

Parts of a Plant We Eat

Tops and Bottoms

*A lesson from the New Jersey Agricultural Society
Learning Through Gardening program*

OVERVIEW: Edible parts vary from plant to plant. Teach or reinforce parts of a plant by focusing on the different parts that we eat – root, stem, leaf, flower, fruit, and seed. In the book *Tops and Bottoms* by Janet Stevens, Bear learns his edible parts of a plant the hard way from a clever hare who tricks him three times into giving up the edible crops while he gets the useless leftovers. Using the book *Tops and Bottoms* is an engrossing way to get students talking about the parts of plants we eat, and what those parts do for the plant. The lesson can be modified for younger and older students



GRADES: K-3

MATERIALS:

The book *Tops and Bottoms* by Janet Stevens or YouTube read-aloud video of *Tops and Bottoms* by TMO Learning Journey: <https://www.youtube.com/watch?v=zljh4hYkhrl>
optional: parts of a plant worksheet
optional: tops and bottoms vegetables sheet to color and cut out for younger students
optional: *Parts of a Plant Game*

OBJECTIVES:

Language Arts: The student will be able to:

- properly sequence and retell a story
- demonstrate comprehension by answering questions about the story

Science: The student will be able to:

- recognize different plant parts as roots, stems, leaves, flowers, fruit, and seeds, tell where each part grows on the plant
- identify what part of a plant vegetables and fruits are that we eat

PROCEDURE:

Begin the lesson by asking the students “Did anyone eat roots for dinner last night?” If no one responds, ask “Did anyone eat carrots?” Explain roots are only one part of plants that we eat regularly. Ask students for others.

Read aloud and discuss the book *Tops and Bottoms*.

Possible comprehension questions;

- 1) Do you think the hare tricked the bear? Why or why not?
- 2) In order to get the garden to grow, what were the hares' responsibilities?

- 3) Why wasn't the bear happy with his share of the garden?
- 4) What would you have done differently if you were the bear?
- 5) What were the vegetables grown in the story?

Younger students can review the sequence of events from the story. What was hare's problem? What did he do first? etc.

Review with the students what each plant part does. Optional: use the parts of a plant worksheet for illustration.

- Roots soak up water and nutrients from the soil for the plant.
- Stems support the leaves and carry water and nutrients to the rest of the plant.
- Leaves make the plant's food by photosynthesis.
- Flowers attract pollinators to the plant.
- Fruit protects the seeds.
- Seeds produce a new plant.

Youngest students can discuss just the three plant parts mentioned in the book – the tops (leaves), the bottoms (roots) and the middles (seeds)

EVALUATION:

Older students: Students can correctly identify parts of a plant and explain their function. Students can correctly answer comprehension questions about the book *Tops and Bottoms*.

Younger students: Students can properly sequence events from the book *Tops and Bottoms*. Students can name parts of a plant and explain their function.

EXTENSIONS:

For younger students: Have students fold a piece of paper in half lengthwise, and color the bottom brown and the top blue. Ask the students to color and cut out the vegetables on the worksheet following this lesson. Ask the students to glue the vegetables on the colored paper, placing the roots in the brown area (the ground) and the leaves in the blue area (above ground).

Sing the Parts of a Plant Song. (See song explanation below.)

Play the Parts of a Plant Game. Small groups of students receive cards with pictures of fruits and vegetables. Each group must identify the fruit or vegetable on each card and say what part of the plant it is.

Plant radishes (bottoms), lettuce (tops), and peas (middles) in containers in the classroom, so students can observe how each plant grows. When it is warm enough, transplant the seedlings into your outdoor garden.

Ask students to write a persuasive paragraph from the point of view of the bear or the hare explaining why you think the deal was fair or unfair.

New Jersey Learning Standards

Science: K:LS1.C 1:LS1.A 2:LS2.A 3:LS1.B

English Language Arts: K:RL.K.1-10 1:RL.1.1-4,6 2:RL.2.1-7 3:RL.3.1-7

Parts of a Plant Song

Sing to the tune of the theme song of the Addam's Family T.V. show.

Parts of a plant (Snap fingers or clap hands twice)

Parts of a plant (Snap fingers or clap hands twice)

Parts of a plant, parts of a plant, parts of a plant (Snap fingers or clap hands twice)

There's roots (touch toes)

And stems (put hands on waist)

And leaves (wave arms out to the side)

Flowers (Circle arms overhead)

Fruit (Circle arms out to the front)

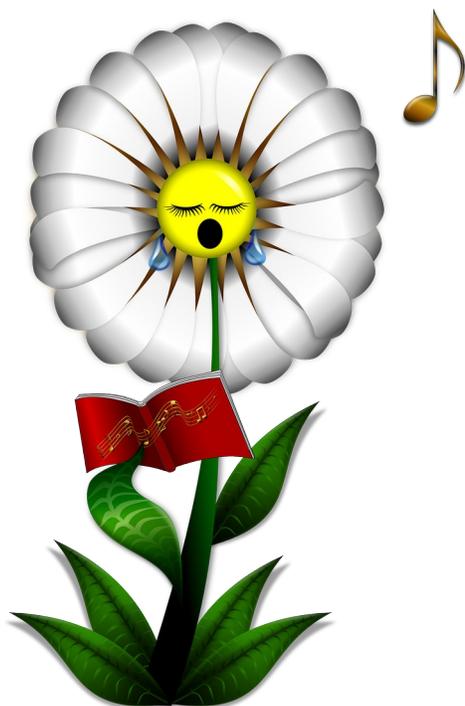
And Seeds (Wiggle fingers in front)

You roll them all together (Roll hands)

And you've got the parts of a plant (Snap fingers or clap hands twice)

Parts of a plant (Snap fingers or clap hands twice)

Parts of a plant, parts of a plant, parts of a plant (Snap fingers or clap hands twice)





Label (and Color) the Parts of the Plant



flower
fruit
leaf
root
stem