

## **Ohio Environmental Education Fund Mini Grants Awards, SFY 2018**

*During SFY18, Ohio EPA awarded the following 18 mini grants, for a total of \$61,802.*

**Ottawa SWCD**, “Augmented Reality Sandbox,” F-18M-001, \$2,145, Ottawa County, Audience: Pre-School – University, Contact: Becky Simpson, [becky.simpson@ottawaswcd.com](mailto:becky.simpson@ottawaswcd.com), 419-898-1595.

This grant will be used to purchase equipment to build a portable Augmented Reality Sandbox (ARS). The ARS is a 3D model that uses a hands-on approach to demonstrate different earth science concepts. This model uses a kinetic camera to project different landforms onto a sandbox. Participants can then change the landform by moving the sand to see how water flows and disperses over the watershed after a rain. We will use this as an educational tool to demonstrate soil erosion, watershed awareness, non-point source pollution, landforms, and topography. Classroom presentations will be aligned with Ohio's science education standards. We anticipate that the model will be used in programs reaching over 3,000 students and adults.

**Columbus City Schools – Cedarwood Elementary**, “Kindergarten Life Science Triad,” F-18M-002, \$5,000, Franklin County, Audience: Pre-School – University, Contact: Heather Allen, [hallen704@columbus.k12.oh.us](mailto:hallen704@columbus.k12.oh.us), 614-397-1460.

Around 180 Columbus City School kindergarteners will participate in the Kindergarten Life Science Triad, participating in hands-on activities and field trips to learn the Ohio life science standards, use science inquiry and application, and explore careers in the field of life science. The students will experience three in-class lessons led by a science specialist and three field trips to extend what the students learned during the in-class lesson. Students will complete a journal documenting the six experiences. The Columbus Zoo and Aquarium and Franklin Park Conservatory are collaborating. Columbus City Schools Spruce Run Outdoor Education Center will be the third venue of the triad.

**Canal Winchester Local Schools – Canal Winchester Middle School**, “How Does Runoff Affect Soil and Water Quality of a Wetland Ecosystem,” F-18M-003, \$500, Franklin County, Audience: Pre-School – University, Contact: Steven Bocock, [sbocock@cwls.us](mailto:sbocock@cwls.us), 614-833-2151.

Students will perform water and soil testing of the wetland next to our middle school. The wetland is surrounded by multiple human activities that may contribute to soil and/or water quality problems. Students will determine the health of the water and soil and develop a plan to make changes to increase biotic diversity. The nationally known curriculum The Wonders of Wetlands will be used to facilitate this project. Columbus Metro Parks and the Ohio EPA, DSW are collaborating. Project would benefit 3 seventh grade middle schools.

**Graham Local Schools – Graham Elementary School**, “Graham Elementary Trout in the Classroom Aquaponics Adventure,” F-18M-004, \$5,000, Champaign and Logan Counties, Audience: Pre-School – University, Contact: Emily Kay Shreve, [shreeve@grahamlocalschools.org](mailto:shreeve@grahamlocalschools.org), 937-539-1521.

This project will serve as an addition to our existing successful Graham Elementary Trout in the Classroom Project funded previously by OEEF. We intend to add another tank in our building. We are in the beginning stages of researching aquaponics, and we are hoping to use this process of filtering our tank water in one of our tanks. Our elementary school will be participating in the First Lego League project for the 17-18 school year, and we are in the beginning stages of researching ways to incorporate this year's theme of hydrodynamics to our TIC project. We are excited to add another tank and a new "layer" to our project for the 17-18 school year.

**Antwerp Local School District – Antwerp Local Schools**, “Native Plant Prairie and Wildlife Area,” F-18M-005, \$5,000, Defiance and Paulding Counties, Audience: Pre-School – University, Contact: Linda Mabis, [mabis\\_l@antwerpschools.org](mailto:mabis_l@antwerpschools.org), 419-258-5421.

The Native Plant Prairie Project is located on a two-acre section of the Antwerp Local Schools complex. The Project will include native plants, shrubbery, trees, a pavilion, picnic tables, water gardens, bird and bat houses, composting, use of solar lighting and pumps, and mail box with identification books to assist visitors as they observe plants, insects, butterflies, and birds. The overarching goal of the project is to promote and spread an environmental conservation message, provide habitats for butterflies, birds, pollinators, and aquatic life, and enrich student's learning experience on this outdoor education learning lab. The project will benefit several groups of local community residents and 750 students in the district. Paulding SWCD, Toledo Metro Parks, Girls Scout Troop 20516, Paulding-Putnam Electric Co-Op, Paulding Area Foundation, Antwerp Rotary, and Paulding County Master Gardeners all are collaborating.

**Slow Food Columbus**, “Slow Food Columbus Low-Tunnel Environmental Project,” F-18M-007, \$5,000, Franklin County, Audience: Pre-School – University, Contact: Christina Weatherholtz, [cweatherholtz3151@columbus.k12.oh.us](mailto:cweatherholtz3151@columbus.k12.oh.us), 614-365-5556.

Students in the Columbus City Schools district will be engaged in environmental education activities to include awareness and water conservation in an outdoor garden-based learning program. Specific Ohio State Standards in the areas of Science, Social Studies, and Reading-Language Arts will be addressed using low-tunnel plant-based learning. Low-tunnel growing allows for students to plant seeds earlier in the season with a harvest ready before the end of the school year. The Slow Food Columbus School Garden Program includes low-tunnel supplies, professional development, and plant-based learning support to CCS. As an integral element of the environmental program, Franklin Soil & Water and Franklin Park Conservatory will use established curriculums such as Project Learning Tree and Project Wet. These collaborators will visit each of the twenty-one schools where students will learn about soil, water conservation, and how to direct sow & grow real food for healthy consumption. Over 549 students in Columbus

City Schools would benefit from this project. Columbus City Schools, Franklin SWCD and Franklin Park Conservatory are all collaborating.

**Holmes SWCD**, "Learning About My Watershed," F-18M-008, \$1,300, Holmes County, Audience: Pre-School – University, Contact: Michelle Wood, [mwood@co.holmes.oh.us](mailto:mwood@co.holmes.oh.us), 330-674-2811.

We are requesting an Enviroscope Watershed/Nonpoint Source Model and carrying case to provide a hands-on, interactive demonstration of the sources and effects of water pollution and the conservation practices that can be adopted to minimize them. Holmes SWCD has used an Enviroscope model extensively for 20-25 years with our current model that is cracked and been repaired many times. Holmes SWCD staff provide in-classroom presentations that meet our primary objective of promoting clean water and healthy soil. The Enviroscope easily aligns with the ODE Learning Standards. Our staff provides presentations to approximately 1000 students annually. Of that 1000 students, our objective is to demonstrate the Enviroscope to at least 200 students, or approximately 8 different classes. East and West Holes School Districts are collaborating.

**Cleveland Metropolitan School District – Campus International High School**, "Stream and Water Quality Analysis," F-18M-010, \$2,035, Cuyahoga County, Audience: Pre-School – University, Contact: John Dutton, [john.dutton@campusinternationalschool.org](mailto:john.dutton@campusinternationalschool.org), 216-308-3940.

Biology students at Campus International High School in Cleveland metropolitan School District, an International Baccalaureate school, will participate in stream and water quality analysis activities on the Cuyahoga River and another body of water. The analysis will be a thorough biological, physical and chemical analysis to determine the overall health of the waterways including a determination of nutrient loads to use for further analysis in the classroom. Campus International High School is a new high school, starting with 125 ninth-grade students in the 2017-2018 school year, all of whom will be taking biology.

**Imago**, "School Yard Environmental Learning Stations," F-18M-011, \$4,236, Hamilton County, Audience: Pre-School – University, Contact: Ellie Falk, [efalk@imagoearth.org](mailto:efalk@imagoearth.org), 513-921-5124.

Imago will work with Pleasant Ridge Montessori (a Cincinnati Public School) to design and implement environmental learning stations at the school's existing garden and nature scape. For the last three years, Imago has led weekly, standards-based outdoor education programs at the school. As we plan for the school's transition to greater ownership of the program, the proposed learning stations will give teachers an enhanced opportunity and ability to lead their own outdoor education lessons. Each station will be a physical space in the outdoor classroom and will also include lesson and activities for the teachers to use. Station examples include pollinator gardens, bird watching area, an arboretum and more. Not only will these stations create richer learning opportunities, they will also enhance schoolyard biodiversity. Moreover, the framework of the stations and the lessons developed can be replicated and applied to other Imago school partners. Pleasant Ridge Montessori School is collaborating.

**Athens City Schools – Athens Middle School**, “Inquiring Minds: Soil and Water,” F-18M-012, \$4,153, Athens County, Audience: Pre-School – University, Contact: Mary Ann Hopple, [mhopple@athenscsd.org](mailto:mhopple@athenscsd.org), 740-541-1898.

Inquiring Minds: Soil and Water will focus on inquiry activities and experiments for all of the 7th grade students (approximately 200 students) at Athens Middle School in Athens, Ohio. We will be using activities from Project WET, Healthy Water Healthy People, the Wonders of Wetlands, and teacher-created opportunities to engage the students in topics related to water and soil, as found in the content standards for 7th grade from the state of Ohio. The activities will also help students develop their understanding of STEM as it relates to the content. Athens SWCD is collaborating.

**Wyandot Soil and Water Conservation District**, “Virtual Watershed Table,” S-18M-020, \$3,470, Wyandot County, Audience: Pre-school to University (grades 2,3,4 and 8-12), Contact: Angie Ford, [angie.ford@oh.nacdn.net](mailto:angie.ford@oh.nacdn.net), 419-731-2566.

This virtual watershed table will become a hands-on tool that the general-public can use to see watershed boundaries and possible erosion issues, which might occur. With this table we can literally build a landowner/farmer’s acreage by shaping landforms in kinetic sand. The Sandbox will display a colored elevation map where we can then simulate rainfall and show the individual the direction that their water flows. This will also be a great educational tool to show the counties students, as well as the general-public. Many times, we get a request for group drainage projects. This tool would be very beneficial to demonstrate the direction that the water flows. Over 1,000 individuals could be educated using this model in the first year. The SWCD will be collaborating with Mohawk and Upper Sandusky Local Schools.

**The Children’s Museum of Findlay**, “Water Table Project,” S-18M-022, \$2,500, Hancock County, Audience: Pre-school to University (Pre-school and grades K-5), Contact: Shari Wiseman, [shari@cmfindlay.com](mailto:shari@cmfindlay.com), 567-250-9616.

The Children's Museum of Findlay and the College of Engineering at Ohio Northern University would like to install a water table exhibit at the museum. Environmental education, especially as it pertains to water movement, flow, and watersheds is a focus of the Ohio Department of Education's core science curriculum. Children learn well through hands on play and a water table provides an opportunity to introduce young learners to early concepts of water as a resource and our impact on water control and movement. A water table will also provide the museum with an exhibit focused on STEM education and exposes children to various scientific concepts such as flow, motion, cohesion, and equivalence. Water tasks within the table such as a mushroom fountain, dam, and waterfall features allow children hands on activity building connections between environmental concepts and scientific processes. The museum hosts over 30,000 visitors a year and over 500-member families. The museum will be collaborating with the Blanchard River Watershed and Ohio Northern University.

**Champion Local Schools – Champion Middle School**, “Champion Local School New Stormwater Basin,” S-18M-023, \$5,000, Trumbull County, Audience: Pre-school to University (grades k-12), Contact: Dave Murduck, [dave.murduck@neomin.org](mailto:dave.murduck@neomin.org), 330-847-2340.

This unique project involving students and community members will entirely develop a new storm water retention/detention basin with native plant plugs and seed. Established this year with the construction of our new K-8 building, this one plus acre storm water basin will become part of a new Outdoor Learning Lab that adjoins sensitive Little Brown bat habitat and wetlands. Public trails, benches and educational signage will surround the basin. This summer students, their parents, and volunteers will plant the entire area with appropriate wetland species. Students will collect water samples and data from the basin and discharge area on a regular basis as part of the education and research associated with the project. K-12 curriculum will be established that is aligned to the Ohio State standards thus developing long-term educational benefits. As part of my speakers’ bureau, a speaker will talk with students & community members about storm water & environmental careers. Over 1,400 students could be reached by this project. The middle school will be collaborating with Champion Township and the Trumbull SWCD.

**Girl Scouts of Northeast Ohio**, “West Virginia White Butterfly Preservation Project,” S-18M-025, \$5,000, Audience: Pre-school to University (grades K-12), Contact: Rhianna Hughes Eddy, [rhugheseddy@gsneo.org](mailto:rhugheseddy@gsneo.org), 330-652-5876.

Camp Timberlane, a Girl Scout camp in Erie County, has a significant population of West Virginia White (WVW) butterflies as well as an overabundance of garlic mustard, an invasive species that is detrimental to the butterfly population. Girl Scouts would like to implement a series of programs that educate girls about non-native and invasive species, with a focus on the effect of garlic mustard on WVW butterflies as an ambassador species. Members will learn about habitat preservation as well as assist in controlling the garlic mustard. Potentially over 500 girls and their families could be educated with this project. The scouts will be collaborating with Lake Erie Allegheny Partnership for Biodiversity and the Ohio Invasive Plants Council.

**Clean Fuels Ohio**, “Drive Electric Ohio,” S-18M-026, \$4,803, Audience: General Public, Contact: Ellen Eilers, [ellen@cleanfuelsohio.org](mailto:ellen@cleanfuelsohio.org), 614-884-7336.

Drive Electric Ohio (DEO) is Clean Fuels Ohio's statewide program to accelerate adoption of plug-in electric vehicles (PEVs). PEVs include both dedicated battery electric vehicles (BEVs) and plug-in hybrid vehicles (PHEVs). DEO will reduce unhealthful pollution, increase long-term environmental sustainability, improve Ohio's economy, and increase our energy security. We are working with others to

accomplish this goal by focusing on three key elements: 1) Educating consumers about the many advantages of PEVs, 2) Encouraging investments in PEV charging stations, and 3) Enacting policies at all levels to overcome market barriers to PEV adoption and charging. Clean Fuels Ohio will be collaborating with Drive Electric with the cities of Dayton, Cincinnati, Toledo and Drive Electric Northeast Ohio.

**Franklin County Drainage Engineer**, “Augmented Reality Sandbox,” S-18M-029, \$4,785, Audience: Pre-school to University (grades 4 and 7-12), Contact: Kate Radtke, [kradtke@franklincountyengineer.org](mailto:kradtke@franklincountyengineer.org), 614-525-7318.

The Augmented Reality Sandbox is a new digital tool that will be used as a discussion point on environmental issues and to display how watersheds work. This tool will be offered at outreach events and to schools within Franklin County to educate the public and students on stormwater issues, watersheds, point and non-point source pollution, engineering, and technology. This tool works well with the current Ohio education standards and will reach a variety of grade levels and age ranges. Our partner (Franklin SWCD) reaches nearly 10,000 students and thousands more citizens yearly. The county engineers office will be collaborating with the Franklin SWCD and The Ohio State University Capstone Students.

**Greene Soil and Water Conservation District**, “Greene County Test Your Well Event,” S-18M-035, \$1,000, Audience: General Public, Contact: Lee Eltzroth, [lee.eltzroth@oh.nacdnet.net](mailto:lee.eltzroth@oh.nacdnet.net), 937-372-4478.

In the past, we have collaborated with the Ohio Department of Natural Resources Mini Grant program to partially fund this event. Now that this program is no longer available and to continue the program and provide this service, we collaborate with the Miami Conservancy District, Greene County Public Health, Montgomery County Environmental Lab, Greene County Career Center, OSU Extension, Xenia Water Treatment Plant, Greene County Farm Bureau, Ohio Department of Health and Yeager Well Drilling. Last year, we were able to reach 130 residents, which was a 30% increase in participation. These participants could have their wells tested for arsenic, manganese and lead, with an optional bacterial test. At this event, we also provide soil sampling and test information for yards and gardens. The SWCD will be collaborating with the Miami Conservancy District, Greene County Public Health, Montgomery County Environmental Lab, Greene County Career Center, Greene County OSU Extension, Xenia Water Treatment Plant, Greene County Farm Bureau, Ohio Department of Health and Yeager Well Drilling.

**Madison Soil and Water Conservation District**, "Agricultural Drainage Workshop," S-18M-042, \$875, Audience: Regulated Community, Contact: Julia Cumming, [Julia.cumming@oh.nacdnet.net](mailto:Julia.cumming@oh.nacdnet.net), 740-852-4004.

The goal of the workshop is to help farmers consider the effects of climate change when evaluating their drainage and crop production needs. We are asking farmers to evaluate BMPs such as water control drainage structures, cover crops, buffers and wetlands to slow down, store, filter and recharge groundwater and reduce the frequency of flooding before they make changes to the agricultural drainage infrastructure to carry more water. Near the end of the workshop, we will form roundtables on topics related to drainage and water quality so that peers can talk about the ideas presented in the workshop and brainstorm other solutions. The workshop has the potential to help 100 farmers and property owners. The SWCD is collaborating with the Madison County Farm Bureau and Madison County OSU Extension.



For more information, contact:  
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