

Plant Parts

1st Grade

Duration

Pre-Visit:

15-20 minutes

30-40 minutes (to examine lima bean plants and to diagram plant drawing)

Location

Nature Gardens

Supplies

- paper
- pencil
- clipboards
- colored pencils
- markers
- lima beans
- clear plastic cups
- cotton balls
- spray bottles
- water

Standards

NGSS 1-LS1-1.A NGSS 1-LS1-2.B

Vocabulary

- Stem
- Root
- Leaves
- Flower
- Seeds



Concepts

- Plants have many structural parts.
- Plants, like animals, have offspring that grow into adulthood in stages.

Objectives

- Students will be able to identify the different parts of a plant.
- Students will be able to draw and label a diagram of a plant.
- Students will learn the various stages of a plant's life cycle.

Outline

- In one or two classroom sessions before visiting the NHM, introduce
 the different parts of a plant. Have the students plant a lima bean in
 a clear plastic cup and wet cotton balls so they can see the growth
 process from seed to plant.
- During the trip to the NHM, explore the Nature Gardens. Go to the "Get Dirty Zone" and explore the different plant life there.
- Focus on the "root box windows" and the willow tree roots near the pond area so students can see the roots growing deep down in the soil. See map for reference.
- Back in the classroom, students will review what they learned in the Nature Gardens about plants and their different parts.

References & Resources

- You can click on the link below for a full description on how to do this simple planting activity.
- http://www.aahealth.org/pdf/sprout.pdf
- Lima beans can be purchased at any grocery store. They are usually found in the aisle with all other dried, bagged beans.
- Plastic cups should be the clear 9 oz. cold plastic drink cups found at most grocery stores.
- Have the students spray 2-3 squirts of water on their plants every other day. Make sure to remind the students not to over water their plants.

Pre-Visit

In your classroom, distribute the following items to each student:

- 1 clear plastic cup
- 4-5 cotton balls
- 2-3 lima beans
- spray bottle with water (students can share these)

Have students put their cotton balls in the cup and spray them with water. Next, have them place their lima beans into the wet cotton balls. Have them spray the cotton a little more. Then, have them place their cups in a nice sunny place. Students will need to water their beans a couple times a week. In a few days the lima beans should sprout.

Take this time to examine the different parts of the plant. Point out the different parts of the plants to your students and emphasize what each part's "job" is while they are sprouting. Draw a diagram on the board for them to be able to identify the different parts of the plant that you are referring to. Make sure to label all the main plant parts on the sample diagram: stem, leaves, flowers, roots, seeds.

Museum Visit

Gather students at the entrance of the Nature Gardens. Make sure to point out all of the different kinds of plants that fill the Nature Gardens. Tell students that they will be looking very closely at all of the different plants. Assign specific plants, flowers or trees for each group to focus on and draw. Remind students to draw every part of the plant that they see and to really focus on the discussion that was had at school about the parts of a plant. Maybe the adults can give "helpful hints" to students that seem to be missing any major plant parts.

Introduce the essential question: How can we recognize the parts of a plant on different plants?

Dismiss the students in their small groups with their designated chaperones to go and explore the Nature Gardens. Make sure that each group has at least 1 person (student or adult) that can record the similarities and differences they see in all of the plants. Guide students to the "Get Dirty Zone" and point out the "root box windows" where they can see the actual plant roots inside the dirt. After visiting the "root box windows," take students to the pond and biofilter (see map) to see the willow tree roots. Remind the students that roots are a common part in all plants that they cannot usually see because they grow underground.

Post-Visit

Once you're back in the classroom, review the visit to the NHM. Review the diagram of the plant that was completed before the field trip to the NHM. Have the students compare their drawings to other groups' plant drawings. Lead students in a discussion about the differences they notice in each groups' drawings.

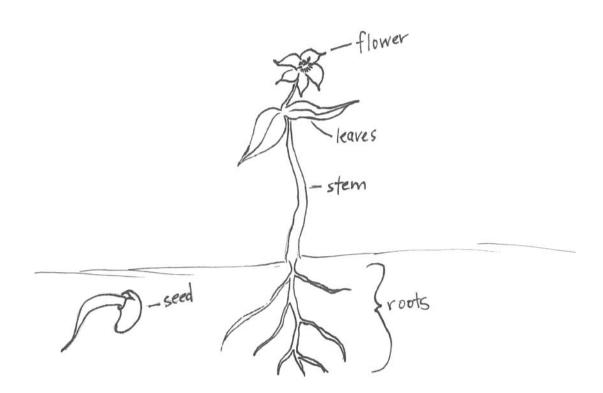
Teacher's Note: Some things that you may point out are why some roots were visible and some were not, why some plants had flowers and some did not, etc.

Ask them what they learned about plants. See if they can name the different parts of a plant just by sight. Have them look closely at their lima bean plants and see if they are able to point out the different plant parts on their own plant.

The students' plant drawing and diagrams can be collected and compiled into a class book or a bulletin board next to their lima bean plants.

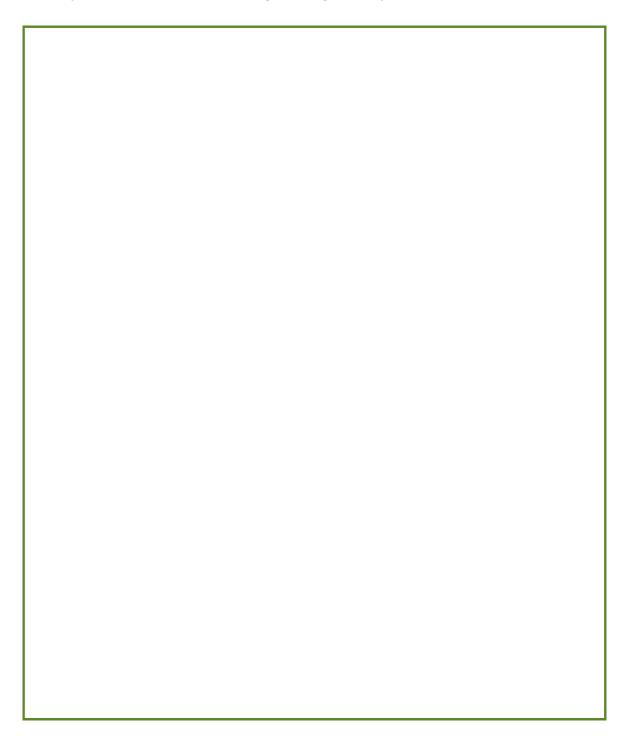


Sample Diagram





Draw a picture of your plant in the box below! Try to include all the plant parts you learned in class.





Biofilter with root box windows



5 Plant Parts