

K-12 Forest Education Opportunities

A Guide to Forestry Education Programs and Materials Available to You and Your Students



Oregon Forest
Resources Institute

Because we depend so profoundly on our forests, being knowledgeable about them is crucial.



In Oregon, nearly 50 percent of our state's 61 million acres is forestland. Our forests supply renewable resources for building materials, paper and heating, along with jobs that support families and communities. They also provide us with an active playground and a quiet retreat. Because we depend so profoundly on our forests, being knowledgeable about them is crucial. It is important for all Oregonians, including students, to understand not only how our forests function, but also how we are connected to them ecologically, economically and socially.

This teacher's guide attempts to bring together in one publication many of the diverse forestry education programs

offered throughout Oregon by OFRI and others. OFRI supports many of these programs, directly with OFRI funds and indirectly by offering transportation reimbursement.

The Oregon Legislature created OFRI in 1991 to improve understanding of forests, forest products and forest management, and to encourage sound forestry through landowner training. To ensure the objectivity and accuracy of the information used in its educational efforts, OFRI works closely with the scientific, academic and educational communities. This includes working closely with the Oregon State University College of Forestry and the Oregon Department of Forestry.

Statewide Programs

Oregon Natural Resources Education Program (ONREP)

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| Contact: | Susan Sahnaw – 541-737-3005 LeeAnn Mikkelson – 541-737-9121 onrep@oregonstate.edu www.cof.orst.edu/cof/extended/onrep/ |
| Program: | Educator workshops |
| Grade Level: | K-12 educators (courses also offered through university and college pre-service programs) |
| Available: | Year-round |
| Cost: | Nominal registration fee. Scholarships available. |
| Materials: | Curricula materials and resources provided at no cost |
| Other: | Substitute reimbursement available |

The Oregon Natural Resources Education Program (ONREP) at Oregon State University exposes educators to Oregon's forests, wildlife and water through professional development workshops. The award-winning international environmental education curricula Project Learning Tree and Project Wild help teachers engage students in learning by providing thought-provoking, field-tested classroom activities that develop critical thinking skills. Topics include ecology, forest history, forest wildlife and watersheds, and more. Some courses are offered for university credit, and participants receive professional development units. Advanced-topic and multi-day workshops and summer institutes provide more in-depth exploration of topics as well as tools and strategies for integrated learning.



Careers in Forestry

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| Contact: | Peter Matzka – 503-874-8265 forestcareers@ofri.org www.Oregonforests.org |
| Programs: | In-class or career fairs |
| Grade Level: | 9-12 |
| Available: | Year-round by appointment |
| Cost: | Free |

Are your students aware of the many diverse careers in Oregon's forest sector? The Careers in Forestry program will broaden students' understanding of the importance of Oregon's forest sector and expose them to opportunities available in Oregon's forest-sector skilled workforce. An educator visits a classroom and provides this interactive presentation. The presentations and materials can assist students in meeting the Oregon Department of Education's graduation requirements. The program is funded by OFRI and provides students and teachers with free resource materials. Registration is available online.

Keep Oregon Green Ranger Program

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| Contact: | Mary Ellen Holly – 503-945-7499 mholly@odf.state.or.us www.keeporegongreen.org |
| Program: | Interactive website |
| Grade Level: | 2-6 |
| Available: | Year-round |
| Cost: | Free |

The KOG Ranger Program is a kid-friendly, parent-/teacher-involved interactive website. Students discover Oregon's forests, learn about the types of human-caused wildfires that threaten the forests, and explore ways they can help prevent wildfires. After completing the program and registering with the Keep Oregon Green Association, students are rewarded with a T-shirt and Certificate of Completion. Teacher lesson plans and printed activities are also available. Classrooms and entire schools are urged to participate, and receive a plaque upon completion.

Oregon Envirothon

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| Contact: | Ron Crouse – 503-399-5741, Ext. 121 ron.crouse@or.nacdn.net www.marionswcd.net |
| Programs: | One-day science competition, field trip, teacher training |
| Grade Level: | High school |
| Available: | Year-round (competition in May) |
| Cost: | Free |

Teams of five students participate in this hands-on environmental problem-solving competition. Teams complete training and testing in five categories – aquatic ecology, soils,

land use, forestry and wildlife – and one environmental issue. Winning teams advance to the national Envirothon and compete for recognition, scholarships and prizes. A teacher workshop and student field trips are available to prepare teams for the competition.



4-H Latino Summer Camp

Contact: Mario Magaña – 541-737-0925
 Mario.Magana@oregonstate.edu
<http://extension.oregonstate.edu/latinoprogram/summer-camp>

Program: Residential summer camp

Grade Level: 3-12

Available: Summer

Cost: Call or check the website for information

4-H Latino Summer Camp exposes youth to different environments and new information; provides opportunities for them to learn about postsecondary education, financial aid and scholarships; explores careers (natural resources, engineering, health professions, new technologies, law, music, culture and art); and engages in fun and challenging educational activities. Importantly, this camp allows youth to interact with role-model Latino university students and professionals.

Talk About Trees

Contact: Joan Mason Ruud – 503-238-7250
 talkabouttrees@att.net
www.orwit.org/tat.html

Program: In-class

Grade Level: Preschool-8

Available: Year-round

Cost: Free

In the Talk About Trees program, a facilitator visits the classroom and uses forest artifacts, displays and hands-on activities to make interactive presentations about forestry and Oregon's forests. Teacher guides and student handouts are available online to prepare for the visit and to extend learning. Follow-up papermaking and outdoor programs are available. This is a good way to launch a unit on forests or prepare for a field trip.

Field Programs for Students (Alphabetical Order)

Forests Today and Forever – Lane and Linn Counties

Contact: LaRae Ash – 541-998-6438
 coordinator@foreststodayandforever.org
 www.foreststodayandforever.org

Programs: Tours, field activities

Grade Level: 5-8

Available: Fall and spring

Cost: Free

This cross-curricular package includes both classroom and spring or fall field activities. It is designed to stimulate critical thinking and creative problem-solving through role-playing, by helping students make observations about wildlife, soil and water, recreation and timber resources in the forest and then use the information to cooperatively develop their own forest management plans. The Forest Field Day program meets state standards for 8th-grade science and math.

Hopkins Demonstration Forest – Oregon City

Contact: Tim DeLano – 503-632-2150
 Tim.DeLano@oregonstate.edu
 www.demonstrationforest.org

Programs: Ecological field studies, tours, service-learning; other experiences customized by arrangement

Grade Level: 3-12

Available: Year-round by appointment

Cost: Donations appreciated

In this 140-acre “family forest” dedicated to education and research, students examine how forests grow and change under different management strategies. Ongoing demonstrations include wildlife habitat enhancements, selective harvesting, intensive plantation forestry, riparian management and tree-growth research projects. Schools are invited for tours, field studies, service-learning and other experiences customized according to their interests and curriculum needs.



Klamath Outdoor Science School – Klamath and Jackson Counties

Contact: Bill Hunt – 541-850-8218
koss@qwestoffice.net
Marjorie Glass
mglass2550@q.com
www.klamathoutdoorschool.org

Programs: Residential and day camps
Grade Level: 3-11, primarily 5 and 6
Available: Mid-February to mid-November
Cost: Call for rates; limited grant availability

Klamath Outdoor Science School (KOSS) provides youth with a unique experience in a natural setting that inspires learning through exploration and instills an appreciation for the resources of the Upper Klamath Basin. KOSS is a non-profit organization located about 45 miles north of Klamath Falls in the Sun Pass State Forest, which is managed by the Oregon Department of Forestry. While at KOSS, students learn forest science and an appreciation for a forest that is well-managed for multiple uses. Curriculum can be provided to educators before and after their stay at KOSS to further enhance learning.

Larch Mountain Environmental Education – Corbett

Contact: Mark A. Marshall – 503-362-3696
Program: Field trip
Grade Level: K-12
Available: Year-round
Cost: Free

This forest site, managed by the U.S. Bureau of Land Management, contains old-growth Douglas-fir and western hemlock, along with younger planted trees. There is a trail-head with limited parking, restroom facilities, designated trails and two open-air, 24-foot shelters with picnic tables. This site is in a primitive, natural setting and can be used for habitat, stream, soils and forest ecology activities.

Mount Pisgah Arboretum – Eugene

Contact: Fran Rosenthal
mtpisgfr@efn.org
www.MountPisgahArboretum.org
Programs: Field trips, self-guided tours
Grade Level: K-5, all levels for self-guided tours
Available: Spring and fall
Cost: \$3 per student (teachers and chaperones free)

Mount Pisgah Arboretum is a 209-acre site located along the Coast Fork of the Willamette River, within the Howard Buford Recreation Area, seven miles from downtown

Eugene. The arboretum highlights the native ecosystems of the southern Willamette Valley. Seven miles of groomed trails meander through mixed forest, oak savannah, meadow and riparian areas. Students learn about tree identification, forest ecology, wildlife habitats and other seasonal topics. All programs address the state science standards for elementary grades. Check the website for more information or call to schedule a tour.

Port Blakely Tree Farms – Molalla

Contact: Bonny Glendenning – 503-720-9794
bglendenning@portblakely.com
www.portblakely.com (link to Environmental Education website with teacher information)

Programs: Field trip, in-class presentation
Grade Level: 3-6
Available: School year
Cost: Free

Port Blakely offers an interactive forestry experience in which students identify trees, observe signs of wildlife, investigate tree growth and hunt for insects as they traverse an ADA-accessible trail. The trail features a variety of forest types, including a plantation, riparian area and mature forest.

Rediscovery Forest Education Program – Silverton

Contact: Julie Woodward – 503-584-7259
woodward@ofri.org
www.Oregonforests.org
Programs: Field trip, educator workshops, service-learning, special events
Grade Level: K-12
Available: Year-round
Cost: Free

The Rediscovery Forest is a collaboration between The Oregon Garden and the Oregon Forest Resources Institute, a dynamic demonstration forest located in the parklike



environment of The Oregon Garden. This 15-acre educational forest helps students discover why Oregon's managed forests are essential to sustaining our quality of life. Students participate in programs focused on forest ecology, forest management, wildlife habitat, science inquiry, tree identification, sustainability and much more. Call or visit the OFRI website for information on a variety of interactive, grade-appropriate, science-based programs, and to register. OFRI also offers several educational events and educator workshops throughout the year. Registration is available online.

Science in the Forest – Oregon City, Sisters

Contact: Portland – 503-239-1820;
Central Oregon – 541-549-1459
dale@beoutside.org
www.beoutside.org

Programs: Two-day field experience, classroom sessions, service-learning

Grade Level: 6-12

Available: Year-round

Cost: Free

Science in the Forest is a comprehensive science inquiry education project offered by WolfTree, a nonprofit corporation whose mission is to serve people and their communities through innovative science education, ecosystem restoration and ecological research. The program enlivens science curricula with cutting-edge classroom and field-based activities that examine forest ecology and management. It encourages students to be actively engaged in the science inquiry process and to use their creative and critical thinking skills. It also cultivates their interest and skills in science and math by demonstrating how these disciplines apply to forest management. The program utilizes numerous outdoor classrooms.

Starker Forests – Corvallis

Contact: Dick Powell – 541-929-2477
dick@starkerforests.com
www.starkerforests.com

Program: Field trip

Grade Level: K-12

Available: Year-round

Cost: Free by appointment

A family-owned business, Starker Forests, Inc., started in 1936 with purchases of abandoned farmland and cut-over and second-growth forests. Today it is a thriving working forest. The company encourages forestry education and offers curricula for use in the classroom. The Starker Forestry Trail is available for half-day and all-day field trips. A forester will lead school groups on these trail tours. The Starker family encourages recreational use of their lands and offers tours by

appointment. The trail also is open all year for self-guided tours. A brochure giving directions to the trail is available at the Starker office and describes stops along the trail.

Tillamook Forest Center – Tillamook County

Contact: Oregon Department of Forestry
Register online or call 503-815-6800
ffcinfo@odf.state.or.us
www.tillamookforestcenter.org

Programs: Field trip, school-to-work, teacher workshops, kits, self-guided trips, service-learning, scouting programs for boys and girls

Grade Level: K-12

Available: Year-round

Cost: Free

The Tillamook Forest Center, located in the heart of the Tillamook State Forest on Highway 6 about one hour west of Portland, offers educational and interpretive programs, nature exhibits and field tours. It's fun, fully accessible and free. Field programs examine the natural and cultural history and the stewardship of the Tillamook State Forest. High school students can explore career options in forestry, including school-to-work experiences with Department of Forestry staff. Kits for grades K-4 emphasize the importance of trees, their role in a community and the historical impacts of landmark trees. All programs include pre- and post-activity suggestions and are correlated to state education requirements. The center is open March through November. A limited number of in-class programs are available from mid-January to mid-February when the center is closed.



Tryon Creek State Park – Portland

Contact: Linda Koser – 503-636-4398
 linda@tryonfriends.org
 www.tryonfriends.org

Programs: Field trip, traveling program, teacher training

Grade Level: K-12

Available: Year-round

Cost: Variable, from \$4.50/student for field trips to \$95/class for traveling programs

Friends of Tryon Creek State Park offers educational opportunities at Tryon Creek State Natural Area, an urban forest in southwest Portland. A variety of educational programs investigating different elements of forest ecology are available. The Friends offer morning-only and full-day field trips, teacher workshops and teacher hikes at the park. They also bring traveling programs to metro-area schools. Field trips consist of indoor, hands-on lessons and longer, trail-based hikes in the forest. Traveling programs use interactive activities to explore forest ecology topics in the classroom. Participants must pre-register for both field trips and traveling programs.

Wood Magic – Corvallis, Portland

Contact: Jeff Morrell – 541-737-4222
<http://www.cof.orst.edu/cof/wse/woodmagic/index.html>

Program: Field trip

Grade Level: 3-4

Available: Fall and spring

Cost: Free

Wood Magic is a fun and lively interactive program designed for elementary school students to learn about the wonders of wood as a material basic to human well-being. The three-hour experience moves students and their teachers through a series of nine stations that examine various wood and wood-products technologies. Teachers receive a series of lesson plans related to these stations for use in the classroom.



World Forestry Center – Portland, Wilsonville, Silverton

Contact: Rob Pierce – 503-488-2118
 rpierce@worldforestry.org
 www.worldforestry.org

Programs: Field trip, special tours, guided programs, teacher workshops, service-learning

Grade Level: Pre-K-12

Available: Year-round

Cost: Check website for current rates, group discounts, special events

• Discovery Museum – Portland

Contact: Make reservations online or call 503-488-2147

The museum is located in Washington Park, across from the Oregon Zoo. Two floors of highly interactive hands-on exhibits focus on the ecological, social and economic benefits of sustainable forestry in the Pacific Northwest and around the world. Students can crawl through a nurse log, be a forest scientist or a smoke jumper, take a whitewater rafting trip, drive a giant harvest machine, and enjoy an amazing tour of the world's diverse forests by rail car, riverboat, safari jeep and canopy crane. Allow two hours. A lunchroom is available for groups. A program guide is available on the website.

• Magness Memorial Tree Farm – Wilsonville

Contact: Make reservations online or call 503-488-2147

This beautiful 80-acre Pacific Northwest demonstration forest and outdoor education site features 2.5 miles of trails, a meadow, a stream, a picnic shelter, interpretive signs, an education center with restrooms and kitchen, and rustic log bunkhouses for overnights. Guided tours and classes are available. Check the program guide found on the website for more information. Groups of 10 or more must register in advance.

• Johnson-Swanson Memorial Tree Farm – Silverton

Contact: Bill Wood – 503-625-7471

This 80-acre historic farm features old-growth trees and new forest plantations and is an excellent site for service-learning projects. Reservations required.



Materials for Teachers and Students

Books, Guides, DVDs and Posters

Contact: www.Oregonforests.org
info@ofri.org
Program: In-class resource
Grade Level: All
Available: Year-round
Cost: Free

A broad array of K-12 publications supplements OFRI's forest education programs, offering teachers handy references and detailed guides to help students better understand Oregon forests. Through full-color illustrations and age-appropriate text, OFRI's educational materials reveal both basic and fascinating facts about forests, wildlife, plants, habitats and scientific experiments. Teachers can use these publications, designed for different age groups, to enhance courses involving natural resources curricula. Please order from the OFRI website.



Oregon Forest Literacy Program

Contact: Norie Dimeo-Ediger – 971-673-2956
dimeo-ediger@ofri.org
www.Oregonforests.org
Program: In-class resource
Grade Level: K-12
Available: Year-round
Cost: Free

The Oregon Forestry Literacy Program includes a forest-education conceptual framework and a scope and sequence, which together offer educators guidance for developing curricula and classroom lessons related to forests. The framework hangs on four foundational questions: What is a forest? Why are forests important? How do we sustain our forests? and What is our responsibility to Oregon forests? The program's built-in flexibility makes it useful for a wide range of applications to increase forest literacy, including K-12 classroom instruction, informal education and curriculum materials on forest topics. The program includes examples of service-learning projects that relate to Oregon forests. These can be used to teach and reinforce concepts detailed in the conceptual framework as well as to connect students to the natural world. The concepts were developed by a diverse statewide stakeholder group and are correlated to the Oregon content standards and with materials and activities that can be used in the classroom. These connections can be found at Oregonforests.org.

Northwest Center for Sustainable Resources (NCSR)

Contact: Liz Traver – 503-399-5270
 ncsradm@chemeketa.edu
 www.ncsr.org

Program: In-class resource
 Grade Level: 6-12
 Available: Year-round
 Cost: Free

NCSR educational materials are intended to support high school and two-year and four-year college programs in natural resources-based subject areas. Free of charge and website-accessible (www.ncsr.org) courses, modules and educator guides include applications of scientific and technological themes, ecosystem management and field-based activities. Materials are especially useful for educators because they include course outlines, complete descriptions of lab- and field-based activities, current references and suggestions for student assessment. Activities may be used as supplements or as complete course sequences. Educator guides that target secondary education teachers are designed to assist in the development and integration of community-based education into the curriculum.

Saving Eden Creek: A Play about People and Forests

Contact: Viviane Simon-Brown – 541-737-3197
 viviane.simon-brown@oregonstate.edu
 www.cof.orst.edu/cof/extended/sustain/

Program: One-act play script and discussion guide
 Grade Level: 9-12; can be adapted for younger students
 Available: Year-round
 Cost: Free

Natural resources debates tend to be highly confrontational and controversial. OSU Forestry Extension has created *Saving Eden Creek: A Play about People and Forests* to allow audiences to view – through the safe medium of storytelling – fictional characters with a variety of conservation ethics. Loggers, environmental activists, real estate developers, homeowners and even a rare species of squirrel are respectfully represented. After the play, audience members are invited to join in a conversation about the differing perspectives they have just witnessed. The script and guide can be downloaded for free at <http://extension.oregonstate.edu/catalog/html/em/em8858-e/>.

Programs by Area

- Statewide**..... 4-H Latino Summer Camp
 Careers in Forestry
 Keep Oregon Green Ranger Program
 Oregon Envirothon
 Oregon Natural Resources Education Program (ONREP)
 Talk About Trees
- Benton County**..... Starker Forests
 Wood Magic
- Clackamas County**..... Hopkins Demonstration Forest
 Port Blakely Tree Farms
 Science in the Forest
- Deschutes County**..... Science in the Forest
- Jackson County**..... Klamath Outdoor Science School
- Klamath County** Klamath Outdoor Science School
- Lane County** Forests Today and Forever
 Mount Pisgah Arboretum
- Linn County** Forests Today and Forever
- Marion County** Johnson-Swanson Memorial Tree Farm
 Rediscovery Forest Education Program
- Multnomah County**..... Larch Mountain Environmental Education
 Tryon Creek State Park
 Wood Magic
 World Forestry Center
- Tillamook County** Tillamook Forest Center
- Washington County** Magness Memorial Tree Farm



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