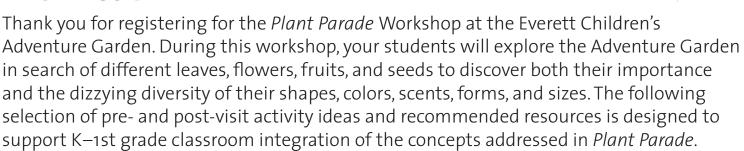
## THE NEW YORK BOTANICAL GARDEN

# *Plant Parade* Pre-/Post-Visit Activities

### Teacher Guide



The activities address New York State Science Standard 1 and New York City Science Performance Standards S2a, S2d, S5b, S5f, S7a, and S8b. Please see the downloadable supplementary vocabulary sheets.

#### PRE-VISIT ACTIVITY IDEAS

#### **Edible Plant Part Chart**

Students sort and classify the different plant parts that they eat in a week.

#### Materials:

- large paper pad
- marker

Have a discussion with students about the different parts of a plant and the functions of each of those parts.

- What are some of the parts of a plant?
- What do the roots do to help the plant? The stem? The leaves? The flower? The fruit?
- Have you ever eaten any plant parts? If so, which parts?

Create a chart on the board with the main heading, "We Ate So Many Plant Parts in a Week!" Underneath create six columns with the headings: Seeds; Roots; Stems; Leaves; Flowers; Fruits.

Each day for a week, have students share the different plant parts they have eaten since the previous day. Allow students to indicate which column the given vegetable, fruit, or seed belongs under and ask them to explain their reasoning. Write each plant part under the appropriate column. For example, "celery" would be written under the column headed "Stems."

#### Make a Plant Part Salad

Students develop a greater understanding that the fruits and vegetables they eat are different parts of plants.

#### Materials:

- various plant parts
- large bowl
- knife
- serving utensils
- forks
- bowls

Encourage your students to think of different fruits and vegetables that they like to eat.

- What are some of your favorite fruits and vegetables to eat?
- Which part of the plant do you think your favorite vegetable is?
- Which part of a plant do you think celery is? What about carrots?
- How do you think each plant part contributes in keeping the plant alive?

Tell the students that they are going to be making and eating a plant part salad, but they have to make sure to include at least one of each of the different parts of a plant.

Work with the class to make a shopping list for the plant part salad. If possible, ask each student to bring one in from home. Or, buy the agreed upon selection of fruits, vegetables, and seeds. These can be collected, washed, sliced, and mixed together in a large bowl. While the children are enjoying their<br/>salad, encourage them to reflect on<br/>the previous day's discussion. Allow<br/>them, in small groups, to discuss the<br/>different plant parts as they eat them.Make a<br/>Studer<br/>differe<br/>create<br/>crafts.

#### **Post-visit Activity Ideas**

#### Adopt a Plant and Keep a Journal

During repeat outdoor visits, students observe and record how a plant grows and changes over time.

#### Materials:

- popsicle sticks
- markers
- "Adopt a Plant Journal" printouts (one per child)
- pencils
- measuring tapes or rulers

Take your students outside or near your school to an area with enough vegetation so that each student can choose one plant to adopt and follow as their own.

Have each of the students choose a plant to observe over the next few weeks; direct students to label a popsicle stick with their name and place it in the ground beside their adopted plant.

Take your class on weekly or biweekly mini-field trips to visit their plants. During these visits, give students an extended period (about 10 minutes) to complete their "Adopt a Plant Journal" printouts. As you make repeat visits, concentrate your discussions on the changes observed.

- How has your plant changed since you last saw it?
- Why do you think these changes have occurred?

#### Make a Working Plant Craft

Students think abstractly about the different functions of plant parts and create their own "functioning" plant crafts.

#### Materials:

- small and large straws
- absorbent pads
- colorful tissue paper
- ${\scriptstyle \bullet}$  cotton
- strips of paper
- crayons
- glue
- heavy cardstock or cardboard pieces
- various other craft materials (i.e., pom poms, glitter, pipe cleaners, etc.)

Have a discussion with the students to reemphasize the different parts of a plant and their respective functions. Prompt the students to think of different familiar items that could be used to represent those functions.

An example of this could be to glue down tiny straws to represent roots sucking up nutrients, a thick large straw or popsicle stick to represent a sturdy stem, absorbent pads to represent leaves absorbing sun light, and colorful tissue paper to represent flowers attracting pollinators.

Give the students the selection of craft materials and direct them to create their own plant representations and then label each part of the plant with a crayon.

If time allows, have the students break into smaller groups to show each other their creations and explain how each component in their piece represents the different functions.

#### **Recommended Teacher Resources**

**Moore, Jo Ellen.** Learning About Plants. California: Evan-Moor Corp., 2000.

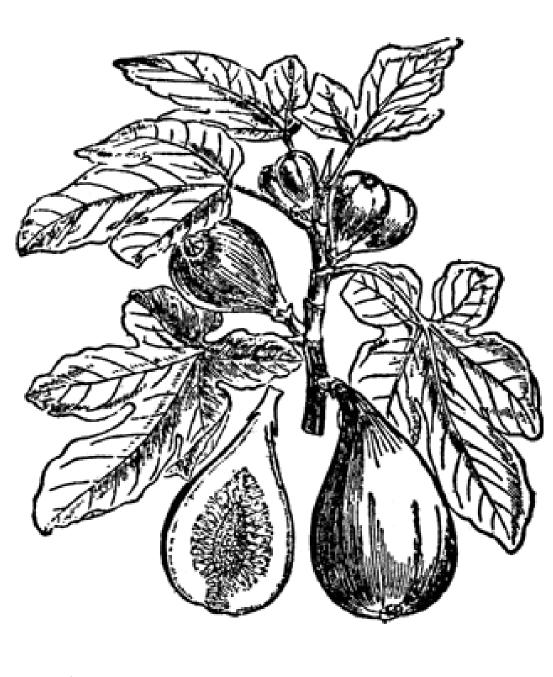
**Stidworthy, John**. Flowers, Trees & Other Plants. New York: Random House, 1991.

#### **Recommended Books For Children**

**Cole, Henry.** Jack's Garden. Hong Kong: South China Printing Company, 1995.

**Rockwell, Anne.** One Bean. New York: Walker and Company, 1998.

For more information, call the Coordinator of Family and School Programs in the Everett Children's Adventure Garden at 718.817.8901.



My Adopted Plant Journal

# Name

Date Today the weather is:	Date Today the weather is:
My plant is inches tall.	My plant is inches tall.
Draw your plant here.	Draw your plant here.
Describe how your plant has changed since the lo time you saw it.	ast Describe how your plant has changed since the last time you saw it.

# The New York Botanical Garden Plant Parade

#### Vocabulary

#### Flower

The part of a plant, which is often colorful, that makes seeds so that new plants can grow. An example of a flower that we eat is broccoli.

#### Fruit

The part of a plant that contains the seeds.

Examples of fruits we eat include pumpkins, cucumbers, and string beans.

#### Leaf

The part of a plant that makes food for the plant by using energy from the sun, air, and water to make sugar. An example of a leaf that we eat is lettuce.

#### Nectar

A nutritious sugary substance found in flowers. Bees, butterflies, and hummingbirds feed on nectar.

#### Plant

A living thing that produces its own food and cannot move from place to place. Plants reproduce (make new plants), give off oxygen, provide food for people and animals, and supply people with important products like wood for building homes and cotton for making clothes.

Examples of plants are trees, flowers, herbs, and ferns.

#### Pollinator

An animal or natural element that carries pollen from one flower to another. When pollinators land on flowers to collect nectar for themselves, they brush up against the flower and spread pollen around it. Pollination helps flowers make seeds so that new plants can grow.

Bees, butterflies, and hummingbirds are examples of pollinators.

#### Root

The part of a plant that holds it in place, sucks up water and nutrients, and stores food.

Carrots are examples of roots that we eat.

#### Seed

The part of a plant that allows it to make new plants.

Peas and almonds are examples of seeds that we eat.

#### Stem

The part of a plant that moves water and food through the plant and holds up the leaves and flowers.

A tree trunk is a very large stem. Asparagus is a stem that we eat.