

All living things need food and energy to survive. The food-making and energy process for plants to survive is called **photosynthesis**.

Plants make food and produce oxygen through photosynthesis. The process is complex but with the sun, water, nutrients from the soil, oxygen, and chlorophyll, a plant makes its own food in order to survive.

Chlorophyll is a green chemical inside a plant that allows plants to use the Sun's energy to make food. Without chlorophyll a green plant would not be able to survive.

The following are the steps in photosynthesis:

1. The sunlight is absorbed through a plant by its leaves, or other green parts.
2. The water and nutrients from the soil are absorbed through the roots of the plant.
3. The chlorophyll inside the plant's leaves traps the energy from the sunlight.
4. Carbon dioxide in the air enters through the leaves of the plants. (**Carbon dioxide** is carbon and oxygen combined.)

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5. Inside the chlorophyll there are **chloroplasts** which contain water and the carbon dioxide from the air.

6. The chloroplasts are like tiny manufacturing plants. The water and carbon dioxide from the air combine to make sugar and water. Basically, it is the food for the plant to survive and grow.

7. Sugar is then made and released into the veins of the leaf and it spreads throughout the rest of the plant.

8. The oxygen the plant has made is then released into the air.

The entire process is called photosynthesis, and without it people and other animals would not be able to live and grow. This is the reason it is important for the survival of trees and plants. They give off oxygen which help people and other animals to breathe.

The plants also give people and animals food to eat. The food could be the different kinds of fruit or the many varieties of vegetables from apples and oranges to green beans and peas.

When people and animals eat this food from the plants it also gives them the energy to live and grow. Without plants, animals and people would not be able to survive.

During the fall in certain parts of the world photosynthesis no longer takes place. When this happens the leaves begin to turn different colors. The leaves may turn yellow, orange or maybe even red, or a combination of those colors. Surprisingly, these colors are the original colors of the leaves.

In the spring and summer there is too much green color from the chlorophyll for the leaves to be seen as their original colors. As the temperature drops, though, the leaves of trees, other than evergreens, stop making the chlorophyll. The chlorophyll begins to vanish and the leaves begin to change colors.

In summary, **photosynthesis** is the food-making and energy process for plants to survive. A plant's leaves contain **chlorophyll** which is a green chemical inside a plant that allows plants to use the Sun's energy to make food chloroplast. **Chloroplast** inside the chlorophyll contains water and the carbon dioxide from the air to make the food for the plant to survive. Without photosynthesis, the plants would not be able to live and grow.