

June 14 -15, 2016 Summer Science Spectacular

The Ohio State University's Ohio Agricultural Research and Development Center (OARDC) Summer Science Spectacular provides a professional development learning experience for elementary and secondary teachers, allowing them to experience world-class, cutting edge research conducted by scientists on the OSU Wooster campus. Educators are able to explore new ways to bring relevant, hands-on, standards-driven science to their own classrooms. Each workshop re-energizes and provides educators with opportunities to share ideas with peers while they enhance their knowledge of science.

This program and its resources are designed to align with Ohio's Learning Standards and the Next Generation Science Standard core progressions. In addition, educators can earn Continuing Education Unit hours through this program.

Day one will be held at OARDC and feature presentations by The Ohio Farm Bureau along with several OSU Extension Specialists, faculty, and staff. The focus will be on gaining facilitation ideas for activities related to honey bees and human disease and health,

Day two will be at The Wilderness Center in Wilmot, Ohio and feature Herbert W. Broda, Professor Emeritus of Education at Ashland University. He will focus on the need to reconnect children with nature and will lead several activities that illustrate how the outdoors can be used to teach concepts from all areas of the curriculum. There will also be three afternoon sessions provided by The Wilderness Center's Naturalists on Mammals of Ohio, Sugar Creek Watershed Environmental Education Project, and Plate Tectonics and Ohio Geography.



Dates: June 14-15, 2016
Time: 8:00 AM to 4:00 PM

The Ohio State University, OARDC
1680 Madison Avenue
Wooster, Ohio 44691

This event is free of charge. Attendance is limited to the first 30 registrants.

All participants must register online at:
<http://u.osu.edu/oardcpr/>

General questions should be directed to:
Lori Kaser at: OARDC-Outreach@osu.edu
330-263-3647

REGISTRATION DEADLINE: May 20, 2016
(Registrations accepted beginning 01/11/2016)



THE OHIO STATE UNIVERSITY

COLLEGE OF FOOD, AGRICULTURAL,
AND ENVIRONMENTAL SCIENCES

Tuesday, June 14, 2016

OARDC, Wooster, Ohio
Research Services Building, Rm. 130

Sessions will be conducted both indoors and outside. Please dress for the weather.

- 8:00** **Welcome**
- 8:30** **4-H Honey Bee Challenge**
Dr. Bob Horton, Professor, Extension Specialist in Educational Design and Science Education is an incredible science educator who has a visible passion for his field. He will present the 4-H Honey Bee Challenge which engages youth in connecting honey bees to the foods they eat along with modeling a honey bee and its foraging route to learn about hive habitat, best management practices and foraging behavior. Participants gain an appreciation of the honey bee's role in feeding the world, best practices for preserving and enhancing foraging habitats, and ways to contribute to honey bee health in their own communities. Educators will also receive a Facilitator Guide to take back to their classrooms.
- 11:00** **Ohio Farm Bureau presentation**
Ohio Farm Bureau will provide educators with resources available to them (most are free). They will present on consumer education while conducting simple experiments.
- 12:00** **Lunch (provided)**
- 1:00** **Honey Bee Waggle Dance Interpretation**
Dr. Reed Johnson, Assistant Professor, will focus on the Honey Bee Waggle Dance Interpretation that includes aspects of bee biology for educators to incorporate into their classroom lessons and use as a laboratory exercise.
- 1:45** **Outdoor exercise of the Honey Bee Waggle Dance Interpretation**
- 2:45** **Break**
- 3:00** **Stamp Out Disease**
In this session, Mike Kauffman, a Research Associate with the Food Animal Health Research Program, will look at a self-learning activity discussion how bacteria, viruses, and parasites may contribute to human disease and poor health with an opportunity for participants to play an arcade game upon completion of the activity.
- 3:30** **Tour of the Food Animal Health Research Program facilities**
- 4:15** **Adjourn**



Wednesday, June 15, 2016

The Wilderness Center in Wilmot, Ohio

www.wildernesscenter.org

Enriching Your Curriculum by Using Nature and the Out-of Doors

Sessions will be conducted both indoors and outside. Please dress for the weather.

- 8:00** **The Wilderness Center and its Education Mission**
- 8:30** **[Moving the Classroom Outdoors: Using the Outdoors as an Instructional Tool](#)**
Herbert W. Broda, Ph.D., Professor Emeritus of Education, Ashland University
Join us for a session that will focus on the need to reconnect children with nature. We will look at low cost/no cost ways to make the school grounds a rich teaching resource, and also will do several activities that illustrate how the outdoors can be used to teach concepts from all areas of the curriculum. Participants will have a choice of Dr. Broda's books, *Schoolyard-Enhanced Learning* or *Moving the Classrooms Outdoors*.
- 10:00** **Break**
- 10:15** **Mammals of Ohio**
Carrie Elvey, Senior Naturalist TWC
In this session, we'll look at some basic mammal biology with a focus on using skull features to interpret lifestyles of various mammals. We'll also use a classic Project Wild game, Oh Deer, to take a deeper look at population dynamics.
- 11:45** **Lunch (provided)**
- 12:30** **Sugar Creek Watershed Environmental Education Project**
Carrie Elvey, Senior Naturalist TWC
Krista Pochedly Davis, Education Specialist TWC
Designed for secondary students, The Wilderness Center along with the Ohio State partners developed five individual yet complementary watershed classes. We will visit the Sugar Creek to participate in assessing water quality with aquatic species.
- 2:00** **Break**
- 2:15** **Plate Tectonics and Ohio Geology**
Lynda Price, Education Manager, Naturalist TWC
Plate tectonics is the underlying and unifying theory for many earth science subjects. This session will enrich your understanding of world and Ohio geology whether you teach elementary or secondary students.
- 3:45** **Adjourn**



THE WILDERNESS CENTER