



Aug 27 2025 **News, Resources, & Notes**

Upcoming Events:

1. [Ohio Educator Summit](#)/OTEEA Conference, Wednesday, October 22, 2025, River Valley High School, Caledonia
2. [ITEEA Fall Forum](#), November 5 & 6, 2025, Online
3. ITEEA Annual Conference, March 25-28, 2026. Virginia Beach

OTEEA webinars
[online archive](#)

OTEEA News, Resources, and Notes [online archive](#)

STEM is Elementary
[Newsletter Subscription And Archived Issues](#)



this issue

News & Resources **P.1**

More News & Resources **P.4**

Outreach Notes **P.14**

The Ohio Technology Summit Wednesday, October 22

The Ohio Technology and Engineering Educators Association (OTEEA) is hosting the 2025 [Ohio Educator Summit](#) on **Wednesday**, October 18th, in cooperation with River Valley Local Schools at River Valley High School. If you teach classes in nearly any area of technology, you will find a session that applies to your curriculum.

Share what you have learned and what works in your program with others by [applying to present](#) by September 20th!

If you have ideas for speakers or topics that you would like at the Summit please let OTEEA President [Tad Douce](#) know.

More information about the Summit will be shared in coming issues.



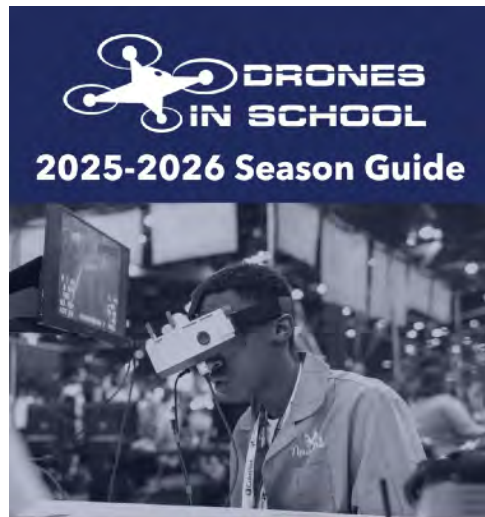
Hold the Date! NRC '26 Is Set for April 16-18

The [2026 National Robotics Challenge](#) will take place in Marion, Ohio on April 3-5. The official Contest Manual will be released soon! We can't wait to see the amazing designs your students come up with! The 2026 Contest Manual will be released by September 2, 2025



Drones in School News

Get the 2025-26 Season Guide!




dronesinschool.com

With the start of the new school year, we are excited to get the 2025–26 [Drones in School](#) season rolling! We already have teams registering and purchasing equipment, so they are ready to go when students return to the classroom. Now, what would a new season be without a new Season Guide? In the season guide, you will find all the information your team needs to be successful, including updated rules, new guidance for visual observers participating in head-to-head racing, an expanded award list, and more! [Click here to get the Season Guide.](#)

2025-26 Season Registration is Available!

Registration for the Drones in School 2025-26 Season is available now on the Drones in School website! Teams that register for the season before August 1st will receive 10% off their registration cost with discount code DIS10. The 2025-26 Season Guide will be released and payloads will be sent in August. [Click here to get your registration started!](#)



The 2024-2025 Season Championship was Phenomenal!



Fifteen High School teams and twelve Middle School teams converged at the AUVSI XPONENTIAL Conference in Houston, Texas, to determine the 2024-2025 Season Champions. Throughout the two-day event, teams had a great time showing off the work they completed this season. The competition at the 2025 Season Championship was intense! These teams really had to put together all the details and show off some outstanding flying skills to earn a top-four finish this season. In addition to sharing their work and flying their drones, the teams were entirely amazed by the cutting-edge technology showcased by the industry leaders exhibiting at the AUVSI XPONENTIAL event. We hope your team will qualify for the 2025-2026 Championship! [Check out the recap video here.](#)

[Click here to see all the winners from the 2025 Season Championship Race.](#)

Are You Ready To Be a Force in Advancing Technology, Engineering, and STEM Education?




ITEEA's 2026 Annual Conference is making waves in Virginia Beach, March 25–28, 2026—and we want your voice at the forefront!



Whether you're a classroom innovator, a curriculum strategist, an expert at technology integration, or a community engagement champion, your insights can shift the tide in the field.


 Why Present at ITEEA's 2026 Conference?

- **Establish Yourself as a Thought Leader** by showcasing the forces that have shaped your teaching success.
- **Grow Your Professional Skills** through dynamic, hands-on sessions that spark meaningful dialogue and drive change.
- **Expand Your Network** by connecting with passionate educators from around the globe—collaborators who share your vision.

 What Are We Looking For in Learning Sessions?

- Innovative teaching strategies
- Emerging tools and technologies
- Hands-on learning experiences
- Actionable insights for real-world implementation

Your classroom wins, creative approaches, and hard-earned lessons are exactly what fellow educators need. Help others ride the wave of success by sharing what works.

 Time Is Running Out!

[Submit your application](#) to present by **Friday, August 29, 2025** and join us for four unforgettable days of learning, networking, and growth.

Let's make waves together in Virginia Beach!

Important Note: Previous Cvent users must create a new login to apply. You may use your same email address for your new account.

STEM Showcase

Designed for educators ready to share their best practices and experiences in a supportive, collaborative environment. These tabletop demonstrations are a perfect entry point for first-time presenters, students and early career educators, and those wanting to highlight specific classroom success.

[Apply to Present a STEM Showcase by Monday, December 1, 2025.](#)

[Apply to Present a Showcase](#)

Whether you're a classroom teacher with an innovative project, a curriculum coordinator with implementation insights, a technology integration specialist with digital tools expertise, or an advocate with community engagement strategies—your perspective adds value to the STEM education conversation.

Submit your application today and join us in Virginia Beach for four days of learning, networking, and professional growth that will energize your practice and advance your career, and help you make waves in technology, engineering, and STEM education!

The STEM Pulse

The August 8 edition is out with news, funding and event information.

[Read issue](#)

The August 22 edition is out with news, funding and event information.

[Read issue](#)



ITEEA Announces 2026 Conference Keynote



Dr. Stephanie Rowley will be Making Waves with ITEEA in Virginia Beach!

ITEEA is excited to welcome **Dr. Stephanie J. Rowley** as the Opening Session Keynote Speaker for its 2026 Annual Conference in Virginia Beach, VA! Dr. Rowley is the William R. Kenan Jr. Professor of Education and Dean of the School of Education and Human Development at the University of Virginia, where she also earned her Ph.D. in developmental psychology. Prior to returning to UVA, she served as provost and dean at Teachers College, Columbia University.

Don't miss the opportunity to hear Dr. Rowley speak on Thursday, March 26, 2026! Her powerful insights into identity development, equity, and

Technology and Engineering Education News and Resources

Activities, Contests, Student Opportunities, and New Technologies

motivation in young learners resonate deeply with this year's conference theme, "Making Waves: Forces Advancing Technology, Engineering, and STEM Education." Dr. Rowley's work challenges educators to consider how social forces shape student experiences and outcomes—making her keynote a must-attend event for anyone committed to creating inclusive, forward-thinking STEM learning environments.


[Learn More About ITEEA's 2026 Conference and View At-a-Glance Schedule](#)

[View Website](#)

ITEEA Announces New Annual Conference Schedule Designed Around Your Preferences

Making Waves: Forces Advancing Technology, Engineering, and STEM Education



 We heard you – our data shows the majority of Conference attendees arrive on Wednesday and depart early Saturday, so we're adjusting our schedule to meet your preferences! You'll receive the same total hours of quality programming, distributed in a more effective way.




? What can you expect for 2026 in Virginia Beach?

WEDNESDAY, March 25   

- Afternoon optional Workshops
- Optional afternoon Field Trip to STIHL Manufacturing
- Orientation sessions for first-time attendees and ITEEA leaders
- Open Houses, hosted by ITEEA's Councils
- Evening Welcome Reception for all attendees

THURSDAY, March 26   

- Morning Opening General Session
- 50+ Professional Learning Sessions and Action Labs
- Program and Teacher Excellence awardees recognition at Lunch
- STEM Showcase and Go Baby Go in the late Afternoon
- Optional offsite evening social at Bunker Brewpub

FRIDAY, March 27   

- 50+ Professional Learning Sessions and Action Labs
- Late afternoon Closing Industry Panel General Session

SATURDAY, March 28   

- No professional learning sessions or General Session
- Epsilon Pi Tau Breakfast
- Afternoon Optional Workshops
- Optional Afternoon Field Trip to Nauticus and the Wisconsin Battleship
- Invitation-only Committee and Council Meetings

ITEEA's 2025 Fall Forum

**RESERVE YOUR SPOT
FOR ITEEA's VIRTUAL
FALL FORUM**



November 5-6, 2025



Experience
enriching online
learning
accessible from
anywhere


- ✓ Live panel sessions
- ✓ On-demand content
- ✓ Virtual networking

REGISTER NOW!

Early-Bird Rates Available Until Monday, Sept. 15!

ITEEA's 2025 Fall Forum, our second annual event, is a dynamic two-day professional learning experience designed to empower educators with innovative strategies and resources that extend far beyond the classroom walls.

Each day will include an engaging **live panel session**  and **dozens of on-demand learning sessions**  for consuming at your convenience!

 17 Day One: For the Classroom

Get inspired with sessions packed full of hands-on activities, live demonstrations, and proven practices that elevate teaching and learning. Whether you're refreshing your curriculum or exploring new instructional approaches, day one delivers practical tools you can use immediately in your classroom.

 Day Two: Beyond the Classroom

Step outside the classroom to explore broader educational topics that shape the future of teaching and learning. From funding and legislation to recruitment, retention, and nontraditional learning pathways, day two equips you with the insights and strategies to lead and advocate in your school, district, and community.



Why Attend?

- **Affordable Access:** Register early to secure rates as low as \$35 and no travel required!
- **Flexible Viewing:** All sessions available live and on-demand for 60 days post-event 🕒
- **Robust Networking:** Connect with peers through the Attendee Directory 📁, Discussion Boards 💬, and Integrated Video Rooms 👥

Whether you're a classroom teacher, administrator, or education advocate, the Fall Forum offers something for everyone—practical tools, visionary ideas, and a supportive professional community.

Session Proposals Sought

For the Classroom and Beyond: Your Ideas, Your Impact!

[Submit A Proposal For A Recorded Session](#)

ITEEA invites educators, innovators, and thought leaders to submit proposals for **15–30 minute recorded sessions** for the 2025 Fall Forum: For the Classroom and Beyond.

Preference will be given to proposals that address the following suggested topics:

Inside the Classroom

- Classroom Practices/Pedagogy
- Technology Integration
- Career and Industry

Connections

- Instructional Innovation
- Classroom and Lab Safety
- Standards and Curriculum

Beyond the Classroom

- Professional Growth/Leadership
- Advocacy and Public Policy
- Teacher Recruitment/Retention
- Grants and Funding
- Teacher Licensure/Credentialing
- Extracurricular Programming

Key Dates

- Proposal Form Deadline: Friday, September 12th - just 3 weeks left!
- Notification of Acceptance: Late September/ Early October
- Recorded Session Due: Monday, October 20th
- Conference Dates: November 5-6, 2025

Nominate Ohio's Excellent Technology and Engineering Programs and Teachers!

OTEEA is an ITEEA affiliate association so we choose the award winners. You can use the nomination form linked below and on the websites. If you have question contact [Paul E. Post](#). Although the nomination form may say self-nomination you can also use it to nominate someone else filling in as much as you can. You are doing great things with your students and know others also doing great things. Please nominate them or yourself!

Program Excellence Award

Recognizing technology and engineering education programs that model excellence and serve as inspiration to others.

Awarded by ITEEA and sponsored by Paxton/Patterson for decades, The Program Excellence Award is one of the highest honors given to technology and engineering education programs at the elementary, middle, and high school levels and is presented in recognition of outstanding contributions to the profession and their students.

[Read more](#)

[Program Excellence \(PE\) Nomination Form](#)

Teacher Excellence Award

Recognizing classroom teachers for outstanding contributions to technology and engineering education.

Awarded by ITEEA and sponsored by Goodheart-Willcox for decades, the Teacher Excellence



Award is one of the highest honors given to technology and engineering education classroom teachers at the elementary, middle, and high school levels and is presented in recognition of outstanding contributions to the profession and their students.

[Read more](#)

[Teacher Excellence \(TE\) Nomination Form](#)

OSLN Classroom Grant Program

The goal of the Ohio STEM Learning Network STEM Classroom Grant is to foster the creation of new, sustainable STEM education programming in classrooms by investing directly in our K-12 teachers and administrators. Thanks to philanthropic funding from Battelle, more than 855 projects have been awarded up to \$5,000 through the program.

Applications for the grant are open now and close at 11:59p on September 2nd, 2025.

[Read more](#)

OSLN #STEMmovesOhio Design Challenge

[Registration is now open for the 2025-26 #STEMmovesOhio Design Challenge](#)

Help your students reimagine the future of electric transportation—register now for the Ohio STEM Learning Network’s statewide design challenge.

The 2025-2026 challenge is: How do we improve aspects of electric transportation to improve the movement of people and things? Develop a plan, system or product that addresses the future of electric vehicles, drones, and advanced air transportation systems in the state of Ohio.

This year’s statewide design challenge partners with the Ohio Manufacturers’ Association with support from Drive Ohio.

Why join?

- Hands-on STEM projects exploring batteries, drones, logistics, and more.

- Free teacher toolkit, guidebook, and live Q&A sessions.
- Top 21 teams present at Battelle headquarters on March 4, 2026.
- Open to every Ohio K-12 school—no fees, no prior experience needed.

Key dates

- Regional kickoffs - Sept 10–25, 2025: Check for your [local event](#)
- Team registration closes: Dec 12, 2025
- Project submissions due: Jan 8, 2026
- State Showcase: Mar 4, 2026

Once you [register](#), you’ll receive the full teacher toolkit and invitations to our support webinars.

[Register today and receive the guidebook](#)

[Challenge details, schedule and regional events](#)

Computer Science Teacher Licensure Waiver

[Ohio State Board of Education Educator Essentials](#)

Recent legislation made permanent the provision allowing an educator who holds a valid educator license in any grades K-12 to teach a computer science course if, prior to teaching the course, the educator completes a professional development program approved by the district superintendent or school principal that provides content knowledge specific to the course the individual will teach. Please see the Department of Education and Workforce’s [Resources for Computer Science webpage](#) or email computerscience@education.ohio.gov for more information.

NEO:STEM Newsletter



[Read here](#)

Future City Registration Is NOW OPEN!



Over 900 educators have already joined!

Register today for the 2025/2026 Future City Competition!

[Learn more or register](#)

The handbook is available to those who have logins.



Girls Who Code



AI is everywhere, and we want our students to be ready to shape its future. That's why we are excited to announce the newest edition to our Clubs curriculum: the [AI Literacy Unit](#), designed specifically for upper elementary learners. 🤖

This project-based unit blends ten plugged and unplugged lessons to help students understand how AI works, from pattern recognition to model training, all while exploring its real-world applications, impacts, and considerations.



Created by educators for educators, the AI Literacy Unit provides young learners with the knowledge and skills they need to use and build AI tools responsibly. With our comprehensive educator resources, you'll have everything you need to guide them with confidence.

[Download our free AI Literacy Unit](#) to help your students build a strong foundation for success in an AI-driven world. ✨

Rail Innovation in Action

Calling all high school students:
Start creating solutions for your communities!

OVERVIEW

Railroading doesn't just have a past—it has a present, and a bright future. This future depends on the people who join its ranks and what problem-solving skills they bring to the party. People just like you!

- Online interactive program
- Eight-week course on Saturdays
- 11:00am - 2:00pm PDT / 2:00pm - 5:00pm EDT
- October 18 to December 13, 2025 (off for Thanksgiving weekend)
- Open for 9th-12th grade students
- For students of all interests and backgrounds
- Free for participants!

No prior knowledge of or interest in railroading is required - just curiosity and willingness to learn and problem-solve!

This program is a joint effort between the California State Railroad Museum and the [Lemelson-MIT Program](#) (LMIT), and is financially supported by the [California State Railroad Museum Foundation](#).

[Read more](#)

History Facts Stories

[History Facts](#)

Ancient Romans used concrete more durable than modern concrete.

The ancient Romans are known for many innovations that were ahead of their time, including running water and a rotating dining room. But some of the civilization's construction work seems ahead of even our time. Case in point: Concrete used in some ancient Roman construction is much stronger than most modern concrete, surviving for millennia and getting stronger, not weaker, over time. Roman concrete endures even in seismically active regions and without reinforcement. The secret ingredient? The sea.

[Read more](#)



Wednesday, October 22, 2025



For 6th, 7th, and 8th Graders

We invite submission of proposals for presentations at the 2025 Women in STEM on Wednesday, October 22nd, at Bowling Green State University.

We invite you to facilitate a hands-on session (45 minutes) for a group of 15-20 students to highlight a STEM topic and/or career in order to instill awareness, excitement, and passion for STEM disciplines!

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

Women in STEM provides young students 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.

The day will begin with a keynote presentation followed by breakout sessions that provide hands-on, fun-filled, critical thinking and learning activities. **Women in STEM** will help young students recognize the wide array of options available in STEM fields, inspiring them to take classes in the STEM fields throughout their educational careers.

There will be groups of approximately 15 -20 students with adult supervision in each break-out session. Sessions should include innovative and creative hands-on activities that are fun-filled and engaging. We would like to foster a collaborative growth-minded atmosphere in the breakout sessions that gives students opportunities to interact with one another and YOU as a STEM academic/career role model.

We rely on the support of our presenters and volunteers like you in order to continue to provide this unique experience for this age group. We are thrilled to host the 42nd annual Women in STEM program at BGSU and look forward to your participation!

We invite submission of proposals for presentations at the 2025 Women in STEM on Wednesday, October 22th, at Bowling Green State University.

We provide classroom and/or lab space, AV equipment, and support.

The deadline to register is September 19th, 2025.

We are grateful for your consideration in partnering with NWO to host this meaningful event that positively impacts this age group of students! Please contact: nwo@bgsu.edu with any questions.

[Presenter Registration link](#)

2025 Schedule:

8:30 - 9:00 am - Schools arrive and Check-In

9:05 - 9:45 am - Opening Presentation

9:55 - 10:40 am (Session 1)

10:50 - 11:35 pm (Session 2/Lunch A)

11:45 - 12:30 pm (Session 3/Lunch B)

12:40 - 1:25 pm (Session 4)

All who wish to attend Women in STEM are welcome regardless of their gender.

Marking 13 Years on Mars, NASA's Curiosity Picks Up New Skills



New capabilities allow the rover to do science with less energy from its batteries.

Thirteen years since Curiosity landed on Mars, engineers are finding ways to make the NASA

rover even more productive. The six-wheeled robot has been given more autonomy and the ability to multitask — improvements designed to make the most of Curiosity's energy source, a multi-mission radioisotope thermoelectric generator (MMRTG). Increased efficiency means the rover has ample power as it continues to decipher how the ancient Martian climate changed, transforming a world of lakes and rivers into the chilly desert it is today.

[Read more](#)

Playground Transformation [Trust for Public Land](#)

When we asked Bregy Elementary fourth grader Mariah Murray what she thought of her schoolyard, she didn't hold back ...

"Basic, boring, and dirty." 🙄

It wasn't a place that inspired play or creativity. It wasn't a place to gather, learn, or cool off in the heat.

But today, Mariah's schoolyard is something else entirely—thanks to a transformation led by students like her through our community schoolyards program. The new Bregy schoolyard was imagined and shaped by kids.

We don't just create schoolyards for children. We build with them.

Because when students see their ideas come to life—shady trees, butterfly gardens, local murals, and unique play structures—they grow up knowing their voices matter.

See the transformation for yourself! ✨

[WATCH THE VIDEO](#)

Thanks for believing in the power of young people to shape the world around them.

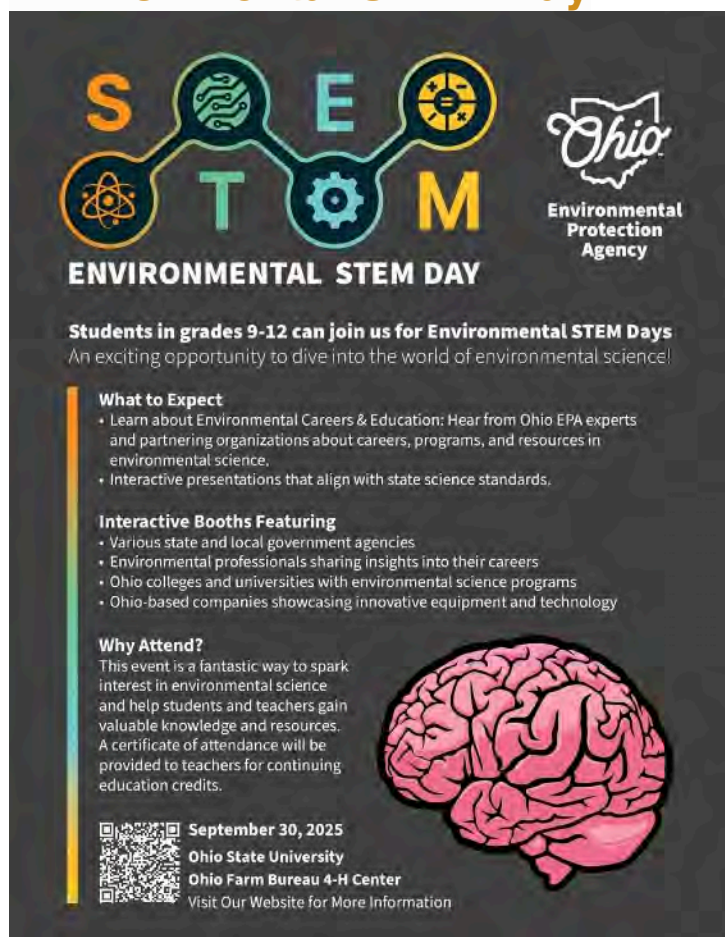
Beyond Grades: Rethinking How We Measure Student Success

[Futurum](#)

Although schools and teachers rely on point-based assessments to evaluate individual student and whole school attainment, current research and teacher anecdotes suggest that traditional grading practices can undermine students' learning and motivation. [Dr Karla D. Rivera Caceres](#) at [Florida International University](#), USA, is implementing and studying the effects of alternative grading methods that prioritise the mastery of learning outcomes by providing meaningful feedback and allowing students multiple attempts to correct their mistakes.

[Read more](#)

Environmental STEM Day



The poster for Environmental STEM Day features a central graphic with the letters S, T, E, and M, each inside a circle with a different icon (atom, brain, gear, and leaf). To the right is the Ohio Environmental Protection Agency logo. The text on the poster includes:

ENVIRONMENTAL STEM DAY

Students in grades 9-12 can join us for Environmental STEM Days
An exciting opportunity to dive into the world of environmental science!

What to Expect

- Learn about Environmental Careers & Education: Hear from Ohio EPA experts and partnering organizations about careers, programs, and resources in environmental science.
- Interactive presentations that align with state science standards.

Interactive Booths Featuring

- Various state and local government agencies
- Environmental professionals sharing insights into their careers
- Ohio colleges and universities with environmental science programs
- Ohio-based companies showcasing innovative equipment and technology

Why Attend?
This event is a fantastic way to spark interest in environmental science and help students and teachers gain valuable knowledge and resources. A certificate of attendance will be provided to teachers for continuing education credits.

September 30, 2025
Ohio State University
Ohio Farm Bureau 4-H Center
Visit Our Website for More Information

A QR code is located at the bottom left, and a pink brain illustration is at the bottom right.

[Read more](#)

News From Interesting Engineering

[Interesting Engineering](#)

US firm's electric air taxi flies 55 miles in record 31-minute piloted flight

The milestone test in Salinas showcased the aircraft's CTOL capabilities, reaching speeds above 126 mph.



Archer's Midnight aircraft during its longest piloted flight yet.

[Archer Aviation](#)

[Read more](#)

The Kid Should See This

[The Kid Should See This](#)

Smart videos for curious minds of all ages

Here are some selected videos.

- [Three "wild physics demonstrations" exploring balance, motion, and pressure](#)
- [Burj Khalifa: The tech behind the world's tallest building](#)
- [Five unique at-home science experiments with Physics Girl](#)
- [Stonehenge: Moving Massive Blocks Using Simple Engineering](#)
- [How to make a zine from a single sheet of paper](#)
- [Washington DC: The Art of Daylighting](#)

- [Inside the Colosseum: Hidden Mechanisms of Ancient Rome](#)
- [How does filtration and UV light turn wastewater into clean drinking water?](#)
- [Warka Water towers harvest drinkable water from the air](#)
- [Will there ever be a mile-high skyscraper?](#)
- [Pass the Salt, an intricate food-themed Rube Goldberg Machine](#)
- [The precise art of Japanese wood joinery](#)
- [How to make fizzy bottle rockets – ExpeRimental](#)

STEMcoding



We are excited to release a new activity explorer where you can see our 44 different activities and sort through them according to topics or age level. [The new site is hosted here.](#)

The site is still a work in progress, and some activities are more well documented than others. But it's at the point where we think it is overall pretty helpful.

Special thanks to Julie Butler and Chris Orban for putting it together!

It includes an improved version of the Pi day activity.

Reaching Every Student: Building Readers and Researchers With INFOhio

Build Readers and Researchers with a Permanent Collection of eBooks and Videos

Exposing students to a variety of texts digitally and in print can help build readers. INFOhio recently

purchased a permanent collection of eBooks and videos, thanks in part to funding provided by the Ohio General Assembly through the Ohio Department of Education and Workforce. The permanent collection includes more than 6,000 student eBooks and videos to read or watch for enjoyment and learning. To make it easy for students to find interesting titles, eBooks and videos have been curated into collections for [Ages 3-5](#), [Grades K-5](#), [Grades 6-8](#), and [Grades 9-12](#). Find each collection within the corresponding grade band button on the [INFOhio](#) homepage.

Many of the books have Technology and Engineering Education topics.

[Read more](#)

How Much Wood Could a Museum Collect? Much More Than a Woodchuck Could

From providing forensic wooden “fingerprints” to insights on structural engineering, the museum’s collection of rare and wonderful lumber is a prized scientific resource



At the Smithsonian Museum Support Center in Suitland, Maryland, cabinets contain thousands of wood specimens, some of which are cut into uniform blocks while others are raw sections of stem.
Kenneth Wurdack, NMNH

[Read more](#)

Alyssa Reder Named Director of Central Ohio STEM Action Center

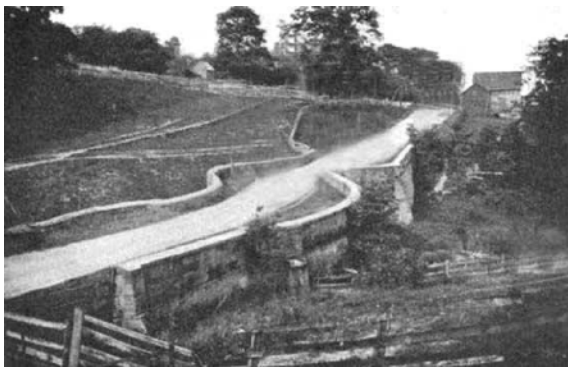
We are excited to announce that [Alyssa Reder](#) has been appointed as the new Director of the Central Ohio STEM Action Center, part of the Ohio STEM Learning Network (OSLN).

The [Central Ohio STEM Action Center](#), powered by the PAST Foundation, serves as a vital connector among educators, industry, and community partners to create real-world learning opportunities and strengthen STEM education across the region. With deep roots in both STEM programming and educational research, Alyssa brings a unique blend of experience, leadership, and passion to the role.

[Read more](#)

Highway Chronicle

The Franklin County Engineer has a history of road transportation and of surveying in the county.



[Read the Highway Chronicle here](#)

[Read the Surveyor's Journal here](#)

STEMonstrations: 3D Printing

[Learn with NASA](#)

3D printing is transforming space exploration, allowing astronauts to manufacture tools, experiment with new materials, and develop technologies for future missions. In this video, NASA astronaut Suni Williams explains how 3D printing technology is used on the International

Space Station to support groundbreaking research and prepare for missions to the Moon and Mars. Checkout the corresponding Career Connection to explore some of the many career pathways related to 3D printing.

[Watch video](#)

How Do Airplane Toilets Work?

The engineering is surprisingly simple and remarkably clever.



Credit: Stuart Dee Via Getty Images

[Read more](#)

STEM Is Elementary



STEM IS ELEMENTARY

The August issue of STEM is Elementary is [available here](#).



1. The Outreach group is looking for more members!
2. Have a story or pictures to share that tell about your program or students? Let us know!
3. The webinar has been discontinued. Archived webinars can be [viewed at online](#).
4. What OTEEA programming would you like to see? Contact [Paul Post](#)

“Engineering stimulates the mind. Kids get bored easily. They have got to get out and get their hands dirty: make things, dismantle things, fix things. When the schools can offer that, you’ll have an engineer for life.”

— Bruce Dickinson

This Week’s Technology Tip

CNC Machine Programming Tips

[Woodworks Guild of America](#)

Are you looking to turn your creative ideas into reality using a benchtop CNC machine? In this video, hosted by Randy Johnson, you’ll learn valuable tricks and techniques to help you streamline bringing your innovative concepts to life with precision and accuracy.

Randy Johnson shares his wealth of experience and provides practical

knowledge about programming for CNC operations. Whether you’re a beginner or an enthusiast, you’ll find expert advice that will empower you to harness the full potential of your CNC machine.



[Read more and watch video](#)



ITEEA 2026
VIRGINIA BEACH • MARCH 25-28, 2026

Making Waves Across the Profession: Share Your Expertise with Your Colleagues at ITEEA's 88th Annual Conference

The Application to Present is Now Open!

Making Waves: Forces Advancing Technology, Engineering, and STEM Education

ITEEA's 88th Annual Conference invites technology, engineering, and STEM educators to the shores of Virginia Beach for a transformative professional experience centered around our theme "Making Waves." Just as ocean waves continuously reshape coastlines, innovative educators are redefining technology, engineering, and STEM education across classrooms nationwide.

Set against the inspiring backdrop of Virginia's beautiful coastline, this conference serves as the ideal environment to explore the currents of change in our field. The gathering brings together K-12 educators, university professors, industry partners, and curriculum specialists to share breakthrough teaching methodologies, research findings, and classroom innovations that create ripple effects throughout education.

From hands-on demonstrations and research findings to thought-provoking discussions and poster sessions, the conference provides a platform for both established voices and emerging leaders to contribute to the tidal shifts occurring in STEM education. By participating, you'll become part of this powerful momentum that continues to advance our profession's impact on student learning and future career pathways.

Apply to present a 30, 45, or 75 minute professional learning session. Session proposals that spark engaging dialogue and highlight innovative, hands-on approaches to the following topics are especially encouraged:

- Embracing technological advancements
- Evolving curricula and pedagogy
- Meeting workforce and societal demands
- Prioritizing human-centered learning

Apply by the August 29, 2025 deadline!

Important Note: Previous Cvent users must create a new login when applying. You may use your same email address for your new account.



*Grow Your Professional Learning Network
with an ITEEA 2025-2026
Group Membership!*



MEMBERSHIP MAKES A DIFFERENCE!

**Purchase an ITEEA Group membership now to gain access to
valuable member benefits at an annual rate of \$260!**

**ITEEA OFFERS GROUP MEMBERSHIPS FOR ELEMENTARY, MIDDLE, AND HIGH
SCHOOLS THROUGH WHICH YOUR TEAM OF PROFESSIONALS CAN BENEFIT FROM:**

- Complimentary electronic subscription to [Technology and Engineering Education \(TEE\)](#), ITEEA's flagship publication (\$70 value).
- Discounted registration to [ITEEA Conferences](#).
- Eligibility for [ITEEA awards, scholarships, and other recognition](#).
- Discounted ITEEA publications and products.
- Discounted [Professional Learning byDesign \(PLbD\)](#) trainings and workshops.
- Discounted professional liability insurance, with rates as low as \$108/year for \$1 million in liability protection, \$60,000 of life insurance at no cost for one full year for new members, and further savings on additional [insurance programs](#) through the [Trust for Insuring Educators \(TIE\)](#).
- Free registration for year-round members-only engagement opportunities such as [Educator Xchanges](#).
- Free school position advertising on the [Career Connections](#) page of the ITEEA website for up to three months (\$350 value), plus promotion on ITEEA's News Feed and/or Social Media.

LEARN MORE AND JOIN TODAY!
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