

Photosynthesis



When you get hungry, you might decide to raid the cookie jar or ask your mom to make you a sandwich. You do this because humans and animals get energy from the foods they eat.

Plants use light energy from the sun to produce the food they need to survive.

This process is called photosynthesis.

INGREDIENTS

Light energy
Rays from the sun



Carbon dioxide
From the air



Water
Gathered by plant's roots in the soil

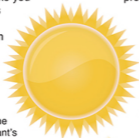


Chlorophyll
Present in cells of green plants



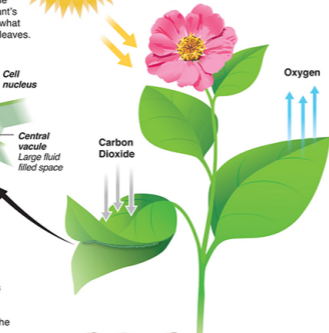
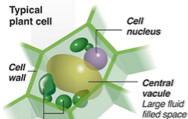
1 SUNLIGHT

Light shining down from the sun is absorbed by the plant's cells. These tiny cells are what make up the plant and its leaves.



Sunlight

Typical plant cell



Carbon Dioxide

Oxygen

Chloroplasts
Contain the chemical chlorophyll

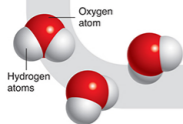
2 CHLOROPHYLL

Inside some of these cells is a special ingredient called chlorophyll. This is the compound that traps the sun's light to start the process of photosynthesis.

3 WATER

Water and carbon dioxide are two of the main ingredients needed for photosynthesis. These two substances are made of many smaller parts called molecules.

Water molecules



Water



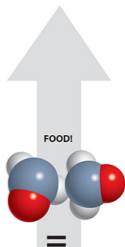
Photosynthesis strips away the hydrogen atom leaving only oxygen.



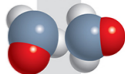
OXYGEN!

4 END RESULT

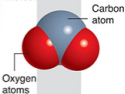
The oxygen which is left from the transformation is released back into the air. The sugar created by photosynthesis is sent to the rest of the plant for food.



FOOD!



Carbon dioxide molecules



+

Hydrogen atoms



Then, the hydrogen atoms are mixed together with the carbon dioxide to make a sugar the plant can use as its food.