

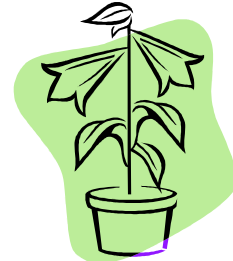
# PLANT PARTS

## **BENCHMARKS and TASKS**

**SC.A.1.1.1** The student knows that objects can be described, classified, and compared by their composition (e.g., wood or metal) and their physical properties (e.g., color, size, and shape).

**SC.F.1.1.5** The student compares and describes the structural characteristics of plants and animals.

- The student classifies real living objects as plants or animals.
- The student recognizes the characteristics of plants and animals.



## **KEY QUESTION**

What are the parts of plants?

## **BACKGROUND INFORMATION**

Most living things are classified as either plant or animal. Plants and animals share many common characteristics:

- Both plants and animals change as they grow and develop.
- Plants and animals have certain needs in order for them to live and grow. Animals need air, food, water, shelter, and adequate space, while plants need food, air, water, light, and certain nutrients, which they usually obtain from the soil in which they grow.
- Both plants and animals reproduce their own kind.
- Plants and animals have certain characteristics and structure by which they can be described.

Plants and animals each have certain distinguishing characteristics:

- Plants usually remain in one place, while animals move around.
- Animals obtain their food by eating plants and other animals, while plants make their own food through a process called photosynthesis.
- Both animals and plants have cells, but plant cells are rigid, with supporting cells containing cellulose.
- Plants, unlike animals, do not have sensory organs or a nervous system.

Humans and all other life forms depend upon plants for survival. There are over 350,000 species of plants, and they can be found almost everywhere in the world – in polar regions, deserts, oceans, and on mountains. The plant life in an area determines what animal life will be present.

## **MATERIALS**

### **Teacher**

box of plant parts (leaves, stems, roots)  
plant for display  
chart paper

### **Per group**

popsicle sticks or plastic spoons for digging  
magnifiers  
plastic bag or box for carrying plants  
glue/tape

### **Per student**

1 piece of construction paper

## **TEACHING TIPS**

1. If there are no plants around your school that students will be allowed to dig, arrange to get plants from a local nursery and plant them on the school campus in advance of this lesson. Trays of bedding plants (e.g., marigolds, zinnias) or vegetables in peat pots would do.
2. Weeds also work well for this activity.
3. Have a plant available that has all parts visible including roots.
4. Save mounted “unique plants” for assessment.

## **ENGAGE**

Show the plant to the students.

Ask: *What are some words we can use to describe this object?*

Chart student responses and keep for future reference.

## **EXPLORE Part 1**

1. Take a nature walk and have each group collect small plants from a designated area. Tell students to take care to pull plants up gently or dig around them to make sure they get the root structure.
2. Put plants in plastic bags or boxes to bring them back to the classroom for observation.
3. Show students how to use the magnifier to observe different parts of a plant.

## **EXPLAIN**

1. Review the list of descriptive words made earlier. Ask students if they would like to add words to the list now that they have looked at a variety of plants. Add any new descriptive words.
2. Discuss ways in which all the plants are alike. (They have leaves, stems, and roots. Some might have flowers. They need water and nutrients. They can grow, etc.)
3. Discuss how the leaves are different on different plants. Ask each group to take a leaf off of a plant. Place them in order in a row on the floor, from largest to smallest.

Ask:

*How are they alike?*

*How are they not alike?*

Discuss attributes like shape, color, texture, and length. Have students sort leaves by shape or other attributes.

## **EXPLORE Part 2**

1. Have each child create a unique plant by choosing a leaf, stem, and roots from a box of plant parts. The parts should be mounted on construction paper with glue or tape to form a new plant.
2. Save the unique plant for assessment.

## **EXPLAIN**

1. Each student needs his/her mounted unique plant on the desk.
2. Tell the students to point to the root when you say, *The root is the plant part that is usually underground and takes food and water to the other parts of the plant.*

Say: *Point to the stem, the plant part that holds the plant upright.*

Say: *Point to the leaves, the plant part that grows out from the stem.*

## **EXTEND/APPLY**

Ask:

*Were the plants living or nonliving when they were still in the ground?*

*Where have you seen plants growing? (Yards, school, playground, parks, etc.)*

*How do people use plants in everyday life?*

Allow time for discussion.

*Do people eat some plants?*

*What are some plants that we eat?*

*Do animals eat plants?*

*Do animals have leaves, roots or stems?*

*Are plants and animals living or nonliving?*

## **ASSESSMENT**

Use the mounted unique plant from **Explain** activity.

Ask the student to name the parts of the plant he/she made.

Use the rubric to develop the level of understanding for each child:

- Minimal: student identifies and names one plant part of his/her plant.
- Basic: student identifies and names two plant parts of his/her plants and uses some descriptive language.
- Advanced: student identifies and names the plant parts of his/her plant, uses appropriate descriptive language, and compares and contrasts the unique plant to a real plant.