



Leaves Support Life

Plant Parts Week 3 Reading Page

Skinny pine needles, wide palm fronds, yummy salad greens — leaves can be found in many different sizes, shapes, and colors. Some plants have leaves year-round while others lose their leaves during winter months (many times turning beautiful colors before they fall). However, they all have one thing in common: they make the food and release the oxygen that all other living things need to survive. Without plants — and specifically plant leaves — all other creatures, including people, would disappear.

Plants have the special ability to make their own food through a process with a very long name: photosynthesis (foe-toe-SIN-the-sis). Here is a simple look at how plants make food through this process:

1. Plants take in water from their roots and move it up into their leaves.
2. Plants take in carbon dioxide, which is in the air all around us, through tiny little holes in the leaves. These tiny holes are called stomata.
3. Plants catch energy from sunlight with special structures in their leaves called chloroplasts (CLOR-oh-plasts). Chloroplasts contain chlorophyll (CLOR-oh-fill), a natural substance found only in plants that makes most leaves look green.
4. The water and carbon dioxide that the plant took in through their roots and leaves are drawn into the chloroplasts.

5. When placed in light and with the help of the chlorophyll in the chloroplasts, plants can make new things from the water and the carbon dioxide. They make food and release oxygen.

6. The oxygen is released back into the air through those tiny holes, the stomata, for living things to breathe.

7. The food plants make is also known by another long name – carbohydrates (car-bo HIE-drates). They move this food throughout the plant and use it to grow and stay healthy. Animals and other living things eat plants, so they can get energy from plant food too.

As you can see, through photosynthesis, plants make food not only for themselves, but for all other living creatures too. Photosynthesis is not just a big word, it is also a really big deal in our world. The food produced in the leaves supports all life on our planet.

You might be thinking, but I don't eat only plants, I think I can live without them. Let's look at a favorite dish – a cheeseburger. Here is a list of all the ingredients and where they come from:

Hamburger meat: Hamburger meat is made from cows and cows eat grass, which is a plant.

Buns: Buns are made from grains, which are plants.

Cheese: Cheese is made from milk, which is made by cows. Cows eat grass, which is a plant.

Lettuce, tomatoes, pickles and ketchup: All made from plants.

Throw in some French fries or potato chips (from potatoes, which is a plant) and you have a plant-fueled meal.

Try tracing back other foods you eat that are not plants. Can you figure out how they eventually link back to food from plants?

The next time you take a look at a leaf, think about how important those little green things are for us. Use your imagination to picture factories inside turning sunlight into food and oxygen. As you eat a meal or take a deep breath, don't forget to thank a plant!

Reading Comprehension Questions:

1. True or false: All plant leaves look alike.
2. What is the name of the process inside of a plant that makes the plant food?
3. Which of the following ingredients are needed for plants to make food:
 - A. Water
 - B. Flour
 - C. Chlorophyll
 - D. Carbon dioxide
 - E. Chocolate
4. True or false: All living creatures rely on plants for food.
5. Like the hamburger example in the reading, list your favorite meal and then make a chart showing how the main ingredients link back to plants: