

OEEF Outstanding Project Award Winners for the Pre-school through University Audience

Every few years, Ohio EPA contracts with the Environmental Education Council of Ohio (EECO) for independent evaluation of the success of completed OEEF grant projects. EECO assembles a team of formal and non-formal educators to select the best completed grant projects to honor with OEEF Outstanding Project Awards. The team reviews publications such as EECO's Best Practices Guidelines for Environmental Education: Guidelines for Success , online at eeco.wildapricot.org/Resources/Documents/bestpractices.pdf, and the North American Association for Environmental Education's Guidelines for Excellence series, available online at naaee.net/publications. Because OEEF grant projects are quite diverse and grant products are often similar in format to portfolios, the team uses a holistic instrument for the evaluation process. For the pre-school through university audience, the team developed paragraph rubrics for three categories: curriculum development, student activity and professional development for K-12 educators. These instruments have been refined several times over the years as technology has changed and new award winners have been selected. A tool for website evaluation has also been added. The instruments and previous award winners are posted at <http://epa.ohio.gov/oeef/EnvironmentalEducation.aspx#135377994-outstanding-projects>.

Ten outstanding projects for the pre-school to university audience were selected in the spring of 2016. Ohio EPA would like to lift up these excellent examples of effective environmental education to inspire educators and prospective grant applicants. Recently completed grant projects targeting the adult general public and regulated community audiences will be reviewed this fall, and Outstanding Project Award winners for that audience will be showcased in the SFY17 OEEF annual report.

Action for Children

“Nurturing Nature Through the Foods We Eat”

F10G-023, \$49,634, Delaware,
Fairfield, Franklin, Licking, Madison,
Pickaway and Union counties,
Audience: Pre-Kindergarten-University
(pre-kindergarten and elementary),
Contact: Gwen Moman,

actionforchildren.org, (614) 224-0222, ext. 114

Action for Children



Afterschool-age educators were provided with standards-based professional development focused on environmental and agricultural education. The professional development program consisted of four major areas: a 10 hour curriculum module linking food and the environment; technical assistance to support implementation within the afterschool settings; field experiences bringing the educators, children and parents to environmental/agricultural education sites; and a statewide train the trainer for dissemination of the curriculum throughout Ohio. Collaborators included Franklin Soil and Water Conservation District, Ohio Child Care Resource and Referral Agency, Ohio State University Early Childhood Quality Network, Stratford Ecological Center, and Dr. Ruth Wilson, Professor Emeritus with Bowling Green State University.



Ohio State University College of Nursing

“Healthy Homes Education for Nursing Students”

S10G-076, \$48,675, Franklin County, Audience: Pre-Kindergarten-University (Undergraduate), Contact: Barbara Polivka, barbara.polivka@louisville.edu (502) 852-3949

Provided web-based standardized teaching modules to educate at least 300 undergraduate and graduate pre-licensure nursing students per year to U.S. EPA’s Healthy Homes assessment process to identify threats such as radon, lead, pesticides and asthma triggers during their home visits. These students participated in standardized simulation lab exercises to practice Healthy Homes assessments, and at least 20 students piloted actual in-home clinical/experiential Healthy Homes assessments. Columbus Public Health and the Ohio Department of Health collaborated on the project. The project is also described in the following publication: Polivka, B.J., Chaudry, R., Crawford, J. (2012) Home Environmental Hazard Education for Undergraduate and Pre-Licensure Nursing Students. *Journal of Nursing Education*. 51(10), 577-581.

Antioch College Corporation — Glen Helen Ecology Institute



“Glen Helen Residential Environmental Education Program”

F11G-019, \$49,918, Greene County, Audience: Pre-Kindergarten-University, Contact: Nikos Boutis, nboutis@glenhelen.org, (937) 769-1902, ext. 105

The Glen Helen Outdoor Education Center is the oldest residential environmental learning facility in the Midwest. This project transformed the academic internships of the center into professional practica, to enable the center to continue to provide

environmental education instruction to schoolchildren, and professional preparation for outdoor and environmental educators.

ThinkTV – Public Media Connect

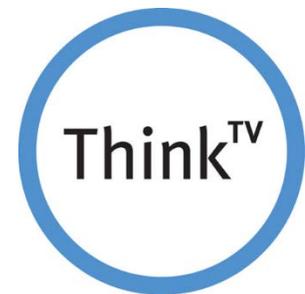
“Growing Up Wild in the Outdoor Classroom”

S11G-049, \$49,853, 21 southwest and central Ohio counties

“Nature as the Outdoor Classroom”

F13G-014, \$49,853, Montgomery County, Audience: Pre-Kindergarten-University

(pre-school). Contact: Tina Spaulding, tspaulding@thinktv.org (937) 220-1670



Three public television stations trained 1,680 child care providers and parents in central and southwest Ohio to use the outdoors as a classroom for teaching young children about nature and science. Half-day workshops presented eight units from Project WILD’s “Growing Up WILD” curriculum, reinforced with a monthly e-newsletter with enrichment ideas for all attendees. Activities included What’s Wild, Tracks, Bird Beak Buffet, Seed Need, Spider Web Wonders, The Deep Blue Sea, Wiggling Worms, and Wildlife is Everywhere. Multiple collaborators included the CET and WOSU Public Media stations, Dayton Area Family Child Care Association, Ohio Job and Family Services agencies in 16 counties, OSU Extension and referral agencies in five other counties.

The Ohio State University Extension, Butler County



“Youth Scientist; Creating Environmental Stewards”

F12G-010, \$46,522.23, Ashland, Clinton, Fayette, Morgan, Ottawa, Trumbull and Van Wert counties, Audience: Pre-Kindergarten-University (high school), Contact: Cindy Meyer, meyer.842@osu.edu, (513) 785-6654

The grant provided eight workshops statewide, curriculum kits, website and blog to introduce 261 school teachers to a new curriculum on the emerald

ash borer, an invasive insect predicted to eliminate five different species of trees in Ohio and the 44 arthropods that rely on these trees for survival. At least 31,349 students learned about the health of Ohio forests and urban trees, using hands-on scientific research methods. ODNR, Division of Forestry, Project Learning Tree-Ohio, the US Forest Service, Ohio Department of Agriculture and OSU, College of Food, Agriculture and Environmental Sciences all collaborated.

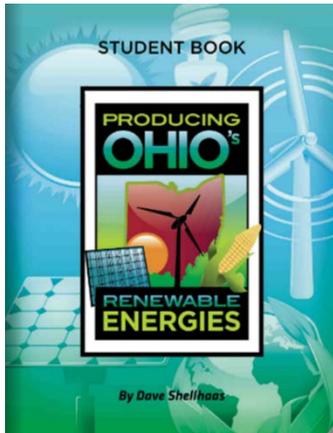
Talawanda School District – Talawanda High School

“Healthy Water, Healthy People Project – Erik Sustainability Initiative”
F12G-019, \$22,065.41, Butler County, Audience: Pre-Kindergarten – University (high school), Contact: Adriane Ruther, ruthera@talawanda.org, (513) 273-3559



Students investigated the impact of agricultural chemicals on the watershed of the 100-acre Erik Outdoor Education Area at the newly constructed LEED Gold-certified Talawanda High School. Students explored the stream, wetlands and woods on the property, measuring and monitoring the flow of agricultural chemicals through the wetlands to determine the effectiveness of the wetland ecosystem in mitigating these chemicals. Students then made recommendations to the Board of Education regarding the future use of the agricultural land. Budget included monitoring equipment and hand-held GPS units for the students to use, and certification of the teachers in Project WET's secondary water monitoring curriculum, “Healthy Water, Healthy People.” Collaborators included Butler Soil and Water Conservation District, Pheasants Forever and the U.S. Fish and Wildlife Service.

Darke County Educational Service Center



“Producing Ohio’s Renewable Energies (PORE)”
S12G-038, \$22,389.66, Auglaize, Darke, Mercer, Miami, Montgomery, Preble and Shelby counties, Audience: Preschool-University (High School), Contact: Dave Shellhaas, dshellhaas@mresc.org, (937) 498-1354

This pilot project targeted 27 teachers and approximately 2,378 high school students from 19 school districts in Ohio. The goal of the project was to increase high school students’ skills at making evidence-based decisions about renewable energies that are found or produced in Ohio. A series of workshops, online follow-up, a teacher's guide that provides lessons and instructional ideas, and a student booklet with content on biomass (ethanol, biodiesel and methane), wind and geothermal energy sources currently being developed in Ohio, provides a dynamic program that leads students in learning to make decisions about energy options without creating bias themselves.

Ohio University - Civil Engineering

“Virtual Boat for Environmental Education in Ohio”
F13G-002, \$45,253, Athens County, Audience: Pre-school to University (High School, Undergraduate and Graduate), Contact: Tiao J Chang, chang@ohio.edu, (740) 593-1462



The University currently has a five-year National Science Foundation grant to study the impacts of human activity on water quality in the Ohio River basin, and integrate research results into high school curriculum. Local students and teachers sampled water quality from a real boat on the river. However, the number of high school students from the basin who can participate is limited by distance, boat capacity and the short seasonal window when the boat could dock and navigate along the river. This project created a Virtual Boat iPad and desktop computer game whereby students conduct two- and three-dimensional water sampling along a virtual river using an existing GIS database to simulate the current conditions along the Ohio River from Marietta to Gallipolis. Structured lesson plans include a Water Quality Index and Fish Kill and Pollutant Locator using GPS. Students tested for dissolved oxygen, fecal coliform, biochemical oxygen demand, temperature change, total phosphate, nitrate, turbidity and total solids, with results based on real data collected by the University and the Ohio River Sanitation Commission (ORSANCO). The game was field-tested with students and teachers at two high schools in Athens and Meigs counties.



BrightPath Active Learning, LLC

“Outdoor Education for Kindergarten Enrichment”
F12M-016, \$3,775.73, Franklin County, EEF Priority:
Standards Based Education, Audience: PreK-University
(Early Childhood), Contact: Colleen Sharkey,
colleen@brightpathactivelearning.com, (614) 839-
0780.

BrightPath Active Learning is a half-day program that uses outdoor education to provide enrichment for kindergartners who are ready for more than the half-day classroom programs offered by many public and private schools. The grant provided supplies for a stream study, gardening and worm composting activities during all four seasons.

New Albany – Plain Local Schools

“Tracking is Science”

S12M-045, \$4,934, Franklin and Licking counties, Audience: Pre-
Kindergarten – University (High School), Contact: Sandy Willmore,
swillmore@napls.us, (614) 582-9948



Created a Wildlife Tracking Expedition as a week-long summer STEM opportunity for 15 students, which was incorporated into the curriculum of five classrooms to reach at least 150 students in the fall of 2012. An evening “What is in Your Back Yard?” program was also offered to 30 local residents. Participants learned the basics of reading animal tracks and signs to understand animal behavior, and documented their findings using CyberTracker technology, to gain awareness of the presence of wildlife around them, and a better understanding of how human activity is impacting wildlife and habitat. Lessons included the use of animal tracks in forensic anthropology. By blending outdoor learning experiences with hand-held GPS and videoconferencing technology, students were able to gather, sort, analyze, report and share their findings with others, using discussion, debate and research to draw connections and conclusions.