# Lancaster County Conservation District Education Programs 2024-2025 School Year

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#### IN-PERSON & VIRTUAL PROGRAMMING AVAILABLE

#### Who We Are...

The mission of the Lancaster County Conservation District is the stewardship of the land, water, and other natural resources in Lancaster County.

### **About Programs...**

The programs in this guide are available to Lancaster County students and residents. All of the programs are designed to address the PA Department of Education Environment and Ecology Standards (see the last page). Each program can be individually tailored to meet your needs. The majority of programs focus on soil and water conservation issues in keeping with the mission of the Lancaster County Conservation District. If you do not see a topic in the guide that you would like offered, please contact the education coordinator to discuss the possibility of creating a program.

### To Schedule a Program...

To schedule a program, contact the education coordinator. Unless special arrangements are made, programs are offered Monday through Friday, 8 AM – 4 PM. *Before emailing or phoning, please have several dates and times in mind.* Please notify us immediately to postpone or cancel the program.



### **Program Costs...**

A nominal donation is requested, which assists with program development. **Presented in Person Outdoors:** \$75/hr. up to an hour **Virtual Lesson:** \$60/hr. up to an hour \$10/hr for each additional program hour

#### **Specific Materials Fee**

Owl Pellets = \$4.50/ pellet

<u>3 Programs for FREE:</u> In the tradition of promoting soil and water stewardship the following programs will remain at no cost – *Soils: Shake, Rattle, and Roll, Stream Study, and the Watershed Enviroscape.* 

#### **About this Guide...**

The Lancaster County Conservation District Education Coordinator provides educational experiences focused on our county's natural resources. This year, understanding that field trips and in-person presentations may not be available; the guide is designed with virtual instruction.

#### **Animals in Winter**

Indoor Gr. K - Adult 40 – 60 min. Hands-on Animals survive winter by hibernating, migrating, or staying active. Learn their specific adaptations with study pelts and objects (antlers, skulls, etc.). Literature connections are included for elementary.

#### **Awesome Owls**

Indoor Gr. 3 – Adult 45 - 60 min. Hands-on What makes owls so interesting? Learn their habits and behaviors and tear apart an owl pellet to discover the bones inside. Literature connections included for elementary. The cost per pellet is \$4.50. Students often work in pairs to investigate a pellet.



### **Biodiversity**

Either Gr. 2 - 12 40 – 60 min. Simulation Game Explore learning through understanding the importance of diversity within nature. Food pyramids, food webs, plant systems, and predator/prey relationships are incorporated into the lesson.

# Watershed Enviroscape

Either Gr. 2 - Adult 30 - 45 min. Hands-on/Model The hands-on watershed model not only allows students to witness the effects of water pollution but also the importance of conservation practices. Students observe pollution's impact on a watershed as a whole and discuss possible solutions for cleaner water.

# Ornithology

Either Gr. 3 - Adult 30 - 40 min. Activity The scientific study of birds can tell us a lot about incredible bird adaptations. Activities investigate beaks, wings, and feet, along with food sources, nests, and migrations. Discover the power of birds that inspires action.



### **Befriend a Bat**

Indoor Gr. K - 6 40 - 60 min. Slides/Activity Learn why bats are our friends and why they are so important to the environment. They are a beneficial resource that we often take for granted. The bats of Pennsylvania will be highlighted. Find out the latest news on White Nose Syndrome that could dramatically decimate the bat population in our state within 2-3 years. Form and function is demonstrated through fun, interactive activity.

#### Stream in a Bucket

Either Gr. 3 - 12 45 - 60 min. Hands-on If you can't get to a stream, we'll bring one to you. Students investigate leaf litter for critters, macroinvertebrates, and whatever may be hiding in the leaves or swimming in the water sample. (spring, summer, early fall)

#### **Stream Study**

Outdoor Gr. 3 - Adult 45 - 60 min. Hands-on Do you have a stream near your schoolyard that we can explore? We bring the equipment, you supply the site. Investigate macroinvertebrates, and determine the overall health of the waterway. (spring, summer, early fall)

# Thirsty for a Mystery

Either Gr. 4 - 8 45 min. Simulation Shh! Don't give the solution away to your students. Using a series of clues first discovered by English physician Dr. Snow, students solve a mystery to discover the source of a deadly illness in 19th Century London. Students will understand the importance of a clean water supply to public health.

## Soils: Shake, Rattle, and Roll

Either Gr. K - Adult 40 min. Hands-on Find out what's really going on under our feet. Through hands-on activities, students will investigate the many interesting properties and uses of different soils, and discuss why soil is so vital for all life. Literature connections are included for elementary. (spring, summer, early fall)

# **The Water Cycle**

Indoor Gr. 2 - 12 40 - 60 min. Simulation Dive into the hydrologic cycle commonly known as the water cycle with an emphasis on how water pollution and water treatment can affect the cycle negatively and positively. Students explore memory tricks and simulations that illustrate a valuable resource trip around the world.



# Wading into Wetlands

Either Gr. 3 - Adult 40 min. Exploration Wetlands provide critical assistance to plants, animals, humans, and the total environment. Activities bring these benefits to life and encourage an appreciation of the important role wetlands play.

## Groundwater Model

Either Gr. 4 - Adult 40 min. Simulation Pulled by gravity, groundwater is always on the move. The rate of movement varies from a few inches a year to several miles a day. The model defines groundwater, an aquifer, and karst formation. Pollution and water movement are demonstrated in varied rock formations. \$15 materials fee per session, no program fee.

# **Every Family Needs a Farmer**

Either Gr. 1 - Adult 40 min. Hands-on Healthy Soils + Healthy Sprouts = Healthy Diet. Agri-business is Pennsylvania's largest industry beginning with production to distribution. Explore conservation connections on the farm that lead to healthy diet choices and help the environment at the same time.

#### Fish On

Either Gr. K – 7 45 min. Simulation There are roughly 20,000 species of fish worldwide with a wide variety of characteristics and lifestyles. Activities connect students to fish behaviors, characteristics, and habitat needs. Cast a line to fishing regulations connected to population changes and water quality.

## **Additional Educational Programs**

# Guest Reader - \$40 for 30 minutes or \$70 for two 30-minute same-day sessions

Guest Reader programs include the Education Coordinator reading a favorite book relating to water, natural resources, land use, or agriculture based on teacher request and short concept activity with a follow-up from the story. Grades K-6.

## **Lancaster County Envirothon**

The Envirothon program is an academic contest that involves teams of students working together in a team of 5 to demonstrate their natural resource knowledge. Senior High Envirothon (grades 9-12) topics include wildlife, forestry, soils, aquatics, and a current issue topic that changes from year to year. Middle School Envirothon (grades 7-8) and Junior Envirothon (grades 3-6) focuses on one of 4 ecosystems with species study materials about birds, mammals, trees, and plants, and an ecosystem focus. Many teachers find that free study materials and topics blend well with the classroom curriculum.

All study materials are provided. Please contact the Education Coordinator if you would like more information or visit the Education tab at <a href="https://www.lancasterconservation.org">www.lancasterconservation.org</a>.

### **Lancaster County Youth Conservation School**

Students looking for a summer adventure and a deep dive into natural resources and conservation. The Lancaster County Conservation District, in cooperation with Local Sportsmen's Clubs, offers an overnight rigorous field school for teens ages 14-16 interested in outdoor activities. The Youth Conservation School is held in a camp-like setting at the Northern Lancaster County Game and Fish Protection Association in West Cocalico Township during the last full week of July.

Up to 28 students are accepted each year. Topics include forestry, canoeing, wildlife management, archery, survival, stream restoration, and firearm safety. Teens will have the opportunity to meet professionals in various environmental-related fields and discuss career options with them. Applications open in January each year at <a href="https://www.lancasterconservation.org">www.lancasterconservation.org</a>.

### **Teacher Professional Development**

The education Coordinator offers teacher workshops relating to water quality, watersheds, wetlands, and more. Within each workshop, there is a balance of content-specific learning with field studies, hands-on activities, and resources that can help you share what you learn with your students.

#### **Resource Assistance**

The Education Coordinator offers resource assistance, as she is able to advance awareness and knowledge of natural resource conservation by building an ecologically literate and engaged public.

| Lancaster County Conservation District's education programs address the PA Department of Education Environment and Ecology Standards. Take a look | 4.1 Watersheds<br>& Wetlands | 4.2 Renewable &<br>Nonrenewable<br>Resources | 4.3<br>Environmental<br>Health | 4.4 Agriculture<br>& Society | 4.5 Integrated<br>Pest<br>Management | 4.6 Ecosystems<br>& their<br>Interactions | 4.7 Threatened,<br>Endangered, &<br>Extinct Species | 4.8 Humans & the Environment | 4.9<br>Environ.Laws &<br>Regulations |
|---|------------------------------|--|--------------------------------|------------------------------|--------------------------------------|---|---|------------------------------|--------------------------------------|
| Animals in Winter   |                              |  | ✓                              |                              |                                      | ✓   | ✓   |                              | ✓                                    |
| Awesome Owls  |                              |  | ✓                              |                              |                                      | ✓   | ✓   |                              | ✓                                    |
| Groundwater Model   | ✓                            | ✓  | ✓                              |                              |                                      |   |   |                              |                                      |
| Ornithology   |                              | ✓  | ✓                              |                              |                                      | ✓   | ✓   |                              | ✓                                    |
| Biodiversity  |                              |  | ✓                              |                              | ✓                                    | ✓   | ✓   |                              | ✓                                    |
| A Healthy Bay Takes Root in Trees   | ✓                            | ✓  |                                |                              |                                      | ✓   |   | ✓                            |                                      |
| Watershed Enviroscape   | ✓                            | ✓  | ✓                              | ✓                            |                                      | ✓   |   | ✓                            |                                      |
| Befriend a Bat  |                              |  | ✓                              |                              |                                      | ✓   | ✓   |                              |                                      |
| Every Family Needs a Family   | ✓                            |  | ✓                              | ✓                            | ✓                                    |   |   | ✓                            |                                      |
| Stream in a Bucket  | ✓                            |  | ✓                              | ✓                            |                                      |   | ✓   | ✓                            |                                      |
| Stream Study  | ✓                            |  | ✓                              | ✓                            |                                      |   | ✓   | ✓                            |                                      |
| Soils: Shake, Rattle, and Roll  | ✓                            | ✓  | ✓                              | ✓                            | ✓                                    | ✓   |   | ✓                            |                                      |
| The Water Cycle   | ✓                            |  |                                | ✓                            |                                      | ✓   |   |                              |                                      |
| Thirsty for a Mystery   | ✓                            | ✓  |                                |                              |                                      | ✓   |   | ✓                            |                                      |
| Wading into Wetlands  | ✓                            | ✓  | ✓                              | ✓                            |                                      |   |   | ✓                            |                                      |
| Fish On   | ✓                            |  |                                |                              |                                      | ✓   |   | ✓                            | ✓                                    |



Teachers Take Note...

The Watershed Enviroscape model is available to borrow for two weeks.

Contact at 717-299-5361 x.2516.

Prior to returning model, teachers are asked to wash and clean model and complete a checklist for supplies.

Enviroscape may be picked up at the Conservation District located at the Farm and Home Center, 1383 Arcadia Rd Room 200, Lancaster. The office is open 7:30 AM - 4 PM.