

Ohio Environmental Education Fund General Grant Awards SFY 2018

During SFY 2018, Ohio EPA awarded the following eleven general grants, for a total of \$376,318.

Columbus Public Health, “Air Monitoring Education Project,” F-18G-001, \$28,865, Franklin County, Audience: Pre-Kindergarten – University (High School). Contact: Richard Hicks, rickh@columbus.gov, (614) 645-7155

The project will monitor outdoor air quality in Columbus neighborhoods and provide educational information to residents on general levels of criteria pollutants found. Air monitoring stations will be installed at Columbus Public Health and Worthington Kilbourne High School. Data collected from the neighborhood-based air monitoring sensor stations will be used to increase awareness about outdoor air quality and pollution, its possible impacts to people and wildlife, and to offer strategies that can both reduce residents' individual contribution to air pollution and potential harmful exposures when high levels of pollution are present. An air quality kiosk will also be installed in the lobby at the Columbus Public Health where visitors can access air quality data. Kiosk promotional material will be produced to target department clients, visitors, partner organizations and nearby neighborhood associations. The project will educate more than 100 students about air quality and the kiosk has the potential to reach thousands of visitors to Columbus Public Health.

Logan County Soil and Water Conservation District, “Exploring Effects of Water Quality in Western Ohio,” F-18G-002, \$21,272, Auglaize, Darke, Hardin, Logan, Mercer, Miami and Shelby Counties, Audience: Pre-school to University, Contact: Dave Shellhaas, dshellhaas@mresc.org, (937) 599-5199

The project will provide curriculum resources, professional development and field experiences for seventh grade teachers and students in 45 school districts in seven west-central Ohio counties. The materials and activities of the project will focus on the concept of water quality in western Ohio. A major focus of the project will involve the issues surrounding the nutrient load in many watersheds and the recent blue-green algae concerns facing many bodies of water in western Ohio, as well as Lake Erie. Teachers will participate in professional development and field experiences that will provide teachers with opportunities to engage in water quality testing. Teachers participating in the program will receive Healthy Water, Healthy People Curriculum and a water testing kit for their classroom.

Public Media Connect, "Let's Get Wild: Teachers Learn to Teach about Nature," F-18G-003, \$37,000, Brown, Butler, Clark, Clermont, Clinton, Darke, Delaware, Fairfield, Fayette, Franklin, Greene, Hamilton, Highland, Jackson, Lawrence, Licking, Marion, Miami, Montgomery, Morrow, Pickaway, Preble, Richland, Ross, Scioto, Shelby, Union and Warren Counties, Audience: Pre-school to University, Contact: Tina Spaulding, tspaulding@thinktv.org, (937) 220-1670

This Project will train 600 preschool and school age teachers in Southwestern/Central Ohio to use nature as a tool to teach multidisciplinary and STEM topics to the children in their care. The curriculum book, Growing UP Wild will be used as the basis of the training, with a materials kit, story books and other materials to encourage teachers to use the hands-on lessons learned with children in their care. Local YMCA, child care centers, and Ohio Department of Job and Family Services sites will be used to host these workshops in these counties. An e-newsletter will be used to encourage teachers to attend as well as encourage more teachers to use the activities as they are included in the newsletter. This training is Ohio Approved and will provide three training hours for child care teachers who are required to receive at least ten hours per year of training.

Columbus Jewish Day School, "CJDS/EPA Storm Water Quality Enhancement, Education and Awareness Program," F-18G-004, \$19,351, Franklin County, Audience: Pre-school to University, Contact: Gina Freeman, gfreeman@cjds.org, (614) 939-5311

The project will enhance the water quality of the storm water basin and wetland restoration within the Rose Run Creek Watershed by planting emergent plants, trees and shrubs near the storm water basin's edge. The project will also provide two comprehensive environmental stewardship curriculum professional development workshops for 21 faculty members. The workshops are based on Habit for Learning Guidelines and ODE Science Standards as they pertain to water and water quality. Approximately 65 students will participate in Grade Level project based learning units connected to Wetland Education. The goal of the project is to improve water quality of the storm basin and educate students and faculty about pertinent water quality issues. Exploration of careers in the environmental sciences and creation of a site-specific field guide will be additional project outcomes.

Western Reserve Land Conservancy, “Cleveland Neighborhood Tree Steward Program,” F-18G-013, \$46,374, Cuyahoga County, Audience: General Public, Contact: Elizabeth Grace, egrace@wrlandconservancy.org, (216) 513-4073

Western Reserve Land Conservancy and Holden Forests and Gardens proposes to bring the Neighborhood Tree Steward program to new audiences in the city of Cleveland and build on partnerships with local schools to enhance the educational component of the program. The program will continue to educate and engage local residents in an ever-growing corps of Tree Stewards in four new Cleveland neighborhoods. By participating in the Tree Steward program, community members will learn about the importance & benefits of trees, share input on tree planting sites within their neighborhoods, participate in tree planting projects and learn how to provide ongoing tree care. In addition, local schools will participate in educational workshops and tree planting projects at schools or at sites near schools. The program will reach at least 200 residents through Community Outreach events, train at least 100 Tree Steward volunteers and have 200 students participate in educational workshops.

Brookville Local School - Brookville Intermediate School, “Brookville Biodiversity Project,” F-18G-015, \$20,136, Montgomery County, Audience: Pre-school to University, Contact: Annette M Drake, drakea@brookvilleschools.org, (937) 833-6731

Approximately 100 seventh grades students will work collaboratively in small groups to investigate and solve the question: What is Brookville's biodiversity and how can you improve it? The goal of this project is to increase student awareness and knowledge of their local environment, to make informed decisions, and take action to improve their community. Students will develop critical thinking, problem-solving and decision-making skills by designing and completing an inquiry investigation. Evidence collected by students will be synthesized to design and create a proposal and final product that answers the proposed question. Students will then demonstrate their understanding by presenting their proposal & product to an authentic audience that include Dayton Metro Library, Brookville City Council, Five River MetroParks, parents & district administration. Student products will also be exhibited throughout the community.

The Ohio State University - Center for Automotive Research, “Fueling our Future: Introducing 7th Graders to Careers in Clean Energy,” F-18G-030, \$34,862, Champaign, Cuyahoga, Franklin, Madison, Portage, Stark, Summit, and Union Counties, Audience: Pre-school to University (Grade 7), Contact: James Durand, durand.14@osu.edu, (434) 996-6829

A 30' hydrogen fuel cell bus will be outfitted with a series of simple hands-on learning experiments that will introduce students to photovoltaics, wind, and fuel cell based energy conversion to teach 7th Grade Students about the environmental benefits of clean energy technologies. A trailer with a PV array and a wind turbine will also be used to demonstrate these clean energy technologies. Students will also learn about career opportunities in manufacturing, maintenance, and research and development in clean energy production and conversion. In addition to participating in activities on the bus, students will participate in classroom activities before and after the bus visits their school. Teachers will also be provided with professional development training in alternative energy technologies and careers in clean energy. The project is an initiative of the Renewable Hydrogen Fuel Cell Collaborative, which consists of The Ohio State University, Columbus State Community College, Ohio Fuel Cell Coalition, and the Stark Area Regional Transit Authority.

Conservancy for Cuyahoga Valley National Park, “CVNP Environmental Career Academy,” S-18G-038, \$44,972, Summit County, Audience: Pre-school to University (Grades 8-12), Contact: Katie Wright, kwright@forcvnp.org, (330) 657-2796

The Environmental Career Academy for high school youth will teach students about careers in environmental science and related fields, with an emphasis on diversifying the workforce. The project will increase the number of under-served youth who pursue careers in STEM (Science, Technology, Engineering, and Math) fields, including environmental fields and the National Park Service. The Career Academy will also provide opportunities for students to develop a sense of shared stewardship for the Cuyahoga River watershed through the scientific process.

Hamilton County Soil and Water Conservation District, “Storm Sewer Retrofit Project,” \$49,513, S-18G-051, Statewide, Audience: Regulated Community, Contact: Adam Lehmann, adam.lehmann@hamilton-co.org, (513) 772-7645

A large stormwater outfall will be retrofitted to facilitate detention of stormwater within the MS4 system draining a 170-acre sewershed. By sharing the successes and shortcomings of this project, Hamilton County Soil and Water Conservation District will educate the regulated community about more effective and less costly implementations of stormwater management technologies in Ohio's MS4s in the future. The instream biology, habitat and water quality will be monitored to

evaluate the effectiveness of the project. Educational materials about the design, performance and maintenance of the stormwater outfall will be developed and shared with the MS4 regulated community. A local presentation, site tour and state-wide presentations will also educate MS4 communities about implementing the demonstrated technologies.

Together We Grow, Inc., “Newark City Schools Green Machine Composting Program,” S-18G-062, \$35,473, Licking County, Audience: Pre-school to University, Contact: Pamela Roberts, togetherwegrowinc@gmail.com, (740) 504-7351

The project will initiate a large-scale composting program in Newark City Schools, reaching nearly 1,800 students each year. Students will participate in a two-day training at the beginning of the school year learn to sort food and collect leaves and yard waste to maintain a suitable carbon to nitrogen balance. Food scraps and yard waste will be broken down in an industrial-sized composting machine called an Earth Tub. Students will also conduct waste audits every nine-week grading period to calculate and monitor the amount of waste being disposed into the trash. Students will design a scientific investigation around composting and gather analyze and interpret data by using measuring tools and techniques. Soil will also be studied in conjunction with the Ohio’s Learning Standards. An Earth Day event will be held allowing students to share their findings and knowledge with parents and local leaders.

The Ohio State University - Department of Extension-Hancock County Extension Office, “Incorporating Livestock Manure into Growing Crops in the Lake Erie Basin,” S-18G-065, \$38,500, Statewide, Audience: Regulated Community, Contact: Glen Arnold, arnold.2@osu.edu, (419) 422-3851

At least 12 demonstration plots in the Western Lake Erie Basin will show liquid manure incorporation equipment and demonstrate the incorporation of manure into a growing corn crop using a drag hose system. Liquid livestock manure will be applied to emerged corn fields and incorporated during the application process. The nitrogen in the livestock manure will replace the commercial sidedress nitrogen the farmer would normally purchase. Farmers will be encouraged to leave strips for commercially applied sidedress nitrogen in each field to serve as a side by side demonstration comparison. Once the 2018 crop season has ended and the demonstration plot information has been collected and summarized, OSU Extension and SWCD personnel will present the information at various winter educational meetings and field days.

For more information, contact:



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