“Teaching Outside in Maine 101” Module

Case Study: “Teaching Outside - The Basics”

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The Project and The Inspiration

> *“I love to take my students outside for lots of different learning experiences such as silent reading, journal writing, team building activities, [and] games that help further their understanding of new concepts and vocabularies.”*

Tonya Prentice is a 5th-grade science teacher at Woodstock Elementary, and strives to provide her students with varied outdoor learning experiences. Tonya brings her students outside to read, journal, and play games that reinforce new concepts and vocabulary. In addition, Tonya uses the outdoors for an ecosystem unit, and brings in the help of community partners and organizations.

Tonya became inspired to bring students outside to participate in team-building activities to help develop a positive classroom climate. Working as a summer camp counselor, she learned that different team-building games and activities outside could “enhance students’ learning and communication skills,” so she brought the concept to her teaching. She also credits her experience as a camp counselor with helping her realize that many

different activities can indeed be done outside, and need not be confined to a “traditional” classroom setting.

Tonya brings students outside for a variety of different educational experiences: students can identify geometric shapes on the playground, do silent reading, play prey-and-predator games, make nature observations, learn plant identification, and much more. In particular, she has found the ecosystem unit provides especially rich opportunities to teach outside, while addressing specific NGSS performance standards and partnering with community organizations. For example, the 5th-grade NGSS performance standard that students *understand that matter moves between plants, animals, decomposers, and the environment* can be further solidified through an outdoor learning activity that allows students to search for decomposers on their playground or outdoor classroom.

Resources

For Tonya, having basic physical materials are critical to successful outside learning experiences. Tonya started with a few basic materials: pencils, notebooks, clipboards, and rulers. As the volume and complexity of outdoor learning increased, she added more specific data collection equipment, such as rain gauges, thermometers, tape measures, plant ID cards, and cameras. Another important resource is access to outdoor space, which can range from the recess playground to a nature trail to an outdoor classroom. Woodstock Elementary has a nature trail that was restored by students in years past, and Tonya takes advantage of the trail to teach outside.

> *What’s an Outdoor Classroom*? An outdoor classroom is a dedicated space for learning, located in the outdoors, and can be considered a basic educational resource, just like any other indoor classroom. Outdoor classrooms can be used for educational purposes across all disciplines, and can contain some of the basic amenities found in indoor classrooms, such as seating, work surfaces, and other teaching tools. Outdoor classrooms need not be elaborate to be effective - a circle of stumps in the woods can be an outdoor classroom! Find out more at Boston Schoolyard Initiative, www.schoolyards.org.

> *Pro Tip*: If capturing images is part of your lesson plan, allow students to use their own phones to take photos, and then have them transfer the pictures to the teacher laptop using Airdrop or another cloud-based method.

Impact on Students and Community Connection

> *“They have become environmental stewards as they learn firsthand how they are connected to the world around them.”*

Tonya has seen direct and numerous benefits to her students through outdoor learning opportunities and community partnerships, ranging from improved computational skills to an increased sense of place in the world. Students are more "engaged and excited about learning," and have improved "problem-solving and critical thinking skills, as well as [increased] willingness to persevere in their assignments," says Tonya.

> *"Over the years, I focused on incorporating more authentic project-based learning experiences and ways to collaborate with community organizations for my ecosystem unit.*

Working with community partners has also helped to expand and solidify students' understanding of scientific concepts, as well as provide them opportunity to understand their connection to the natural world through authentic investigation. Being engaged with real scientific work through community partnering allows students to become environmental stewards, and be intimately connected to real-world problems and solutions. Tonya reports that "working with Gulf of Maine Research Institute, University of Maine 4-H Learning Centers and Cooperative Extension, Woodstock Conservation Commission, and Atlantic Salmon Federation has allowed my students to participate in projects that focus on invasive species, planting trees, restoring our school's nature trail, citizen science, water quality investigations, bio blitzes, and raising and stocking endangered species." The diversity and authenticity of outdoor education provided by these opportunities enhances students' understanding of concepts. It can also help reveal and solidify to the students the importance of their contribution to scientific work, including data collection, and the real impact they can have on the environment.

Advice and Tips for Managing Students Outside

> *"Communicate clear expectations and rules before you go outside."*

Tonya believes that access to appropriate materials, as well as clear communication, are important for successful outdoor learning experiences. As mentioned in the Resources section, notebooks, pencils, clipboards, and rulers are "essential" pieces of equipment. Tonya also suggests clearly communicating physical boundaries, behavioral expectations, and lesson objectives, *before* going outside. Being explicit, and repeating these expectations outside, can help students learn the "norms" of the

outdoor classroom. Just like students know the rules of an indoor classroom, students can learn to follow the rules of an outdoor classroom, once they've been established, (including to recognize the difference between free recess time, and outdoor learning time).

Examples of Clear Outdoor Classroom Communication
Before heading outside, consider discussing with your students:

- Physical Boundaries - Where are students allowed or not allowed to go? "The boundaries of our outdoor time today will be that big rock, the river, and the edge of the pavement."
- Educational Goals - What is the assignment, and what are students expected to complete by the end of the time outside? "I expect everyone to take five photos, and make 5 observations in your notebook in the next 20 minutes. I will let you know when you have 5 minutes left. We will have time inside for the next part of the project."
- Behavioral Expectations - How are students expected to behave outside? "This is a reminder that this is not recess time. Please treat everyone with respect - including any critters or plants we may encounter outside. We'll be practicing making observations with our ears and eyes only today."

Tonya also advises educators to facilitate learning and comfort by double-checking that students *physically* have the necessary materials on either side of their time outdoors. Line students up inside the classroom, and check that they have everything they need to be outside comfortably, including notebooks, pencils, jackets, mittens, etc. Before the end of their time outside, give students a five-minute "pack up" warning, and once lined up to come inside, double-check students have everything they came outside with, including all clothing items.

"Teaching Outside - The Basics" Summary: Students can be brought outside to do a variety of different activities. Outdoor learning does not always have to be focused on learning something *about* the outdoors - individual quiet reading time, vocabulary games, or finding geometric patterns on the playground are great examples of this. Any outdoor space can be used as an outdoor learning area. Take advantage of existing community organizations and partnerships to support outdoor and environmental learning goals.

Partner Organizations: Gulf of Maine Research Institute, University of Maine 4-H Learning Centers and Cooperative Extension, Woodstock Conservation Commission, Atlantic Salmon Federation