



Ohio Environmental Education Fund Outstanding Projects for Pre-Kindergarten – University Audiences

Periodically the OEEF and the Environmental Education Council of Ohio convene a team of independent experts to review completed grant projects and select Outstanding Project award winners. Congratulations to these grant recipients, selected in November 2008 to receive these awards. Their efforts are highlighted on the OEEF Web page and in publications, to inspire new grant applicants and environmental educators.

Clean Fuels Ohio, Clean Fuels Grades 6-12 Educational Program, \$49,877, nine central Ohio counties, Audience: Middle and High School, #03G-050. Contact: Sam Spofforth at sam@cleanfuelsohio.org, 614-292-5435.

Collaboration with the Ohio Energy Project to provide three curricula on alternate fuels and efficiency in transportation, aligned with Ohio's new academic content standards. During the first year, the curriculum was piloted in at least four middle and four high schools in Franklin and adjacent counties. During the second year, the curriculum was implemented in at least ten middle and ten high schools, reaching up to 780 total students. Over 10 educator workshops/mini sessions were held hosting 500 teachers in the piloted counties.



Adams County/Ohio Valley Schools, Adams County Environmental Project, \$44,861, Adams County, Audience: Elementary, Middle and High School, #04G-074, contact: Donna Shepherd, coshepherd@ovsd.us, 937-544-5586.

The grant provided a year-long series of local environmental investigations for 5th (Water Quality Field Work), 7th (Conservation Field Day,) and 10th (Macroinvertebrate water quality study, and Local Envirothon Competition). GLOBE (Global Learning and Observations to Benefit the Environment): Six GLOBE Atmosphere stations were set up at each school, and science teachers received GLOBE training in the four major protocol areas (Soil, Hydrology, Land-cover, and Atmosphere.) Equipment for the GLOBE protocols is being used to date so students continue to monitor various environmental areas. Students participated in a Community Atlas project and were awarded ESRI (Environment Systems Research Institute) ArcView Software. Students collected their data and made maps of the various study sites. Adams Soil and Water personnel have set up both Conservation Field Days and a Local Envirothon Competition which continue to this day. High School students continue their Macroinvertebrate Study and have presented their evaluation of a local pond to both the pond owner and to Adams Soil and Water.



Lourdes College, *Four-Season Natural Science Exploration: Ohio Bio-Region*, \$49,890, ten northwest Ohio counties, Audience: Elementary and Middle School, #05G-022, Contact: Sr. Rosine Sobczak, rsobczak@lourdes.edu, 419-824-3691.

Provided training for 24 Northwest Ohio teachers on integrating hands-on natural science field and classroom activities related to Ohio's Biome Communities and changing seasons. This holistic approach to environmental understanding can nurture teacher/student interest in exploring Ohio's flora and fauna...connecting native species, and Life Cycle Learning with a habitat-enhancing Raise and Release Program while utilizing today's technology for journaling the results. Half the teachers were from Toledo urban schools and half from surrounding counties. Included field trips for the teachers to Magee Marsh, Campbell Prairie, and Oak Openings, as well as two seasonal Life Lab field trips for each teacher's students. Collaborators included the Toledo Public Schools, Toledo Diocesan Schools, and Lucas County Schools.



Pickerington Local School District, *History of Changing Places at Tussing Elementary*, \$49,9884, Franklin County, Audience: Elementary School, #05G-028, Contact: Mary Sheridan, Mary_Sheridan@fc.pickerington.k12.oh.us, 614-837-8078.

Changing Places: Coming Home built on two previous award-winning projects funded by OEEF and the Ohio Arts Council, where artists-in-residence helped Tussing students and teachers explore the history and use of the land around their school and its wetland and prairie ecosystems. Students communicated their findings to the local community through student-made films, storybooks, quilts, murals, papier-mache puppets, a ceramic mural, and a 20-foot whale sculpture that has "traveled" to the school from a whale listening station in Alaska. The station partnered with the students in their effort to record sounds in the school's wetland area. To help satisfy a rapidly growing statewide and national demand for information about these projects as well as have an implementation manual for incoming teachers at Tussing and other schools to use, the grant supported the creation of a variety of components including a children's book; a trilogy of films sharing three original songs written by the students with imagery highlighting activities; a history and field guide that illustrates the work of and vision for including the diverse partners (artists, authors, community resource personnel) who contributed to this innovative and fun exploration of the schools ever-expanding backyard.



Upper Valley JVS, *Students Teaching Students...A Rippling Effect in Environmental Education*, \$39,683, Shelby and Miami Counties, #05G-056, Audience: Elementary and High School, Contact: Jim Metz, metzi@uvjvs.org, 937-778-1980.

The grant equipped the Willowbrook Environmental Education Center and the surrounding wetlands, wet meadows and forested vernal pools with learning stations that provided natural and wetland education to about 600 third graders and others who visit annually. JVS Environmental Occupations students in 11 and 12th grade were trained in nature and wetland interpretation and then served as nature guides for all tours given at Willowbrook. They utilized hands-on activities from national curricula such as Wonders of Wetlands, Project WET and Healthy Water, Healthy People. The JVS provided annual workshops on wetlands and water quality to primary and secondary teachers. The Willowbrook Environmental Education Center strives to meet the needs of ANYONE seeking programming to educate people about the environment, with special emphasis placed on wetlands and water quality. Collaborators included the Miami and Shelby Soil and Water Conservation Districts, Miami NRCS Service, Miami County Park District and Top of Ohio RC&D Council.



The Botanical Garden Association, Inc., *UPSIDE Ohio (Using Plants for Science Instruction and Diverse Education,* \$49,970, Stark County, Audience: Elementary School, #05G-076, Contact: Paul Carmichael, info@bcbgarden.org, 330-862-3920.

Provided a series of workshops to teach 192 teachers, 7,200 K-5 students and 100 community members about native Ohio plants and the impact of non-native invasive plants on the ecological integrity of Ohio's biological diversity. Equips participating classrooms with the *GrowLab* indoor gardening system and curriculum of science inquiry activities, and supports development of a native Ohio plant guide, to be disseminated in locations statewide. Stark County Educational Service Center collaborated.



Bowling Green State University, “*EXCITE Odyssey*,” \$49,971, four northwest Ohio counties, Audience: Middle and High School, #06G-033, Contact: Jodi Haney, jhaney@bgsu.edu, 419-372-7361.

The EXCITE Odysseys Ohio Environmental Education Fund (OEEF) grant program aimed at disseminating research-based professional development and inquiry-based, environmental education curricula to teachers throughout the state of Ohio. Over 120 teachers participated in a two-day ‘Odyssey Institute’ where they learned first hand how to implement the Project EXCITE problem based learning and interdisciplinary curricula (called Odysseys). Teachers received their choice of one Odyssey (topics vary, but all focus on environmental health issues such as use of pesticides, indoor air quality, germ transmission, chemical safety, food safety, old building health issues, etc.) and supplemental classroom materials. Several months later, teachers returned to the Follow-up Institute after piloting the materials in their classroom in order to debrief and reflect upon the teaching and learning experience. Teachers also learned how to develop a problem based environmental education unit of their own. Three new EXCITE Odysseys were also developed and disseminated as a result of the OEEF Funds (GermOdyssey, CafeOdyssey, and MosquitOdyssey). Graduate credit was provided using funds from a separate federal grant (NIEHS) as an option for participants. Teachers were encouraged to bring students teams to present at the annual Project EXCITE Research Colloquium held at COSI-Toledo.



Ohio Energy Project, *Environmental Impact Education*, \$50,000, sixteen counties, Audience: Middle and High School, #S-07G-058, Contact: Deborah Yerkes, swenergy@infinet.com, 513-688-1717.

Using a standardized Home Energy Efficiency Kit, the Ohio Energy Project introduced teachers, students and parents to basic concepts of energy use and energy conservation with activities focused on home energy savings. Students were introduced to methods of measuring energy usage, determining costs and quantifying environmental effects. Six energy efficiency lessons were presented in the classroom and students will take home a variety of efficiency measures from the Home Energy Efficiency Kit that can be used to lower energy consumption. In the process, parents and families utilized practical ways to be energy efficient. Collaborators included: Duke Energy, Niagara Conservation, the Ohio Department of Development Office of Energy Efficiency, and 40 participating teachers.



Greene County Park District, *“Footpath Through History,”* \$3,381, Greene County, Audience: Elementary School, #06M-031, Contact: Christine L. Barnett, cbarnett@co.greene.oh.us, 937-562-7469.

Provided a field trip to Indian Mound Reserve for 1,300, 3rd – 5th grade students to learn about how the environment affected runaway slaves following rivers northward along the Underground Railroad. Students studied the geology and geography of Massie’s Creek Gorge and land use changes from the mid 19th into the early 20th century. They used critical thinking skills to see if they would be able to make it to freedom, by investigating what wildlife would have been present, what plants would be safe to use for food and medicine, what water is safe to drink, what places would make safe hideouts, and how to use trees, stars and different kinds of maps to find direction. Grant funds also provided artifacts, clothing, multimedia equipment and supplies for educational trunks that participating teachers checked out. The National Afro-American Museum and cultural Center in Wilberforce collaborated.

Waynesfield Goshen Local Schools, "Nature's Restaurant...Education with a Taste," \$4,521, Auglaize County, Audience: Pre-school, #F-07M-014, Contact: Cindy Weaver, mlbsig@prodigy.net, 419-568-4451.

Provided an educational garden where pre-school students and parent volunteers grew plants to attract birds and butterflies, as well as pizza ingredients, strawberries, potatoes and pumpkins to be used in school programs. Activities were incorporated into the curriculum using *Habitats for Learning: A Planning Guide for Using and Developing School Land Labs*, an outstanding resource funded by a previous OEEF grant. Collaborators included the local Future Farmers of America chapter, Auglaize Soil and Water Conservation District, Top of Ohio Resource and Development Council, and Kaufman's Backyard Gardens.



Cleveland Municipal Schools, James Ford Rhodes Educational Campus,
"Investigating Environmental Impacts on Two Local Urbanized Watersheds," \$5,000,
Cuyahoga County, Audience: High School, #F-08M-022, Contact: James Gazda,
jgazda52@aol.com, 440-884-4076.

One of three mini grants which supported northeast Ohio high schools participating in a regional, collaborative research project on the ecological and social consequences of urbanization of streams and river. This project introduced 79 high school science students to two neighborhood watershed systems (Big Creek and West Creek) and the impacts of urbanization and watershed evaluation methodologies. Twenty-one student research teams (approximately four students per team) identified and investigated several distinct areas of a watershed: chemistry, biodiversity, physical characteristics, riparian zone and human impacts. Research was conducted over a 9-week period that also included field investigations of the two watersheds. One week addressed preliminary discussion, planning and literature searches about their research. The remaining two weeks addressed preparation of reports and presentations. Grant monies provided by the OEEF were used to purchase equipment and supplies that assisted students in their research. Each student team maintained a research binder and presented their results to their peers through prepared visuals (tri-folds, posters, numerous photographs, drawings, and one video), plus several oral presentations utilizing power point, excel spreadsheets and graphs. Each team produced one classroom activity, and a handout or brochure that reflected an important aspect of their project. The top five research teams visited Cleveland State University, on May 22, 2008, to present and display their projects at a research symposium. Similar research projects were also presented by students from Collinwood High School (Cleveland) and Harvey High School (Painesville).

