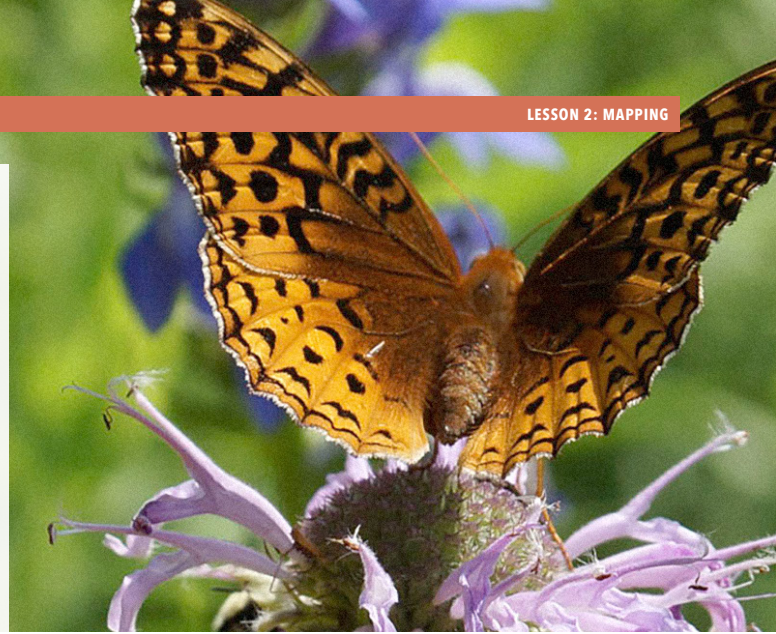


# Wild Seed Project

RETURNING NATIVE PLANTS TO THE MAINE LANDSCAPE

## LESSON 2: MAPPING STRIVE TO THRIVE



**LESSON FOCUS:** UNDERSTANDING WHAT PLANTS NEED TO THRIVE, AND FINDING EXAMPLES OF HABITATS ON SCHOOL GROUNDS.

### STANDARDS:

**Next Gen Science: K-LS1-2**

Plants and animals (including humans) need things from their environments to survive

**Next Gen Science K-ESS3-1**

Plants and animals (including humans) meet their needs in the places they live.

**Next Gen Science 2-LS4-1**

There is a diversity of life in different habitats.

**Next Gen Science 2-LS4-3**

Some organisms survive well in a particular habitat, while others survive less well, and some cannot survive at all.

**MLR Social Studies: Grade 1**

Students understand the nature and basic ideas of geography by gathering information about their immediate neighborhood and community, including maps, photographs, charts and graphs, and then create visual representations of their findings.

### OBJECTIVES:

*Students will understand...*

1. Habitats satisfy animal needs.
2. Specific plants and animals require specific habitats.
3. Some environments satisfy animal needs better than others.
4. We can predict how well a plant will survive in an environment by observing the characteristics of that environment.

### TEACHER NOTES:

**A Note About the Add-on Activity:** The mapping portion of this lesson is called an “add-on” in order to allow some flexibility around time constraints, but is an incredibly valuable part of the lesson if the time can be allotted. This activity can also serve as another lesson on its own at a later date, if time is tight.

**Prep work (for mapping portion):** Having an outline of the school building, parking lots, and roads is helpful in orienting students to where they are as they do this activity or start mapping. You can do this by projecting Google Maps onto your whiteboard, taping either a large or small section to the whiteboard, and then drawing the outline of the buildings and paved surfaces.

**Management:** You’re going to want to give some thought beforehand to your population of kids, and how well they work independently. Given that students will be exploring school grounds, having another adult outside could be helpful. If it feels like you won’t be able to complete the lesson with the component of independent exploration, there is an alternative process that keeps the group together the whole time written up as well.

**MATERIALS:**

- Large chart paper
- "Should We Plant Here?" Worksheet
- Clipboards
- Pencils
- Map of the school grounds (optional)
- Orange marking flags (optional)

**VOCABULARY:**

- Habitat
- Environment
- Survival
- Survey

**TEACHER RESOURCES:**

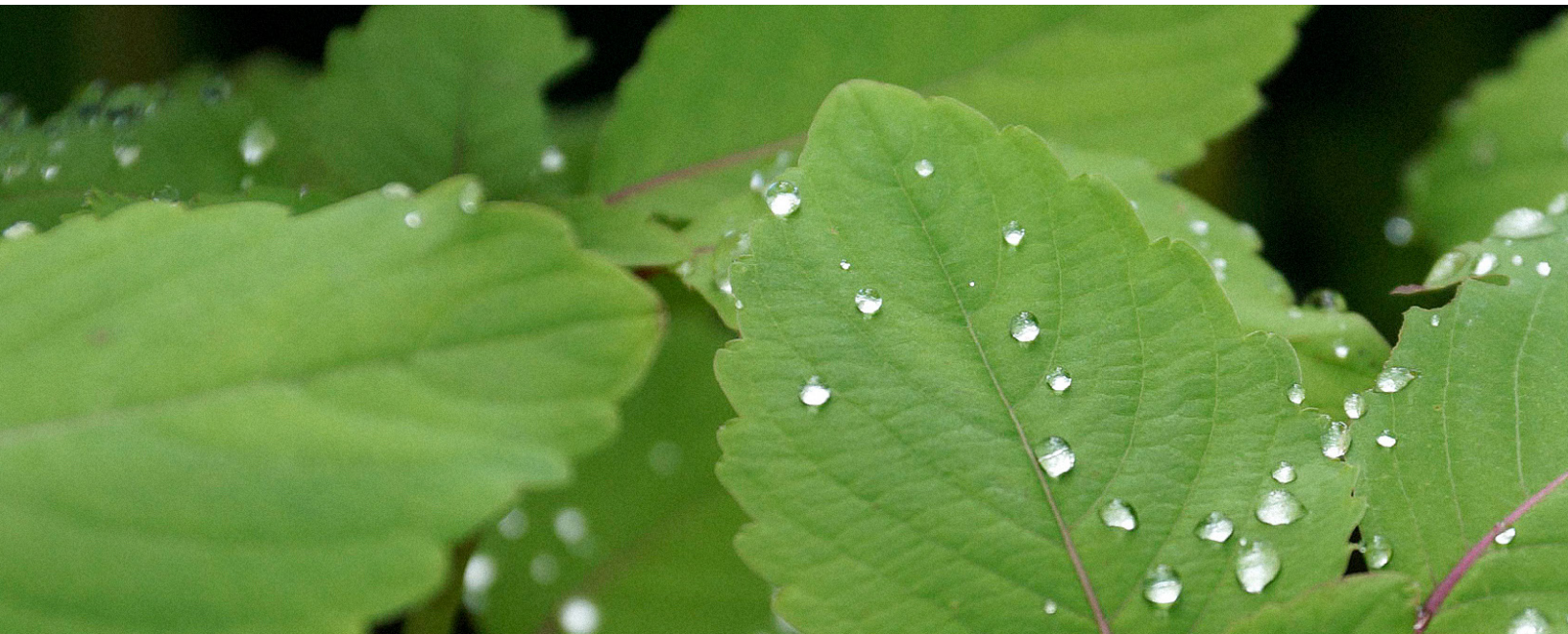
If you want to find out more about what plants and all living things need to survive and thrive, and the way environments inform that process, you can explore or use this resource:

[http://davis314.weebly.com/uploads/1/0/6/3/106359787/basic\\_needs.pdf](http://davis314.weebly.com/uploads/1/0/6/3/106359787/basic_needs.pdf)

**INTRODUCTION: SURVIVAL BRAIN STORM**

To start the lesson, ask students to imagine that they are going to spend a week in the woods, and they are able to bring 5 items with them. Have students think about and then share what they might bring, and write their ideas on the chart paper or on a whiteboard. Likely, many of the items they listed are things they need to survive. Bring this to students' attention, and then give them some more time to think about what we all generally need to survive. Give them 2-3 minutes to think independently about all of the things they are dependent upon to keep living, and then have students share any other things they thought of that they need to survive. Encourage creativity, and know that there are no wrong answers to this question. Add their ideas to the list, and start to categorize their answers into the important groups of necessities: food, water, shelter, warmth, air, connection/ community.

Switch the conversation, and ask students what they think other animals need to survive. Circle the answers from the previous list that they feel like apply to all living things. Ask them to think about what provides food, shelter and water for: a coyote, a moose, a deer, a mouse, a bee, a beetle, and a butterfly. Then steer the conversation towards plants, and what they need to survive. Highlight both similarities and differences between what flora and fauna need to survive. If students are having a hard time thinking through what plants might need, have them envision places where they've seen plants growing before, and what those places have in common. In the end, students should be thinking about plants needing soil (food), sun (food), water, air, other plants (shelter, connection, and community), bugs and animals (community).





## ACTIVITY: SURVEY OUR LAND

Bring students outside with clipboards, pencils, and worksheets, to an area with a few different habitats. Maybe that is at the edge of a soccer field or by the playground. If possible, try to find an area that has some trees. In urban schools, edges are a great place to find some plant life! Look along playground fences or between the road and the sidewalk. Once you are at the location, pair students up and assign them a specific location, and have them take responsibility for about 5 square feet of space (they can mark it out by taking 5 steps in either direction). If possible, make sure student pairs are investigating many different habitats (some are going into the woods, some are looking at a field of mowed grass, some are in a garden). Ask students to look for the presence or absence of the things plants need to survive. Once everyone is assigned an area to investigate, have them move to that area and start observing what is there. They should spend 5-10 minutes observing their area and either drawing or writing all of the things they see that tell us if this is a good place for plants to thrive. Call out when the time is up, and have students return to a central location.

## ALTERNATIVE PROCESS:

To do this lesson as a group, print each student 4 or 5 copies of the worksheet, and survey a few different spots all together. Choose the 4 or 5 spots beforehand, and make sure they are diverse in their habitat makeup. Bring the group to each spot and give them 5 minutes to observe on their own, and write down their observations. Then have them turn and talk to a friend about whether or not they think they should plant seeds and seedlings there. Finally, have a discussion as a group about the "pros" and "cons" of each spot.

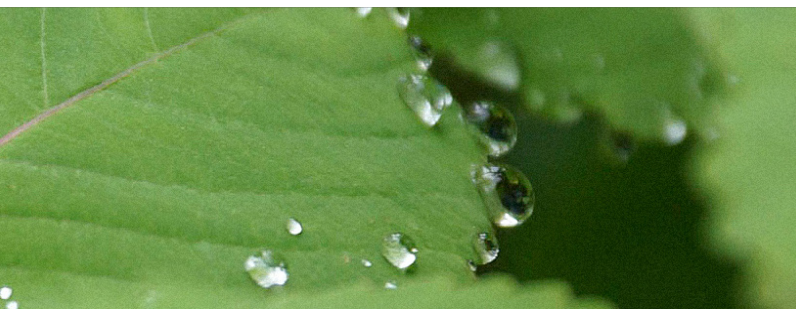
## PAIR-SHARE DEBRIEF:

Once they have circled back up as a class, ask students to talk to their survey partner about whether or not we should plant seeds in the area that they investigated. Give them 5 minutes (or more, if needed) to talk, and then have every pair share where they took observations, and whether or not they think we should plant there. Optional: have students place orange marking flags where they think they should return to plant seeds or seedlings.



## ADD-ON: MAP OUR SCHOOL

Using the information gathered by students, come back to the classroom and make a map of what students found on school grounds, and all the places where seeds and seedlings can be planted. This can be done as a collaborative group on a large piece of paper, or individually on smaller maps. Using the outline of the buildings and roads as a starting point, have students add markings for water, plants, shade, sun, animals they saw, and each of the orange flags marking a good place to plant. Add as much detail as desired, and use this map when you are planting your seeds and seedlings in the future.







## Wild Seed Project

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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.

Learn more at [wildseedproject.net](https://wildseedproject.net)