

CLASSES:

Twin Rocks offers a wide range of classes and topics to support Oregon’s science standards while learning about the Pacific Northwest’s unique ecosystems. These classes are designed by Twin Rock education staff to highlight the environment and ecosystems found throughout camp and in nearby natural areas. Each class is designed to fit within a 45-60 minute time frame and can easily be taught by teachers or parents.



Marine life study:

Marine life courses are taught by Twin Rocks marine life specialists and encourage students to engage with a variety of specimens. Schools can choose from a number of marine life studies to suit the needs of their students.

TIDE POOLS*

Local tide pools allow students to see marine life in their natural habitat and observe habits, habitat, and other characteristics. However, schools must be able to provide transportation to and from the camp to the tide pools. Touch pools are available for schools to interact with marine life when the tides do not correspond with their Outdoor School schedule and transportation availability.



ECHINODERMS*

Students will learn about marine creatures within the scientific family group *echinoderms* through hands-on interactions with live specimens including sand dollars and sea stars. At the conclusion of the class students will dissect a sand dollar test (skeletal remains) and take the teeth home as an ODS keepsake.

DISSECTIONS*

Instructors will demonstrate the step-by-step process of dissecting a dogfish shark *or* a sea star, while highlighting specific anatomy characteristics and traits for each species. Additional specimens can be purchased for students to participate in the dissection.



Lake and stream surveys:

These courses focus on studying the ecosystems surrounding the camp’s water ways. Using a variety of tools and resources students are able to survey and observe water quality and ecosystems in the camp’s local watersheds.

WATER QUALITY SURVEY

Students will participate in studying the life and chemistry of Watseco Creek or Spring Lake, using water samples to test for pH, turbidity, oxygen, and temperature. Water samples will also be used for identifying macro and micro invertebrates using microscopes and identification charts.

WETLANDS STUDY

Students will have the opportunity to discover and identify a variety of species found in the wetlands, Riparian zone surrounding Spring Lake, using identification charts. Collected specimens will be brought back to the Nature Center classroom to be viewed under microscopes.



Forest ecosystems studies:

Highlighting several of the unique features found on the camps 180 acre facility these classes give students the opportunity to learn more about the forest ecosystems found in the Pacific Northwest, as well as our states forestry industry.

FORESTRY STUDY*

Students will wander through old-growth trees and stumps while learning about forest growth following managed thinning and clear-cutting, and the effects of natural phenomenon (wind, flooding, etc.) on forests. Students will use loupes and identification charts to identify a variety of tree and plant species, and be introduced to a variety of forestry tools and practices.



SOIL FOOD WEBS

Students will be given the opportunity to collect soils high in organic matter and observe the organisms under a microscope. Identification charts and cards will be used to identify and understand the soil food web system.

MAMMAL STUDIES

Students will explore the adaptations and characteristics of mammals from carnivores to herbivories, while interacting with skull and scat replicas, and a variety of fur pelts.



SCIENCE INQUIRY

Students can participate in one of a variety of science inquiry projects, such as building foil boats to test buoyancy, designing a device out of straws and tape to protect an egg from a 20 foot drop, manipulating the fin design on paper rockets to test how it changes the distance and trajectory of a launch, or learning more about the surface tension of water through a drops on a penny experiment.



SURVIVAL

Teachers can choose from three survival course components for their school's survival class:

- **Fire building:** learn how to build and start fires, using a variety of techniques and materials, students will be able to practice building fires under the supervision of adults.
- **Orienteering:** learn the skill of compass reading and orienteering, and practice following coordinates on a compass course.
- **Knot tying:** learn the uses for various knots and practice how to tie them in a variety of scenarios.



OCEANIC STUDY

Using the beach as a classroom, students will learn about the tides and how they affect almost every system on earth, focusing mainly on weather and the water cycle. Beach safety and environmental care will be taught and practiced as students help clean up debris on the beach.

*** Classes must be taught by a Twin Rocks Outdoor Education specialist. Classes not marked with a * can be taught by any adult chaperone.**