Spring Grade School Curriculum Options

Opal Creek Ancient Forest Center will work with you to customize your program curriculum and itinerary to fit your educational goals and needs. All students who visit Opal Creek begin their trip with a three-mile walk through the old-growth forest to reach Jawbone Flats. Our instructors lead this hike, and the education begins immediately. Our curriculum is concept-based, hands-on, and experiential. The students will be outdoors, exploring nature through hands-on activities, learning science by doing science.

Please review the curriculum options below and let the Coordinator know what you would like to focus on during your stay. The Coordinator will then create a schedule based on your interests and what they think will work best for your group size, average age and time of year. Once you are sent a draft schedule please review it and let the Coordinator know if you have questions or would like to make any changes. Please note that the schedule is a guideline for your stay and can be changed as you and the Opal Creek instructors deem necessary (due to weather, energy levels, etc.) once you are on site.

Note: If staying for one night, you will have a scavenger hunt, or an interest group as an alternate activity. If staying for two or more nights, please choose an extended field study and one interest group OR a field study and two interest groups for each full day you are in Jawbone Flats. All groups will choose one evening program for each night of their stay.

EXTENDED FIELD STUDY:

An extended field study is a 4-5 hour excursion covering several subject areas. With a full day on the trail, breadth and depth of study is flexible according to the interests/abilities of each group. Topics could include cultural history, forest ecology, botany, geologic history, and more.

FIELD STUDIES:

Field studies are typically a 2 hour in-depth study of a specific subject area. Possible topics include:

- **Forest Ecology:** A continuation of topics covered on the three mile walk in. Students compare old growth and second growth forest plots using tools (clinometer, DBH tape measure, densiometer, field guides, etc.) to invoke a discussion of biodiversity, ancient forest habitat, and forest succession.
- **Stream Ecology:** A closer look at the streams of the ancient forest. An exploration of water quality indicators, which includes macroinvertebrate and amphibian surveys of local creeks, and can include the use of water quality probes (pH, DO_2, temperature, conductivity, etc.).
- **Geology/Local History:** A lesson on the formation of the Western Cascades and the rocks and minerals found here, which can include a discussion of the history of mining in the area.

INTEREST GROUPS:

Typically shorter studies of 1 hour, interest groups are conducted in close proximity to Jawbone Flats. Possible topics include:

- **Owl Pellets:** A discussion of owl species found at Opal Creek, their adaptations, and how/why they produce pellets. Students then dissect owl pellets, distinguishing and re-articulating the skeletons of the small mammals found inside.
- **Meter Plots:** Students take a close look at shrub and ground cover diversity within a square meter area, helping them to see beyond the trees when looking at the forest.
- **Mosses and Lichens:** Collection, identification and discussion of the role these organisms play in the ancient forest.
- **Macroinvertebrates:** Collection and identification of the macroinvertebrates living in Opal Creek or the Little North Fork of the Santiam paired with a discussion of macroinvertebrates as indicators of water quality.

- **Fluvial Geomorphology:** Learn about the processes through which water carves the earth surface and the resulting channel shapes through exploration of stream tables.
- **Watershed:** Students create their own model of a watershed to better understand water flow, pollution, and the importance of an uncut watershed like Opal Creek.
- **Mineralogy:** A lesson on the rocks and minerals found at Opal Creek and how to identify them.
- **Team Building:** Students work as a group to solve a variety of mental and physical challenges through team-building activities.
- **Amphibians:** Spring is the ideal season to collect and identify some of the many amphibians that live in the Opal Creek Wilderness. Amphibian life cycles and their role as indicator species are also discussed.

EVENING PROGRAMS:

Evening programs are 1-1.5 hours and take place after students have dinner and do chores. *Note: many evening programs are also adaptable to a 1 hour interest group session.* Possible activities include:

- **Evening in the Ancient Forest:** A slideshow that covers the sounds and adaptations of nocturnal animals in the Opal Creek Wilderness, followed by a sensory hike to fully experience evening in the ancient forest. This is a great first night activity.
- **Night Hike:** An extended hike in the ancient forest by night. Students test their senses of hearing, smell, and touch through sensory activities while learning about the adaptations of nocturnal animals.
- **Living History Timeline:** Interactive program that covers the human history of the area: Native inhabitance to the mining era to the conservation movement and eventual wilderness designation. Students act out each era in skits that are developed along with the help of instructors/teachers/chaperones.
- **Sustainability Debate:** Interactive program that uses a debate format to engage students in issues of sustainable practices. A discussion of power, water, and food systems at Jawbone serves as a platform for examining alternative energy and human impacts on the watershed.
- **Botany Study through Art**: Explore the plants of the ancient forest in more detail by using a variety of media. Emphasis is on plant structure and plant ID, with a creative twist. Ideal for younger children, yet adaptable to any age group.
- **Nocturnal Insect Hunt:** This lab and field program introduces students to the basics of entomology. After a quick discussion of life cycles, behavior, and ecology, students will learn to collect and identify a range of local insects.
- **Ancient Forest Slideshow:** Our classic slideshow that covers the natural history of Opal Creek's forests, what lives there, adaptations of plants and animals, etc. now paired with a food web activity.
- **Mammals & Birds:** First, a slideshow will introduce students to local avian and mammalian life and their various adaptations to the old-growth forest. Each student will then get a chance to dissect an owl-pellet, demonstrating one of many examples of how these often elusive creatures interact.
- **Jawbone Jeopardy:** Students compete as teams in a game show format science trivia game with content derived from their studies while at Opal Creek. This is a great last night activity.