

Summer STEAM Spark

Learning to unwind after a busy school year takes a little time. We are hopeful that you are able to find activities this summer that spark new curiosity and exploration in areas related to STEAM. One activity that could provide new ideas and resources would be to attend the [Tech Prairie STEAM Expo](#) at the [2022 Illinois State Fair](#).

The Illinois Department of Innovation & Technology (DoIT) will host the event and provide fairgoers with opportunities to experience the many ways Illinois is advancing the areas of STEAM. Along with DoIT, the STEAM Expo is being presented by the University of Illinois Extension 4-H, Illinois Innovation Network, Learning Technology Center of Illinois, and Illinois Digital Educators Alliance (IDEA).

The [STEAM Expo](#) will run during the second half of the Fair to highlight K-12 and postsecondary education, business, industry, research, and development related to STEAM in Illinois. Feature attractions planned include: virtual reality opportunities, health sciences stations, and aerospace exhibits. Tech playground interactive activities planned include drones and robotics exhibitions.

As part of Tech Prairie, a drone competition is scheduled for Friday, August 19, 2022 on the Illinois State Fairgrounds. The competition is sponsored by “Grow Our Own” Minority Participation Program, which is supported by the City of Springfield, Sangamon County, and Hanson Professional Services Inc. The Central Illinois Drone Racers are managing the event and prizes will be awarded to winners.

An eSports competition is planned for Saturday, August 20, 2022 in the Tech Prairie STEAM Expo. The in-person competition will include prizes awarded in an 18 & under group as well as an open division. The eSports competition is organized by the University of Illinois eSports Team with gaming equipment provided by HP.

Fairgoers and students will be able to explore STEAM career opportunities inside the Expo through guided or self-guided tours. Scheduled tours are also available that offer a behind-the-scenes view of Illinois agriculture on the Illinois State Fairgrounds. Tours are limited, so early registration is encouraged. More information is available at www.illinois.gov/steamexpo or you can email questions to doit.steam@illinois.gov. The Expo will be held daily from 10am to 6pm, August 17-21, 2022 in the Orr Building on the west side of the [Illinois State Fairgrounds](#) in Springfield. Plan to explore!



Let off some STEAM with these fun activities!

K - 4

Biodiversity Activity Guide

5 - 8

Check out “BirdCast” and the spectacle of bird migration

9 -12

Math of the Expanding Universe

Educator’s Corner

STEAM resources for in-person, hybrid, remote learning, and professional development

- [NASA Artemis I Moon Rocket to Return to Launch Pad](#)
- [University of Illinois College of Veterinary Medicine Podcasts](#)
- [Aircraft Owners and Pilots Association High School STEM Curriculum](#)
- [National Institute of General Medical Sciences STEM Teaching Resources](#)
- [USDA Natural Resources Conservation Service “Soil Health in Illinois”](#)
- [2022 STEM for All Video Showcase Multiplex](#)
- [U.S. Department of State “STEM Innovations and Global Competence” Course](#)
- [Education Week “Want Students to Become Better Problem Solvers? Then Teach Them to Fly Planes and Drones”](#)
- [U.S. Department of Energy Lawrence Livermore National Laboratory Science Education Program](#)
- [MakerGirl](#)
- [Smithsonian Summer Sessions](#)

News & Events

Illinois Digital Educators Alliance Summer Programming

“IDEA is hosting a plethora of professional learning opportunities this summer!

We will be offering three types of events, each with varying time commitments: **MicroPD**, **Workshops**, and **Cohorts**. Topics discussed in each event type include wellness, equity, STEAM, computer science, and more! Whether you are a teacher, coach, or administrator, you'll find PD that fits your needs. Pending the event type, there are in-person, virtual, and hybrid options.

Our cohorts are our longer learning groups. Each summer cohort is **one month long**. Our workshops are 1 day sessions lasting 5-6 hours. Each summer adventure of MicroPD is 4 weeks long.

- ◆ [Computer Science Summer Workshop](#) (in person and virtual options)
- ◆ [Computer Science MicroPD](#)
- ◆ [STEAM MicroPD](#)
- ◆ [Disinformation Cybersecurity PD](#)

Not sure if summer programming is right for you? Click [here](#) to learn more about these offerings from IDEA Director of Professional Learning Lindsay Zilly. Click [here](#) to download a one-pager to share with your team!”

Illinois Math & Science Academy Southwest IL—STEM Career Professional Development



Are you a 5th -12th grade teacher, administrator, or pre-service teacher? Do you want to learn ways to integrate math concepts & career connections within your lessons to make learning more meaningful for students?

Experience hands-on PD in SW Illinois led by the Illinois Math & Science Academy and acquire a network of resources to inspire students! 6 PD hours & FREE LUNCH!

Three different topics/dates/locations (Go to 1 or all 3):

- Aviation Integration - June 16, 2022
- Math & Machining - June 22, 2022
- Math & Construction - July 14, 2022

For more info or to register, go to: <http://www.imsa.edu/Educator>. Space is limited! Register ASAP! For questions, contact: Kelly Remijan, PD/Curriculum Specialist, at kremijan@imsa.edu

News & Events Continued

CODE.org Summer Workshops and Scholarships

LEARNING
TECHNOLOGY
CENTER of ILLINOIS

“The [Learning Technology Center of Illinois](#) and [Code.org](#) are hosting five-day summer workshops and year-long cohorts for new and beginning computer science teachers. Scholarships are available to cover the cost of attendance.

CS A Summer Workshop for Grades 9-12

Guide students through learning object-oriented programming using Java. Students take on the role of software engineers, and practice skills that are used in the field. The Code.org curriculum for CSA is designed for any high school student who wishes to continue their computer science education after completing an introductory course such as Computer Science Discoveries (CSD) or Computer Science Principles (CSP).

June 13-17, 2022

Parke Regency Hotel and Conference Center, 1413 Leslie Drive Bloomington, IL 61704

CS Discoveries Summer Workshop for Grades 6-10

Engage your students with a wide lens on computer science by covering topics such as programming, physical computing, web development, design, and data. The course inspires students as they build their own websites, apps, games, and physical computing devices.

July 25-29, 2022

Courtyard by Marriott - Chicago/Arlington Heights, 100 West Algonquin Road, Arlington Heights, IL 60005

CS Principles Summer Workshop for Grades 9-12

Introduce your students to the foundational concepts of computer science and challenge them to explore how computing and technology can impact the world. More than a traditional introduction to programming, it is a rigorous, engaging, and approachable course that explores many of the foundational ideas of computing so all students understand how these concepts are transforming the world we live in.

August 1-5, 2022

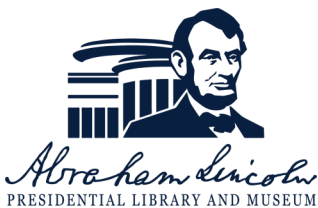
Parke Regency Hotel and Conference Center, 1413 Leslie Drive Bloomington, IL 61704”

The Trevor Project: LGBTQ Ally Training 6:00—7:30 pm on June 27, 2022



“Please join the [Abraham Lincoln Presidential Library and Museum](#) and the [Illinois State Board of Education](#) for a virtual presentation of the Trevor Project's Ally Training on June 27th at 6:00 PM CST. This training provides a basic framework of understanding lesbian, gay, bisexual, transgender, queer and questioning (LGBTQ) people and the unique challenges they often face.

Designed to create dialogue regarding what it means to be an ally for LGBTQ people, instruction focuses on terminology used in the LGBTQ community, the process of “coming out” as an LGBTQ person, and how we can create safer and more supportive environments for LGBTQ students. Through targeted activities, participants will explore their own biases, build knowledge and understanding, and develop empathy.



All educators and pre-service teachers are invited to attend; 1.5 CPDUs will be awarded for participation.”

STEAM Resource Spotlight

Illinois State Museum “Exploring Water PD for Teachers”

9:00am—3pm on June 23, 2022



“Learn more about our state’s natural and human history at the Emiquon Preserve and Dickson Mounds Museum in a fun day of hands-on science exploring the Illinois River. Conduct shoreline investigations of water quality and invertebrates with scientists at the Emiquon Preserve, the largest wetland restoration project outside of the Florida Everglades. Investigate the different animals that call the Illinois River home and why this place is so important to their survival. Learn about the different cultures that have lived around the Illinois River. Participate in hands-on science and play learning games that you can take back to do with your students. Spend a day outside exploring the importance of our water. Participants will earn 6 CPDUs. All activities take place at Dickson Mounds and Emiquon Preserve. Participants will need to come prepared to be outdoors, get dirty, and bring their lunch. This workshop is rain or shine.

Advanced [registration](#) is required. For more information, please contact Lorna Shuman at lorna.shuman@illinois.gov or 217-782-0661.”

**ILLINOIS
STATE • MUSEUM**
explore. discover. learn. share.



Learning with NASA is Out of this World (archived video)

“The National Aeronautics and Space Administration (NASA) has a long history of inspiring American students to reach for the stars. By engaging students in real life design challenges, teachers provide learning opportunities that have lifelong impacts. NASA’s Artemis mission, which will send the first woman to the moon, is inspiring students, in partnership with LEGO Education, by offering free [Build to Launch](#) Curriculum to

schools nationwide. Students will have a chance to learn from and interact with NASA’s top aeronautics leaders as Artemis prepares for its first launch in 2022. This exciting mission offers students meaningful, hands-on experiences that aim to inspire the STEM workforce of the future. Check out this [webinar](#) with ED and NASA to learn more about the Artemis mission and the collaboration with LEGO Education.

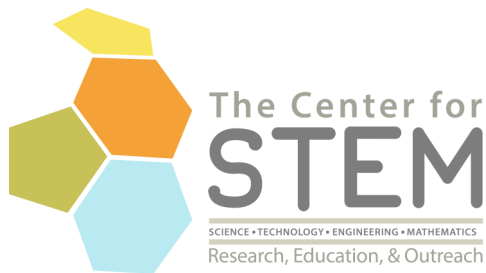
Summer Camp Opportunities

Many organizations have STEAM-centric K-12 summer camps still open for registration with in-person, virtual, or hybrid models. Check out a few here or get inspired to re-search opportunities in your area.



Northern Illinois University STEAM Camps

University of Illinois Springfield to Host Four Academic Summer Camps



Southern Illinois University Edwardsville Odyssey Science Camp

Governor's State University STEAM Camp



University of Illinois Girls' Astronomy Summer Camp 2022

The 'A' in STEAM



"Arts foster scientific success" -Dr. Temple Grandin

This series is dedicated to showing how art and creativity play a crucial role in our society on its own and even within the STEM fields. There's a great deal of artistry that goes into our favorite products and media we consume that make our lives easier, or at least a bit more enjoyable, and teach us valuable lessons about history.



EarSketch

"Your Voice is Power"

Make Beats. Learn Code.

Round Two Competition closes June 19, 2022

"Amazon Future Engineer and Georgia Tech invite you to engage your students in the Your Voice is Power learning experience and coding competition. Students will learn computer science, social justice, and entrepreneurship by remixing songs from Pharrell's *Entrepreneur*, Alicia Keys's *Underdog*, and Khalid's *New Normal* on Georgia Tech's EarSketch platform.

The Your Voice Is Power competition is their opportunity to remix beats while learning to code. Yes, code! For the competition, students use [EarSketch](#), a free online code editor, to compose a unique song while learning computer science. No experience is necessary to participate. Students can also participate in the [curriculum](#) experience to learn how to include themes of social justice and entrepreneurship to their song."



www.illinois.gov/doit-steam



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