

## **Teacher Workshop**

Each day the workshop will begin at Pandora Local School 410 Rocket Rdg. Pandora, OH 45877. We will be there until after lunch when we will travel together to the Quarry Farm for the afternoon. We will end the day back at the school. There will be light refreshments and lunch provided every day. Please let us know if there any dietary restrictions you have.

### **Grad Credit**

1 or 2 semester hours are available from the workshop. If 2 credits are chosen additional lesson plans, utilizing at least three activities from the guides, will need to be submitted. Payment due upon sign-up. The cost is \$160 per credit.

### **LPDC's**

Local credits may be available thorough your Local Professional Development Committee. You will be presented with a certificate documenting your contact hours.

### **What to Wear**

Please make sure to dress appropriately. We will be going outside every day and exploring in wet, muddy environments rain or shine. Bring rain gear, sunscreen, bug repellent, tote bag, and a reusable bottle for drinks throughout the day.

### **Activity Guides**

You will receive 4 activity guides from the Ohio Department of Natural Resources, Division of Wildlife and the Ohio Environmental Protection Agency. These will be utilized on all three days.

## **MEET THE PRESENTERS:**

**Lydia Archambo** – Stormwater Coordinator with Allen Soil and Water Conservation District.

**Wendy Baker** - former 4<sup>th</sup> grade teacher and current Environmental Educator Defiance County soil and Water Conservation District.

**Bonnie Brooks** - former middle/high school science teacher and current Program Specialist with Putnam Soil and Water Conservation District.

**Chris Brown** - Glandorf Middle School Teacher

**Lauren Sandhu**- Findlay University Professor and Coordinator for Blanchard River Watershed Partnership.

**Matthew Tucker** - Supervisory Soil Scientist, USDA-NRCS.

**Tuesday, July 25**

*Tentative Schedule*

**8:00-8:30** Registration, graduate credit sign-up and light refreshments.

**8:30-9:00** GLOBE and other environmental opportunities for teachers

**9:00-10:00** BREAKOUT SESSIONS

**Worm Bin:** How to make an inexpensive, classroom worm bin, what is in a bin, how to discover creatures using a variety of microscopes, and how to maintain your bin. Make a small bin to take home if you like.

**Stormwater/Where My Water Comes From:** What is an “Enviroscape demonstration” learn the importance of “nothing but rain down the drain” and how simple actions made by everything can have a huge impact.

**10:00-10:15** – BREAK

**10:15-11:15** – BREAKOUT SESSIONS

**Soils:** This session is split for younger and older grades.

Elementary/Middle School – ECO Enrichers = Project Wild.

Middle/High School – How to use the Web Soil Survey, soil shakes and the soil triangle, microscope work, and the ground water model.

**Macros:** Classroom activities you can do to set up mock investigations or prepare your students to go into the field. Techniques, equipment, and identification will be included.

**11:15-12:00** LUNCH (Grow Next Gen)

**12:00-12:20** Bus shuttle to Quarry Farm

**12:30-2:00** BREAKOUT SESSIONS

**Macros:** Get into the stream and quarry to identify and quantify macroinvertebrates and find out what they tell us about water quality. Additional activities surrounding this session will be done.

**Soils:** What’s in a soil? An in-depth look at soil horizons and activities you can do to determine soil quality and ecology of the soils. Soil probes, slake test, slump test, ribboning and underwear.

**2:00-2:15** BREAK

**2:15-3:45** BREAKOUT SESSIONS

**Macros:** Get into the stream and quarry to identify and quantify macroinvertebrates and find out what they tell us about water quality. Additional activities surrounding this session will be done.

**Soils:** What’s in a soil? An in-depth look at soil horizons and activities you can do to determine soil quality and ecology of the soils. Soil probes, slake test, slump test, ribboning and underwear.

**3:45-4:00** Travel back to school

Wednesday July 26

*Tentative Schedule*

**8:00-8:30** Registration, graduate credit sign-up and light refreshments.

**8:30-9:00** Pollinator Gardens: How to establish one on your school grounds.

**9:00-10:00** BREAKOUT SESSIONS - **Ecosystem Observing** - Identification apps and field guides will be utilized in these sessions.

**Wetlands:** How to prepare students for observation activities. How to “see” in the environment. Delve into wetlands and learn activities to do within this ecosystem taken from WOW the Wonders of Wetlands activity guide. We will also be learning how to use Foldsopes.

**Woods and Fields:** Exploration of these environments including activities from Project WILD.

**10:00-10:15** - BREAK

**10:15-11:15** – BREAKOUT SESSIONS - **Ecosystem Observing** - Identification apps and field guides will be utilized in these sessions.

**Wetlands:** How to prepare students for observation activities. How to “see” in the environment. Delve into wetlands and learn activities to do within this ecosystem taken from WOW the Wonders of Wetlands activity guide. We will also be learning how to use Foldsopes.

**Woods and Fields:** Exploration of these environments including activities from Project WILD.

**11:15-12:00** LUNCH (Environmental Grants)

**12:00-12:20** Bus shuttle to Quarry Farm

**12:30-2:00** BREAKOUT SESSIONS

**Trees:** Activities, the value of trees and some light identification will be included.

**Pollinators and Rain Gardens:** Discover the richness of a pollinator and rain gardens. Why do we have them and what can we learn in them. Food webs, research, equipment and exploring.

**2:00-2:15** BREAK

**2:15-3:45** BREAKOUT SESSIONS

**Trees:** Activities, the value of trees and some light identification will be included.

**Pollinators and Rain Gardens:** Discover the richness of a pollinator and rain gardens. Why do we have them and what can we learn in them. Food webs, research, equipment and exploring.

**3:45-4:00** Travel back to school

**Thursday July 27**

*Tentative Schedule*

**8:00 – 8:30:** Registration, graduate credit sign-up and light refreshments.

**8:30 – 9:00:** Getting familiar with the project guides

**9:00 – 9:45:** Project Wild Activities

**9:50 – 11:00:** Project Wet Activities

**11:30 – 12:30:** LUNCH and Peer Teaching Prep

**12:30 – 3:30:** Peer Teaching. 15 minutes per group

**3:30 – 4:00:** Wrap up, presentation of certificates, door prizes.