

Plant Parts & Functions

Plants have many parts. Each one of these parts has an important function, or job to do. Use this sheet to record the plant parts you see in your neighborhood or park!

Epiphytes, or plants that grow on other plants, have roots that are not in contact with the soil. Many orchids, 'air' plants and Spanish moss are epiphytes. Aquatic plants like pond lilies and duckweed have roots adapted to life in water and absorb dissolved nutrients. At Matthaei, the tropical house contains many epiphytes.

Students may draw any two flowers found or make up a flower. Encourage students to draw like a scientist, and capturing the shapes and colors they see. Scientists also use labels to identify drawings. These could include the names of the plant or parts of the flower (e.g., petals, sepals, stamen, pistil). Ask students to think about how brightly colored petals might benefit a flower, especially in terms of attracting pollinators. Once a flower is pollinated, it can make seeds.

Many students will have fruits at home such as apples, bananas and oranges. Cucumbers, tomatoes and zucchini are fruit too. Crabapple trees and daffodils reliably develop fruits and students can use these to explore the inside of a fruit. All of these fruits come from flowers and contain seeds, which enable the plant to reproduce.

Have students look for leaves that are very different from each other in shape, size, or texture; students can use this space to compare the different features of the leaves. In most plants, green leaves make food for the plant through photosynthesis, a process in which energy from the sun is used to convert water and carbon dioxide from the air into sugars. The leaves take in sunlight and air; water is absorbed through the roots and delivered by the stem. During field trips, we compare & contrast along the trails and conservatory.

Woody stems are hard stems that survive above ground in the winter. One common example of a woody stem is a tree trunk. Have students explore a few trunks and describe their size, color, and texture. Most trees form new wood every year, so the trunk expands in size. Therefore, the size of a trunk tells us something about the age of the tree. When a tree is cut, we can even count the number of growth rings in the trunk to find out its age!



Create your own plant!

Think about the plants you've seen in your neighborhood or garden at home. What parts did they have? What did those parts do? Now you are going to invent your own plant. In order to survive, it has to have all the parts listed in the boxes below. Draw your plant in the large box below and write about what the plant parts do to help it survive in the smaller boxes to the left.

Leaves

Flowers

Stem

Roots

Students should draw a complete plant, including roots, stems, leaves, and reproductive structures. Students can make a scientific drawing by labeling all the parts and giving their plant a name.

Encourage students to think creatively about how their plant might look. They might think about the differences in plant parts that they observe in the yard or neighborhood, or their favorite plants from memory or a picture can serve as inspiration. Ask if their plant grows here in Michigan or in another region of the world. How might that influence the different parts of the plant? Different climate conditions impact plant part adaptations, such as thick waxy leaves or fuzzy leaves in dry environments.

In the boxes along the left side, students should describe the function of each part of their plants. Remind students that each part has its own important job. In order for their new plant to survive, grow, and reproduce it will need all of its parts to do their jobs!

In the last question, students can describe the fruit produced by their plant. If their plant does not produce fruit, ask them to describe how it produces seeds or makes new plants.

Does your plant have a fruit? What does it look like?

Name: _____



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Leaves

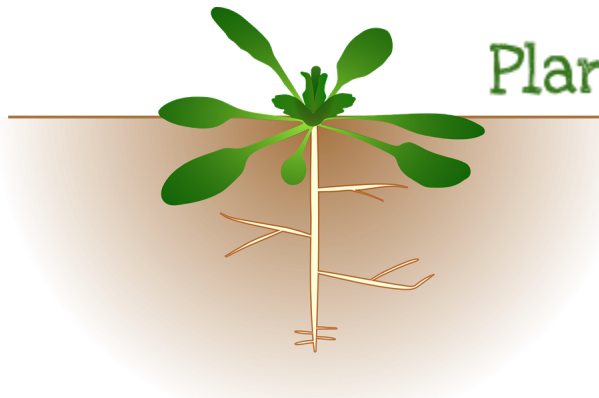
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Do you think roots are always in the soil? Some plants live in the water, and some even live on other plants. Explore aquatic plants or epiphytes online. Write the name of one plant that doesn't live in water here.

Draw your favorite flower in this box. Why do you think so many flowers are colorful?

Choose two leaves with different shapes. Draw them here. What do the leaves do for the plant?

Find a plant with a woody stem. Draw it here. How tall do you think it is? How tall do you think it could grow?

Flowers make fruits. Can find a fruit developing at the base of a flower outside? Write its name here:

What do you think is inside?
