

# Biology for Kids

## Plants

### What are plants?

Plants are living organisms that cover much of the land of planet Earth. You see them everywhere. They include grass, trees, flowers, bushes, ferns, mosses, and more. Plants are members of the kingdom plantae.

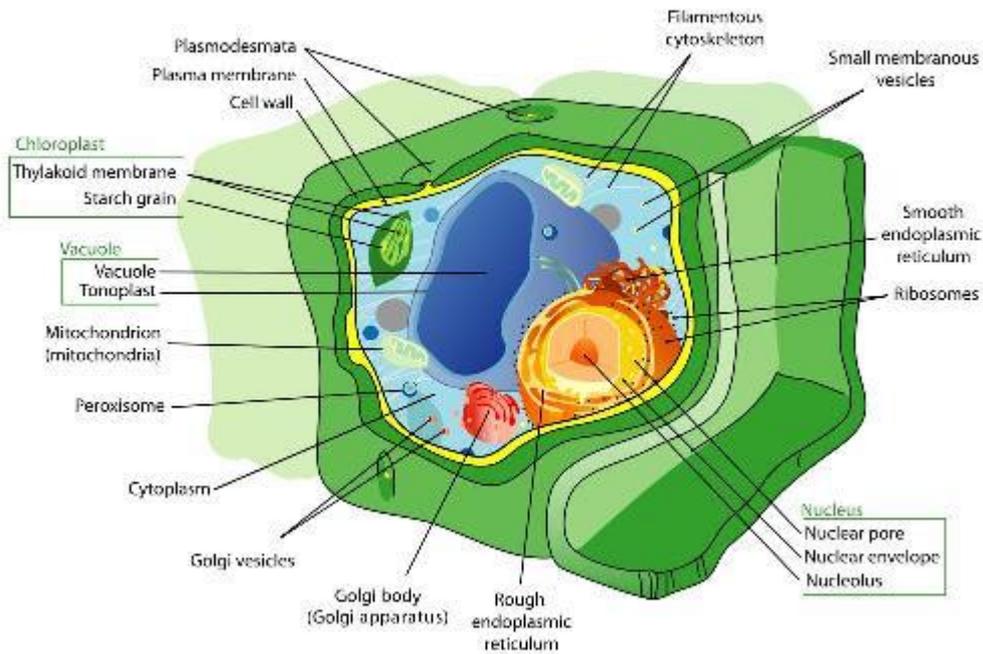
### What makes a plant a plant?

Here are some basic characteristics that make a living organism a plant:

- Most plants make their own food through a process called photosynthesis.
- Plants have a cuticle, meaning they have a waxy layer on their surface that protects them and keeps them from drying out.
- They have eukaryotic cells with rigid cell walls.
- They reproduce with spores or with sex cells.

### Plant Cell

Plant cells are composed of rigid cell walls made of cellulose, chloroplasts (which help with photosynthesis), a nucleus, and large vacuoles filled with water.



[Click the picture for a larger view](#)

### Energy from the Sun

One of the most important functions of most plants is photosynthesis. Plants use photosynthesis to create energy directly from sunlight. You can go here to learn more about [photosynthesis](#).

## **Types of Plants**

There are many different types of plants. They are typically divided into two major groups: vascular and nonvascular.

- Vascular - These plants have specific tissues that help to move materials such as water through the plant. They are further divided into non-flowering plants and flowering plants. Most of the organisms you probably think of as plants, such as trees, bushes, and flowers, fit into this group.
- Nonvascular - These are smaller plants, such as mosses, that use diffusion and osmosis to move material through the plant.

## **Basic Structure of Plants**

The three basic parts of most vascular plants are the leaf, the stem, and the roots.

**Leaf** - The leaf is an organ of a plant that is specialized for photosynthesis. Leaves capture energy from sunlight as well as collect carbon dioxide from the air. Many leaves are flat and thin in order to catch as much sunlight as possible. However, leaves come in many different shapes including long skinny needles that are found on pine trees.

**Stem** - The stem is the main structure that supports leaves and flowers. Stems have vascular tissues that move food and water around the plant to help it grow. Plants often store food in their stems.

**Roots** - The roots of a plant grow underground. Roots help to keep the plant from falling over and gather water and minerals from the soil. Some plants store food in their roots. The two major types of roots are fibrous roots and taproots. Taproots tend to have one major root that grows very deep, while fibrous roots have many roots that grow in all directions.

## **Interesting Facts about Plants**

- The fastest growing woody plant in the world is bamboo. Bamboo can grow up to 35 inches in just one day!
- Tomatoes and avocados are considered fruits.
- Fungi (mushrooms) and algae (seaweed) are not considered plants, but are part of their own kingdoms.
- There are nearly 600 different species of carnivorous plants that actually eat insects and small animals.
- The largest flower in the world is the rafflesia which can grow to over three feet in diameter.