



Vol. 8 Issue #7

July 2016

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Community STEM in the NEWS

STEM in the Park is Making a SPLASH at the 7th Annual Event

"STEM in the Park", a free family day of hands-on fun at Bowling Green State University (BGSU), will take place from 10 a.m. to 2 p.m. on September 24 at BGSU's Perry Field House, with plenty of free parking available.



The event will feature science, technology, engineering and mathematics (STEM) interactive displays and activities created by community partners, local businesses and area universities to engage children of all ages in STEM fields. Over 140 unique exhibitors will host hands-on STEM Activity Stations that individuals and families can enjoy.

"STEM in the Park" allows participants to make ice cream, dabble in robotics, launch pop rockets, pet lizards, take-home free STEM activities and much more. Everyone who attends the event will receive an event map, take-home materials and activity ideas, and a complimentary catered lunch from Tony Packo's restaurants, a local favorite.

A new zone was created for this year's event, the **H₂O Zone**. Activities in this zone will explore the science behind all of water's amazing uses. Also new is the **Food Science Zone**, where participants can become a "Food Technologist" and explore the science behind cooking.



Back by popular demand in 2016 is the "**Science of Sports**" zone, which displays activity stations that examine: how fast participants can run, jump, and throw a ball. A PGA Golf Simulator will also be present for participants to examine their golf swing and participate in the longest drive contest!

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The "**Roots to STEM Pre K-2**" zone is also back this year, which features activities that cater specifically to younger children. The STEM Stage will once again feature super-sized demos from Imagination Station and the Soar & Explore Bird Show presented by the Toledo Zoo.

Activity Station hosts include many departments at BGSU's including the Marine Lab and Herpetarium, Verizon, Toledo Botanical Garden, Challenger Learning Center of Lake Erie West, Nature's Nursery, Ohio Northern University's College of Engineering, Wood County Hospital plus more than 80 other institutions and organizations

Last year's event drew more than 4,300 people from all over northwest Ohio and southeast Michigan.

"**STEM in the Park**" is the brainchild of Drs. Emilio and Lena Duran, both faculty members in BGSU's College of Education and Human Development. Inspired by "Literacy in the Park", an on-campus spring event that brings families in for a variety of literacy-boosting activities, "STEM in the Park" seeks to increase public engagement in the STEM disciplines and is organized by the Northwest Ohio Center for Excellence in STEM Education (NWO) at BGSU.

According to Jenna Pollock, NWO Education Program Manager, "NWO is committed to increasing attendance among low-income and at-risk children. For the fourth consecutive year we will provide transportation for families from several school districts in urban and low-income neighborhoods."

NWO organizes the free event on the BGSU campus for the entire northwest Ohio and southeast Michigan community. NWO is a partnership among a number of area universities, K-12 schools, and community partners who all come together at this event to showcase innovation and educational opportunities and promote positive attitudes toward STEM teaching and learning.

"**STEM in the Park**" Presenting Sponsors for 2016 are Bowling Green State University, BP, First Soar, Lubrizol, PPG Industries and Verizon.

Community Sponsors include the Northwest Ohio Center for Excellence in STEM Education at BGSU (NWO) , SSOE, Thayer Family Dealerships, and The Andersons.

AT&T, the Bowling Green Community Foundation, Master Chemical, Walmart, Environmental Water Engineering and Tony Packo's comprise the General Sponsor list.

Visit www.STEMinthePark.org for more information and to pre-register to attend the event.

K-16 STEM in the NEWS

Ohio Student Team Creates Water Filter from Litter



To find students applying STEM learning to real-life problems, look no further than four Gahanna Middle School East eighth-graders.

As their entry in an eCYBERMISSION competition sponsored by the Army Educational Outreach Program (AEOP), the student team came up with a waste-saving, water-purifying idea that has garnered \$25,000. Julia Bray, Luke Clay, Natalie Clay and Ashton Cofer created a process called Styro-Filter, which aims to convert polystyrene waste (disposable foam cups, plates, coolers and packing material) into activated carbon for water filtration.

In June, their idea won a \$5,000 STEM-in-Action grant at the eCYBERMISSION national judging event in Washington, D.C. The project also garnered a \$20,000 award in a FIRST LEGO League competition. We asked team member Ashton, who is 14 years old and will attend ninth grade at Columbus Academy in the fall, to tell us about the project and the process; click the link below to the full article for his responses.



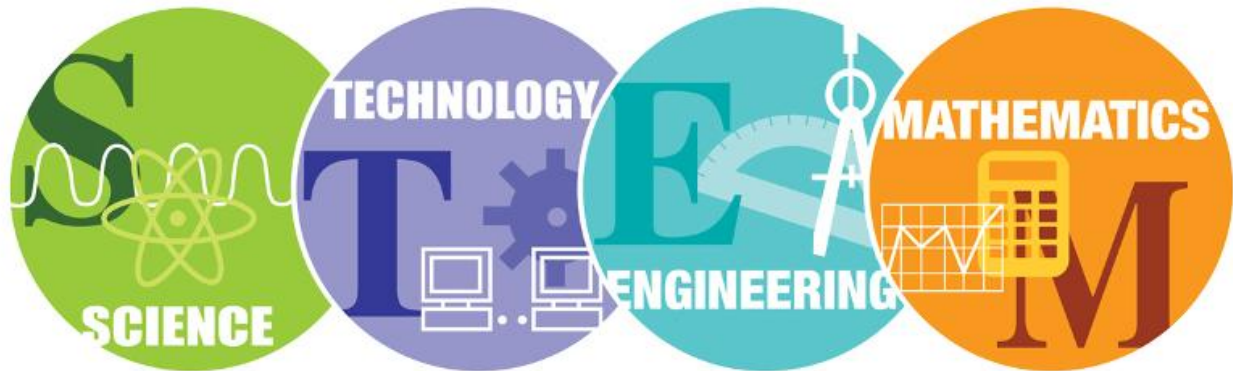
To read the article in full please visit: <http://www.osln.org/2016/07/student-team-creates-water-filter-from-litter/>

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STEM Opportunities

NWO Symposium 2016: Registration is now OPEN!



Northwest Ohio Symposium on Science, Technology, Engineering, and Mathematics Teaching

Saturday, November 19, 2016

8:30 AM - 4:00 PM

Olscamp Hall, Bowling Green State University
Bowling Green, OH 43403

Featuring the 2016 keynote speaker:

Dr. Jodi Haney
BGSU, Professor Emeritus

NEW Strand for 2016! Extended Day STEM: Supporting After School Programs

Sessions in this strand will focus on developing and implementing STEM learning environments in after school programming.

Online registration is now open!

[Click here](#) to register

Presentation Proposal Information

We invite submission of proposals for presentations at the 2016 NWO Symposium on Saturday, November 19th at Bowling Green State University. To submit a presentation proposal, please click the link below and complete the online form. Please review the Symposium Strands listed on the web site; you will need to choose one of these strands for your presentation.

[Click Here To Apply by September 26](#)

All presentation proposals must be submitted by SEPTEMBER 26th at 5:00PM. Beginning September 27, NWO staff will review the proposals and notify prospective presenters if their proposal has been accepted. Accepted presenters will not be charged a registration fee.

For more information visit the Symposium website at: bgsu.edu/nwoSymposium

Questions? Contact nwo@bgsu.edu

Chemical Education Foundation

Seeking Science Experts for Content Development Team

The Chemical Education Foundation (CEF) is adding additional members to its Content Development Team, whose members create the scientific content for the "You Be The Chemist Challenge". This past year the Challenge reached over 50,000 students in 39 states and territories, and the Content Development Team was instrumental in bringing high-quality STEM education to these young learners.

Team members work remotely with CEF, which means the team members can be located anywhere and can contribute according to their schedules. If you are interested in serving on the CDT or want to recommend someone for this opportunity, please email Katie Wetstone at: kwetstone@chemed.org

See the website for more information at: [http://www.chemed.org/](http://www.chemed.org)

Kids in Need Foundation

The Kids In Need Foundation, a national nonprofit organization dedicated to providing free school supplies to economically disadvantaged school children and underfunded teachers, is accepting applications from pre-K-12 teachers for grants in support of classroom projects. Teacher grants of up to \$500 will be awarded to educators in support of projects that strengthen creativity, critical thinking skills, and/or core knowledge by engaging students in the learning process. Grant awards are based on the creativity of the projects being proposed. Typically, three hundred to six hundred grants are awarded each year.



All certified pre-K-12 teachers in the United States are eligible to apply.

See the Kids in Need Foundation website for complete program information and application guidelines at:
<http://www.kinf.org/>



LinkEngineering is a community of educators working with PreK-12 students in classrooms or other settings. This includes - but is not limited to - teachers, teacher educators, and administrators. The site allows members to connect with each other and engineering education experts.

LinkEngineering is a resource website that provides examples of engineering in educational settings. It also provides background information on engineering and engineering design.

<http://www.linkengineering.org/5826.aspx>

Lowe's Toolbox for Education

The Lowe's Charitable and Education Foundation has announced the opening of its Fall 2016 Toolbox for Education, which supports projects that encourage parent involvement in local schools and build stronger community spirit.



One-year grants of up to \$5,000 will be awarded to projects with the potential to have a permanent impact on a school community, such as facility enhancement (indoor or outdoor) or landscaping/clean-up projects. In addition, Toolbox grants can be used as part of a large-scale project like a playground, as long as the grant will be used to complete a phase of the project that can be completed within twelve months of the award.

To be eligible for a grant, applicants must be a public K-12 school or nonprofit parent group associated with such a school. Parent groups that are applying (PTO, PTA, etc.) must have an independent EIN and official 501(c)(3) tax-exempt status. Preschools are not eligible.

<http://www.toolboxforeducation.com/>

iDiscovery

iDiscovery 2.0, through Miami (OH) University, will offer a virtual seminar-based course in Fall 2016: Advanced Explorations. This course will allow educators to engage in critical analysis of their STEM teaching practices through personal and peer reflection, and to identify and share effective STEM teaching strategies for improvement of students' learning.

Course Options: Fall Semester 2016:

- **iDiscovery** Implementing Ohio's Learning Standards Advanced Explorations 1: STEM K-8 16-17 EDT 699G

iDiscovery courses are distinct each academic year, allowing continued multi-year participation.

Cost: The total participant cost is only \$200 per semester course with a \$20 graduate school registration fee. This nonrefundable fee is payable by credit card at the time of registration for each course. Registration and payment are submitted through secure sites, accessed only through your assigned **iDiscovery** Website classroom.

<https://www.idiscovery.org/>

Ohio's Learning Standards in Science and Model Curriculum

As part of Ohio Soybean Council outreach efforts this year, they are offering GrowNextGen grants to teachers, specifically STEM teachers. The deadline is August 19 for the application. The awards will be announced the week of August 22nd.



Please see the website for more information: <http://grownextgen.org/>

Fill out an application at: <http://geleerd.net/form/incorporateaginstem>

OAN's Website Has A New Look And New Features

The Ohio Afterschool Network is excited to announce the launch of a



brand new enhanced website. This tool will allow the Network to better communicate legislative and policy updates and calls to action, share program resources and ideas and announce events that are happening all around the state of Ohio. Great new features include...



- **A NEWS SECTION**... get all the latest news from Afterschool and Summer Learning organizations all in one place
- **AN EMPLOYMENT PAGE**...members can post opportunities at their organizations or see available jobs across the state
- **A LIVE FACEBOOK AND TWITTER FEED**... you can follow all of OAN's social media updates
- **A POLICY AND ADVOCACY TAB**... data, statistics and other great resources for promoting the field, and strengthening our voice and demonstrating the critical need for Afterschool and Summer Learning in Ohio

Please see the website for more information: <http://www.ohioafterschoolnetwork.org/>

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NWO Hands-On STEM Activity

In anticipation of this month's "STEM in the Park", this month's activity is from BGSU's School of Teaching & Learning and Department of Environment and Sustainability. More fun activities from STEM in the Park can be found on our website at: www.nwocenter.org/STEMinPark

Water Cycle Bracelet

What you need:

- Blue, white, clear, green, and yellow beads (can have one of each color, or repeat the pattern to fill up the bracelet)
- Hemp, string, or pipe cleaner

What to do:

- Place the beads on your pipe cleaner/string in a pattern that represents the water cycle.
 - The sun (yellow bead) heats up water in and on the earth (green bead). Water evaporates (clear bead), cools and condenses into clouds (white bead).
 - Then it rains, sleet, snows or hails (blue bead) and that water (called runoff) soaks into the earth where the sun again heats it, making it evaporate once again and continuing the cycle.
- After you place all of your beads onto your bracelet have an adult tie it around your wrist (not too tight).



Download a pdf of the complete hands-on activity by [clicking here!](#)

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Share Your Story!

Thank you for your support of NWO, our programs, our activities, and our partners. Please send us updates, press releases, and news of STEM happenings at your school, district, or organization. Please submit to nwo@bgsu.edu. We are always looking for great STEM education stories to feature in upcoming newsletters.

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