

Parts of a Plant Workshop

Plant Anatomy in our Diets



Duration 10–15 minutes

Number of Students: 5–20

Age Range: All

Materials:

- Table and table cloth
- An edible food from each of the 6 parts in bowls with labels
- Six Parts of a Plant Poster Board with Coverings
- Plants We Eat laminate

CONTEXT: Much of our food comes from plants. The food we eat serves both as nutritional storage and as a structural and/or functional part of plants.

OBJECTIVE: Explore the six parts of plants, their role in a plant's life cycle, and identify food items that represent each part, and reinforce that the nutrients held in each part nourish people.

PREP: Set up table with cloth, six bowls with the six parts labeled, something to cover them and keep them out of site of the participants. Have the poster on hand and your laminated master copy of the Plants We Eat.

THE FLOW: Examine & Eat the Six Parts of a Plant

What are the six parts? What is their function? What are some _____ that we eat?

Have them guess the six parts. Next, begin with the root and work your way up the plant in turn for the following two prompts, unveiling each part one at a time: ask **what role each part plays for the plant?** Acknowledge answers and repeat them back, then have them name some examples of each part that we eat. (Refer to laminate copy of the Plants We Eat for answers)

- **Roots** - Absorbs and stores water and nutrients from the ground, anchors the plant.
- **Stems** - Structural support & transports water and nutrients from roots to leaves and back.
- **Leaves** - Make food for the plant, through process of photosynthesis: absorb sunlight to make energy for the plant.
- **Flowers** - Attract pollinators to plants. *What is a pollinator?* (Bees, birds and insect) *Why do they like flowers?* (fragrance and nectar) *What do pollinators do?* (fertilize the plant to make seeds)
- **Fruit** - Holds, protects, and transports seeds, grows out of flowers, keeps seeds from drying out and feeds the seeds.
- **Seeds** - Grow new plants, hold the potential of generations of future plants!

*** Point out that not every part of a plant is edible, we eat the stems of Rhubarb but the leaves can cause an upset stomach. Check first!

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Life Cycle of a Plant – Reverse side of poster

Tell a story! First a seed sprouts a few roots, and then leaves grow from a tiny stem. The stem grows longer and more leaves grow. Then, flowers bud and open up to attract pollinators. *What happens after the pollinators fertilize the flower?* A fruit grows! *What is inside the fruit?* Seeds!! The cycle begins again. As farmers we plant seeds where we want the plants to grow, and harvest the parts of the plant that we eat! Many farmers let a few plants go to flower, meaning not eating their parts, but instead letting them go through their full life cycle, so the seeds can be collected dried and saved for the next year, this is called seed saving. Who do you think grows the seeds that you find in packages at the store? Seed farmers!

OUTCOMES: Closing Activity

Guess which part: To review the materials we just covered, have them play a guessing game.

- Ask - I am the part of the plant that absorbs sunlight to make food for the plant. What part am I? (leaves)**
- **I am the part of the plant that holds protects and transports seeds. What part am I? (fruits)**
 - **I am the part of the plant that anchors the plant and soaks up nutrients from the soil. What part am I? (roots)**
 - **I am the part of the plant that new plants grow from. What part of the plant am I? (seeds)**
 - **I am the part of the plant that moves nutrients and water up and down the plant. What part am I? (stems)**
 - **I am the part of the plant that attracts pollinators. What part am I? (flowers)**

Additional questions if time allows it:

- **What do you call the process of fertilizing flowers? Pollination**
- **What fruit has seeds on the outside? Strawberries**
- **What is seed saving? The collecting, drying and preserving of seeds.**