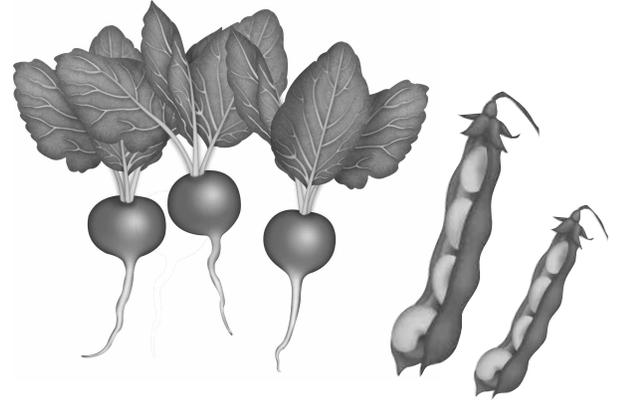


Plant Parts We Eat: Pre-/Post-Visit Activities



TEACHER GUIDE

Thank you for registering for the GreenSchool Workshop *Plant Parts We Eat*. During this workshop, your students will learn the role of basic plant parts and explore the vital role they play in our food chain. The following selection of pre- and post-visit activity ideas and recommended resources is designed to support K–2nd grade classroom integration of the concepts addressed in *Plant Parts We Eat*.

PRE-VISIT ACTIVITY IDEAS

Plant Observation and Exploration

Students strengthen observation skills while learning about the basic parts of a plant.

Materials:

- sturdy, simple houseplant with a flower (i.e., African violet)
- newspaper or drop cloth

After seating your class on a rug or other common area, have the children carefully pass the plant to each other. Explain that as each one looks at the plant, they are to share something they notice about the plant, without repeating things others have said (this is not as important with younger children). Ask your students to describe what they see as well as what they feel and smell. Remove part or all of the plant from the container so that the children can see and touch the roots.

Depending on the age of your students, go over the names and functions of the major plant parts (roots: support plant and obtain water and nutrients from the soil; stem: moves water and food;

leaves: food production; flower: reproduction; fruit: protects seeds; seed: beginning of new plant). Ask students to draw and label the parts of the class plant.

Vegetable Printing

Students use tactile art experience to gain understanding about the differences between fruits and vegetables.

Materials:

- several each of tomatoes, peppers, broccoli, potatoes, zucchini
- paper
- tempura paint
- paint brushes
- knife

Ask the students what kinds of fruit they like or know about and then do the same for vegetables. Introduce the botanical concept that a fruit is anything that contains seeds, and that some foods we call vegetables are actually the fruit of a plant (such as cucumbers, tomatoes, peas, and eggplant).

Display a selection of vegetables to your class, and cut them horizontally or vertically for all to see. Challenge your students to determine which of the vegetables are actually fruits.

Have students take turns printing the various vegetables by brushing an even layer of paint on the printing surface, and then pressing the painted slice down firmly on the paper. Encourage them to print a graphic pattern of colors and/or shapes. This will make a great classroom display!

POST-VISIT ACTIVITY IDEAS

How many Plants Do You Eat?

Students deepen their understanding that plants are used as food and strengthen counting skills by contributing to a class graph.

Materials:

- poster board
- markers
- ruler
- glue
- construction paper
- crayons

Prepare a graph on sheet of posterboard by measuring out a grid with spaces for each student along the horizontal axis, and spaces for numbers of plants eaten along the vertical axis. Cut construction paper into pieces that fit in these spaces.

Tell your class that you are going to make a class graph to determine who eats the most plants in one day. Ask them to think about how many plants they have eaten for breakfast. If they respond with laughter or disgust, remind them that many of the foods they eat every day are made from plants! Brainstorm a list of plants that they are already familiar with eating—this may be limited to fruits and vegetables—and then expand this list to include other things such as nuts and grains. Challenge your students to determine how many plants are used to make a peanut butter and jam sandwich, breaking down the components (fruit, sugar, peanuts, and wheat) on the board afterwards. Then ask them to list everything that they have eaten so far, and direct them to record whatever they eat for dinner as homework.

The next day, guide students through the process of deciding which of the foods that they recorded are plants or made from plants. Distribute cut construction paper, and have students make an illustration of each plant they ate. Each student should then glue their illustrations onto the spaces on the graph above their name. After everyone has completed this task, discuss the results:

- *Who ate the most plants?*
- *Who ate the least number of plants?*
- *What was the most common number of plants eaten? What was the most common plant eaten?*

Have Lemons, Make Lemonade

Students practice teamwork and measurement skills while preparing a drink made from plant parts.

Materials:

- hand citrus juicers
- quart pitchers
- water
- large stirring spoons
- sugar
- lemons
- measuring cup
- knife
- cutting board
- cups

Slice lemons in half, and fill pitchers with water.

Explain to your class that they are going to work together to create a drink made from plant parts. Briefly review with them the basic parts of a plant—roots, stem, leaves, flower, fruit, seed. Then show your students the lemons and sugar, and challenge them to determine what plant parts are represented. Remind them that a fruit contains seeds, and cut one

lemon open to see if this is the case. Your students may be stumped with the origin of sugar—if possible show them a piece or picture of sugar cane—but are always surprised to learn that it is made from the stem of the sugar cane, which is a grass.

Divide your class into small groups, and guide the children through the following process:

Use juicer to squeeze the juice from 4 lemons

Add the lemon juice to 1 quart of water

Use a large spoon to stir in ½ cup sugar until the sugar is dissolved

Help them pour the lemonade into cups and enjoy!

RECOMMENDED TEACHER RESOURCES

Burnie, David. *Plant*. New York: Dorling Kindersley Publishing, 2000.

Dietl, Ulla. *The Plant and Grow Project Book*. New York: Sterling Publishing Company, 1993.

RECOMMENDED BOOKS FOR CHILDREN

Ehlert, Lois. *Eating the Alphabet*. New York: Voyager Books, 1989.

Robbins, Ken. *Seeds*. New York: Atheneum Books for Young Readers, 2005.

For more information, call the Manager of School Programs at 718.817.8124.