



Mar 26 2025 **News, Resources, & Notes**

Upcoming Events:

1. [ITEEA 2025 Conference](#), April 2-5, 2025, St. Louis, MO
2. [National Robotics Challenge](#) April 3-5, 2025, Marion
3. OTEEA School Exhibits and Restoration Innovation Challenge, April 4, 2025, Marion

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](#)



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More News & Resources **P.4**

Outreach Notes **P.14**

2025 OTEEA School Exhibits and Restoration Innovation Challenge

This year's 2025 Spring OTEEA School Exhibit Program will be a one day event in conjunction with National Robotic Challenge event Friday April 4th 10am-2pm. This year's School Exhibit program will be on the Marion County Fairgrounds in Evers Arena west of the Veteran Memorial Coliseum.



Our second challenge is the new Restoration Innovation Challenge. The idea is to create a unique project of your choice from something that is considered junk/ not pretty/useless. The rules of the Challenge are also below.

If you are not exhibiting we encourage your coming to see the exhibits and to experience the National Robotic Challenge. Both are great opportunities for your students and your program. Come and see the exciting work students across the state and beyond are doing. Take the information back to your program and hopefully you'll bring your students to show their work and to compete next year!

For more information or to ask about late registration contact: [Levi Brown](#) - OTEEA School Exhibits Manager

Restoration Ideas

[21 Ways to Upcycle a Chair](#)

[The dirty details of cleaning long-neglected cars](#)

[Prodigal Pieces](#)

[Electronics Recycling 101: Tips to Repurpose Old Electronics](#)

The First Bobcat



[Artifact Spotlight](#)

Learn about the origins of the skid-steer loader, otherwise known as the Bobcat. From humble beginnings clearing out turkey barns in Rothsay, Minnesota, the Bobcat has now become a worldwide construction mainstay. Artifacts shown include the patent of the revolutionary clutch-drive system.

[Watch video and read more](#)

Job Openings

Allen East Local Schools has two openings. An instructor for advanced manufacturing and engineering for grades 7-12. And a Vocational Agricultural (Vo. Ag.) Instructor for grades 7-12. More information about these job openings is at the end of this newsletter.

Astronaut Remarks, Student Ideas Cap OSLN Design Challenge

OSLN

Each year, the Ohio STEM Learning Network (OSLN) hosts a statewide design challenge, culminating in a showcase of students from around the state. This year's challenge focused on the Starlab space station program, in partnership with the [George Washington Carver Science Park](#) at The Ohio State University

Last Tuesday, top 21 teams gathered to meet experts, receive recognition from state leaders, and showcase their projects.

Top awards went to:

- Elementary: Hillview Elementary (Newark, Ohio)
- Middle: Indian Hill Middle School
- High: Marysville STEM Early College High School

This year was the eighth annual statewide design challenge hosted by OSLN, as a service to all schools in the state. OSLN is a public private partnership between Battelle and the Ohio Department of Education & Workforce.

Casey Coughlin at the George Washington Carver Science Park at The Ohio State University wrote up a detailed piece including quotes from speakers and photos of participating students. With permission, that piece is included below.

Scroll to the end for a gallery of selected photos.

[OSLN and Ohio State hold Design Challenge finale at Battelle](#)

Shaping the next generation of space industry professionals

By Casey Coughlin, March 5, 2025

[View pictures, read about the showcase](#)

EbD High School College Credit

ITEEA is thrilled to announce an exciting new opportunity for high school students enrolled in its Engineering byDesign™ (EbD™) program. Starting in spring 2025, students who achieve a grade of B or higher in any Engineering byDesign course, or who pass the course-specific post-assessment with a minimum score to be determined, will be eligible to receive three transcribed college credits through St. Cloud State University.

[Read the full press release here.](#)

Ohio Hydrogen Technology Forum

The Ohio Fuel Cell and Hydrogen Coalition, in partnership with The Ohio State University, will be hosting the first annual Ohio Hydrogen Technology Forum. The forum will be held June 6th at Ohio State's brand-new Energy Advancement and Innovation Center (EAIC) at 2281 Kenny Road, in Columbus from 1:00 to 5:00 PM. Please plan to join us for presentations and Q/A sessions with these confirmed leading academic and industry hydrogen technology developers in Ohio: From OSU, Professor Umit Ozkan and Professor Liang-Shih Fan.

[Read more about them and other speakers plus see the agenda and register here.](#)

NEO:STEM News



Driving STEM Impact in Northeast Ohio

March 2025: Monthly Meeting Recap; Upcoming Events; Opportunities; and how to join and be in their directory.

[Read full newsletter here](#)

Highlights:



STEM Day with the Guardians on May 14 at Progressive Field

Hit a home run for STEM with the Cleveland Guardians! On May 14th, Progressive Field turns into an interactive learning lab where science,

technology, engineering, and math come alive through the power of baseball.

[Learn More about the Event](#)

Teacher Institute
A professional development workshop on Materials Science & Engineering.
ASM Headquarters | Materials Park, OH | June 23-27, 2025

This high-quality STEM professional development program consists of 1) attendance at the nationally-recognized ASM Materials Camp-Teachers in Northeast Ohio this summer, 2) monthly professional development sessions (in-person and/or virtual), and 3) support to implement both out-of-school programming and course content for students. **Stipends provided.**

WHO SHOULD ATTEND

- High school and middle school teachers in science, engineering, and industrial / career and technical education
- Teachers from Title I schools and/or serving students under-represented in the STEM fields

WHY ATTEND

- Learn how to engage your students using simple low-cost experiments that you can integrate into your existing lesson plans
- Help your students discover and see themselves in career opportunities in science and engineering
- NO COST to teachers** (made possible through generous donations to the ASM Materials Education Foundation).
- Next Generation Science Standards (NGSS) aligned curriculum

WHAT'S INCLUDED

- Four (4) Continuing Education Units (CEUs)
- Demonstration materials; Snacks & lunch
- Option to get two (2) graduate credits
- Housing, transportation assistance, and stipends

REGISTER TODAY!
<https://app.keysurvey.com/f41766803/378/>
For more information and to view the 2025 ASM Materials Camp®-Teachers Summer Schedule, please visit asmfoundation.org.

SCAN ME! Or click here to watch a video about ASM Materials Camp® Teachers!

"This was one of the best teacher professional development workshops I have been to! I was amazed at how many different hands-on activities that were shared. The practical applications were the best part of this!" (Melissa E.)

"This camp is an eye-opening adventure in an oft-ignored discipline in the K-12 education system. Every day is an exploration into items you use all the time with an eye to how they were designed. It's also just a lot of fun (lab-rats dream!!)" (Kevin D.)

QUESTIONS?
Jeane Deatherage, Program Director
jeane.deatherage@asminternational.org | 440.671.3681

MATERIALS CAMP®
ASM MATERIALS EDUCATION FOUNDATION

ASM Teacher's Institute

June 23-27, 2025

A professional development workshop on Materials Science & Engineering.

[Learn More](#)

The STEM Pulse

New newsletter from TIES and STEM Ecosystems. Includes news and funding opportunities.

[Read issue 1 here](#)

[Read issue 2 here](#)

[Subscribe here](#)



Technology and Engineering Education News and Resources

Activities, Contests, Student Opportunities, and New Technologies

ITEEA Launches Group Membership for Districts and/or States

RESTON, VA, March 24, 2025 - The International Technology and Engineering Educators Association (ITEEA) is pleased to announce the launch of a new **Group Membership offering** for districts and/or states. This new District/State Group Membership option expands on ITEEA's Elementary, Middle, and High School Group Memberships to include discounts for multiple educators from the same district and/or state, but not necessarily from the same school.

Districts and/or states can **join immediately** for \$549, which includes ITEEA membership for up to ten (10) educators from their area. Additional teachers can be added at 50% off the Professional Membership rate. Educators from those districts and/or states will begin receiving ITEEA member benefits immediately upon joining, and membership will remain active through June 30, 2026.

Through the District/State Group Membership, technology,

engineering, and STEM educators gain access to a comprehensive suite of professional benefits designed to enhance their careers, enrich their teaching practice, and help them in their journey to professional success. Member benefits include a complimentary electronic subscription to the *Technology and Engineering Education* journal, ITEEA Conference discounts, eligibility for ITEEA awards, scholarships, and other recognition, discounted professional liability insurance, and more.

ITEEA's Executive Director Kelly Dooley shared, "We are excited to launch this new membership option in response to inquiries we've received over the last few years. Some schools employ only one or two technology, engineering, or STEM teachers, so the District/State Group Membership affords them the opportunity to receive discounted bulk pricing by partnering with neighboring schools in their district or state."

STEM Teaching Methods by Design Microbadge

Are you passionate about teaching and eager to enhance your STEM teaching skills? Our exclusive

Microbadge Course is crafted just for educators like you! This 10-hour asynchronous course offers innovative methods and flexible learning opportunities that will not only inspire your students but also elevate your professional growth.

What You'll Experience:

- **Five Comprehensive Modules:** Dive into essential topics including Classroom Setup, Classroom Management, Standards (STEL), Real-World STEM Applications, and Building Valuable Partnerships.
- **Enhanced Skills:** Master new techniques that will make your STEM program more dynamic and effective.
- **Recognition:** Stand out in your field with a microbadge that highlights your dedication and expertise.

[Enroll today](#) and start your journey towards becoming an even more exceptional STEM educator.

A Shop Class Teaches Students To Fix Cars and Heavy Equipment With Real-World Projects



Margaret Sutherland/KDLG

Student working on a lifted car in the shop classroom during the auto mechanic class at the Dillingham Middle/High School.

In Dillingham, Alaska a city with just over 2,000 year-round residents, there are roughly four places where you can get your car worked on. That's including the local high school's shop class.

On Feb. 26., three Dillingham Middle/High School students were at work on two vehicles, parked bumper to bumper. The first was an ongoing class project that belongs to the teacher, Mike Yingst.

"So the engine was seized up. We put oil in it and broke loose the engine and now changing the oil a second time because there are metal shavings in the oil," Yingst said.

[Read more and watch video](#)

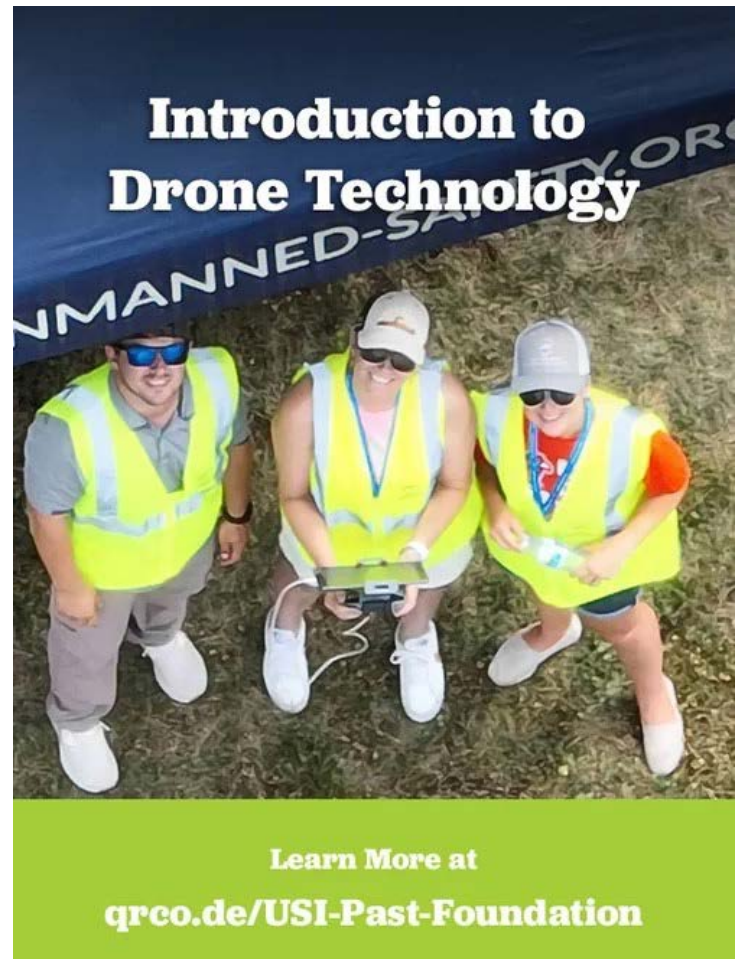
The Pulse of PAST

March 2025 newsletter

Highlight:

Introduction to Drone Technology

Professional Development for Teachers in Ohio



Introduction to Drone Technology

Learn More at

qrco.de/USI-Past-Foundation

Exciting news for Ohio teachers! The PAST Foundation is excited to share this professional development program in partnership with USI. The Fast Track Drone Instructor Program is accepting applications through March 31!

Don't miss out on this exciting opportunity.

[Learn More & Register Here](#)

Citizen Scientists Are Hitting the Streets of the Country's Fastest-Warming Cities to Collect Detailed Temperature Data

[Smithsonian Magazine](#)

The heat mapping of metros like Reno, Nevada, could be key to taming urban heat, saving lives and designing for a cooler future

The city of Reno, Nevada, is breaking records in ways it doesn't like: A 2024 analysis of 241 cities showed that Reno has heated up faster than any other city in the United States.

While the contiguous U.S. overall warmed by 2.6 degrees Fahrenheit on average between 1970 and 2023, Reno saw an increase of 7.6 degrees. A heat wave that hit Reno in July 2024 made for the hottest month in the Biggest Little City's documented history.

[Read more](#)

TECH CORPS Bytes

March newsletter includes information on summer staff openings, new board members, and their leaders and mission.

[Read here](#)

Inside InvenTeams

Newsletter features team updates and grant information.

[Read here](#)

Governor DeWine Announces Funding for Youngstown's Innovation Hub for Aerospace and Defense

[America Makes](#)



Ohio Governor Mike DeWine, Lt. Governor Jim Tressel, and Ohio Department of Development Director Lydia Mihalik today announced the creation of Ohio's fourth Innovation Hub in Youngstown, OH. This new collaboration will further strengthen Youngstown's position as a global leader in additive manufacturing (AM) research, technology, and workforce development.

Funded with \$26M from the Ohio Innovation Hubs Program and \$36M in local, federal, and private investment, the new **Youngstown Innovation Hub for Aerospace and Defense** will bolster economic development locally and statewide, capitalizing on the region's long-standing additive manufacturing technology and research.

[Read more](#)

Introducing Engineering in K-8 Settings

Webinar hosted by Tufts University

[Watch here](#)

[Tufts Center for Engineering Education and Outreach](#)

Drone-Powered Grid Inspections to Enhance Reliability, Efficiency

AEP Ohio is taking grid inspections to the sky.



This year, AEP Ohio is using drones to inspect more than 1,400 miles across 81 circuits throughout our service territory. This innovative approach allows AEP Ohio to reach hard-to-access areas, providing a comprehensive 360-degree view of the electrical equipment that powers homes and businesses across the state.

By harnessing the power of drones, AEP Ohio aims to identify potential issues before they escalate into outages, ensuring more reliable service for customers.

[Read more](#)

ITEEA's 2025 Conference in St. Louis



[There is Still Time to Join Your Colleagues at ITEEA's 2025 Conference](#)

Don't miss out on the opportunity to be part of ITEEA's 2025 conference in St. Louis! This event is a unique professional learning experience where hundreds of technology, engineering, and STEM professionals will gather to network, share

insights, and learn from industry experts and peers. There's still time to register, so secure your spot today and join us for an inspiring and enriching event that promises to elevate your professional journey.

News From Interesting Engineering

[Interesting Engineering](#)

Red onion waste becomes powerful solar cell shield that blocks 99.9% of UV rays



A film dyed with red onion skin extract and dye-sensitised solar cells. The films were placed on top of the solar cells in the study.

[Vainö Anttalainen](#)

Researchers have developed a bio-based ultraviolet (UV) protection film that has the potential to replace conventional petroleum-derived materials in solar cells.

Solar cells are highly susceptible to UV-induced degradation, necessitating protective films to extend their operational lifespan. Traditional protective layers are composed of petroleum-based materials such as polyvinyl fluoride (PVF) and polyethylene terephthalate (PET).

In the pursuit of sustainable alternatives, researchers have turned to nanocellulose, a nanoscale biopolymer. By modifying it with specific compounds, they aim to improve UV protection while maintaining transparency.

[Read more](#)

9 Humanoid Robots That Are Shaping the Future of Work

[Watch video](#)

The Colossal Water Carrier That Transformed the Israel Desert

The National Water Carrier of Israel is an engineering marvel that feeds the prosperity of the country. Spanning over 130 kilometers, it supplies water to the millions of people in Israel's desert. How was it built? And how did it affect not just the lives of people in Israel, but the world itself?

[Read more](#)

Career Exploration and Planning Survey

Responses needed for educator and student surveys about career exploration and planning

Ohio Excels is seeking information about the career exploration and planning experiences of teachers, school counselors, administrators, and students in grades 8-12. Survey responses will help inform support for Ohio's career connections framework and school district career advising policies.

The [Career Exploration and Planning Programs - Educator Survey](#) is for teachers, school counselors, and administrators. The [Career Exploration and Planning - Student Survey](#) is for students in grades 8-12. The surveys will close on April 1.

Ohio Excels is a nonpartisan, nonprofit organization dedicated to improving and transforming Ohio's education system by ensuring that all K-12 schools prepare students for success in the next step of their lives.

For more information or questions, please contact Cassandra Palsgrove at cassandrapalsgrove@ohioexcels.org.

DriveOhio Educator Toolkit

DriveOhio, an initiative of the Ohio Department of Transportation, provides the [DriveOhio Educator Toolkit](#), a summary of resources designed to support

K-12 and career technical educators, employers, and other workforce stakeholders in advancing STEM education and career outreach programs.

DriveOhio is seeking feedback from K-12 educators and workforce stakeholders about the DriveOhio Educator Toolkit with the [Educator Toolkit Survey](#). Survey results will help improve this free collection of K-12 STEM resources for classrooms and after-school and summer programs.

DriveOhio is also offering an opportunity to join the new **DriveOhio K-12 Education Cohort**. Participants will attend voluntary virtual meetings to exchange ideas and provide feedback about the DriveOhio Educator Toolkit. Details are available within the survey.

The [DriveOhio Educator Toolkit Survey](#) will close **March 31**.

DriveOhio Toolkit Tuesday webinar series

The DriveOhio Toolkit Tuesday webinar series provides concise, practical insights for Ohio educators using the [DriveOhio Educator Toolkit](#) to enhance STEM education and inspire career exploration in emerging transportation technologies.

April: Flying Drones with the COSI Science Festival

[Register for the April 29 webinar](#) taking place from 3:30-4 p.m. to hear about a hands-on drone event taking place with Columbus City Schools as part of the [COSI Science Festival](#). Claire Anthony from the Educational Service Center of Central Ohio and Amy Parker from COSI, will share insights about the student experience, the educator perspective, and how other K-12 schools can host similar events with support from employers and community partners.

May: Launching into Summer with Tech Talent Pipeline

Learn about an exciting drone career program in Northeast Ohio this summer. [Register for the May 13 webinar](#) featuring David Brown from Minority Tech Alliance and Chelsey C. Kohn from

Cleveland Metropolitan School District and Cleveland State University to learn how students can earn industry credentials and make career connections with the [Ohio High School Tech Internship](#) program.

DriveOhio upcoming events

2025 Ohio STEM Innovation Summit

DriveOhio's Rich Granger will present a session titled "Flying into the Future with the DriveOhio Educator Toolkit" at the third annual Ohio STEM Innovation Summit, hosted by the Ohio STEM Learning Network on Tuesday, June 3 in Columbus. [Register for the Ohio STEM Innovation Summit here](#) and note that early bird registration closes May 13.

Next Generation of Air Mobility Taking Flight in Ohio

Statewide efforts underway to maximize public benefit of new technology



Demonstration of an electric vertical takeoff and landing (eVTOL) aircraft during the Dayton Development Coalition's 2024 National Advanced Air Mobility Industry Forum in Springfield, Ohio.

The Ohio Department of Transportation (ODOT) announced today that it will create an Advanced Air Mobility (AAM) division to integrate advanced aviation technologies with transportation technologies on the ground.

ODOT Director Pam Boratyn has selected Robert "Bob" Tanner as the new AAM Director. Mr. Tanner brings over 30 years of expertise in transportation law and policy at federal, state, and local levels. In

his most recent role at a technology research firm, he led innovation engagement strategies within the aerospace and aviation sectors, working to help state and local governments align with federal regulations to plan for the safe integration of AAM into National Air Space. Mr. Tanner is a licensed attorney in Ohio and has extensive experience in the aviation sector, particularly as it relates to public policy.

"Our state boasts a robust advanced air mobility ecosystem of commercial industry, academia, research, and military assets, which is complemented by a strong leadership structure to drive long-term innovation," said Director Boratyn. "This addition signals Ohio's commitment to remaining on the leading edge of aviation."

[Read more](#)

America's Secret Weapon in WWII



Workers at North American Aviation in Los Angeles pose together during World War II, gathered around a section of an aircraft they helped build. Photo credit: U.S. National Park Service

[American Experience](#)

Rosie the Riveter called women to join the workforce during World War II. But there was another recruitment campaign aimed at mobilizing millions of Americans previously deemed "ineligible" for military service. Over three million people with disabilities **joined the war effort** on

the homefront, playing a crucial role in wartime production.

Before World War II, people with disabilities faced severe limitations in access to education and employment. No anti-discrimination laws protected their rights, and **social stigma** discouraged employers from hiring them. Many were left out of the workforce altogether. However, the attack on Pearl Harbor created an urgent demand for workers, forcing industries to reconsider whom they hired and how they trained and accommodated employees.

As wartime production ramped up, companies began hiring people with disabilities for essential jobs, many for the first time. Industrial giants like Goodyear, Lockheed, and Boeing utilized government recruitment campaigns and vocational training programs **to fill vital roles**.

Aviation manufacturers employed workers with dwarfism, utilizing their ability to operate in tight, confined spaces. Noisy factories saw deaf workers communicate effectively using American Sign Language, increasing productivity. Blind workers excelled in tactile tasks requiring precision, performing detailed assembly work by hand. And veterans using wheelchairs or prosthetics benefitted from modified machinery that enabled them to contribute to production lines.

[Read more](#)

Citizen Science: Connecting Students to Authentic Data



April 22, 5:00 p.m.-8:00 p.m.
Hull Prairie Intermediate School
25480 Hull Prairie Rd, Perrysburg, OH
(Light Dinner Provided)

Facilitator: Amy Boros

Registration: <https://forms.gle/MosAACAvYKPk64rAA>

This session will facilitate experiences that will help teachers and school leaders to move toward building a STEM/STEAM culture within their classrooms/their school. Participants will explore a framework of activities focused on introducing teachers and students to gathering, analyzing and utilizing authentic data through Citizen Science:

- is adaptable across elementary through high school
- allowing students to "be the scientific expert" as they design and conduct experiments on school grounds to share with experts with NASA and biologists.
- fosters an environmental mindset, scientific inquiry, and collaboration with individual accountability for students
- Citizen Science organizations explored include NASA/s GLOBE, iNaturalist, eButterfly, Bumblebee Watch, NOAA, Monarch Watch and Journey North.

Certificates for contact hours will be provided.

SUSTAINABILITY INSTITUTE AT OHIO STATE

With Spring underway, we are excited to invite you to a few upcoming events that the Sustainability Institute is hosting during the month leading up to Earth Day, and hope that you will be able to join us at one or all:

Front Porch Chats (virtual)

This new online event series will feature conversations between university experts and sustainability leaders on key topics. The first Chat will focus on global water challenges and what can be done to preserve freshwater for future generations, with 2020 Stockholm Water Prize winner and Groundwater Project founder John Cherry and School of Earth Sciences Professor Audrey Sawyer.

The second Chat will turn to clean energy's ability to strengthen agricultural operations while reducing carbon footprints. Sarah Moser, Savion Senior Director and Head of Farm Operations and Agrivoltaics will join Scott Shearer, Professor and Chair of the Department of Food, Agricultural and Biological Engineering.

[March 26: Global Water](#)

[April 1: Ag & Clean Energy](#)

Unlocking Innovation: Cima, Couch Featured on AUTM On-the-Air Podcast



Get ready for an inspiring deep dive into inventive thinking on [AUTM On-the-Air!](#) In this exciting episode, LMIT's Executive Director Dr. Stephanie Couch and Faculty Director Dr. Michael Cima join industry experts Dr. Chris Rogers and Rafael Gacel-Sinclair of Sacramento State to explore how innovative education can empower students to tackle the world's biggest challenges.

During the conversation, our leaders share:

- **Behind-the-Scenes Insights:** Discover how LMIT's unique approach is bridging academic excellence with real-world innovation,

equipping students with the skills to thrive in today's dynamic landscape.

- **Collaborative Vision:** Learn about the powerful partnership with Sacramento State and how shared missions are sparking creative solutions and fostering a vibrant culture of inventive thinking.
- **Empowering the Next Generation:** Hear firsthand how our programs are nurturing bold ideas and cultivating an environment where students confidently turn challenges into opportunities.

Join the conversation and get inspired to think outside the box! [Listen here on Apple Podcasts.](#)

Brick in Architecture Awards



Since 1989, the Brick Industry Association has sponsored one of the country's most prestigious architectural award competitions - the Brick in Architecture Awards.

[Award winners for a number of years here](#)

Prosthetic Robot Hand 'Knows' What It's Touching

[Futurity](#)

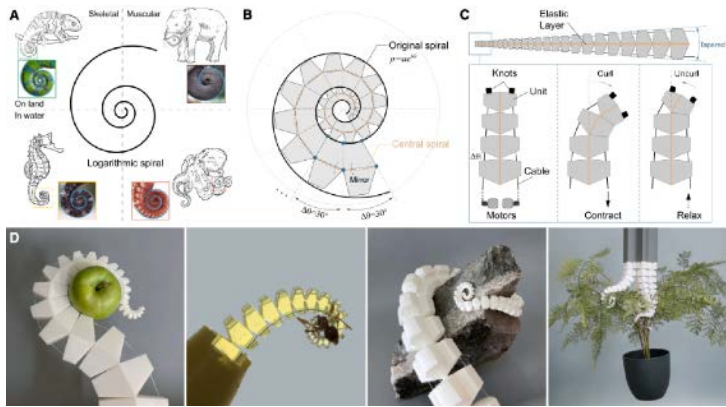
Engineers have developed a pioneering prosthetic hand that can grip plush toys, water bottles, and other everyday objects like a human.

[Read more and watch video](#) (also provides links to additional videos)

The Kid Should See This

[The Kid Should See This](#)

Smart videos for curious minds of all ages



Here are some selected videos.

- [Logarithmic Spirals: Robots inspired by octopus and elephant math](#)
- [GPS Master Control Station and the small team guiding global navigation](#)
- [Domes, Pulleys, and Air Pressure: What does it mean to be strong?](#)
- [Scavengers, Rakers, and Rag Men: How did 1700s America handle trash?](#)
- [Heat Batteries: What are they and can they sustainably power the world?](#)
- [Queue Smarter, Not Longer: Queueing theory and the math behind efficient lines](#)
- [How do stop-motion animators animate Timmy Time?](#)
- [The science of working together: How collective action can solve big problems](#)
- [The Legend of the QWERTY Keyboard](#)

Fluid Power Scholarship Deadline Extended, Approaching

The [Fluid Power Scholarship](#) is a \$2,500 award for students pursuing fluid power education in the 2025-26 academic year. **Applications are currently open and due by April 10, 2025, at 11:59 PM CDT.**

Eligibility includes a minimum 2.5 GPA, a 500-word essay, a completed online application, and one letter of recommendation. This scholarship is

open to high school seniors and students currently enrolled at technical colleges, community colleges, and universities.

Reach out to Haley at hnemeth@nfpa.com with questions.

How To Use a Mobile CNC Router

Ask This Old House carpenter Nathan Gilbert shows how to set up a mobile CNC router and explains the benefits.

A mobile CNC router is a handheld power tool that uses CNC technology to guide cutting operations. Unlike traditional CNC machines, which are typically large and stationary, mobile CNC routers are portable and versatile. They feature a built-in computer and screen, allowing users to import and manipulate design files directly on the device.

[Read more](#)

How Fortnite Can Be Free Physics Fun for Everyone!

[The CoolCat Teacher](#)



In the ever-evolving landscape of educational technology, Fortnite Creative is emerging as a groundbreaking tool for physics education and game-based learning. Andrew Vanden Heuvel, an innovative educator, is transforming the way students engage with STEM education through virtual laboratories and interactive learning experiences. By leveraging the immersive world of Fortnite, Heuvel's Fortnite physics project is

redefining student engagement and creative learning environments. This digital curriculum not only enhances physics education but also bridges the gap between e-sports in education and video game design, offering students a unique platform to explore and create.

[Learn more](#)

Cleaning Clogged Spray Can Tips

Argh! You grab an aerosol can of finish off your shelf and when you try to spray finish, nothing comes out. But the can is nearly full. Don't dump the rattle can. There's a good chance you can salvage it. Elisha tells you how.

[Watch video](#)

LOTS of Resources for Kids' Online Research

[Here are quick, safe spots to send students for research - updated](#)

Astronaut Q&A With Ohio Students: What Does Space Smell and Sound Like?

[Watch video](#)

[Link to recordings of other schools and how you can connect with astronauts on the space station.](#)

Building and Maintaining Successful Professional Learning Communities:

A Toolkit for Evolving Emergent, Transdisciplinary Communities of Practice [Toolkit PDF here](#)

History Quiz: Science & Technology

Time to geek out! Here's where you show us how much you really know about biology, astronomy, chemistry, botany, and inventors over the epochs.

[See quizzes](#)

Wiggling Robots Reveal the Physics of How Hula-Hoops Stay Up

Spinning, hoop-slinging robots are revealing the physics of a favorite toy — the Hula-Hoop. Scientists found that those robots [had to have a particular shape](#) in order to hula-hoop. And that helped explain how the hoops stay up against gravity.

The robots were designed to move in small circles, similar to a person hula-hooping. But only some bots could keep a hoop up.

[Read more](#)

Invention Resources

[Ask A Tech Teacher](#) from a [post on Invention Convention](#)

[Invention Convention Worldwide](#) is a global K-12 curricular program mapped to national and state educational standards that teaches students problem identification, problem solving, entrepreneurship, creativity skills, and confidence. [RTX Invention Convention U.S. Nationals 2025](#) runs June 4-6, 2025 at The Henry Ford in Dearborn, MI.

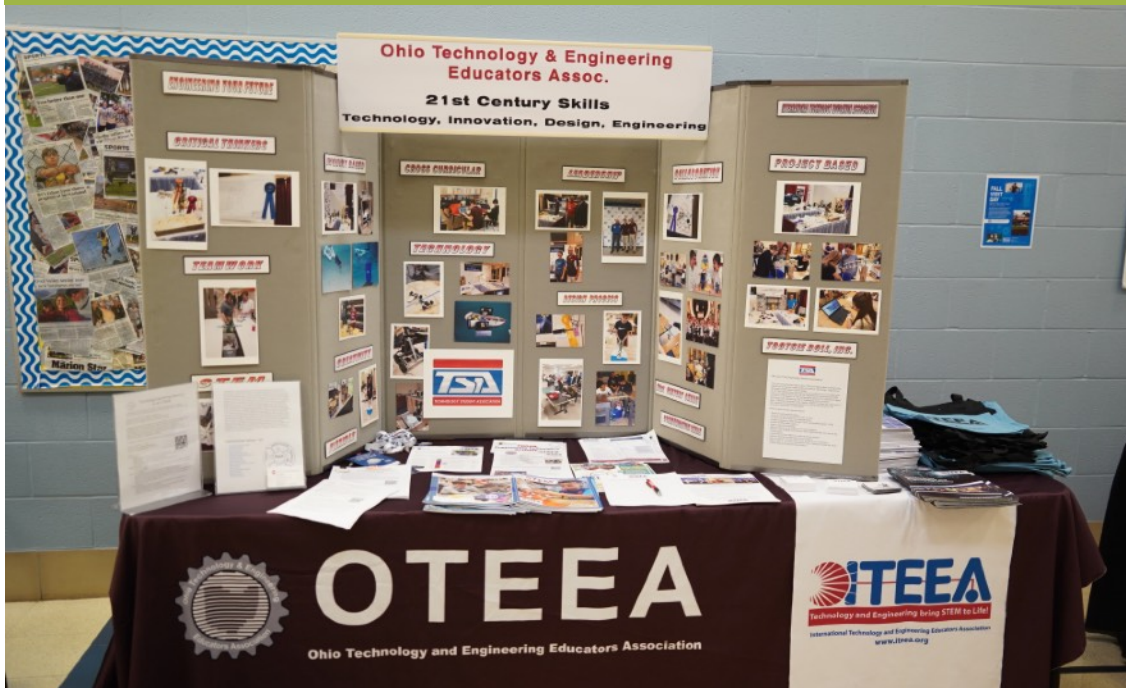
Here are websites to help you and your students learn about the excitement of inventions:

1. [A Guide to Inventions](#)
2. [Famous Inventors](#)
3. [How Inventions Change History](#) (video)
4. [How the popsicle was invented](#) (a TEDEd video)
5. [Invented by accident I](#)
6. [Invented by accident II](#)
7. [Inventions from the Military](#)—crazy ones

[Check back here for updates.](#)

More about inventions

- [Teach About Inventions with PowerPoint](#)
- [5 Ideas for Teaching Students the Most Important Skill They'll Need](#)
- [5 Fun Science Experiments Kids Do at Home](#)



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](#)

“Sciences provide an understanding of a universal experience, Arts is a universal understanding of a personal experience... they are both a part of us and a manifestation of the same thing... the arts and sciences are avatars of human creativity”
 — Mae Jemison, an astronaut, chemist, biologist, linguist, accomplished dancer, and humanitarian

This Week's Technology Tip

Brisk Teaching AI



[Brisk Teaching AI](#) is a free Chrome extension designed to help educators cut down on tedious tasks and focus on what truly matters—teaching! With features to create engaging content, provide meaningful

feedback, and generate lesson plans in seconds, Brisk can streamline your workflow. Plus, its AI detection tool helps you identify AI-generated writing in student work, ensuring academic integrity.

[Read more](#)

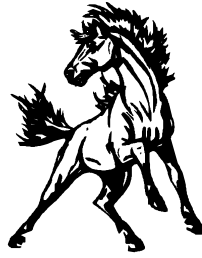
[Review at Common Sense Education](#)

[Review at 10Web](#)

[Demo video from Flipped Classroom Tutorials](#)

Allen East Local Schools

9105 Harding Highway
Harrod, Ohio 45850
Phone (419) 648-3333
Fax (419) 648-5282
www.alleneastschools.org



*Mel Rentschler, Superintendent
Andrea Snyder, Treasurer/CFO
Tiffini Flugga, Elementary Principal
Nicole Rettig, Middle School Principal
Jeff Ampoker, High School Principal
Amanda Fetter, Director Student Services
Allan King Jr., Athletic Director*

JOB OPENING 2025-2026

Job Description:

The Allen East Local School District located at 9105 Harding Highway, Harrod, Ohio in Allen County has a job opening for an instructor for advanced manufacturing and engineering for grades 7-12. The candidate does not have to hold a teacher license in the state of Ohio to apply. A person who has industry experience will be able to obtain a license with the assistance of Allen East and the Ohio Department of Education. The ideal candidate will have industry experience in advanced manufacturing, engineering, robotics and automation. Allen East is committed to assisting the instructor to obtain all necessary training to help the candidate become successful.

The Allen East Local School District is a rural district located on the eastern edge of Allen County, Ohio. The Lima region is a strong manufacturing hub for all of Northwest, Ohio. Many students who graduate from Allen East pursue careers in manufacturing and the trades. There are numerous manufacturing opportunities for the graduates of Allen East in the region. The new position will better prepare students in assisting them to make decisions for their future careers and education. Allen East currently has a strong Vocational Agricultural and STEM program. The new position will work closely with Vo. Ag. and STEM to create multifaceted opportunities for the students of Allen East.

Qualifications:

Preferred a credentialed instructor but will hire a candidate with industry experience that is able to work towards a permanent license for the Ohio Department of Education.

Pass a BCI/FBI background check

Please send a cover letter and resume to high school principal, Mr. Jeff Ampoker via email to ampokerj@alleneastschools.org . For questions regarding the position, please call Mr. Ampoker at (419) 648-3333 extension 2001

Posting Date Deadline: April 11, 2025

Anticipated hire date: April 22, 2025

Start Date: August 26, 2025

ALLEN EAST LOCAL SCHOOLS



2025-2026 - JOB OPENING

Job Description:

The Allen East Local School District located at 9105 Harding Highway, Harrod, Ohio in Allen County has a job opening for a Vocational Agricultural (Vo. Ag.) Instructor for grades 7-12. Allen East currently has an experienced Vo. Ag. teacher with the new position creating a second position. The new position will focus on the A1 pathway courses with a heavy emphasis on electronic/electrical systems, hydraulics/pneumatics, agricultural/industrial power, engines/fuel systems, and power technology. The new position will work with our current STEM instructor to compliment offerings such as robotics, work cell projects and advanced manufacturing. Students will be expected to do a lot of hands-on work such as metals, woods, fabrication, coding and engineering. Allen East will help the successful candidate obtain training in areas she/he may not have experience.

The Allen East Local School District is a rural district located on the eastern edge of Allen County, Ohio. There is a rich history of agriculture in the community with a lot of support from local farmers and industry. The Lima region is a strong manufacturing hub for all of Northwest, Ohio. Many students who graduate from Allen East pursue careers in agriculture, manufacturing and the trades. The new position will better prepare students in making decisions for their future careers and education.

Qualifications:

Licensed Teacher in the area of Vocational Agriculture with a CTE certification.

Pass a BCI/FBI background check

Please send a cover letter and resume to high school principal, Mr. Jeff Amspoker via email to amspokerj@alleneastschools.org . For questions regarding the position, please call Mr. Amspoker at (419) 648-3333 extension 2001

Posting Date Deadline: April 11, 2025

Anticipated hire date: April 22, 2025

Start Date: August 26, 2025