

OMSI Camp Gray Curriculum Options

OMSI Outdoors takes pride in providing quality, concept-based education. The goal of each lesson is to aid students in understanding scientific concepts, rather than memorizing facts. The concepts mostly relate to natural processes, cycles, and relationships; and align closely with Next Generation Science Standards. OMSI instructors choose activities that support their individual teaching styles, and though certain activities may differ, the overarching concepts for each class are the same from instructor to instructor. Talk to the program supervisor about concepts you would like emphasized. They can guide you to appropriate classes and ensure OMSI instructors are prepared to adapt their lessons accordingly.

Field Studies

Field studies last four to five hours and are the bulk of daily programming. Choose one field study for each full day you will be on site.

Coastal Ecology

Learn the many aspects of how coastal flora and fauna adapt and thrive on the Oregon coast. Study the nutrient cycle by looking for producers, consumers, and decomposers, and discuss soil formation processes. Recognize that forests have multiple growth layers, identify the stages of forest succession, and identify plants associated with each layer/stage. Discuss non-native species and identify a few of the more common plants in this area.

Wind, Water, and Waves

Hike over the dunes of South Beach State Park to investigate the ways that wind and water shape our land. Review the water cycle and connect it to what we see while crossing South Beach State Park. Investigate how sand dunes form and what processes stabilize them. Build a three-dimensional model of the state of Oregon in the sand to make connections between the geography of our area and the weather and climate of Oregon.

Beach Debris

Be community scientists! Hike down to the beach and follow directions from NOAA (National Oceanic and Atmospheric Administration) to conduct a survey of the debris found on the beach. Students, working in field study groups, will organize and classify the debris, and then, following the guidelines, submit their report to NOAA.

Interest Groups

Interest groups are one-and-a-half-hour classes focusing on one topic. There is typically one interest group per day. Some classes are limited to one or two teaching groups at a time, so several interest groups may be offered per day.

Coastal Birds

Learn about the diversity of bird adaptations. Compare the anatomy and physiology of birds and the relationship between physical adaptations and behavior. Use binoculars to go in search of common types of birds found on the Oregon coast.

Marine Mammals

Learn how marine mammals have adapted to live in a water environment, their relationships with other marine life, and how they survive in an ever-changing ocean.

Since Time Immemorial

Students investigate the lifestyle of early Central Oregon Coast peoples and the continuity to contemporary Native American Indians living in Oregon. Practice skills such as cordage making and identifying edible plants while exploring the relationship between people and the landscape.

Skulls Skins and Bones

Learn to identify common Oregon mammals and discover the adaptations of this diverse class of animals. This activity enables students to touch, observe, and ask questions about the skulls, skins, and bones of mammals. All of our study skins were either donated or obtained from natural or road kills and have been properly prepared and preserved.

Squid Dissection

Using scientific instruments and reasoning, participants will dissect and explore some key adaptations of squid, and answer questions like “what makes them so unique” and “how do they produce ink?”

Team Challenge

Work together to solve clearly defined, often physical, problems. The activities are designed so that the group can work out its own solutions to the problems. This fun, energetic class allows your students the chance to practice teamwork, cooperation, and creativity!

Weather and Climate

What’s the difference between weather and climate and how does the ocean have a role? Students will learn about the earth’s energy, water, and carbon system through a collection of experiments, observations, and other activities.

Evening Programs

Evening programs are one hour and fifteen minutes long and take place between dinner and campfire or occasionally, after campfire. Depending on the evening program, it could be indoors or outdoors; and students may be divided by study group, or the whole school may be together. To assist OMSI staff and students, chaperones/counselors must be present at a one to ten ratio (1:10). Please select one evening program for each night.

Eco-Jeopardy! (This is usually a loud and active activity.)

Students participate in a fast-paced game show style review of information from the lessons. The activity is hosted by a zany cast of characters somewhat resembling the OMSI staff.

Environmental Forum

Students act as a community faced with an ecological problem. Students are separated into groups and take on the personas of a variety of stakeholders. Working within the parameters of the activity, based on a realistic land-use issue, each group debates why their group plan will work. The activity demonstrates the complexity of land-use issues and the importance of compromise. This is a non-advocacy activity with no one right answer.

Night Hike (available before Month Day)

Discover the night! Test your senses of hearing, smell, sight, and touch through outdoor sensory activities while learning about adaptations of nocturnal organisms. This is NO lights hike!

Predator/Prey (available for evening program after Month, Day)

In this large format tag game, students learn how trophic levels support a healthy ecosystem as they act out different parts of a food chain. Concepts of dynamic equilibrium and bioaccumulation are incorporated. This is always available as an interest group or departure day activity.

Shark Trivia

Students learn about sharks' hunting skills, evolution, teeth, reproduction methods, and other adaptations through a slide show with trivia questions. The activities highlight shark adaptations, de-bunk common misconceptions, and myths, and identify their essential role in the ocean ecosystem.

Team Challenge

Work together to solve clearly defined, often physical, problems. The activities are designed so that the group can work out its own solutions to the problems. This slower-paced version allows your students the chance to practice teamwork and cooperation at the end of the day.

Tide Pool Slide Show

Students are introduced to creatures that live in the rocky intertidal zone and the behaviors we expect out of them during their visit. Everyone will learn what stressors these creatures endure during a low tide and how we can be respectful to them. You do not need to have a Tide Pool trip planned to participate in this program.

Field Notebook Options

Field notebooks are optional for outdoor school at Camp Gray. Talk to the Program Supervisor about your intention of bringing them to see if the OMSI layout will be a good fit. The program supervisor will email you the field notebook file for you to peruse and evaluate. If you wish to use them, please print and staple/bind a copy for each student, and inform the program supervisor that you are bringing them.

The Camp Gray field notebook includes pre-program activities, so we encourage teachers to give students a little bit of time prior to departure with the journals for those first few activities.

The notebook can be printed, front and back, onto letter-size paper, then folded in half and stapled down the middle to form a 5 ½" x 8 ½" notebook. Groups are responsible for printing their own field notebooks.