

CONSERVATION education

Loudoun Soil and Water Conservation District

August 2018

Welcome to the Conservation Education Newsletter from the Loudoun Soil and Water Conservation District. This quarterly publication will keep you up to date on conservation education news from our District.

Welcome Back...

I hope everyone had a restful summer and is ready for an new year. If you are like me, your calendar starts in August not January.

I'm looking forward to my second year here at Loudoun Soil and Water Conservation District. I've already had the privilege of meeting most of the readers of this newsletter and I hope to meet many more educators and conservationists before this school year is complete.

As a reminder, my job here at the District is to help increase conservation education in Loudoun County. I do this through education programs I present to your students, loaning you educational materials, providing training and awarding grant money for conservation education projects.

I hope you'll continue to use me as a resource for yourself and your students. I also hope you'll share your experiences with the District with other educators. Please feel free to share this newsletter and any other information from me!



Photo by Mark Pankau

FOLLOW US
ON FACEBOOK



Envirothon...

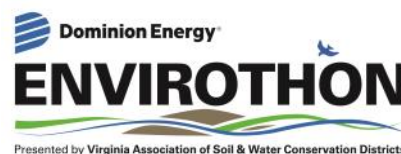
Last year Loudoun County had their first two teams ever to compete in the Envirothon! My goal is that **EVERY** high school in LCPS will one day have a team competing!

What is the Envirothon?

The Virginia Envirothon is a team based natural resources competition for high school students. Students who participate learn stewardship and management concepts and work to solve real world environmental problems. The program is field-oriented, community based and gives students an opportunity to work with natural resource professionals.

So are you ready? Got a few students in mind? Need more info? **The annual area-wide training will be held at Graves Mountain Lodge in Syria on Saturday, November 17.**

If you would like more information before then please contact me or visit <http://vaswcd.org/envirothon>.



Loudoun SWCD

30 Catoctin Circle, SE., Suite 218
Leesburg, VA 20175

www.loudounsoilandwater.org



Charlotte DeMolay

Education Specialist
571.918.4530 ext. 109

charlotte.demolay@lswcd.org

Educator Resources...

Loudoun SWCD Mini-grant: We offer a limited number of mini-grants of up to \$500 to Loudoun County teachers. The Mini-Grants are intended for projects that integrate soil & water conservation into any curriculum. Deadline this year is November 30th. Please see our website for application forms.

Project Learning Tree Teaching with i-Tree: Includes three hands-on activities that help middle and high school students discover and analyze the many ecosystem services that trees provide. Students input data they collect into a free online tool that calculates the dollar value of the benefits provided by a tree, or a set of trees. Go to <https://www.plt.org/curriculum/teaching-with-itree/>

PLT GreenWorks! Grant: Project Learning Tree offers GreenWorks! grants up to \$1,000 to schools and youth organizations for environmental service-learning projects that link classroom learning to the real world. To be eligible, applicants must have attended a PLT workshop, either in-person or online. Deadline September 30th. Visit <https://www.plt.org/resources/greenworks-grants/>.

Celestron Binocular Giveaway: Application closes Friday, October 1, 2018 at 11:59pm ET. As a giveaway recipient you will be required to share your citizen-science experience using the binoculars through the BirdSleuth Action Map. Teachers at any school (both public and private) in the United States are welcome to apply. <https://www.surveymonkey.com/r/LT8W2NZ>

LESA, SEAS and a Few More Acronyms for You...

Environmental Education is growing stronger here in the state of Virginia. The Virginia Association of Environmental Educators (VAEE) is our professional state organization. Anyone involved in or supports environmental education is welcome to join.

At the regional level, the Loudoun Environmental Stewardship Alliance (LESA) is here to support and foster environmental education and a connection to Loudoun's natural resources.

Loudoun SWCD (you should know that one already!) is a member of LESA and I am one of the two co-chairs this year.

As LESA and in partnership with the GREENetwork (GGreat Environmental Educators Network) we will be hosting our first annual SchoolEnvironmental Action Showcase (SEAS). This will be an exciting event that will allow student presenters, green/eco teams, and classroom groups share their projects (One to the World opportunity!) on reducing waste, conserving energy, improving water quality, and preserving natural habitat in their schoolyards

and communities. We are modeling our event on NOVA Outside's SEAS that is currently going on it's 8th year. Stay tuned for more information and start working with your students on their projects!

“Study nature, love nature, stay close to nature. It will never fail you.”

~Frank Lloyd Wright

Training Available
Project Learning Tree
Enviroscape Watershed Model
Teaching Soils

Loudoun SWCD

30 Catoctin Circle, SE., Suite 218
Leesburg, VA 20175

www.loudounsoilandwater.org



Charlotte DeMolay

Education Specialist
571.918.4530 ext. 109

charlotte.demolay@lswcd.org

Loudoun SWCD Conservation Lessons

The following are Presentations or Conservation Checkouts that can be scheduled through our Education Specialist. Grades suggested are based on Virginia Science Standards of Learning correlations. We can present the lessons to other grades or groups. There is no charge for LSWCD Lessons.

Presentations

Lessons listed as Presentations are facilitated by a Loudoun SWCD employee. All of the lessons are interactive and participatory with the students.

Conservation Checkouts

Conservation Checkouts have all materials needed (unless noted) for another instructor to present. Lesson plans, instructions or guides are included in the Checkout. Lesson plans are available via email upon request.

Training

Loudoun SWCD can provide training for conservation education materials that schools and instructors may already have, such as the Enviroscape Watershed Model. We can also provide help or suggestions with MWEE, One to the World and conservation Project Based Learning. We also offer training for Project Learning Tree.

Freddy the Fish Grades K, 1—Presentation or Checkout, 1 Class, Students at desks; 30 min (+15 prep)



This is a fun and highly participatory activity to discuss how humans affect life processes and water quality. Each student is able to participate with their own 'stream' and 'fish.'

SOL SCI.K.1, K.6, K.7 Prediction, Water, Living, Animal Needs, Water Quality

SOL SCI.1.1, 1.8 Observation, Prediction, Water Quality, Natural Resource, Pollution

The 3 R's – Reduce, Reuse, Recycle Grades K, 1, 2—Presentation or Checkout, 1 Class, 25 min (+5 prep)



The 3 R's is a fun program to teach about Reducing, Reusing and Recycling. The lesson is integrated into Recycling Relay, an interactive game that involves each student in the deciding how items should be disposed.

SOL SCI.K.11 Recycling, Reuse, Natural Resources, Conservation

SOL SCI.1.8 Recycling, Reuse, Natural Resources, Conservation

SOL SCI.2.8 Recycling, Reuse, Natural Resources, Conservation, Plant Products

The World Beneath Your Feet Grades K, 1, 2—Checkout, 1 Class, Grassy area outside, 20 min (+ 10 prep)



Students begin thinking like scientists as they make observations about what is in a patch of their schoolyard. This Checkout includes a Lesson Plan, Observation Sheets, Clipboards, Investigation Tools (rope, magnifier, bug box, tweezers, trowel, ruler, misters) for teams of 2-3, and thermometer.

SOL SCI.K.1, K.2, K.6, K.8 Observation, Senses, Living, Nonliving, Plants, Light, Shade, Soil

SOL SCI.1.1, 1.4, 1.6 Observation, Senses, Simple Tools, Plants, Habitat, Sun

SOL SCI.2.1, 2.5, 2.8 Observation, Prediction, Data, Living, Nonliving, Habitat, Plants

Dirt Buddies Grades K, 1, 2, 3—Checkout, 1 Class, Tabletop, 20 min (+10 prep)



Grow your own grassy-haired dirt buddy! This is a fun classroom activity that explores observing change over time as grass grows on the dirt buddy heads. All supplies and instructions are included for this Conservation Checkout. No lesson but a good accompanying activity.

SOL SCI.K.1, K.7, K.9, K.10 Observation, Plants, Life Cycle, Plant Growth; Change

SOL SCI.1.1, 1.4, 1.6 Observation, Plants, Plant Growth; Sunlight

SOL SCI.2.1, 2.4 Observation, Life Processes, Life Cycle

SOL SCI.3.1, 3.7, 3.8 Observation, Soil, Life Cycle

The Incredible Journey Water Cycle Grades 2, 3—Presentation or Checkout, 1 Class, Tabletop, 20 min (+10 prep)



Students will take a journey as a raindrop and move through the water cycle. As they move, they will collect beads to create a bracelet representing their movements throughout the water cycle. Adapted from Project Wet's The Incredible Journey.

SOL SCI.2.1, 2.3 Observation, Water Cycle, Changes in Matter, Liquid, Gas, Evaporation, Condensation, Pollution

SOL SCI.3.1, 3.9, 3.10 Observation, Water Cycle, Conservation, Human Influence, Pollution

Loudoun SWCD

30 Catoctin Circle, SE., Suite 218
Leesburg, VA 20175

www.loudounsoilandwater.org



Charlotte DeMolay

Education Specialist
571.918.4530 ext. 109

charlotte.demolay@lswcd.org

Loudoun SWCD Conservation Lessons

Worms on the Go Grade K, 1, 2, 3, 4, 5—Presentation, 1 Class, Students at desks; 35 min (+15 prep)



Me and 999 of my best friends come teach your class about worms, soil and composting. The first half is a lesson on the worms: anatomy, their role in the food web and their importance to our soil. Then students get up close and personal with red wiggler worms. Depending on the time, each student can meet a worm to explore or come visit at a station with me.

SOL SCI.K.1, K.2, K.6, K.7, K.10, K.11 Living Organism, Habitat, Life Cycle, Natural Change, Conservation, Natural Resource

SOL SCI.1.1, 1.5, 1.8 Habitat, Physical Characteristics, Natural Resource

SOL SCI.2.1, 2.4, 2.5, 2.8 Life Processes, Life Cycles, Living Systems, Habitat, Natural Resource, Plants as Food

SOL SCI.3.1, 3.4, 3.5, 3.6, 3.7, 3.8, 3.10 Behavioral Adaptations, Decomposer, Food Chain, Natural Resources, Conservation, Soil, Life Cycles, Interdependency, Renewal

SOL SCI.4.1, 4.5, 4.9 Living Systems, Food Webs, Natural Resources

SOL SCI.5.1, 5.5 Living Systems

Soil Tunnel Grade 3—Checkout, Entire grade over a week, Open area inside, Varies (+60 prep)



Discover what is above and below ground with our interactive soil tunnel. Loudoun SWCD staff will set up the soil tunnel for your school to use for one week. This pairs well with Soil Studies and Dirt Buddies.

SOL SCI.3.1, 3.7 Soil, Natural Resource, Plants, Nutrients

Soil Studies Grade 3—Presentation or Checkout, 1 Class, Tabletop, 25 minutes (+5 prep)



Explore what comes from soil, what is soil and describing soil with your students. Each student creates their own soil tube to keep. This is a great lesson to pair with the Soil Tunnel. This can be a Presentation or a Conservation Checkout. For the Checkout, the lesson plan, visual aids and supplies are provided.

SOL SCI.3.1, 3.5, 3.7 Soil, Components of Soil, Natural Resource

Stream the Movie Skit Grades 3, 4—Presentation or Checkout, 1 Class, Open Area, 45 min (+15 prep)



Stream the Movie is an interactive skit that demonstrates the connectivity of water systems and human activity. Acts I and II teach the concept of an ecosystem through the plant life and animal life in and around the stream. Acts III and IV show the effect of human activity and pollution as well as how it can be corrected. Complete with quick costumes and roles for every student (and the teacher!) this is a fun activity to incorporate into your Living Systems lesson. Checkout and present this to a parent group!

SOL SCI.3.6, 3.10 Ecosystems, Human Effect, Water Quality, Natural Resource, Erosion

SOL SCI.4.5, 4.9 Ecosystems, Human Effect, Watershed, Water Quality, Natural Resource

Enviroscape Watershed Model Grades 3, 4, 5, 6 —Presentation*, 1 Class, Tabletop, 45 min (+15 prep)



The Enviroscape Watershed is an interactive table-top model used to demonstrate watersheds and the human impact on water quality. Students participate in contaminating the watershed through non-toxic 'pollutants' and create a rainstorm to illustrate the movement of water and pollutants through the watershed. Training is available for schools with their own Enviroscape Model. ***Checkout available for grades 6 & up**

SOL SCI.3.1, 3.9, 3.10 Models, Natural Resource, Watershed, Water Cycle, Water Quality, Human Impact

SOL SCI.4.1, 4.5, 4.9 Models, Human Impact, Watershed, Water Resource, Pollution

SOL SCI.5.1, 5.7 Models, Human Impact, Weather, Erosion

SOL SCI.6.1, 6.5, 6.7, 6.9 Models, Human Impact, Watershed, Water Resource, Pollution, Best Management Practices

Jeopardy - Conservation, Waste Management or Water Grades 4, 5, 6—Presentation, Checkout or



PowerPoint File, 1 Class, Open area in front of classroom, place to hang question board, 45 min (+15 prep)

****Now available as a PowerPoint as well**** Bring the popular game show into your classroom with an educational twist. This exciting, fast-paced game has three options, general Conservation, Waste Management (trash & recycling) or Water. *Contact Education Specialist for SOLs.*

Loudoun SWCD

30 Catoctin Circle, SE., Suite 218
Leesburg, VA 20175

www.loudounsoilandwater.org



Charlotte DeMolay

Education Specialist
571.918.4530 ext. 109

charlotte.demolay@lswcd.org