

Advancing science, technology, engineering, and mathematics education for people of all ages.



Vol. 10 Issue #8

August 2018

In This Issue

K-16 STEM in the NEWS

K-16 STEM in the NEWS

[Battelle Announces Winners of 2018 Ohio STEM Excellence Awards](#)

Battelle Announces Winners of 2018 Ohio STEM Excellence Awards

Community STEM in the NEWS

[Toledo Public Schools opens new Aviation Natural Science Academy of Toledo](#)



STEM Opportunities

Matt Ehrhard, Susan Stearns, Melissa Drury, and Amanda Gillespie

[STEM in the Park](#)

[Women in STEM Presentation Proposals](#)

[NWO SYMPOSIUM - Calling All Presenters and Vendors](#)

The Ohio STEM Learning Network (OSLN) announced the winners of the "STEM Excellence Awards," a series of competitive awards that recognize outstanding teachers, leaders, and advocates in the fields of science, technology, engineering, and mathematics (STEM) education.

The awardees were recognized in late July during a reception for the 2018

[Lowe's Toolbox for Education Grants](#)

Connections to Education Conference hosted by the Ohio Association for Career and Technical Education and OSLN. The network was founded in 2008 and today represents 55 STEM schools across the state. Battelle manages the Ohio STEM Learning Network as part of the company's commitment to preparing the next generation of innovators.

[Imagination Station Fall Field Trips](#)[eCYBERMISSION](#)

Nominations were open to the public earlier this year. The OSLN team selected this year's awardees from a field of more than 35 highly qualified nominees.

[Target Field Trip Grants](#)[National Girls Collaborative Project and TechGirlz National Webinar](#)

"Ohio's national reputation as a place for innovative STEM education is built on the hard work of educators across this state," said Aimee Kennedy, Senior Vice President for Philanthropy and Education at Battelle. "The awardees we recognize today each distinguished themselves in their schools, communities and our state with exceptional dedication toward delivering quality STEM education to every student in Ohio."

[High School Drone Racing Scholastic League](#)

This year's awardees of the STEM Excellence Awards are:

[Teachers of High School Students interested in Engineering](#)**Excellence in STEM Leadership Award**

The Excellence in STEM Leadership Award recognizes a school-level, district, or regional leader with a proven track-record of developing effective STEM programs. This awardee supports and encourages teachers and schools to continually infuse STEM teaching strategies and embrace classroom innovation.

NWO STEM Activity[Spin the Water Wheel](#)

Melissa Drury has been the Principal at Summit Road STEM Elementary since 2014. Summit Road STEM Elementary is considered a research and development site and has been recognized as a national exemplar for elementary STEM education by the National Science Foundation.

Drury charged teachers and students to fine tune the delivery of core values such as collaboration, complex thinking and communicating by publishing design thinking and the process of solving real world problems. This year, students were tasked with showcasing their learning through public exhibitions of student learning—a key element of strong STEM programs.

Through her leadership, Summit Road Elementary has a strong culture that values inquiry, design thinking, and problem solving. This culture begins with the selection of staff who are committed to the idea that being a part of a research and development site means being immersed in inquiry-based learning and living in the design cycle. Students and staff regularly use and hone 21st century skills and are actively engaged in the learning process. This past year, students worked on real problems such as preserving our national parks, helping other children around the world after the effects of tragic storms, staying engaged during inside recess, and educating our community about our natural wetlands and preservation efforts.

Drury's leadership and impact at Summit Road Elementary goes far beyond her building, far beyond Reynoldsburg, Ohio. She is an example of a STEM Leader who has had a national impact.

STEM Advocate Award

The Ohio STEM Advocate Award recognizes an Ohioan who has demonstrated a passion for STEM education through public advocacy and participation in leadership organizations that advance STEM for all.

Susan Stearns is the Assistant Director of Programming and Development at Bowling Green's Northwest Ohio

Center for Excellence in STEM Education.

She is a passionate advocate for STEM equity and access, always taking the next step to bring even more students and teachers into STEM experiences. At STEM in the Park, Stearns rallies more than 100 organizations, pulling together professionals from aviation to animal sciences to build their STEM community. The budget for the event tops \$100,000, which she raises every year. She also fundraises to provide transportation for area students to attend.

Stearns also was the lead writer on a grant proposal to the Army Educational Outreach Program. They won the grant and founded the RiSE program with Toledo and Springfield Public Schools. Through this work, 180 students conducted independent research projects, attended a student symposium at Bowling Green, and presented their findings to university faculty. For some of them, it was their first time walking onto a college campus.

STEM Innovator Award

The Ohio STEM Innovator Award recognizes an Ohioan who has demonstrated an outstanding contribution to the support of STEM education and outreach within his or her region. This awardee is a leader that identifies, supports and promotes innovative practices that address important challenges in expanding access to quality STEM education.

Matt Ehrhardt is the Assistant Director of the EHOVE Career Center in Northwest Ohio.

Ehrhardt has displayed leadership in the advancement of STEM education in several ways. This past year he was driving force behind the Regional Makerspace Teacher Academy, the first Ohio High School Drone League, and the Cedar Point Maker Faire. With these efforts, he has directly supported and encouraged educators to work in a more innovative manner with STEM content. He is responsible for getting financial support, managing the logistics and keeping all members informed and engaged.

Ehrhardt is passionate about developing and providing programs that promote STEM for all, and particularly, girls. From supporting female instructors and coaches to encouraging young ladies to participate in programs, Ehrhardt works hard to include girls in innovative STEM fields and projects. He also has grown community partnerships with supporters such as NASA, Cedar Point and Buckeye Cable Sports Network.

About Battelle

Every day, the people of Battelle apply science and technology to solving what matters most. At major technology centers and national laboratories around the world, Battelle conducts research and development, designs and manufactures products, and delivers critical services for government and commercial customers. Headquartered in Columbus, Ohio since its founding in 1929, Battelle serves the national security, health and life sciences, and energy and environmental industries. For more information, visit www.battelle.org.

Community STEM in the NEWS

Toledo Public Schools Opens New Aviation Natural Science Academy of Toledo



The new Aerospace & Natural Science Academy of Toledo (ANSAT) of Toledo Public Schools held a ribbon cutting ceremony to showcase the newly renovated school building in early August. The school officially will open its doors to over 200 students on August 20.

Dr. Romules Durant, CEO/superintendent of Toledo Public Schools and Amy Daunhauer, the new ANSAT director, were joined by Congresswoman Marcy Kaptur, City of Toledo Mayor Wade Kapszukiewicz, and other community leaders at the ceremony.

Located at Toledo Express Airport, the new academy is open to students throughout northwest Ohio. It will have a Career Tech focus in several growing industries: aviation and aeronautics; animal science and management; urban agriculture and agribusiness and environmental sustainability and wildlife management. There will be project-based cross-curricular learning in a high-tech environment.

Students will have the opportunity to earn college credit, industrial credentials, and employment after graduation. Possible career options include employment as an aviation technician as well as in greenhouse management; small livestock management; hydroponic vegetable production; veterinary hospitals; animal research facilities; animal control agencies; animal shelters and boarding kennels.

For more information visit: <http://www.tps.org/find-your-school/high-schools/aerospace-natural-science-academy-of-toledo.html>

[\[back to top\]](#)

STEM Opportunities

STEM in the Park

SATURDAY, SEPTEMBER 23, 2017

9:30 a.m. - 2:30 p.m.

Perry Field House @ BGSU

SAVE TIME... Pre-Register Online!

[Click here](#) to Pre-Register

"Take Flight with STEM"

Soar to the **FLIGHT ZONE** with **STEM in the Park** and



the **Wood County Air Fair** as they Take-Off Together!

For the first year ever, **STEM in the Park** and the **Wood County Air Fair** will combine their events to make one large multi-site event! Join us as we explore all aspects of FLIGHT at the Wood County Regional Airport and MAN other STEM ZONES at BGSU (Perry Field House).

A shuttle service will be available to transport families to both locations.

STEM in the Park will feature interactive displays and activities created by area universities, community partners, and local businesses to engage children of all ages in science, technology, engineering, and mathematics.

For more information visit: www.STEMinthePark.org

Presentation Proposals Are Now Being Accepted For The 34th Annual Women in STEM program

Tuesday, October 30, 2018 @ BGSU for 6th through 8th Grade Girls

The goal of the Women in STEM program at BGSU is to provide a rewarding experience for 6th - 8th grade girls that connects STEM education to the real world and sparks an interest in pursuing STEM majors in college and ultimately STEM careers.

Women in STEM provides young women with a positive experience at BGSU and offers them a variety of engaging hands-on activities that allows them the opportunity to learn and interact with a wide variety of successful STEM role models.

Please [click here](#) to apply to be a presenter.

For more information visit the website at: www.bgsu.edu/nwo/programs/women-in-stem.html



NWO SYMPOSIUM - Calling All Presenters and Vendors

NWO Symposium on Science, Technology, Engineering and Mathematics Teaching

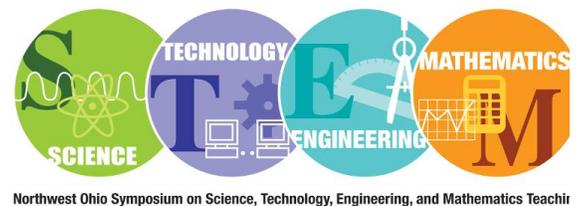
November 17, 2018

8:45 AM - 3 PM

Olscamp Hall @ BGSU

2018 NWO Symposium Strands

1. STEM in the Community: Thinking Outside the Classroom
2. Putting Creativity to Work: Teaching STEM With Innovation
3. Integrating Technology in the Classroom
4. Teaching and Learning in SCIENCE
5. Teaching and Learning in MATHEMATICS
6. Teaching and Learning in ENGINEERING



NEW Highlight for 2018

The Symposium will host an Education Resource Fair, where local educational resource providers will showcase classroom resources and services available for teachers and students.

[Click Here To Apply](#)

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

Lowe's Toolbox for Education Grants

The application period for the Lowe's Toolbox for Education grant program is now open. The program will award \$2,000 to \$5,000 classroom grants to as many as 1,000 schools and parent-teacher organizations.



For this fall's grant cycle, there are three priorities for use of the funds:

- Tools for STEM programs;
- Technology upgrades; and
- Facilities/safety upgrades.

The deadline to apply for the grant is Sept. 28. Winners will be announced in January 2019. Further details and a link to the application form can be found at: <http://toolboxforeducation.com/hta>

Imagination Station Fall Field Trips

Teachers, it's not too late to book Fall field trips to Imagination Station!

Suggestions include: time in the IDEA Lab, Tinkering Space, and Think Tank Workshop.

Dive deep into topics as varied as Electric Guitar, Notebook Making, and Cow Eye Dissection.

Spend the day at the science center and experience all of the fun and educational activities that students will enjoy when they visit Imagination Station.

Find out more about IDEA Lab, Think Tank and Tinkering Space!

<https://www.imaginationstationtoledo.org/educator/field-trips>

**eCYBERMISSION**

Registration for 2018-2019 opens the second week of August.



eCYBERMISSION is a web-based STEM competition free to students in grades six through nine that promotes self-discovery and enables all students to recognize the real-life applications of STEM. Teams of three or four

students are instructed to ask questions (for science) or define problems (for engineering), and then construct explanations (for science) or design solutions (for engineering) based on identified problems in their community. Students compete for State, Regional and National Awards. Participation is free.

<https://www.usaeop.com/program/ecybermission/>

Target Field Trip Grants

Target is accepting applications to its Field Trip Grants program, an annual program designed to support field trips for K-12 students.

Grants up to \$700 are intended to fund visits to art, science, and cultural museums, community service or civic projects, career enrichment opportunities, and other events or activities beyond school grounds. Funds may be used to cover field trip-related costs such as transportation, ticket fees, food, resource materials, and supplies. Please see the website for more details: <https://corporate.target.com/>



National Girls Collaborative Project and TechGirlz National Webinar

Help Inspire Middle School Girls to Explore Tech

September 25, 2018

11:00 AM Pacific (2:00 PM Eastern)

In this one hour webinar, participants will learn how TechGirlz has worked with volunteers around the country, empowering IT professionals, and college and high school students to teach and inspire middle school girls with their new interactive tech workshops called TechShopz. They have created 50 TechShopz covering a wide variety of technology topics. These workshops are packaged in a virtual box, allowing anyone, anywhere to run a TechShop.



Please see website: <https://ngcproject.org/techgirlz-you-can-help-inspire-middle-school-girls-to-explore-tech>

The mission of the National Girls Collaborative Project is to build the capacity of STEM practitioners to develop a diverse workforce.

High School Drone Racing Scholastic League

Drone Racing Pioneers!

The time has come to register your school teams for the 2018/2019 S3 Racing Academy scholastic league, brought to you by North Point ESC, EHOVE Career Center, Buckeye Broadband and Safety Third Racing!!





We have been working hard to incorporate feedback from our experimental Spring 2018 season and improve everything! Check out our recently updated Getting Started Guide by [clicking here](#), which includes details of this season's many new features.

So head on over to the S3RA website: <https://safetythirdracing.com/academy.htm>, or [click here](#) to register your team!

Teachers of High School Students interested in Engineering

Ohio Northern University is offering a Math and Engineering Education scholarship opportunity.

The Ohio Northern University Math and Engineering Education Scholarship awards an average of \$20,000 per year to Ohio Northern's junior and senior math education and engineering education majors. This is in addition to everything else included in that student's financial aid package.



To be eligible, all you have to do is pledge that, after graduating, you'll spend two years in a high-need school district for every year you receive the scholarship.

OHIO NORTHERN UNIVERSITY

<https://goo.gl/hukw6e>

[\[back to top\]](#)

NWO STEM Activity

Spin the Water Wheel

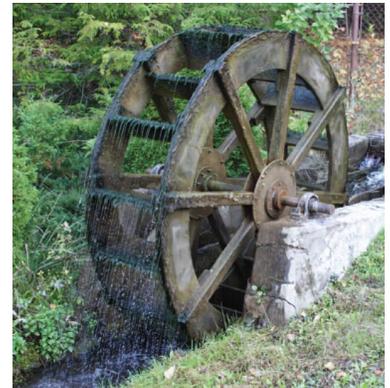
This month's hands-on activity is from Siemens STEM Day.

In this activity, students will construct a water wheel with household materials that can be used to lift an object. Students will examine how energy can be created using liquids as a source of power and consider the potential impact of the use of hydropower on the environment.

Grade Level: 3-5

What You Need:

- Sink or large plastic tub
- Plastic pitcher
- Empty 2-liter soda bottle
- Strong thread or dental floss
- Scissors



- Plastic knife
- Two corks
- Wooden barbecue skewer
- Variety of small weights
- Make a Water Wheel Directions handout

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

[\[back to top\]](#)

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.

Join NWO on [Facebook](#)

Follow NWO on [Twitter](#)

eNewsletters from the past!

Looking for past articles from our eNewsletters?

[Click here](#) view and download from our **eNewsletter** archives.

NWO/COSMOS, 304 University Hall, BGSU, Bowling Green, OH 43403

[SafeUnsubscribe™ {recipient's email}](#)

[Forward email](#) | [Update Profile](#) | [About our service provider](#)

Sent by nwo@bgsu.edu in collaboration with

Constant Contact 

Try it free today