# PLANT PARTS WE EAT

Through recall and reasoning, students will explore plant structures as they identify the different plant parts we eat and develop theories about the functions of these structures.

## Grades 3-5 (with modifications)
## Time: 20 minutes

## Before you begin...

• **Gather materials**
- • FFV snack, including example of whole item
- • Index cards with one edible plant part (see table) written on it, at least one per student
- • Fruit and vegetable cards from The Center for Ecoliteracy to sort. Find them here: https://www.ecoliteracy.org/sites/default/files/uploads/CEL_nutrition_education_cards_eng.pdf
- • Fun facts & information about FFV

• Post signs for each plant part around the room (roots, stem, leaves, flowers, fruit, seeds)

## Instructions

1. Invite students to think about a favorite plant food (try to avoid saying fruit or vegetable, as the word 'fruit' gives away the plant part). Ask a few students share their favorite.

2. Ask students to imagine what part of the the plant this food comes from. Review the plant structures we eat: roots, stems, leaves, flowers, fruits, seeds. Ask students to partner share their favorite and what part of the plant they think it comes from.

3. Explain that students will each get a card with a plant part we eat on it. Their job will be to evaluate what part of the plant this from comes from and move to that sign. Once everyone has sorted themselves, students will take turns sharing their plant part and their reasoning and evidence with the others in their group. Discuss what to do if students disagree on the plant part or function. Then, the group will discuss the function of that particular plant structure and get ready to share their ideas with the group (feel free to omit this second step if you are working with students for whom this would be too challenging and instead give them this information during the sharing time).

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4. Distribute the cards and invite a student to recap the directions for the group. Then let students begin the sort.

5. Once students are sorted, invite them to begin their discussion. Circulate as students are working. Remind students to transition to discussing the function of their plant part and pick a reporter to share out.

6. When group is ready, invite each group to share out. Depending on time constraints and level of risk desired, you can have each student share their food item, plant part, and evidence. Some are trickier than others! As a group, share ideas on the function of their plant part. Add, clarify or correct as needed.

7. Close by asking students if there were any surprises in today's activity.

| Structure | Function | Edible Examples |
|---|---|---|
| Roots | Take in water and nutrients (minerals) from the soil | Beets, carrots, radishes, turnips, rutabagas, parsnips |
| Stem | Transfer water and nutrients to the plant, transfer energy created in the leaves to the roots, hold the plant upright | Asparagus, rhubarb, broccoli stem, sugar cane, potato (stem tuber) |
| Leaves | Take in solar energy to create food for the plant (photosynthesis) | Spinach, lettuce, kale, chard, arugula |
| Flowers | First stage of plant reproduction (will create fruit/seeds), attracts pollinators | Broccoli heads, cauliflower heads, artichokes |
| Fruit | Holds the seeds of the plant | Apples, pear, grapes, cherries, tomatoes, cucumbers, zucchini |
| Nut | Final stage of plant reproduction - can be planted to grow new plant (or eaten) | Pumpkin seeds, walnuts, almonds |

# PLANT PARTS WE EAT CONT...

## Extension

• Read *Tops and Bottoms* by Janet Stevens
• Research other "Plant Parts We Eat" activities online to find a wealth of slideshows, videos, and activities

## Standards Alignment

### *Crosscutting Concepts*
    • Structure & Function
    • Systems & System Models

### Disciplinary Core Idea
    • Life Science

### Science & Engineering Practices
    1. Asking questions (for science)
    4. Analyzing and interpreting data
    7. Engaging in argument from evidence
    8. Obtaining, evaluating, and communicating information