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

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K-16 STEM in the NEWS

University intrigues students about STEM innovation, entrepreneurship and financial support options

On December 5, more than 150 high school students, representing nine schools across five counties, came to Bowling Green State University for the Believe in Ohio STEM Entrepreneurship & Innovation Forum. The Northwest Ohio Center for Excellence in STEM Education, housed within the University's College of Education and Human Development, co-hosted the forum as a STEM Advocate of the Ohio Academy of Science.

Students and their teachers, powered by a paired effort with the **College of Education and Human Development** and the **College of Business Paul J. Hooker Center for Entrepreneurial Leadership**, learned first-hand about how they fit with STEM entrepreneurship and innovation. Faculty and staff from both colleges worked alongside real-world entrepreneurs, students and alumni; topics ranged from past experiences to future opportunities. https://www.bgsu.edu/business/centers-and-institutes/center-for-entrepreneurial-leadership.html

BGSU students mentored high school students, who by the end of the day

pitched business ideas they had developed. To continue the enthusiasm, a University Admissions representative shared information with students and teachers about STEM innovation and entrepreneurship programs at BGSU, as well as the financial support options to help students reach their goals.

One of these options is **Choose Ohio First** which, through the Ohio Department of Higher Education, awards competitive scholarship funding to Ohio's colleges and universities. Its mission is to support undergraduate and qualifying graduate students in innovative academic programs. https://www.ohiohighered.org/cof

Another option is **Believe in Ohio**, a free, comprehensive, curriculum-based program that was co-developed with Entrepreneurial Engagement Ohio. Funded by the State of Ohio, the Believe in Ohio program has funded more than $1.2 million in awards and scholarships to Ohio colleges and universities. https://believeinohio.org

The University STEM Forum team is planning another forum in 2020.

Community STEM in the NEWS

"WILD" times at Dorr Elementary School

This article is from WTVG 13ABC

Students at Dorr Elementary have been learning about the world outside their classroom for some time now. Last month, the Ohio Department of Natural Resources recognized the school as a "WILD School Site" - the 5th in Lucas County.

"It's a program in which we certify schools with outdoor classrooms used in their curriculum, and encourage kids to get outside," says wildlife communication specialist Meredith Gilbert. She inspected the school and presented the student body with a certificate acknowledging their continued environmental efforts.

Dorr Elementary has collaborated with the Toledo Zoo to increase milkweed and nectar for migrating monarch butterflies, and that's just one of several reasons for today's recognition.

Project WILD encourages kids how to think - and not necessarily *what* to think - about wildlife. The kids themselves planted all the seeds which form the prairie today, just last winter. Teachers and students alike are hoping to expand the prairie for future classmates.

4th grade teacher Kristy DiSalle, who spearheaded this designation for the school, says it's all about discovery. "I just think they're noticing nature. Instead of just walking right by, they're saying 'Oh, this plant wasn't blooming last week', or 'Wait, we don't hear the cicadas anymore.'"

Students learning about natural changes in their own backyard extends into other aspects of their education, from biology to chemistry - and occasionally, geography.

"Scientists may capture our monarch in Leakey, Texas, and report it to Monarch Watch. I'll get the e-mail or phone call and tell the students 'Our monarch was found in Texas, on its way to Mexico!' It's just kind of cool."
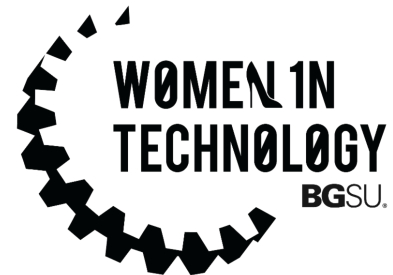
Click here to see video: https://www.13abc.com/content/news/WILD-times-at-Dorr-Elementary-School-564244971.html?fbclid=IwAR1dL5XwPe8W45YRWpiKgeWKz_5lGScfpY5neMtkbKap7bn7y04seKXleZM

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STEM Opportunities

Women in Technology Day at BGSU

Introducing the first annual **Women in Technology Day** for northwest Ohio high school females offered by BGSU's College of Technology, Architecture and Applied Engineering. A day of fun-filled and interactive learning experiences for young women led by area STEM professionals! Each school is limited to 10 students. Women in Technology Day provides them the opportunity to learn and interact with successful STEM role models while on BGSU's campus.

Please click on the link below to register students.
https://docs.google.com/forms/d/e/1FAIpQLSdqOHaxjX0VUuFVPDrr-_1mTX8epN6VyU7NEL2wZKS2ZV8oTg/viewform

Registration deadline is February 14, 2020

New Session!
Let *HER* learn to program with Lego EV3 Robots

CODE4her is a computer science mentorship program for girls in **grades 5 through 8** organized by the Bowling Green Computer Science Department and the BG Women in Computing (BGWIC) student organization, under the direction of faculty advisor Jadwiga A. Carlson.

The "Let *HER* learn to program with Lego EV3 Robots" mentoring sessions will be held at BGSU in Hayes Hall on the following five Sundays in 2020.

Let *HER* learn to program with Lego EV3 Robots at these five 2.5 hour mentoring meetings held in Hayes Hall 020 on BGSU campus:

Five Sundays 1:30- 4:00 pm:

- February 2
- February 23
- March 15
- April 5
- April 26

Each girl (5th through 8th grade) will work with the same BGSU student mentor and member of BG Women in Computing student organization.

Cost: $125.00 (missed meetings cannot be made up).

Registrations are accepted on a first-come, first-served basis!

Please see: code4her.org for more information

Ohio STEM Learning Network Design Challenge

Get your school involved in the 2020 #STEMdrivesOhio Design Challenge by officially registering at the new OSLN design challenge website. Registration will close on January 15! Please check the resources on the website before signing up.

https://designchallenge.osln.org/participate/

LEXUS ECO CHALLENGE

In support of the United Nations Sustainable Development Agenda, each year the Lexus Eco Challenge invites students in grades 6-12 to tackle environmental issues in their communities, create and submit their action plans and results, and compete nationally for a total of $500,000 in grants and scholarships.

https://www.scholastic.com/teachers/sponsored-content/lexus/home/

Learning Blade

Learning Blade is offering FREE Use during the Month of December!

Students can get a glimpse into the world of computer science through Learning Blade's newest online lesson series, Intro to Computer Science!

Have students to go to www.LearningBlade.com/CSWeek
Students can use the class code provided
Students register themselves and have access for the entire month of December
Students login and experience Intro to Computer Science

PBL Learning Network

Free STEM Resources for Grades PreK-12.

https://cet.pbslearningmedia.org

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NWO STEM Activity

Ice Cube Curling: Let's Explore Friction

This month's activity was featured at the 2019 STEM in the Park and is brought to you by Bowling Green Curling Club.

What You Need

- 2 players
- Ice Cubes (kept frozen until right before they are needed)
- A coin
- Kitchen countertop or 1 metal tray (cookie sheet)
- Small Hand Towel

What To Do

1. Start with a dry kitchen countertop or metal tray
2. Place a coin on the counter top or tray to act as your "house" (the target in curling)
3. Try to slide your ice cube as close as possible to the house.
4. Each player tries to get their ice cube closer to the house than the other player.
5. Predict what will happen as the ice cube is moved around on the tray with greater motion.
6. Gently move the ice cube, rubbing it on the flat surface, increasing speed while still maintaining good self-control.
7. Slide your ice cube around and play again.
8. Compare how the ice cubes move as the surface gets wetter.
9. Experiment with different ideas...what happens if you put a sheet of wax paper on the tray or countertop?

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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