



24th Annual Student GREEN Congress

Workshop Menu

50 Minute Workshops (Students attend two)

Acids, Bases, and Shell Building Races, *Pacific Shellfish Institute*. Join biologists from the Pacific Shellfish Institute as they break down the complexities of ocean acidification. Act out changes in ocean chemistry that can leave oysters racing to snatch up valuable shell building components. Watch a short video, play the pH guessing game, and become a human smokestack – changing water pH with your very own breath. Become empowered as we brainstorm ways to address this important issue and then commit to taking positive actions by taking the Garden of the Salish Sea Challenge. (20)

The Amazing World of the Honey Bee, *Olympia Beekeepers Association*. In this session, learn more about the fascinating world of the honey bee and why they are so vitally important to humanity. Hear about the issues they are facing, the impact bee and pollinator declines could have on us all and what you can do to help. You will have the opportunity to sample different kinds of honey, see a live bee hive, interact with local beekeepers, play honey bee trivia and much more!

Cast Away, *Ron Holtcamp, Olympia Chapter of Trout Unlimited*. Casting is using a fishing rod to put your lure in front of a fish (or some other desired object). Become familiar with bait-casting, spinning, and fly fishing reels. Begin your experience, or further develop your skills using spinning rods and fly rods. 50 minute sessions held outdoors, weather permitting. Limited to 10 students per session. Dress for the weather.

Countin' Critters: Benthic Macroinvertebrate Monitoring, *Mindy Allen, Aquatic Entomology; Chelsea Cook, City of Lacey Water Resources/ Stream Team; Ashley Von Essen, Nisqually River Foundation*. Explore stream ecology. Learn how to collect a live sample of aquatic insects and other 'bottom dwellers' and identify 'benthic macroinvertebrates'. Find out how these critters are related to stream health, and manage to eat and breathe in order to survive living in their swift watery world.

Eco-Leader Team, *Ann Marie Pearce, Thurston County Water Resources and Maggie Bell-McKinnon, WA Department of Ecology (retired)*. Are you the type who wants to see good ideas turned into action? Want to create a project to make a difference in your watershed and community? Take this workshop to work with community leaders in salmon and habitat restoration to craft the recommendations from the morning's State of the Rivers Sessions into a Watershed Action Declaration and potentially, an action project! **(Available only with teacher recommendation.)**

An Extreme Sports Look at Climate Change, *Ed Kinney, Nisqually Stream Stewards*. Meet a man who has seen the glaciers he climbed in the 1970's retreat miles or in some cases, completely disappear. Many of the coral reefs he SCUBA dived have either been bleached or are completely gone. With this unique perspective on climate change, Ed will lead a discussion and activity about the recent Paris Climate Summit. *(grades 7 and up)*

Get Out of My Hair: Toxins in Personal Care, *Elisa Kaufman, Thurston County Public Health and Social Services, Environmental Health*. Teens are a primary target for sale of personal care products – yet some ingredients used to make cosmetics, lotion, deodorant, shampoo, and hair dye have been linked to cancer and may cause reproductive and environmental harm. Join us for a 50 minute presentation on toxins in personal care products and alternatives teens can choose to protect themselves. We'll learn about health concerns, how to read labels, helpful web sites, and safer alternatives. The students will make an all-natural lip balm to take home, to remind them they can keep looking and smelling good without toxic products! **(6th grade and up)**

The Inside Story: A Salmon Dissection, *Joe Jauquet, Salmon Biologist and Dan Spencer, USFW*. Ever wonder why a fish doesn't sink? How can a gill extract dissolved oxygen from water? Explore the innards of an *Oncorhynchus tshawytscha* (Chinook salmon) or *Oncorhynchus kisutch* (coho salmon) while helping experts to dissect a 15-pound salmon. Rubber gloves will be provided.

Minerals and Fossils...Rock Your World! *Brittany Burkhardt, Minerologist*. Join mineral enthusiast, Brittany Burkhardt and dig into the world of rocks, minerals and fossils! Learn what they are, how they form, and what we have in Washington. Participate in a fun activity, where we become atoms in a lava flow, and mimic how crystals form

Playing Fair Through Fair Trade, *Rose Hyde, Alaffia*. Ever wonder what "fair trade" means and how it affects people in different parts of the world? Alaffia, a skin care company based in Olympia, WA and Togo, Africa, considers sustainability with every part of their products, from the bottle cap to the butter (shea butter that is!) You will learn how to extract oils the traditional Togo way from melon and sesame seeds, and how this local company strives to improve conditions for families today and for generations to come!

Raptors in the Watershed! *Brad Wood, Northwoods Limited*. Residing at the top of the food web, raptors including hawks, falcons and eagles are vital indicators of a healthy watershed. Learn about these unique birds through talons-on activities including observations of live Gyrfalcons and Harris Hawks

A S.P.A.C.E. Odyssey, *Randy Stearnes, Tacoma Power*-- Energy is in the news and during this session students will travel on a journey to Study Power and Conserve Energy. Participants will investigate hydropower and learn how to use water to generate electricity. Students will explore being responsible with important resources, namely water and electricity. **(Recommended for grades 4-8.)**

Scrumptious Shellfish Shucking and Sampling, *Audrey Lamb, Taylor Shellfish Farm*. See and touch live shellfish! Have you ever touched oyster gills or held a geoduck? Learn about the shellfish that are farmed here in Puget Sound and learn how to cook (and eat) these delicious bivalves! **(**Must have a signed note/waiver saying "my child is not allergic to shellfish".)**

Stormwater Jeopardy!, *Kim Benedict and Emmerly Ledin, City of Lacey Water Resources*. Use your stormwater knowledge to collect community action cards that will help you keep your stream clean, but be careful! Wrong answers could mean trouble. Throughout this suspenseful game you'll learn lots about the real sources of stormwater pollution, and awesome, proactive ways to keep our local waterways healthy. The team with the cleanest stream at the end of the game wins a special prize! We promise you've never played Jeopardy quite like this before.

They Came from the Intertidal Zone! *Gordon Bellevue and Betsea Antonio, Nisqually Reach Nature Center and Wendy Eklund, South Sound Estuary Association and Nisqually Reach Nature Center.* Just who exactly are they and where do they live? Find out how these amazing organisms exist during both extremely high and low tides. Examine living marine plankton under microscopic magnification. You will meet (and actually touch!) some of these unique organisms!

Volcanoes Rock! *Fawn Bauer, Mount Rainier National Park.* Everyone knows that volcanoes rock, but do YOU know what goes on beneath a volcano as it prepares to erupt? Explore the physics of a volcanic eruption and investigate some of the processes that have built the great volcanoes of the Cascade Range.

What's your Foodprint? *Colleen Minion, Thurston County Solid Waste.* Students will learn how wasting food impacts the environment and how to waste less at home by measuring their "foodprint." After playing a game to discover how much water goes into food, tips and tricks on how to not waste food are discussed. Great way to save money at home, and help the environment at the same time!

Wilderness Skills, *The Mountaineers.* If you like to hike and explore the wilderness, this workshop is for you! The Mountaineers will review the "10 Essentials" that every back country explorer should have, as well as hands-on activities so you will be ready and prepared for your next hiking expedition.

100 Minute Workshops (Students attend only one)

Building Backyard Bird Habitat, *Jerry Allard, Trout Unlimited and Davy Clark, Nisqually National Wildlife Refuge.* Many birds rely on our backyards for habitat. Whether you have a life list as long as your leg or don't know a bufflehead from a buzzard, this workshop will explore the place birds hold in our community and watersheds. Build nest boxes for wrens and nuthatches to encourage the presence of wildlife in your own backyard. Then who will be the guest birds in your new birdhouse? Learn to identify some of the probable tenants by listening for their songs and calls. Go on a short birdwalk to find these potential guests. **(Partly outside- dress for the weather.)**

Canoe Journey Gift Making with the Nisqually Canoe Family, *Hanford McCloud, Leschi Heritage Foundation.* The Nisqually Indian Tribe will host Canoe Journey 2016. The importance of why the tribe makes gifts to give away will be explored and experienced in this hands-on workshop.

Creating Cool Stuff from Our Natural Environment, Again and Again! *Dave King, Eco Woodworks.* See how you can create items for everyday use from wood resources found in the forest or your own backyard. Learn about different kinds of trees and how each can be used to make something special. Craft your own customized coat hooks from local and sustainable wood!

The Earth Is Our First Teacher: *Rebecca Chamberlain, Professor, The Evergreen State College.* What can you learn from plants and creatures of forest and wetlands? Learn traditional stories and songs about the natural world. Meet a banana slug! Visit the campus weaving garden and learn about the history of cedar basket making. Make your own 2-ply rope in a traditional Northwest tribal fashion using traditional fibers.

Explore Evergreen's Teaching Gardens! *Perri Davis and Kaitlin Griffith, Thurston Conservation District.* Students will get up close and personal with the Longhouse Ethnobotanical Garden which demonstrates Native Plants of the Pacific Northwest. This workshop will be 100% outside and include a guided tour, tea tasters, and the making of "seed bombs" that students can bring home and share with their community.

Make Art Not Waste! *Diane Kurzyna, aka Ruby Reusable, WSAC Roster of Teaching Artist.* Honor the many ways people work to protect our environment, especially watersheds and water quality, while learning about the power of art and the importance of recycling. We will use ordinary materials that usually get discarded or recycled to create figures that represent the positive actions we can take to enhance environmental quality.

Probing Puget Sound, *Daniel Hull, Nisqually Reach Nature Center.* Come learn what lives in the shallow waters along the Eld Inlet shoreline, why shorelines are important for the health of Puget Sound and what people are doing to make shorelines function better. Students will conduct beach seines, benthic cores and vegetation surveys to characterize the beach and learn how these research methods are employed by marine biologists restoring Puget Sound. **(Grades 6th-12th, Dress for Weather , Off-campus site: van transport provided.)**

Puget "Sounds" *Amber Smith, LOTT Cleanwater Alliance.* Dive underwater with us to explore Puget Sound's acoustically rich soundscape. You'll be amazed by some of the many noises sea creatures make! Listen to surprising audio, hear about the effects of human sounds, and use your ears to investigate Puget Sound. We'll have fun with whale songs and you'll get to complete a fun Puget Sound craft project to take home.

Tree of Life, *Bob Barnes, Landscape Architect, Tri-element LLC.* Come learn about and help plant the tree of life (Western Red Cedar) and other native species along the McLane Forest School Trail (part of the Capitol to Capitol Trail System) so current and future generations can enjoy this lovely walking and biking trail. Shovels and gloves will be provided. **(Dress for the weather, Off-campus site: Bus transport provided.)**

Which Whale Am I? *Kiirsten Flynn, Research Biologist, Cascadia Research Collective.* What marine mammals are along Washington's coast and Puget Sound? Learn about the basic habitats and the life histories of a variety of whales, dolphins and seals. Discover the difference between a seal and a sea lion and if a killer whale is really a whale. There will be pelts to touch and skeletons to see as well as time to learn about how to photographically identify specific whales for research. **(6th grade and above.)**