



Lesson 2.1: Observing Our School Grounds

In this lesson, students will hone their observation skills in preparation for mapping their school grounds.

Grade Level: 6 - 12 or equivalent

Subjects: Science, social science, communications (writing)

Concepts/Vocabulary: Observation skills, more-than-humans

NGSS Performance Expectations:

Middle and high school:

- Asking questions and defining problems
- Planning and carrying out investigations
- Constructing explanations and designing solutions
- Engaging in argument from evidence
- Obtaining, evaluating, and communicating information

5E Unit: Explore

ESA 4DEE:

- Human-Environment Interactions
- Cross-cutting Themes
- Ecology Practices
- Core Ecological Concepts

Universal Design for Learning Connections

Key knowledge (Students will know that):

- Observation skills are critical for gathering information and identifying plants and animals
- There are different ways of presenting information including drawing, writing, describing sounds, among others

Key skills (Students will be able to):

- Use their observation skills to identify details in various situations
- Use compare and contrast skills to identify differences between expectations and observations

Key dispositions (Students will value):

- The variety of more-than-humans (plants and animals) on their school grounds
- The beauty of nature in their own place

Technology Connections: Not required for this lesson

Materials:

- Notebooks/electronic journal for each student to be used throughout the project as observation journals
- Checklist of observational skills
- An image of a map that has some level of detail, that can be projected or passed around

Estimated Time for Lesson: 1-2 45-minute class periods

Lesson Objectives

Students will:

- Demonstrate their observation skills.
- Document their thoughts about the activities in this unit in a journal.

Assessment Opportunities

- Contributions to class discussion
- Pre- and Post-assessment Think-Pair-Share
- Journal entries describing observations on school grounds

Background

Observation skills are critical for gathering information and successfully siting and identifying wildlife and plants outdoors (in the field). Paying attention to detail is essential for making proper identifications and connections in nature. In this lesson, students will practice observation skills in preparation for mapping their school grounds.

Getting Ready to Teach

This lesson follows a sequential step pattern and requires background knowledge (see above).

Students will use their journals to do an observation exercise on the school grounds, after a practice session in the classroom. If you have not used nature journaling before, here is a good [resource](#), including examples of different ways to record information in journals. Electronic journals are also appropriate for this lesson, if students have a way to take them outside or can transfer their notes once the activity is completed. They will continue to use this journal for the entire project.

Students should be prepared to spend time outdoors on their school grounds for part of this lesson.

Please open the links prior to teaching the lesson. You may also refer to additional resources at the bottom of this page.

The Lesson

Part I. Practicing Observation Skills

1. Show your students an image of a map that has some level of detail. Give them no more than 30 seconds to observe it. You may project the image on the wall or have students pass it around.
2. Students should observe as many details about the image as possible, without talking or writing anything down.
3. After students have observed the image, have them write as many details as they remember in their journals.
4. Have the class compare their observations, pointing out details that some students remembered and others didn't.
5. Look at the image again and compare what you see to the students' lists. What details were missed? Were they significant to the meaning of the image?

Part II. Preparing to Go Outdoors for Nature Observation

6. Let students know that they will be going outside to observe nature on their school grounds.
7. Do a quick pre-assessment by asking the students to do a Think-Pair-Share in their science journal using these questions:
 - "What plants, animals, sounds, and textures do you expect to observe on the school grounds and why?"
 - "How do you think you will feel spending time on the school grounds and why?"
 - "What do you think you will find valuable about the experience?"

List the questions so everyone can see them.

8. In a Think-Pair-Share, individual students answer the questions, then pair up to share their answers. The groups can briefly report out to the entire class.

Part III. Observation on the School Grounds

9. Explain that in order to envision and design our ideal ecological and bioculturally diverse school grounds, we need to know what plants, animals, and natural phenomena are currently there. Some indigenous cultures refer to these beings and habitats as members of the **more-than-human ecosystem** or as **our relatives**. We will begin by doing an observation exercise, after which we will map our school grounds.
10. Introduce students to the observation skills that will make their outdoor observation more successful.
11. Ask them to take their journals onto the school grounds and choose a place to observe nature. Students should do this activity individually.
12. Practice observation skills for at least 10 minutes.
13. Record observations in their journals by drawing, writing, recording audio or describing sounds, taking video or photos, describing textures, or other observations. Also ask students to record how they feel about spending time on the school grounds and what they value about observing the natural world.
14. Either outside or back in the classroom, engage the students in sharing what they observed. How did their actual observations compare with what they noted in their Think-Pair-Share pre-assessment? How did their feelings compare? Have students record their comparisons in their journals. You could repeat the Think-Pair-Share as a post-assessment.

Part IV. Presentation Preparation

15. Have students open their journals and record their main takeaways from this lesson, including big ideas, relationships, and goals.
16. Remind them that this overall project culminates in a presentation or other means of advocating for more ecological and culturally diverse school grounds.
17. Using the Presentation Rubric, ask students to record some ideas in the "Presentation Ideas" section of their journal for the slide(s) or piece(s) of information to be included from Lesson 2 in the project presentation, if you will not be using slides. Label these ideas "Lesson 2.1" or with some other label that helps organize the information to align with the rubric. Students can work in their groups (which you may keep for the duration of the project) or individually. If you are keeping the same groups for the rest of the project, students can name their groups.
18. Collect the journals to keep for assessment and to ensure that all students are collecting the information needed for their presentations.

Additional Resources

- Indigenous people and nature: A tradition of conservation - article
- Nature Journaling Curriculum

Extensions

- Explore the plants and animals are native to your area, using hard copy or online field guides.

In the Next Lesson (L 2.2)

Students will learn about ecological school grounds and do a mapping exercise.

Acknowledgments

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