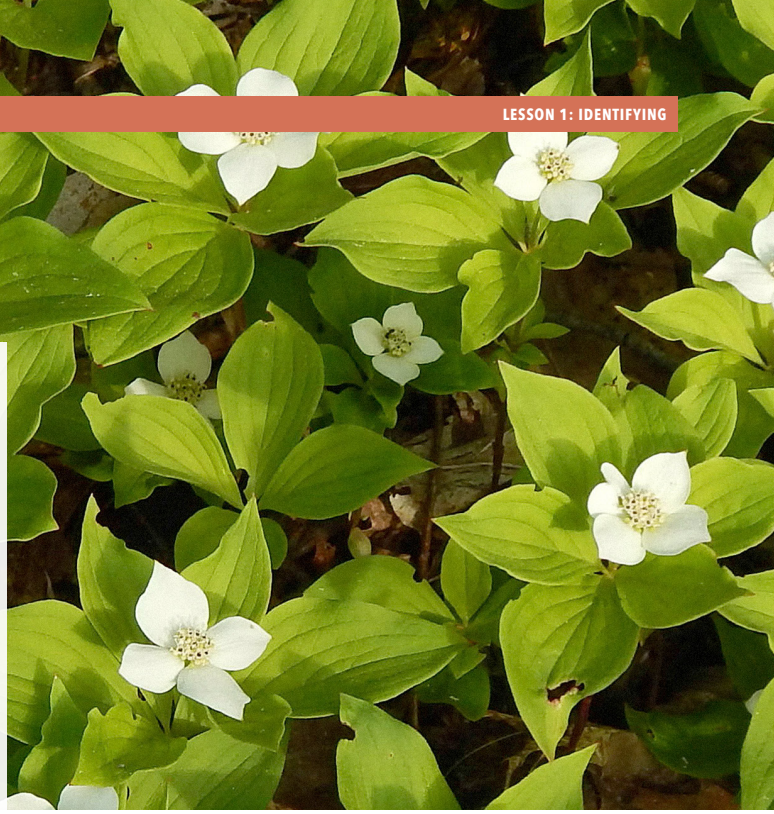

Wild Seed Project
RETURNING NATIVE PLANTS TO THE MAINE LANDSCAPE

LESSON 1: IDENTIFYING

NAME THAT PLANT

LESSON FOCUS: IDENTIFYING PLANTS AND THEIR USES

STANDARDS:

Next Gen Science: 2-LS4-1
Make observations of plants and animals to compare the diversity of life in different habitats.

Common Core - Literacy: RI.3.2
Determine the main idea of a text; recount the key details and explain how they support the main idea.

OBJECTIVES:

Students will understand...

1. Different types of plants have unique leaves, flowers, fruits, and seeds that can help us identify the name of the plant.
2. We are able to observe the characteristics of different types of plants.
3. Different types of plants have different uses.

TEACHER NOTES:

Plants are incredibly important! They have many different uses, and the humans that have been living on and stewarding this land for a long time know how to care for these plants and how to use them safely: to eat, to use as medicine, or to make things with it. To be able to do that, they needed to have a good way to know the plants to make sure they were harvesting the right ones. They would do this, and we can do this, by looking at the different parts of the plants, like the leaves, or the flowers, and they would ask, what is unique about this plant? ***Note:*** It is important to have clear expectations with students prior to learning in the natural environment. Please be sure to create a set of class norms before moving to the outdoors. Remember to make it clear to students that nothing is to go in their mouths without adult supervision. Students will learn that certain plants in the wild are edible, so it is important for them to understand they still need to check with an adult before consumption to confirm identification, proper usage, and consider possible contaminants (for example, you don't want to harvest plants along roadsides due to exposure to salts and car chemicals). You will need to scout out your school landscape ahead of time to choose the plants you have available for identification. See Teacher Resources (page 2) for help with identification.

MATERIALS:

- Plant texts
- Plant pictures
- Drawing paper (optional)
- Pencil (optional)
- Clipboard (optional)

VOCABULARY:

- Identify
- Observe
- Characteristics
- Unique

TEACHER RESOURCES:

It is helpful to look at some plant identification keys to see the steps people take in identifying a plant, and the language used to describe different ways plants appear in their environments. You can find paper copies at bookstores near you, or you can find online keys, like this one:

gobotany.nativeplanttrust.org/simple/non-monocots

PRE-LESSON: WHAT PLANTS DO YOU KNOW?

Take some time with students to highlight the knowledge that already exists in the group before you start plant identification. Have each student answer the question "what is a plant that you know the name of and could recognize and name if you found it outside?" Give students time to think, and remind them that there are some we might all know, like grass, that are great answers. Have everyone share their answers. Once everyone has shared, ask students to think about the most memorable characteristic of the plant they shared. Give students a minute to think about that and then have them turn and talk to a friend about how they know this plant. If time allows, compile some of the ways students know these plants already (answers might include: because of its fruit, because of where it grows, because of its leaves, because of its flowers, etc.)

INTRODUCTION: PLANT PARTS DANCE

Share with students that in order to name a plant we need to be able to identify its unique features, so we will review the different parts of a plant. With students, help them imagine that we have transformed from humans into plants.

Ask, "if I am a plant, what is holding me to the ground?" *(answer: roots)* Have everyone find their roots *(feet)*.
"If I am a plant, what part is holding me up towards the sun?" *(answer: stem)* Have everyone find their stem *(legs)*
"If I am a plant, what part is green, facing the sun and collecting sunlight?" *(answer: leaves)* Have everyone find their leaves. *(hand, outstretched)*

"If I am a plant, what part attracts insects?" *(answer: flowers)* Have everyone find their flowers. *(hand, facing up)*
Ask, "does anyone know what flowers turn into?" *(answer: seeds! And sometimes fruit!)*

Today we are going to be investigating the stems, *(point to legs)*, leaves *(point to hand outstretched)*, flowers and seeds *(point to hand pointing up)* of a few different plants to notice what is similar and different about them.

ADD-ON: PLANT SORTING

Print out the plant pictures from the plant texts, and cut the pictures so the flowers are not attached to the stems. Using the cut up pictures, have students look at, describe, and sort the different plant parts. First have them sort stems/leaves from flowers. Then have them find similarities and differences between the pile of leaves and the pile of flowers. Using a large piece of paper, keep track of the vocabulary they use to describe the leaves, stems, and flowers. Offer some vocabulary if it feels useful. Ex. Palmate (looks like a hand), compound (a leaf made up of many leaves), whorled (the leaves spiral up the stem), petals (part of a flower).

ACTIVITY: NAME THAT PLANT

With students, walk to find a plant. Once at a particularly populated site, ask them to take some time to really notice the plant. *What do the leaves look like? What do the flowers look like? Is it tall? Is it small? What shapes and patterns are they seeing?* Have students smell when appropriate. Have students explore the various textures of the plant. *Are the leaves glossy or fuzzy? What does the stem feel like and is it a different texture from the leaves?*

Find as many details as possible. Consider providing students with a paper, pencil, and clipboard to record their observations in drawings or words. Give them time(5-10 minutes, or more if time allows and students are engaged) to explore the plant, using all their senses, looking for all the unique parts of the plants. Then have students brainstorm: if they were to choose a name for this plant that would tell us something about it, what would they name it? They get 2 minutes to think about it themselves, then 3 to 5 minutes to talk with a friend. Then call on some pairs to share. After students have shared, tell them the actual name of the plant.

Note: Students tend to be disappointed by the true names of plants and prefer the names they created. Do this with 3 different plants. Next, distribute the text about each of the plants you have identified. With younger children, read the text aloud as they read along. Older children may take turns reading aloud. Discuss the uses of each plant by identifying the key details and main idea provided within each text. Ask students if they have a different name idea for any of the plants now that they know their uses.

EXTENSION

Have students explore the landscape and find a different type of plant that looks similar to one of the plants that was identified. Ask students to compare and contrast the two different plants.

Another option: students create lists of identifying characteristics for each identified plant that is so detailed that someone else could name an unknown plant just using their list.

DEBRIEF: TURN & TALK

Instruct students to turn to someone next to them and share which plant they think they will be most likely to remember from today and why.

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Wild Seed Project builds awareness of the vital importance of native plants and provides all people with the tools to restore biodiversity in their own communities. We equip community members with the skills and resources they need to collectively repopulate landscapes with native plants that expand wildlife habitat, support biodiversity, and build climate resilience.