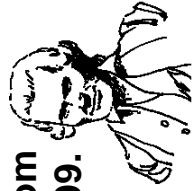




WHO'S WHO

Jan Ingenhousz was a botanist from the Netherlands who first discovered some of the stages of photosynthesis. He lived from 1730 to 1799.



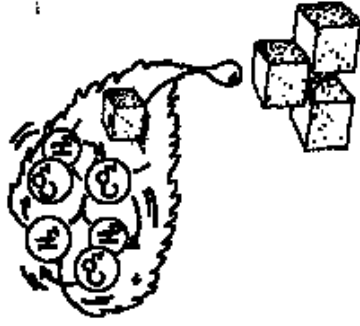
What do you do when you feel hungry?
What would you do if you could not move around to get your food or call for someone to bring you food?

This is the situation a plant finds itself in when it needs food.



Think about the factories that people use to manufacture things. They are usually big, noisy, and smell like smoke or chemicals. Plants are busy making food to feed the world, and they do it without a sound.

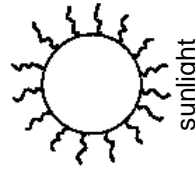
The plant mixes the hydrogen and carbon dioxide to make sugar and other food. This food is called sap.



Do you remember the things that all plants need to live and grow?



air (CO₂)



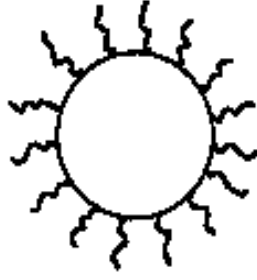
sunlight



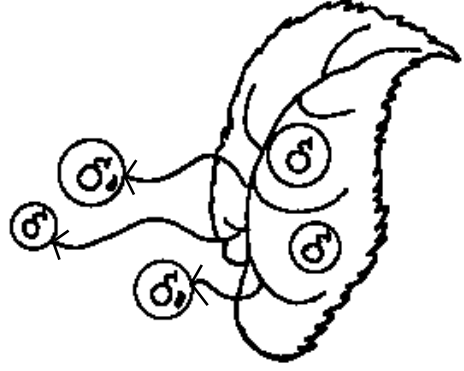
water

DID YOU KNOW?

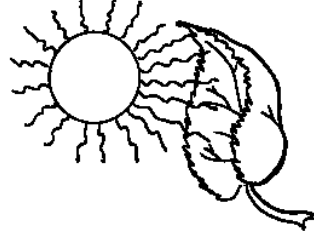
Photo means "light," and synthesis means "putting together."



The oxygen is released into the air by the plant.



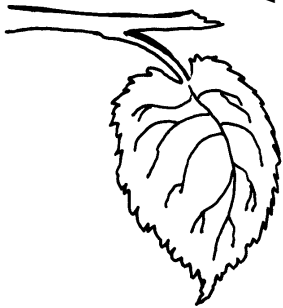
The chlorophyll captures, or absorbs, sunlight energy.



In most plants, chloroplasts are the tiny bodies in the plant cells that contain the chlorophyll.



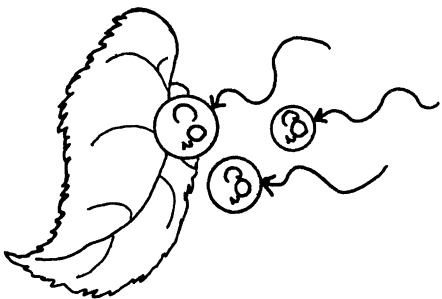
Most of the food is manufactured in the leaves of the plant. Here's how the factory works:



Plants have chlorophyll in the cells of their leaves.

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The plant takes in carbon dioxide from the air.



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Plants have a unique way of getting food. They make it themselves.

All plants, from the tiny weed in your driveway to the giant saguaro, make their own food.

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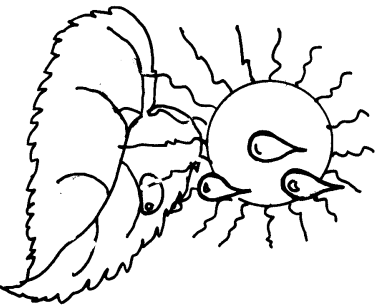
All people and animals live by either eating plants or eating animals that eat plants.



Plants are the first element of every food chain on the earth. Can you think of a few examples of food chains?

15

The plant mixes the sunlight energy with water.



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The sunlight energy splits the water into hydrogen and oxygen.



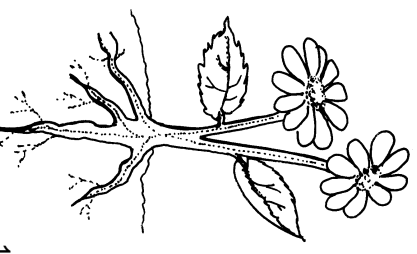
9

Plants use these three ingredients to manufacture the food they need to live and grow.

This process of food manufacturing is called photosynthesis.

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The plant moves the sap throughout its parts to use or store for later use.



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