Oct 28 2026

News, Resources, & Notes

this issue

News & Resources P.1

More News & Resources P.8

Outreach Notes P.11



Upcoming Events:

1. ITEEA Conference, March 31 - April 3, 2027, Louisville, KY
2. National Robotics Challenge, April 15 - 17, 2027, Marion, OH
3. OTEEA School Exhibits and Restoration Innovation Challenge, April 16, 2027, Marion, OH

OTEEA webinars online archive

OTEEA News, Resources, and Notes online archive

STEM is Elementary Newsletter Subscription And Archived Issues

STEM competitions and more resources spreadsheet

Link to OTEEA membership form

OHIO EDUCATOR SUMMIT

The Ohio Technology and Engineering Educators Association (OTEEA) co-hosted the 2026 Ohio Educator Summit on **Wednesday**, October 21st, in cooperation with River Valley Local Schools at River Valley High School.





There were opportunities to share what had been learned over the past year, to get advice on equipment, supplies, funding, and curriculum, and just spent time with fellow teachers.

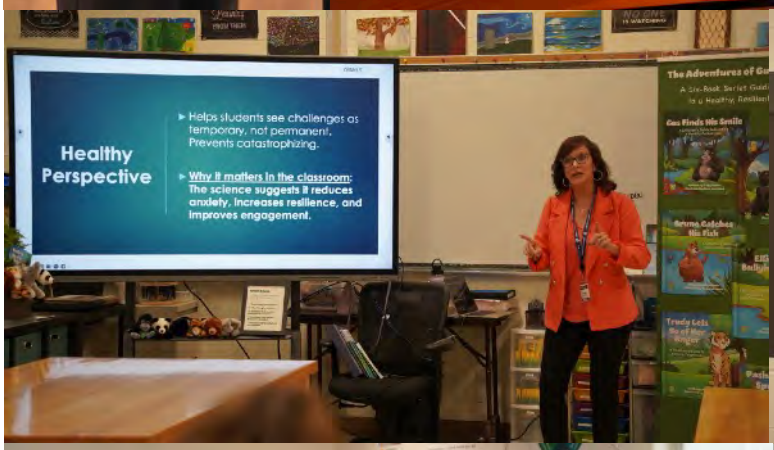
Aubree Horning from Marlington Local Schools helped participants rediscover the joy of building through sharing engaging makerspace tools and materials she uses to spark her students creativity and curiosity.




2026


Engagement Multiplier
Technology is a powerful catalyst.
It acts as a multiplier for student engagement.
Personalized Learning
Enables truly personalized learning.
Deeper Relatio s
Helps build meaningful, lasting teach t relationships.




Healthy Perspective
Helps students see challenges as temporary, not permanent. Prevents catastrophizing.
Why it matters in the classroom: The science suggests it reduces anxiety, increases resilience, and improves engagement.


CAUTION: AI Detectors
NOT Reliable
Detection Gaps
Humanizer Tools
Bottom Line:
Don't rely on originality based solely on the tool.
Northern Buckeye








The Non-Entity
The Try Factor
Ethel Kennedy







Gina Bruce from South Western City Schools presented on several topics throughout the day on how to use AI to improve already developed lesson materials, how to develop prompts to have AI best meet your needs, and how you and your students can use AI ethically and responsibly. She also has shared her slides and a Canva resource.

- Generative AI & Prompt Engineering
- Using AI to Make the Old New Again
- AI in the Classroom: Ethics and Responsible Use
- Canva has a Design School with free courses (design using Canva of course) some could be used for CEUs.



John Mansel-Pleydell from the Northern Buckeye Education Council provided hands-on training with vibe coding allowing participants to develop their own apps for use in the classroom. He also had session one ethical and responsible use of AI and ways to use Google Classroom's AI features.



Tim Schlernitzauer a retired engineer from the Timken Company gave an inside look at the development of the Mars Science Laboratories "Curiosity" and "Perseverance".



Paul Shircliff provided examples and led discussions on ways to incorporate Maker-Centered Learning in all content areas and all grade levels. Participants kept their hands busy making something from common MakerSpace materials demonstrating that making always helps our brain to process ideas and have conversations.

Alyssa Reder from The PAST Foundation provided a hands-on session where educators will identified a traditional school structure that limits great learning and sing a collaborative design-thinking process generate, prototype, test, and refine one practical "hack" for their own context.

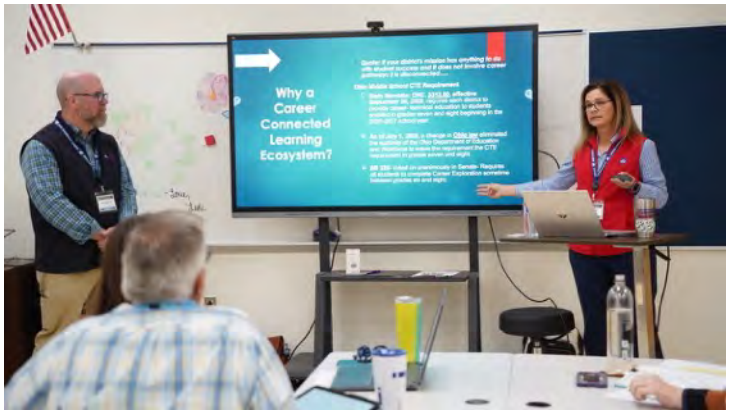





#1 ask
practice based training, not
another tool demo
ity is to decide
$0.50



Kristie Hughes from the Northern Buckeye Education Council provide participants experience in unleashing the power of video storytelling with Google Vids an AI-powered video creation app that greatly reduces the time and learning curve needed to make and edit videos. She has had sessions helping educators learn to use Canva for creating visually engaging lessons, worksheets, projects, and communications that save time and capture students' attention.



Kristina Lucas & John Hambrick from the ESC of Central Ohio and ODEW Career Pathway Support Networks explored how Ohio educators can strengthen career-connected learning by building meaningful K-12, business, and community partnerships that prepare students for future success. Participants learned about current career pathway initiatives, middle school career-technical education requirements, workforce trends, and regional economic data shaping educational priorities across Ohio. Resources available through the Educational Service Center of Central Ohio and the Career Pathway Support Network, were highlighted.

NAS Fueling Flight Design Challenge

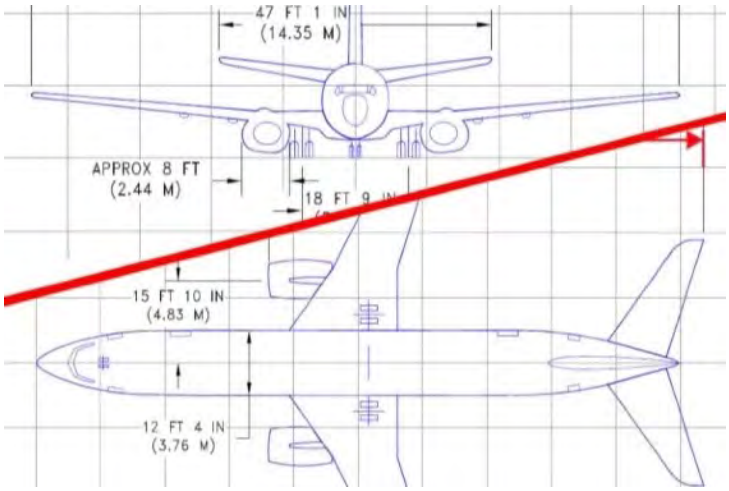


As more and more aircraft are part of the United States' National Airspace System, NASA and its partners in the aviation industry are searching for ways to increase safety, make flight more affordable, find new fuels for aircraft, and reduce the amount of time passengers and cargo spend in the air.

This year, the **NASA Aeronautics "Dream With Us!" design challenge** invites middle school and high school student teams to envision ways to incorporate an emerging aircraft fuel source, liquified natural gas, into the aviation environment.



Middle school teams will adapt an existing airport to incorporate the addition of a new fuel type and to support new aircraft designs, fuel storage, and fuel delivery solutions.



High school teams will focus on designing a new cargo aircraft fueled by liquified natural gas and creating a proposal to support your freight company's design selection.

Winning teams in each division will get a chance to share their designs with NASA experts. The registration deadline for both divisions is **Tuesday, Dec. 8**.

Want to be a judge for the "Dream With Us!" Challenge? **Click here** to learn more.

Connect Students With Industry Experts Through the Statewide Design Challenge

Registered for the 2026-2027 Statewide Design Challenge yet? Now is the perfect time to join. Teachers that register for #STEMmakesOhio gain access to new Expert Connections opportunities, helping students learn directly from professionals in manufacturing, engineering, and STEM fields as they develop their solutions to this year's challenge.

Don't miss the upcoming **Industry Expert Panel** on **November 10 from 3:30-4:30 p.m.**, where educators can hear from industry professionals about the future of manufacturing and gain insights to strengthen their Design Challenge projects. Preregistration through the link on the OSLN website is required.

Register today to access the Design Challenge Guidebook, expert resources, webinars, and opportunities to connect students with real-world STEM careers!

REGISTER FOR THE DESIGN CHALLENGE TO CONNECT WITH EXPERTS

Technology Changes. An Engineering Mindset Lasts.



What does it take to prepare students for a future that's constantly changing?
In this episode of Chats with Change Makers, meet Dan Velazquez, an Engineering & Technology teacher and military veteran who believes that while technology becomes obsolete, an engineering mindset never does.

Dan Velazquez, known to his students as Mr. V, shares how he inspires students to think critically, adapt to new challenges, and approach problems with confidence, skills that will serve them no matter where their futures take them.

Share this conversation with your students and spark a discussion about Mr. V's career path from military service to education and the power of thinking like an engineer.

Watch Dan Velazquez's Chat!





Technology and Engineering Education News and Resources

Activities, Contests, Student Opportunities, and New Technologies

ITEEA News



From Storytime to STEM: How Literacy-Based Engineering Transforms Learning

By integrating engineering design challenges into literacy instruction, educators can transform books and stories into powerful opportunities for problem-solving, creativity, and critical thinking. Dr. Dina Dormer of the West Chester Area School District demonstrates how literacy-based engineering helps students move beyond simply reading a text to actively engaging with it by identifying problems, designing solutions, and testing their ideas.

Literacy and STEM are often viewed as separate instructional priorities, competing for limited classroom time. Literacy-based engineering challenges that notion by blending the two in meaningful ways. Through carefully selected mentor texts, students use the engineering design process to investigate problems faced by characters, develop solutions, create prototypes, and communicate their thinking using evidence from the text.

The approach begins with a simple question: What problem in this story can be solved through engineering? Students identify challenges within a text and work through the design process to generate realistic, testable solutions. In doing so, they strengthen comprehension, deepen content knowledge, and engage in authentic literacy tasks while applying engineering thinking.

Read more



What Will You Bring Home from Louisville?

Fresh Ideas. New Connections. Lasting Impact.

A great conference should leave you inspired. A valuable conference

should also leave you with **ideas, resources, and relationships** you can put to use well after you return home. That's the experience we're building for **ITEEA 2027.**

Across **three days** (Wed, Thr, Fri) in Louisville, you'll discover new approaches to technology and engineering education, learn from fellow educators, and build connections that continue long after the conference ends.

“I attend the ITEEA Conference because I thrive on learning about new projects and innovative ideas. Seeing other professionals in action is both refreshing and inspiring, and I value the opportunity to build meaningful connections with educators from across the field.”

The goal isn't simply to leave with notes. It's to bring home a project to try, a resource to share, a new perspective, or a colleague you can call.

Register now to save with early-bird pricing through December 4.

Tufts University CEEO Webinars For TEACHERS

NOV 5 4:30 PM EST
Unlock K-12 STEM Learning with Teach Engineering

CEEO welcomes Stephanie Weber, Assistant Director of Programs, NCWIT, CU Boulder, who will provide an interactive overview of the newly redesigned TeachEngineering.org website, featuring a “no-cost to you” digital library packed with thousands of standards-aligned STEM lessons, hands-on activities, and unit plans. Designed by university faculty and classroom teachers, this session will show educators, parents, and community members how to easily access and implement real-world engineering resources to inspire the next generation of problem solvers.

DEC 9 4:30 PM EST
Introducing Python for LEGO Education Computer Science and AI

Join Research Associate Professor Ethan Danahy for a walkthrough of the new LEGO Education Python package. We will cover installing the package on your computer, programming in Python, and controlling the LEGO Education Computer Science and AI hardware.

Register

Bring Underwater Robotics to Your Students!

Looking for an exciting way to engage students in STEM? The Ohio State Underwater Robotics Team offers K-12 outreach experiences that introduce students to engineering, robotics, problem solving, and underwater technology through hands-on learning. Connect your students with college mentors and explore how robotics can inspire future careers in STEM. Learn more and express your interest through their outreach form.

Free Resources for Ohio Educators From Learning Blade

Looking for ways to connect classroom learning to future careers? Ohio educators can access Learning Blade and Ready for Industry at no cost. This month, Learning Blade highlights cybersecurity career exploration for Cybersecurity Awareness Month, while Ready for Industry showcases workforce readiness and manufacturing career pathways in celebration of Manufacturing Month. Together, these resources help students explore in-demand careers, build essential workplace skills, and prepare for future success. Learn more about Ready for Industry.

The Kid Should See This

The Kid Should See This

Smart videos for curious minds of all ages

Here are some selected videos.

- New to animation? Kevin Parry teaches how to animate with 3 free printables
- How is extreme heat blocked by this wood and earth Diné (Navajo) hogan?

Reeling in the Benefits: Fishing Rod Developments Translate To Rescue Robot Design

Ceramic Tech Today



Advancements in fishing rod design may unintentionally benefit other fields, such as the design of rescue robots for natural disaster response. Credit: Phuketian.S / Shutterstock

In the wake of natural disasters such as earthquakes or wildfires, rescue robots can play a key role in disaster response, from locating trapped people to detecting carbon dioxide in the air. By deploying rescue robots to the site first, they can help protect human first responders from hazardous conditions.

Researchers from Ritsumeikan University in Shiga, Japan, and the Institute of Science Tokyo used fly-fish casting as inspiration to design rescue robot arms. The goal is to create lighter robots that can reach objects in the far distance while maneuvering in a straight line, which is where the mechanics of fishing rods come into play.

Drones in School

Read the late October newsletter with info on simulation events, getting started, and more. An advisory update is scheduled for November 4.

STEM Is Elementary



The October issue of STEM is Elementary is available here.

Register Soon!



Competition Registration Closes October 31

The countdown is on! Future City Middle School full competition registration closes **October 31**, which means there's still time to give your students the opportunity to imagine, design, and build their city of the future.

Future City brings engineering to life through a hands-on challenge where students work together, solve real-world problems, and see just how far their ideas can take them.

Future City Middle School

The Future City Competition is open to all kids in Grades 6-8.

Some regions do offer a Jr. participation option!

Register a Middle School Team today!

Future City High School

Student teams use industry-standard tools & a professional mentor panel!

A great opportunity to earn a $10,000 scholarship for students in grades 9-12!

Register a High School Team today!

For details on how to get your organization involved, sponsorship opportunities, or other inquiries, please contact us at futurecity@discovere.org.

Introducing Sphero Robotics Competition: a New Way To Experience Competitive Robotics

Wednesday, November 4
4PM PT / 7PM ET

Register Now

Give your students a chance to put their robot designs up against other teams—and the motivation to keep testing, rethinking, and figuring things out together.

Our competition partner, TEAM Alliance, facilitates Sphero Robotics Competition (SRC) events and supports teams throughout the season. Join their competition staff for a webinar exploring the 26–27 SRC season.

What we'll cover:

- **Getting your team in the game:** Find out what you need, how to register through myTEAMevents, and what to expect at an in-person event.
- **Taking on this season's challenges:** Explore Team vs Team Matches and Tech Trials, including the objectives and key rules for students building and programming two robots with Blueprint Robotics.
- **Coordinating with confidence:** Get practical tips for organizing team roles and supporting Student-Powered™ collaboration and problem solving, whether you're new to competitions or returning.
- **Becoming an Event Host:** Learn how your school or organization can host an event.

Bring your questions for a live Q&A with TEAM Alliance's competition staff.

Save Your Spot

15 Houses Built To Annoy Neighbors

YouTube



How far would you go to get the last word in an argument? For some people, the answer involved bricks, blueprints, and blocking the neighbor's sunlight. From impossibly narrow homes to mansions built to send a message, these houses turned personal grudges into permanent landmarks. Here are 15 houses built out of spite.

Watch here



ITEEA Connections

This newsletter strives to present content and opportunities that reflect ITEEA's Standards for Technological and Engineering Literacy (STEL). Many resources including crosswalks, compendiums, articles, and presentations can be found at the STEL site.

This Week's Technology Tips

A Seasonal Thermostat Guide for Maximum Comfort and Savings

HouseOutlook

If the dads of the world were writing this article, it would be a short and easy read: Put on a sweater and turn the thermostat way down, as close to "off" as possible. For many of us, however, embracing such a spartan lifestyle simply isn't how we wish to spend our time at home. We say "in the comfort of our own homes" for a reason, right? So, how do we keep indoor temperatures comfortable without those heating and cooling bills costing us a small fortune each month?



Read more

9 free Windows apps I can't live or work without – and 8 work on Mac and Linux, too

ZDNET

I've been writing about my favorite apps ever since … well, since they were still called programs and mobile devices didn't even have apps.

For this year's edition, I decided to take a slightly different tack, focusing on the increasing number of productivity apps I use that are completely free. Given how stubborn inflation is these days, especially on the hardware side, that's a big deal.

Read more

"Don't become a slave to technology – manage your phone, don't let it manage you."
— Richard Branson

Early-Bird Registration Open!

Save with Early-Bird Pricing through December 4

ITEEA 2027 Annual Conference

Taking the Reins: Guiding the Future of Technology and Engineering Education

Louisville, KY

March 31-April 3, 2027

EARLY-BIRD DEADLINE: DECEMBER 4

Register by December 4, 2026 to receive Early-Bird pricing.

Spend four days learning alongside technology, engineering, and STEM educators from across the country. Discover practical ideas, hands-on learning, new connections, and inspiration you can bring back to your students and program.

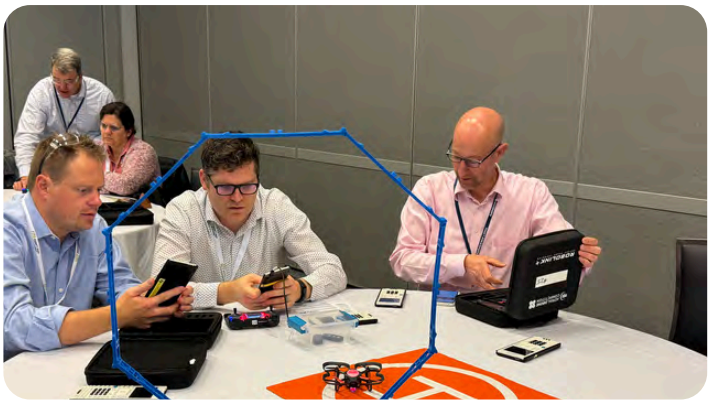
Why Attend ITEEA 2027?

- 100+ hands-on workshops & learning sessions
- Practical ideas you can use right away
- Inspiring keynotes & industry experts
- Connect with educators who understand your work
- Exclusive field trips & experiences

Who Should Attend?

- Technology, engineering & STEM educators
- Administrators & curriculum leaders
- Teacher educators
- Industry and education partners

Join the leaders shaping the future.
Connect, collaborate, and experience what's next in technology and engineering education.



Register for ITEEA 2027
iteea.org/2027

SAVE YOUR SPOT • SAVE WITH EARLY-BIRD PRICING



🚀 IS YOUR SCHOOL A STEM SCHOOL OF EXCELLENCE?

SHAPE TOMORROW WITH STEM:
YOUR SCHOOL COULD BE THE BLUEPRINT!



Why Apply?

- **Worldwide Recognition** at ITEEA's Annual Conference
- **Banner** to proudly display
- **Inspire Others** with your success story
- **Join a Network** of forward-thinking educators



Who Can Apply?

✅ PreK–12 Schools
✅ Colleges
✅ Universities

If your school is committed to **hands-on, real-world Technology, Engineering, and STEM learning,** we want to hear from you!



How it Works

Submit a detailed application showcasing your STEM program. A peer-review panel will evaluate your submission. You could be named a:

- **STEM School of Excellence**
- **STEM School of Merit**

Learn More

Scan the code or visit www.iteea.org/stem-school-of-excellence

APPLICATION DEADLINE: FRIDAY, DECEMBER 4

💡 **Technology and Engineering Bring STEM to Life!**

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STEM CTL.