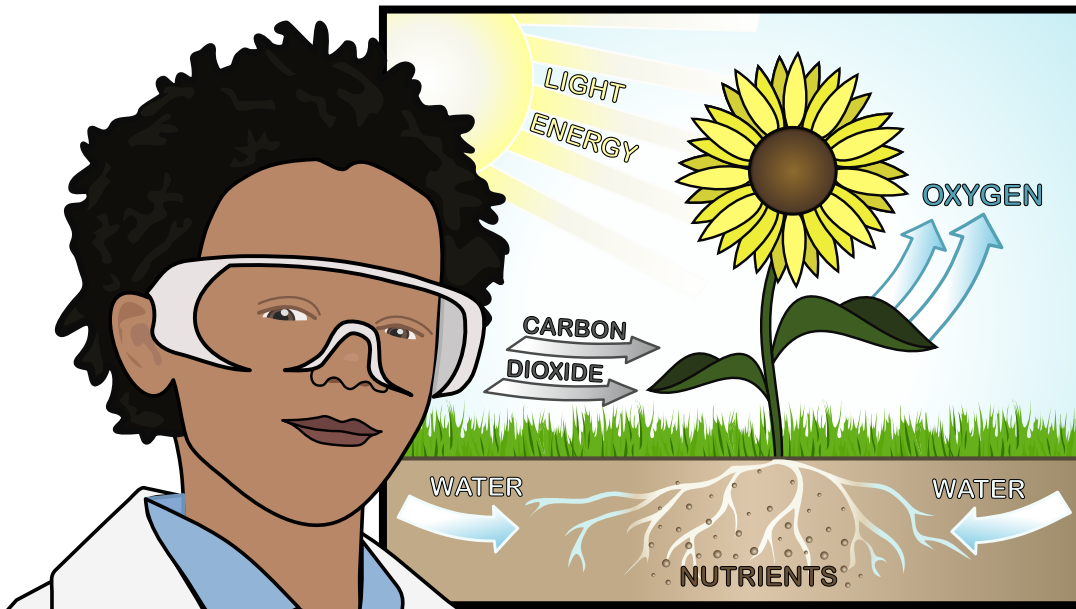


Photosynthesis

Level J/K



Written and Illustrated by Travis Schaeffer



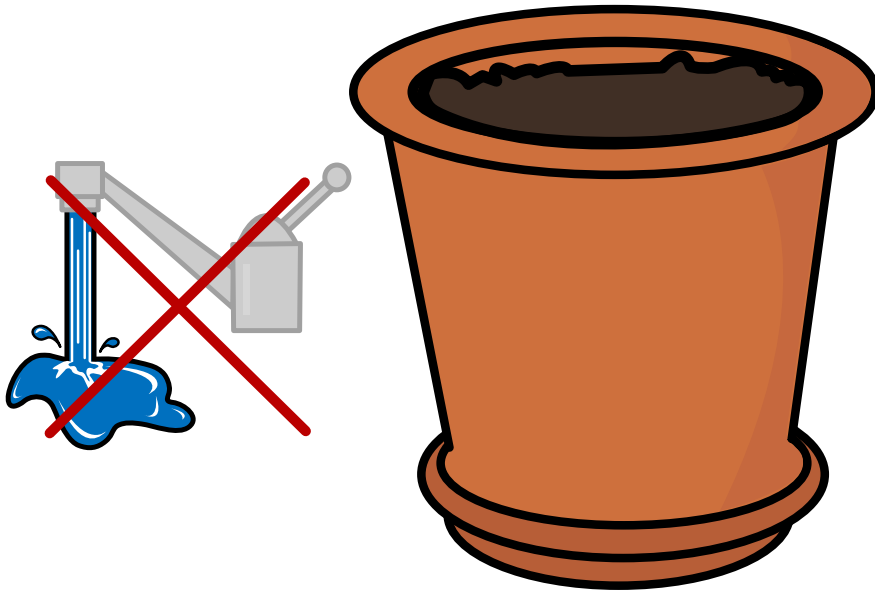
Simon wants to learn more about plants. He wants to learn what plants need. Simon wants to learn how they grow. He wants to learn how plants make their food. Simon is doing an experiment. He puts seeds into five different pots. Simon is going to learn about **photosynthesis!**



Simon puts sand and rocks inside one pot. Will the plant grow? No, plants need soil to grow. Soil allows roots of plants to spread further out. This allows plants to get more of the **nutrients** it needs.

Nutrients from soil are stored inside plants.

Nutrients from soil help plants grow.

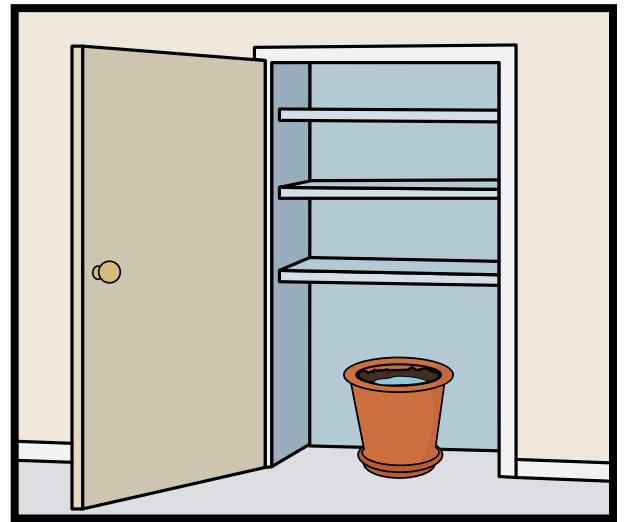


Simon puts soil in the next pot, but he does not give it water. Will the plant grow? No, plants need water to grow. Water absorbed from soil enters plants through their roots. The water is sent from the roots through the stem and into the leaves. The water gives leaves their green color. This is known as **chlorophyll**.

Simon puts soil and water in the next pot. He puts the pot inside a dark closet.

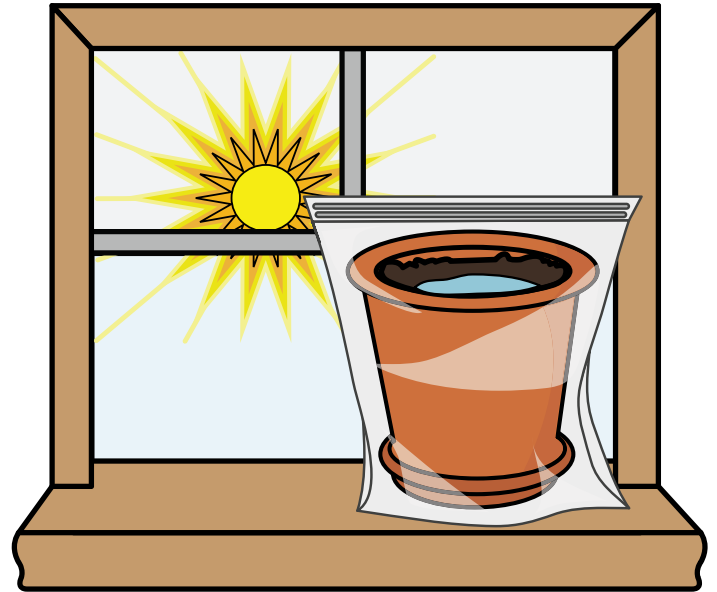
Will the plant grow? No, plants need sunlight to grow.

Chlorophyll in leaves catches light from the sun. **Energy** from



sunlight is kept in the plants. It is used to change the water into hydrogen and oxygen. The oxygen in plants then goes into the air. The hydrogen then stays inside the plants.

Simon puts soil and water in the next pot. He puts the pot next to a window for sunlight. Simon puts a plastic bag over the pot to protect it.

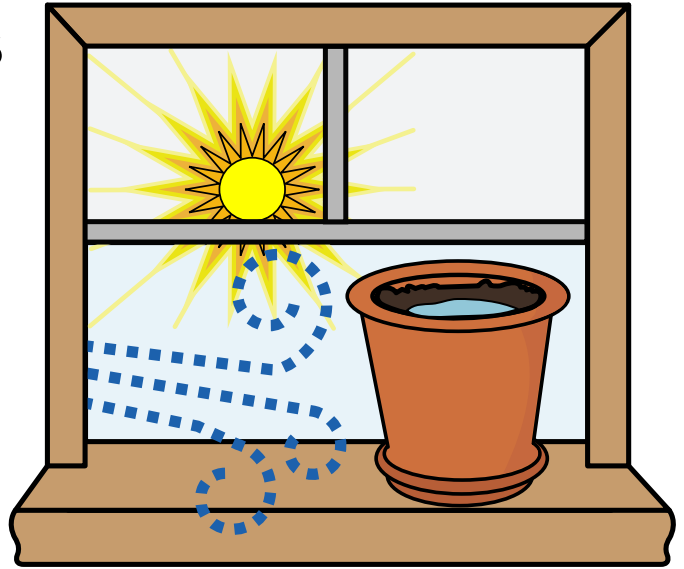


Will the plant grow?

No, plants need air to grow. Leaves and stems of plants have small holes. These holes are called **stomata**. Carbon dioxide goes into the plant through the holes.

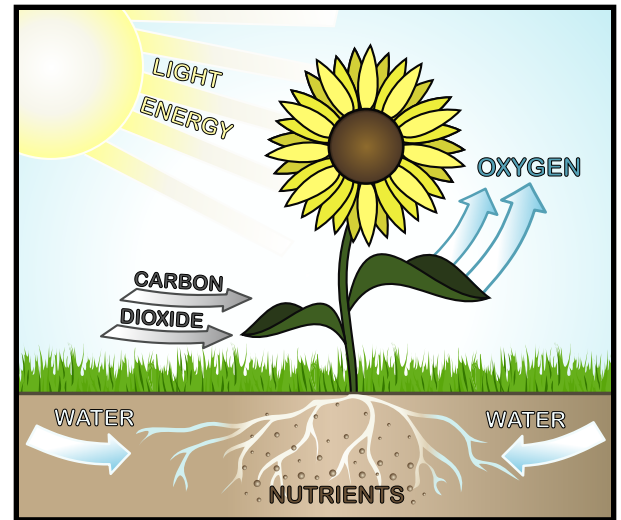
Hydrogen and carbon dioxide then make food for the plants.

Simon puts soil and water in the last pot. He puts the pot next to a window in sunlight. Simon opens the window every day to give it fresh air. Will the plant grow? Yes,

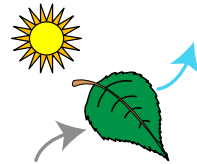


the plant will grow! Simon's plant has everything it needs. It will be able to go through the process of photosynthesis. This will help the plant grow big and strong, but also give us oxygen we use to breathe.

Simon learned what plants need. He learned plants take in nutrients and water from soil. Water gives leaves chlorophyll that captures energy from sunlight. Sunlight changes the water into hydrogen and oxygen. Oxygen goes out of the plant. Together, hydrogen and carbon dioxide make food for plants. Simon learned how plants grow. He learned the process of photosynthesis.



yes



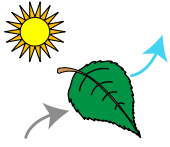
Photosynthesis

no



<p>make</p>	<p>green</p>	<p>Simon</p>	<p>plant</p>	<p>food</p>	<p>pot</p>	<p>photosynthesis</p>
<p>grow</p>	<p>dark</p>	<p>sand</p>	<p>rocks</p>	<p>soil</p>	<p>root</p>	<p>nutrient</p>
<p>absorb</p>		<p>water</p>	<p>leaf</p>	<p>chlorophyll</p>	<p>sun / sunlight</p>	<p>energy</p>
<p>store</p>		<p>hydrogen</p>	<p>oxygen</p>	<p>air</p>	<p>stomata</p>	<p>carbon dioxide</p>

Glossary



photosynthesis - how plants turn sunlight, water and carbon dioxide into food and oxygen



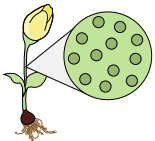
nutrient - a nourishing substance



chlorophyll - green coloring matter of leaves and plants



energy - transfer of a power or force



stomata - small openings on the structure of a plant