



TEACHER GUIDE

EXTERNAL PLANT PARTS GRADES K-2

COMMON MISCONCEPTIONS

- **Plants are not alive.**
Plants are alive but are different in many ways from animals. Just like animals, they grow; they need nutrients; and they reproduce. Many plants do not have the five senses associated with most animals, but they do have receptors that respond to elements in their environment like gravity and light.
- **Trees, grass and weeds are not plants.**
Plants have many different characteristics. There are many different types of plants throughout the world. Not all plants have the same exact structures of stems, leaves, flowers and roots.
- **A plant's leaves catch and take in water.**
The roots of the plant absorb water from the soil. Because the roots are not usually exposed, students may not recognize that roots are part of a plant.

FRUIT OR VEGETABLE?

When classifying edible plant parts, scientists and the public describe fruits and vegetables differently. Scientifically, any part of the plant that contains seeds is a fruit. However for cooking purposes, people group fruits and vegetables by their taste and how they are normally eaten – such as in a salad. So a tomato is scientifically classified as a fruit because it contains seeds, but is described by chefs as a vegetable!

ADAPTATIONS

Plant parts can adapt to help plants survive and grow in many different habitats. Plants react to their environment by sending their roots into the ground to search for water. They sense gravity which lets them go deeper into the ground if necessary. They turn their leaves to the light to collect the sunshine which is needed to make food. Plants that live in the desert might have long root systems, store water in their stems and leaves, and lack leaves which reduces water loss.

TIPS FOR TEACHERS

- Provide your students with as many experiences as possible with plants they observe in their everyday lives. Take them for walks on the playground and have them search for as many different examples of plants as possible. Have them identify the parts they observe on each of the plants they find.
- Give your students a homework assignment to draw pictures of a plant they observe inside or outside their home.
- An additional homework assignment might be to draw and identify any plants they ate at dinner the night of the homework assignment and tell whether they were eating a root, a stem, a leaf, a flower or a fruit.

