

INV. 1 ACTIVITY—PLANTS IN MY NEIGHBORHOOD

Review

In the classroom, you may have planted a lawn in a cup with rye and alfalfa seeds. You may have “mowed” the lawns and observed that some plants grow back when they are trimmed and others, like the alfalfa, do not grow back if their tops are cut off. You may have also planted wheat seeds in straws. There is so much to notice about plants and growing them from seeds, but no matter where you live there is fascinating life right outside your door.

Overview of Long-term Investigation

As we spend the next few weeks learning at home you will “adopt” an outside plant and observe it over time. You may select a plant in your yard, in a curb strip (the land between the road and a sidewalk), or in a park near your home. If you would prefer you can mark off a section of lawn and observe it using a hula-hoop or large piece of string to mark the space. Ideally this is a spot close to your home that you can visit regularly. Bring your notebook, pencil, and a piece of string or ribbon.

Focus Question: How does my plant live and grow in my neighborhood environment?

Action

1. Take your child outdoors to select an outdoor plant or section of lawn. Take your time and have them select one that they are curious about. For some of you, depending upon where you live, the plant might have bare branches. That might be a really fun plant to watch as many changes will happen in the next few weeks.
2. Tie a ribbon or string to one of the branches.
3. Have them draw a sketch of the plant in your notebook. If it has many leaves, flat seeds, or small buds on the branches. Help them to collect one sample of each and tape it into your notebook.
4. Visit your plant weekly and make another observation in your notebook each time.

Over time things to think about (Ask two or three questions for each visit)

5. Here are some questions you might want to “answer” over the next few weeks:
 - Is this plant a bush, tree, seedling, flower?
 - What are the shapes of the leaves?
 - Do you see any buds, seeds, flowers on the branches?
 - Can you see any roots?
 - Do animals visit this plant?
 - Do animals benefit from the plant in some way?
 - What are the living and nonliving things in your plant’s habitat? What are some examples of each?
 - If you grew plants in the classroom, or have plants at home, how does your outdoor plant compare—what things do they have in common? What things are different?
6. Write down questions your child has about the adopted plant.
7. After several weeks of observations, have them respond to the focus question .

INV. 1 ACTIVITY—EXPLORING SEEDS

Read “The Story of Wheat” in FOSS Science Resources: *Plants and Animals* ebook

To access the interactive ebook, login to FOSSweb with the user name and password provided by your teacher.

Introduce the title, “The Story of Wheat.” Ask what they think the “story” of wheat will be about. Confirm that the reading will explain how many of the foods we eat come from wheat plants.

Read aloud or let your child read to you.

Here are some questions you might ask.

- What part of the wheat plant is grain?
- How does grain become flour?
- Why do farmers save some of the grain?
- What foods are made from flour?
- What might happen to the grain if the farmer didn’t cut the plant and take the seed?
- What are some other seeds that are used for food?

Extension activities:

Plant radish-seed gardens

Radish seeds sprout quickly and grow rapidly. Have your child try growing some in different locations in the house and some outdoors. They should write a how-to guide for planting the radish seeds in cups of soil. They might take pictures of the growth or draw pictures with labels.

Sprout other food seeds

Many seeds are used as food. Beans, peas, popcorn, and birdseed can be placed on damp paper towels in zip bags and observed over a week.

Grow flowers from seeds

Nasturtiums and dwarf marigolds are good flowers for growing in sunny windows or outdoors in spring.

INV. 1 ACTIVITY—HOW MANY PLANTS? (PAGE 1 OF 2)

Review

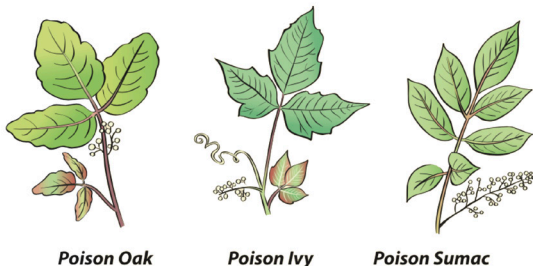
Recently you went outside to adopt a plant. Have you seen it lately? Have you decided if it is a tree, a bush, or even a seedling? Keep watching this special plant and see if any changes happen. Next time look at the leaves, are they all the same size? Same shape? Same color?

Overview

Today you will go to your yard or on a ten-minute walk near your home with an adult family member to see how many different plants you can find. Whenever you see a new plant you will gather one leaf sample from that plant and place it in a bag. When you approach a new plant you have to decide if you already have a leaf from that type of plant, if not, take a leaf and add it to your collection. Continue doing this for a full ten minutes to see how many different types of plants you can find. You may want to make a simple satchel using a zip bag and a piece of string. You can gather your leaves in the satchel or hold them in a regular bag.

A few rules

- Do not take leaves from your neighbors' tulips or fancy plants (you can take a picture of them to account for them, but don't pick them)
- When you gather a leaf, you want to pinch the stem with your finger nails to break the stem before you gently pull.
- Do not pick any flowers.
- Do not pick leaves that look like these:



Focus Question: How many different kinds of plants live in an area near my home?

After you have collected your leaves select one or two bushes or trees with branches you can reach and look carefully at all the leaves on or around that tree. Are all the leaves the same size? Are they all the same shape? Same color? How do you know they are from the same plant? If they are not all alike, it means there is variation between the leaves from the same plant. You could also say there is a variety of different leaf sizes.

If it is nice outside, you can count how many leaves you collected by laying them down outdoors. (Caution, if it is windy they may blow away.) Make sure you did not collect two or more leaves from the same kind of plant. If you did—put them on top of each other and count them as one. How many different plants did you find in ten minutes?

INV. 1 ACTIVITY—HOW MANY PLANTS? (PAGE 2 OF 2)

As you look at your collection here are some questions to think about:

- Do any leaves look a lot alike but you think they are from different plants?
- How many are tiny?
- Did you find any really big leaves?
- If two leaves look a lot alike, how do you know they are from the same or different plants?
- Are there things that all the leaves, or most of the leaves, have in common?
- Pick up one special leaf—look at both sides, look at the edges, notice anything interesting about it?

Now answer the focus question in your notebook. Select one or two leaves from your collection and tape them below the answer to your focus question.

Follow up Activities (Some of these require technology)

Login to FOSSweb using the username and password your teacher provided. Go to the Media Library for the Interactive eBook and Streaming Videos

- Watch a video called *Animal Growth* on FOSSweb
- Read an article called “Variation” in the eBook on FOSSweb
- Keep an eye on humans, birds, dogs, and cats near your home and think about the variation, the difference, between the individuals