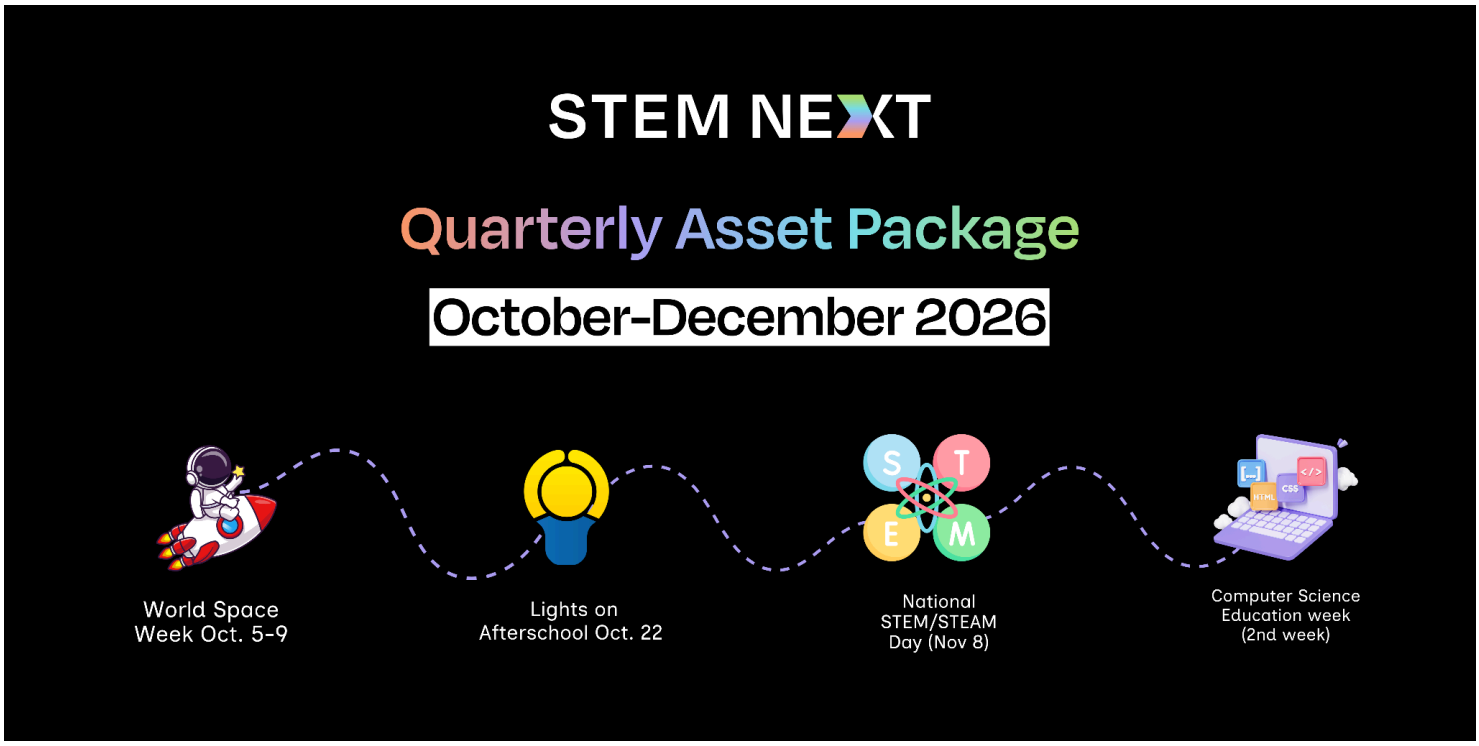

STEM Next compiles a quarterly asset package of resources, opportunities and activities to meet the needs of **program providers and staff in your state**. Please share these assets widely with your partners and programs! Check back for updates throughout the quarter.

We will also distribute new resources and updates throughout the quarter by email. Sign up to receive these notices here!

How to Use this Asset Package:

⇦ Use the table of contents to the left to find the month, topic, or resource you need. Click to move to the resource of your choice. OR click the hyperlinks in the table below.

In the document's body, you can minimize the copy by clicking the > to the left of the opportunity title.

Each opportunity will now be accompanied by specific sample social media copy that can be used to help spread the word to programs. We also have graphics that you can download, linked below each caption.

Share with us! We welcome feedback on the format and want to hear your impact stories.

What's Happening? The Quarter at A Glance

Featured Opportunities

- AI Innovation Prize Challenge From STEM Next + Panasonic Foundation
- NOW OPEN: 2027 Flight Crew Applications
- Launching Futures: A New Toolkit from STEM Next
- Eyes on Health: A New Toolkit from STEM Next
- World Space Week: Bringing Aerospace Careers to Life Through STEM

OCTOBER

- Professional Development Opportunities
  - Math Games and Fluency Activities
  - World Space Week: Bringing Aerospace Careers to Life Through STEM
  - Behind the Curriculum: How YES Created the New Engineering Drums Unit
  - Connecting STEM Activities to Careers
  - Lights on Afterschool
  - Role Models Matter
- Activities for Youth
  - TECH Quest Activities: Using Tech for Good
  - 10 Afterschool STEM Activities for All Grade Levels That Connect Learning to Careers
  - How to Learn Math: For Students
  - Launch into a New School Year with NASA
  - Youcubed at Home: Math Activities to be Done at Home

NOVEMBER

- Professional Development Opportunities
  - Beyond Keywords, Helping Kids Think Through Word Problems
  - Building AI Literacy for Inclusion in STEM: Tools and Resources to Empower Educators
  - Bring Career-Connected STEM Activities to Life
- Activities for Youth
  - Career Profiles to Help Connect Youth to STEM Careers in Afterschool
- Other Resources
  - Research-Based Practices & Career Awareness and Exploration

DECEMBER

- Professional Development Opportunities
  - Building Thinking Classrooms for Out-of-School Educators
- Activities for Youth
  - STEM Next's Aeronautics & Aerospace Activity Bundles by Grade Level
  - Numeracy in Nature
- Other Resources
  - Research-Based Practices & Career Awareness and Exploration

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Featured Opportunities

Ongoing and time-sensitive opportunities to engage in STEM learning, media campaigns and professional development opportunities.

AI Innovation Prize Challenge From STEM Next + Panasonic Foundation

Program sites can win up to $5,000 in this National AI Challenge

STEM Next Opportunity Fund, in partnership with the Panasonic Foundation, has launched the AI Innovation Challenge, a national competition that challenges high school youth in out-of-school time programs to develop innovative solutions to real-world challenges using AI.

The AI Innovation Challenge gives high school youth the chance to learn how to use AI responsibly as a research and development partner as they create innovative projects addressing issues that matter to them — all while competing for a cash prize for their afterschool program.

Program leaders provide guidance and support while youth lead the research, idea development, and presentation of their projects. Winning entries will demonstrate how afterschool programs help young people build AI literacy, strengthen durable skills, and prepare for future STEM and AI-enabled careers.

Program leaders can sign up now to enter the challenge with their youth team(s), with a deadline to submit final projects by 11:59 PM EST on November 19, 2026.

Please help spread the word so more afterschool programs can discover this exciting opportunity for their young people. This Communications Toolkit provides ready-to-use communications resources to help you promote the challenge opportunity through your newsletters, websites, social media channels, email communications, and partner networks.

Sample social copy to promote this opportunity

Post 1: Launch — for IG, LinkedIn, FB

> Afterschool programs: Win up to $5,000 for your program!
>
> If your program serves high school youth, don't miss the new AI Innovation Challenge from @STEM Next Opportunity Fund and Panasonic Foundation.
>
> Youth will identify a real-world problem they care about and use AI to research the issue, develop ideas, and strengthen a proposed solution while building AI literacy and durable skills.
>
> No prior AI experience or coding skills are required for youth or educators.
>
> Learn more and sign up: https://bit.ly/4i3Dchn
>
> Final project submissions are due Nov. 19, 2026!

Post 1: Launch — Shortened for X, BlueSky, Threads

> The AI Innovation Challenge from @STEMNext and @Panasonic Foundation is designed specifically for afterschool and other out-of-school-time programs serving high schoolers.
>
> Youth lead the innovation. Educators guide the process. Winning programs can earn up to **$5,000** in prize funding. Submissions are due by Nov. 19, 2026. Sign up: https://bit.ly/4i3Dchn

Graphic download here.

More graphics, social posts, email copy, tips and more are in the Communications Toolkit here.

NOW OPEN: 2027 Flight Crew Applications

The application for the 2027 STEM Next Flight Crew is now OPEN! STEM Next has launched a nationwide search for the next Flight Crew — national youth ambassadors who represent their states as they develop leadership and communication skills, share their stories on regional, state and national stages, and lend their voices to push for more afterschool and summer STEM opportunities.

Please encourage youth ages 13-18, with experience in afterschool and summer STEM learning and an interest in developing public speaking and leadership skills, to apply today. **The deadline to apply is 11:59PM EST on October 29, 2026.**

From January through June 2027, Flight Crew members:

- Build leadership, communication, and advocacy skills through coaching, mentorship, and real-world experience.
- Represent their states as members of a national cohort of STEM ambassadors.
- Share their STEM journeys through speaking engagements, media opportunities, social media, and other public appearances.
- Inspire more young people to explore STEM while championing the value of afterschool and summer STEM learning.

Learn more and apply here.

How to promote this opportunity

STEM Next has compiled customized communications toolkits with downloadable graphics, social posts, email and blog language and slides:

- State Afterschool Networks and afterschool system leaders: Go to the toolkit
- National or other collaboration partners: Go to the toolkit

Launching Futures: A New Toolkit from STEM Next

The **Launching Futures Toolkit**, created by STEM Next and powered by RTX, equips educators with practical resources to connect young people to the fast-growing world of space and aerospace careers.

Built around the four strategies in STEM Next's Career-Connected Learning Framework, the toolkit is designed to make it easy for afterschool and informal educators to bring aeronautical and aerospace careers to life.

Inside, you'll find:

- Hands-on activities modeled on real challenges aerospace professionals face, segmented by grade level and paired with facilitation guides
- Career profiles spanning different aeronautics and aerospace fields, explaining how it contributes to the industry and highlighting the skills, education, and day-to-day responsibilities involved
- Resources from partners, including NASA, the Smithsonian and Space Museum, and more

→ **Access the toolkit here.**

STEM Next and RTX recently hosted a webinar launching this toolkit and the strategies to bring aerospace career learning to programs.

→ **Get the recording here.**

Sample social copy to promote this opportunity

Long version (IG, LinkedIn, FB)

> Help young people discover the exciting careers shaping the future of space exploration.
>
> The free Launching Futures Toolkit, created by STEM Next and powered by RTX, makes it easy to bring aerospace career exploration into your afterschool or summer program with hands-on activities, career profiles, educator trainings, and resources from partners including NASA and the Smithsonian.
>
> Explore the toolkit:https://bit.ly/46dqmpD

Shortened for X, BlueSky, Threads

> Help young people explore careers in space and aerospace.
>
> The free Launching Futures Toolkit from STEM Next, powered by RTX, includes hands-on activities, career profiles, and educator resources to support career-connected learning.
>
> Explore the toolkit: https://bit.ly/46dqmpD

Graphic download here.

Eyes on Health: A New Toolkit from STEM Next

The Eyes on Health Toolkit, created by STEM Next, gives educators ready-to-use resources that open young people's eyes to the wide range of careers in health and life sciences.

Grounded in the four strategies of STEM Next's Career-Connected Learning Framework, the toolkit helps afterschool and informal educators turn curiosity about the human body, medicine, and science into real career exploration.

What's included:

- Activity bundles that let youth take on the kinds of problems health and life sciences professionals solve every day, each with a facilitation guide
- Career profiles showcasing the many paths into the field and the skills needed for each one

→ Explore the toolkit.

Sample social copy to promote this opportunity

Long version (IG, LinkedIn, FB)

> Help young people discover where an interest in health and life sciences could take them with this new toolkit from @stemnextopportunityfund. The Eyes on Health Toolkit gives afterschool educators practical resources to connect youth with careers across the health and life sciences sectors. Explore hands-on activity bundles based on real-world challenges, facilitation guides, and career profiles that highlight different pathways and the skills needed to pursue them.
>
> Explore the toolkit: https://bit.ly/4h4Ndc0
>
> #STEMCareers #CareerConnectedLearning #Afterschool

Shortened for X, BlueSky, Threads

> Help youth explore careers in health and life sciences with the Eyes on Health Toolkit from @stemnext. Find hands-on activity bundles, educator guides, and career profiles that connect STEM learning to real-world careers and skills.
>
> Explore the toolkit: https://bit.ly/4h4Ndc0

Graphic download here.

Career-Connected Learning for World Space Week: Bringing Aerospace Careers to Life Through STEM

Date: October 6th, 2:00–3:00 PM ET / 11:00-Noon PT

Celebrate World Space Week by helping young people discover where an interest in aerospace STEM could take them. In this interactive training, afterschool and summer educators will explore how hands-on aerospace activities can introduce youth to real-world careers and help them understand the STEM knowledge and skills professionals use every day.

Using examples from meteorology, the basics of flight and aerospace engineering, participants will learn how to start with an aerospace career and build an engaging activity around it—connecting what youth are doing and learning to the people, skills and possibilities behind the work.

Designed for educators serving youth in grades K–8, the training will use STEM Next's Career Framework to help participants create meaningful career-connected learning experiences. Participants will leave with practical strategies, ready-to-use activity examples and aerospace career profiles they can use during World Space Week and throughout the year to help young people see the possibilities—and themselves—in future STEM careers. Participants will also have an opportunity to win STEM kits or a $100 gift card for their programs. **REGISTER: https://stemnext.org/events/world-space-week-ccl-training/**

Sample social copy to promote this opportunity

Long version (IG, LinkedIn, FB)

> Celebrate World Space Week with @stemnext on October 6 from 2:00–3:00 PM ET with an interactive training for afterschool and summer educators serving youth in grades K–8.
>
> Using examples from meteorology, flight, and aerospace engineering, educators will explore how to connect hands-on STEM activities to the careers, skills, and people behind the work. Participants will leave with practical strategies, ready-to-use activities, and aerospace career profiles to help young people see the possibilities for their own futures.

Participants will also have a chance to win STEM kits or a $100 gift card for their programs.

Register: https://bit.ly/4dssBtl

#WorldSpaceWeek #STEMCareers #CareerConnectedLearning

Shortened for X

Celebrate #WorldSpaceWeek on Oct. 6 at 2 PM ET! Afterschool and summer educators can explore hands-on ways to connect K–8 youth with aerospace careers, skills, and possibilities.

Plus, a chance to win STEM kits or a $100 gift card.

Register: https://bit.ly/4dssBtl

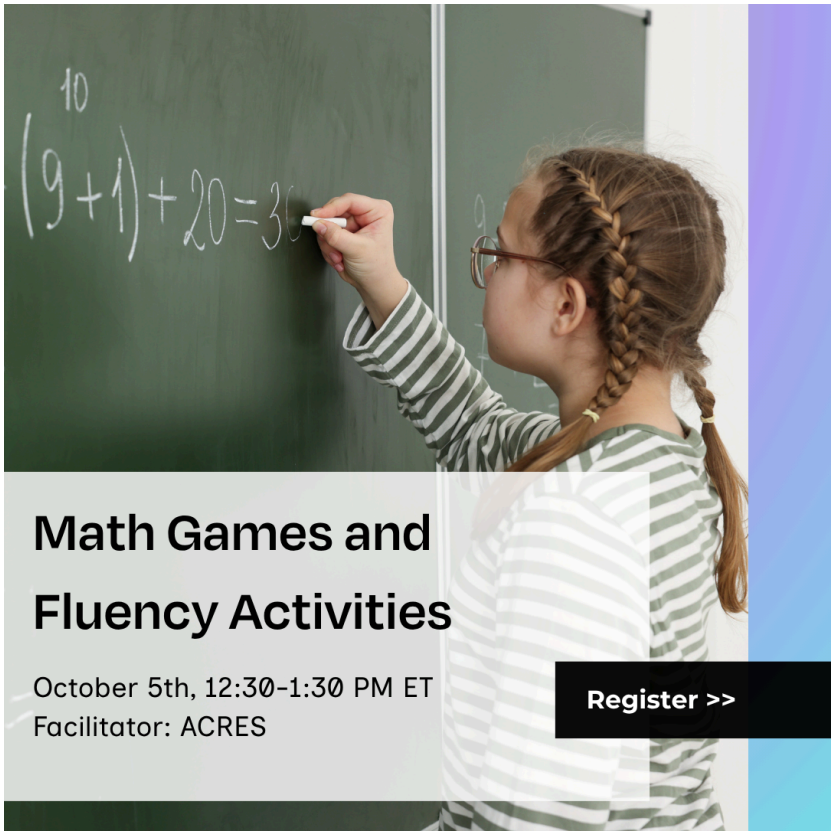
Graphic download here.

OCTOBER

Professional Development Opportunities

Math Games and Fluency Activities

Date: October 5th, 9:30-10:30 AM PT / 12:30-1:30 PM ET (10:30 AM Mountain and 11:30 AM Central)



Come engage in fluency math games and activities that support youth in learning math facts and becoming fluent in computation while having fun in the process! This is a free, LIVE, virtual workshop that will last one hour. For more information, email acres@mmsa.org. REGISTER HERE

Sample social copy to promote this opportunity

Long version (IG, LinkedIn, FB)

> Join ACRES on October 5 from 12:30–1:30 PM ET for a free, live virtual workshop exploring math games and activities that help young people strengthen math facts and computational fluency while having fun.
>
> Educators will leave with engaging ideas they can bring back to their programs and use with youth right away.
>
> Register: https://bit.ly/4xtzd1V
>
> #MathLearning #STEMEducation #Afterschool #OST

Shortened for X

> Make math fluency fun! Join ACRES on Oct. 5 at 12:30 PM ET for a free virtual workshop featuring games and activities that help youth strengthen math facts and computational fluency. Register: https://bit.ly/4xtzd1V

Graphic download here.

World Space Week: Bringing Aerospace Careers to Life Through STEM

Date: October 6th, 2:00–3:00 PM ET / 11:00-Noon PT

Celebrate World Space Week by helping young people discover where an interest in aerospace STEM could take them. In this interactive training, afterschool and summer educators will explore how hands-on aerospace activities can introduce youth to real-world careers and help them understand the STEM knowledge and skills professionals use every day.

Using examples from meteorology, the basics of flight and aerospace engineering, participants will learn how to start with an aerospace career and build an engaging activity around it—connecting what youth are doing and learning to the people, skills and possibilities behind the work.

Designed for educators serving youth in grades K–8, the training will use STEM Next's Career Framework to help participants create meaningful career-connected learning experiences. Participants will leave with practical strategies, ready-to-use activity examples and aerospace career profiles they can use during World Space Week and throughout the year to help young people see the possibilities—and themselves—in future STEM careers. Participants will also have an opportunity to win STEM kits or a $100 gift card for their programs. **REGISTER: https://stemnext.org/events/world-space-week-ccl-training/**

Sample social copy to promote this opportunity

Long version (IG, LinkedIn, FB)

> Celebrate World Space Week with @stemnext on October 6 from 2:00–3:00 PM ET with an interactive training for afterschool and summer educators serving youth in grades K–8.
>
> Using examples from meteorology, flight, and aerospace engineering, educators will explore how to connect hands-on STEM activities to the careers, skills, and people behind the work. Participants will leave with practical strategies, ready-to-use activities, and aerospace career profiles to help young people see the possibilities for their own futures.

Participants will also have a chance to win STEM kits or a $100 gift card for their programs.

Register: https://bit.ly/4dssBtl

#WorldSpaceWeek #STEMCareers #CareerConnectedLearning

Shortened for X

Celebrate #WorldSpaceWeek on Oct. 6 at 2 PM ET! Afterschool and summer educators can explore hands-on ways to connect K–8 youth with aerospace careers, skills, and possibilities.

Plus, a chance to win STEM kits or a $100 gift card.

Register: https://bit.ly/4dssBtl

Graphic download here.

Behind the Curriculum: How YES Created the New Engineering Drums Unit

Date: October 15th, 2:00–3:00 PM ET / 11:00-Noon PT

Go behind the scenes with the Museum of Science, Boston's curriculum team and see how a new engineering unit goes from an idea to a classroom-ready experience.

Go behind the scenes with the YES curriculum team to see how they use the Engineering Design Process to develop our own curriculum. Using our new lower elementary unit, Engineering Drums, they will trace the journey from an initial idea to a classroom-ready engineering experience. You'll see:

- where unit ideas come from
- how learning goals, engineering design, and classroom realities shape the choices we make
- what happens during classroom testing
- how evidence and feedback help us see what works and what needs to change

You'll come away with a deeper understanding of the thinking behind YES curriculum—and new ways to think about the Engineering Design Process in your own classroom. Their approach is grounded in nearly three decades of research, development, and learning alongside educators. Join YES to see the design process in action! REGISTER HERE

Sample social copy to promote this opportunity

Long version (IG, LinkedIn, FB)

> Join the Youth Engineering Solutions curriculum team on October 15 from 2:00–3:00 PM ET for a behind-the-scenes look at the development of the new Engineering Drums unit.
>
> Using the Engineering Design Process, the team will share how an initial idea evolves through learning goals, classroom testing, evidence, and educator feedback. You'll leave with a deeper understanding of how YES develops its curriculum and new ideas for using the Engineering Design Process in your own learning environment.
>
> Register: https://bit.ly/4xWLc9l

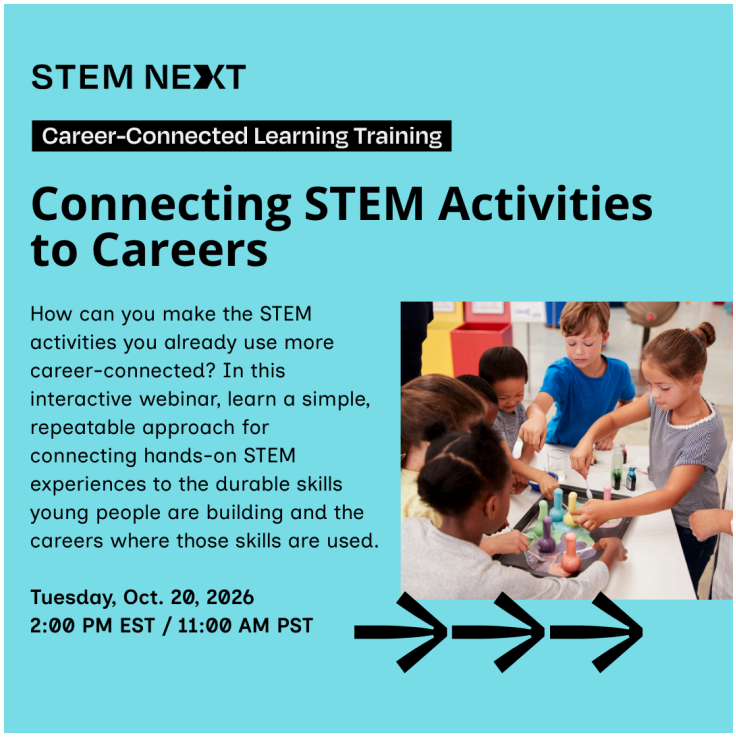
Shortened for X

> Join the YES curriculum team on Oct. 15 at 2 PM ET for a behind-the-scenes look at how the new Engineering Drums unit was developed using the Engineering Design Process.
>
> Register: https://bit.ly/4xWLc9l

Graphic download here.

Connecting STEM Activities to Careers

Date: October 20th, 2:00–3:00 PM ET, 11:00-Noon PT



Kick off the school year with 10 engaging, hands-on STEM and engineering activities designed for youth in grades K–8 using common, low-cost materials that work well in out-of-school time settings. In this interactive webinar, participants will explore how familiar STEM activities can become powerful career-connected learning experiences when intentionally designed to build the durable skills and STEM competencies young people need for future success.

Each activity will highlight opportunities to develop skills such as problem-solving, collaboration, creativity, communication, and critical thinking—and connect those skills and STEM concepts to real-world STEM careers. Participants will experience fresh twists on familiar favorites and learn practical strategies for making STEM activities more intentional, accessible, and connected to the world of work.

Participants will leave with 10 ready-to-use activities and ideas for helping youth see the connection between what they are doing in afterschool today, the skills they are building, and the STEM careers they might pursue tomorrow. *Participants will also have an opportunity to win STEM kits or a $100 gift card for their programs*.

REGISTER: https://stemnext.org/event/connecting-stem-activities-to-careers/

Sample social copy to promote this opportunity

Long version (IG, LinkedIn, FB)

> Join @stemnext on October 20 from 2:00–3:00 PM ET for an interactive webinar featuring 10 hands-on STEM and engineering activities for youth in grades K–8. Explore how familiar activities can help youth build skills like problem-solving, collaboration, creativity, and critical thinking while making connections to real-world STEM careers.
>
> Participants will leave with 10 ready-to-use activities, plus a chance to win STEM kits or a $100 gift card for their programs.

Register: https://bit.ly/4heGQmC

#CareerConnectedLearning #STEMCareers #Afterschool #STEMEducation

Shortened for X

Turn hands-on STEM into career-connected learning! Join @stemnext on Oct. 20 at 2 PM ET to explore 10 ready-to-use K–8 activities that build durable skills and connect youth to real-world STEM careers.

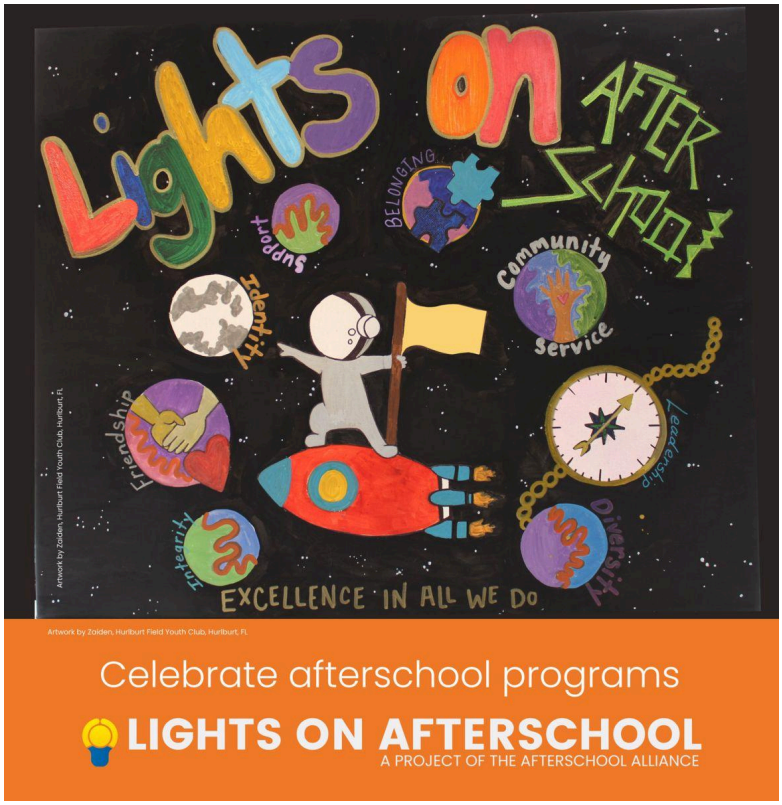
Plus, a chance to win STEM kits or a $100 gift card.

Register: https://bit.ly/4heGQmC

Graphic download here.

Lights on Afterschool

October 22, 2026



Join more than 8,000 communities and 1 million Americans in celebrating afterschool programs for this year's Lights On Afterschool! This nationwide event, organized by the Afterschool Alliance, calls attention to the importance of afterschool programs and the resources required to keep the lights on and the doors open. STEM Next is proud to be a Lights On Afterschool partner.

We encourage you to hold a Lights On Afterschool celebration to showcase the great things happening in your program and help call attention to this important issue. All who register to be part of Lights On Afterschool will receive free posters and planning tips, and events will be promoted to the media and the public.

Everything you need to plan a successful event, from case studies to sample materials, is available in the Lights On Afterschool Planning Kit. STEM Next has many resources available for career-connected STEM learning activities that can also be used during your celebration.

To learn more about Lights On Afterschool, register an event, access event planning tools, or find out what's going on in your area, visit afterschoolalliance.org.

Sample social copy to promote this opportunity

Long version (IG, LinkedIn, FB)

We're proud to join communities all across America celebrating #LightsOnAfterschool on October 22! There are tons of ways to join the nation's largest showcase of afterschool programs. Sign up now and you'll receive free posters, tips, & guidance: http://3to6.co/LightsOn-Signup

Shortened for X

> #LightsOnAfterschool, the national showcase for afterschool programs, is around the corner! Sign up and see how you can join the nationwide celebration on October 22! http://3to6.co/LightsOn-Signup

Graphic download here.

Role Models Matter

One-hour online, on-demand training

Role models play a critical role in shaping a girl's STEM identity, interest and aspirations. Although many STEM professionals are well intentioned to share their journey and experience, many don't quite know how to go about engaging girls in conversation or telling their personal story.

To support role models and increase their effectiveness, Techbridge Girls developed the Role Models Matter (™) training program. The training helps role models develop skills to engage girls from marginalized communities through videos, reflection questions and more.

This course is hosted in Circle, Techbridge Girls' learning platform. When you click Start Course, you'll be prompted to create a free account. After signing in, you'll be taken directly to the course and can begin the training right away. **SIGN UP FOR TRAINING HERE**

Help shape a free middle school enrichment curriculum!

Are you an out-of-school educator who works with middle school-aged youth? Youth Engineering Solutions (YES) wants to hear from you! YES is expanding their Enrichment offerings to reach more youth ages 11-14 in more spaces. Please consider completing the YES Middle School Enrichment survey. Estimated time to complete survey: Less than 15 minutes.

Link to survey: https://museumofscience.az1.qualtrics.com/jfe/form/SV_6Dtm3zOFOTHgo86

Activities for Youth

TECH Quest Activities: Using Tech for Good

STEM Next's TECH Quest activities help afterschool and summer educators engage youth in using technology to explore real-world challenges and make a positive impact. Designed as a quick start for educators, these three ready-to-use activities for youth in grades 5-8 explore science communication, environmental stewardship, and AI while building skills in problem-solving, communication, creativity, and collaboration.

The three activities include:

- **Be the Voice of Science:** Use Keynote to create a science communication piece that explains a complex scientific idea clearly and creatively.
- **Planet Protectors:** Explore how scientific discoveries help us understand and protect our planet, then use technology and creativity to communicate findings.
- **AI for Good:** Explore how AI is used and design an AI-powered idea that could make a positive impact at school or in the community.

Get the activities and explore more on [STEM Next's TECH Quest Resource Hub](#).

Previously released as the Challenge Based Learning Activity Bundle, these resources are now available as individual TECH Quest activities.

Sample social copy to promote this opportunity

Long version (Newsletters, IG, LinkedIn, FB)

> Looking for a new way to bring real-world problem solving into your afterschool program using technology?
>
> The TECH Quest activities from STEM Next are designed to help afterschool and summer educators guide youth through hands-on challenges that connect tech learning to real community and global issues.

Explore three ready-to-use lessons designed for grades 5-8: https://bit.ly/3SYNDsD

#AfterschoolSTEM #CareerConnectedLearning #STEMNext

Shortened for X

Bring real-world problem solving into your afterschool program with TECH Quest!

Explore three ready-to-use activities that invite youth in grades 5-8 to use technology to tackle real challenges.

Explore the activities: https://bit.ly/3SYNDsD

Graphic Download here.

10 Afterschool STEM Activities for All Grade Levels That Connect Learning to Careers

STEM Next is excited to debut a new resource for afterschool and summer educators: The Out-of-School Time Top Ten Activity Bundle.

Career-connected learning helps youth understand the world of work, build critical life skills, and imagine themselves in a range of future possibilities. That's why STEM Next has released this activity bundle with 10 STEM activities that help connect young people to careers at every grade level.

The bundle builds on STEM activities commonly used in afterschool programs, adding a career-connected learning lens that helps young people explore the real-world careers and skills connected to what they're doing. Learn more: https://stemnext.org/top-ten-activity-bundle/

Sample social copy to promote this opportunity

Long version (Newsletters, IG, LinkedIn, FB)

> The new Out-of-School Time Top Ten Activity Bundle from STEM Next brings career-connected learning to life in ten new activities made for every grade level.
>
> Career-connected learning helps youth understand the world of work, build critical life skills, and imagine themselves in a range of future possibilities. The bundle builds on STEM activities commonly used in afterschool programs, adding a career-connected learning lens that helps young people explore the real-world careers and skills connected to what they're doing.
>
> Check out the activities: https://bit.ly/4Aq2fCg

Shortened for X

> 10 free afterschool STEM activities to connect youth to careers are now available from STEM Next! Check them out: https://bit.ly/4Aq2fCg

Graphic Download here.

How to Learn Math: For Students

How to Learn Math is a free self-paced class for learners of all levels of mathematics. It combines really important information on the brain and learning with new evidence on the best ways to approach and learn math effectively. Many people have had negative experiences with math, and end up disliking math or failing. This class will give learners of math the information they need to become powerful math learners, it will correct any misconceptions they have about what math is, and it will teach them about their own potential to succeed and the strategies needed to approach math effectively.

If you have had past negative experiences with math this will help change your relationship to one that is positive and powerful. The course will feature videos of math in action - in dance, juggling, snowflakes, soccer and many other applications. It is designed with a pedagogy of active engagement. The course is planned to remain available indefinitely. Access English and Spanish versions here.

Launch into a New School Year with NASA

A new school year brings fresh opportunities to get involved with NASA. Whether you're curious about space or eager to build durable skills for future employment, NASA offers a world of experiences putting you close to the action. As we enter a new golden age of exploration, there's no better time to jump in, try something bold, and see

where your curiosity takes you. This article gives a summary of how educators, families and youth can connect to NASA's resources.

Youcubed at Home: Math Activities to be Done at Home

From Youcubed, this page shares different activities that have been designed to do with children at home.

- Counting All the Things (K-12) — In this activity, explore ways of counting large amounts of flowers, trees, birds, people, and more in spaces and places you go. While you're out for a walk in the neighborhood or making a run to the grocery store, take a picture of a crowded flower patch or bread aisle and discuss ways of counting how many flowers or loaves of bread there are. Print the picture, annotate it using any image editing software available to you, or upload it to Geogebra to use the grid lines and their other tools. Think about different ways of counting and representing your thinking visually. If you want to explore algebra, ask yourself questions like, if my bedroom floor was covered in flowers like this flower patch, how many flowers would it take? Consider modeling your thinking about questions like this using algebra and generalizing it for any space.

- Reduce, Reuse Geometry (3-12) — Intersecting a 3D shape and a plane might seem intimidating, but a few bottles, a box cutter, and some creativity can give us some insight into what it can look like. A particularly interesting 3D shape to cut is the cone, as depending on how we cut, we can get circles, ellipses, and parabolas (hyperbolas too; those are harder to cut out). Thankfully, many bottles include cones, so we can have some fun cutting up bottles and using the conic sections we get to make art. Watch the video below for more details and some examples!

- Fraction Hunt (2-8) — Fractions are all around us! Walk around the house, yard and neighborhood with your child. Where do you see fractions? What would you call one part of the whole? For example, one rectangular stepping stone of 13 equally sized stepping stones would be 1/13th of the stepping stones. What if the objects are different sizes? Can they still be represented as a fraction? In the video, Kate represents one black key on the piano as one out of the total number of black keys. However, one white key can't be represented as a fraction of all of the white keys since they are different sizes. Can you represent the object in more than one way? For example, ⅕ is equivalent to 2/10. Can you see this in the object?

Research-Based Practices & Career Awareness and Exploration

STEM Next aims to raise awareness of research-based practices proven to increase the quality of STEM learning experiences for youth, and is committed to strengthening career awareness and exploration in out-of-school time so youth are prepared for whatever comes NEXT.

- Career-Connected Learning Is Having a Moment — Across the country, school systems, employers, and policymakers are racing to expand opportunities that connect students to real work and real professionals. The momentum is encouraging. For those of us who have been working in this space, it feels like the wind is finally at our backs. But moments of rapid momentum also deserve reflection. When demand for an idea accelerates, the marketplace responds quickly. New providers emerge. Frameworks multiply. Implementation checklists appear. Before long, the conversation can drift toward the mechanics of delivery—how many internships, how many partnerships, how many experiences. And quietly, almost unintentionally, we risk losing sight of the deeper question: Why are we doing this work in the first place? Read this article to explore how the real power of career-connected learning doesn't come from connecting students to jobs. It comes from helping young people discover who they are.

- A Year of Career-Connected Learning: Early Lessons from the Field — Since the framework's launch in 2025, STEM Next has led a multi-pronged field-building effort to help educators put it into practice through free virtual training sessions, practical resources, and a six-state implementation initiative with statewide afterschool networks. Along the way, educators helped test, refine, and strengthen the approach, generating valuable insights from both program leaders and young people that will inform future expansion across the afterschool and summer learning field. Together, these efforts have helped build the capacity of 1,500 educators, statewide leaders, and other afterschool professionals who collectively serve more than 113,000 young people. This article explores a few of the most important lessons STEM Next has learned so far.
- Math Happens, Naturally — What if some of the best opportunities for math learning were already waiting just outside the door? Many families look for ways to keep math skills strong throughout the year. Supporting math learning doesn't require special materials or structured lessons. While access to outdoor spaces varies from a balcony to a neighborhood sidewalk, park, backyard, or riverbank, rich math conversations can happen through noticing, wondering, and exploring outdoors. This article provides specific ways educators and parents/caregivers can support math learning in afterschool and at home.

NOVEMBER

Professional Development Opportunities

Beyond Keywords, Helping Kids Think Through Word Problems

Date: November 2nd, 12:30-1:30 PM ET/ 9:30-10:30 AM PT

Word problems don't have to feel intimidating. Explore engaging, hands-on strategies that lighten the mental load and empower students to understand the situation, make meaningful connections, and solve problems with confidence. For more information, email acres@mmsa.org. **REGISTER HERE**

Sample social copy to promote this opportunity

Long version (IG, LinkedIn, FB)

> Join ACRES on November 2 from 12:30–1:30 PM ET for a free, live virtual workshop exploring hands-on strategies that help youth understand the problem in front of them, make meaningful connections, and work toward solutions without relying on keywords.
>
> Register: https://bit.ly/4xtzd1V

#MathLearning #STEMEducation

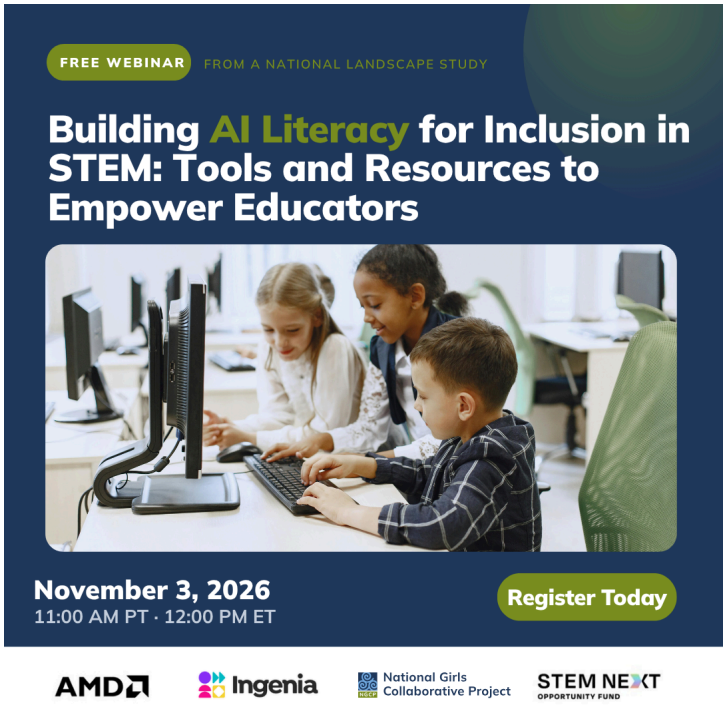
Shortened for X

> Help youth tackle word problems with confidence! Join ACRES on Nov. 2 at 12:30 PM ET for a free virtual workshop exploring hands-on strategies that build understanding, connections, and problem-solving skills.
>
> Register: https://bit.ly/4xtzd1V

Graphic download here.

Building AI Literacy for Inclusion in STEM: Tools and Resources to Empower Educators

Date: November 3rd, 11:00AM-Noon PT / 2:00-3:00 PM ET



Finding the right resources to teach AI literacy to youth can be challenging. Join NGCP for the final installment of its 3-part AI literacy webinar series to discover practical tools, programs, and curricula designed to support learning in both formal and informal environments.

During this webinar, attendees will explore tools, curricula, and innovative platforms that make AI education interactive, accessible, and inclusive. Tune in to gain actionable strategies for choosing tools and resources that will empower young people to critically and creatively engage with AI technologies.

This session is the third installment in this 3-part AI literacy webinar series, created as part of the Building AI Literacy for Inclusion in STEM, an initiative developed by NGCP in partnership with Ingenia Learning and STEM Next, made possible through the generous support of the AMD Foundation.

Sample social copy to promote this opportunity

Long version (IG, LinkedIn, FB)

> Join @ngcproject on November 3 from 2:00–3:00 PM ET for the final webinar in the Building AI Literacy for Inclusion in STEM series. Explore tools, curricula, and platforms that can make AI learning more interactive, accessible, and inclusive in both formal and informal learning environments.
>
> Participants will leave with strategies for choosing resources that help young people engage with AI technologies critically and creatively.
>
> The initiative was developed by NGCP in partnership with Ingenia Learning and STEM Next, with support from the AMD Foundation.
>
> Learn more and register: https://bit.ly/4xm1XcA
>
> #AILiteracy #AIEducation #STEMEducation #Afterschool

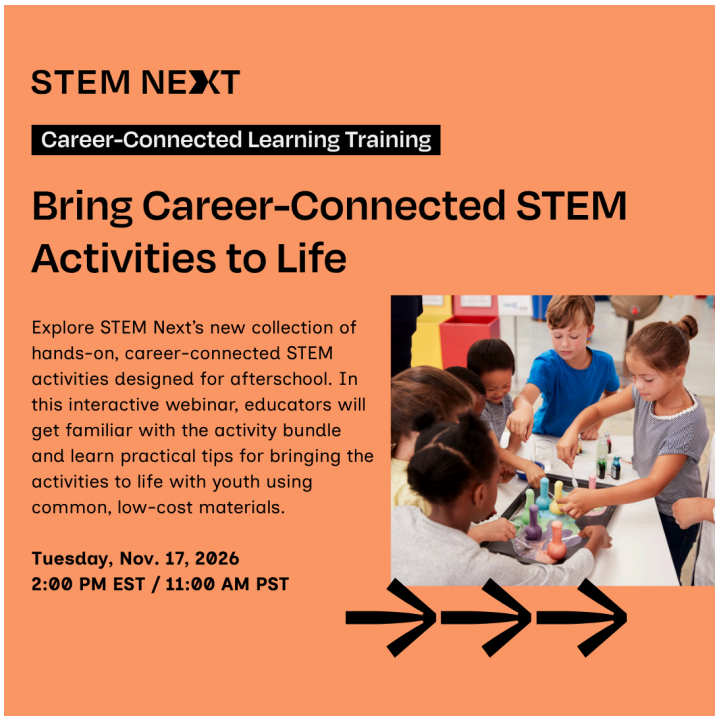
Shortened for X

> Looking for resources to teach AI literacy? Join @ngcproject on Nov. 3 at 2 PM ET to explore tools, curricula, and platforms designed to make AI learning more interactive, accessible, and inclusive.
>
> Made possible with support from the AMD Foundation.
>
> Register: https://bit.ly/4xm1XcA

Graphic download here.

Bring Career-Connected STEM Activities to Life

Date: November 17, 2:00–3:00 PM ET /11:00-Noon PT



Explore STEM Next's new collection of hands-on, career-connected STEM activities designed for afterschool. In this interactive webinar, educators will get familiar with the Out-of-School Time Top Ten Activity Bundle and learn practical tips for bringing the activities to life with youth using common, low-cost materials.

Participants will explore how the activities build durable skills like problem-solving, collaboration, creativity, communication and critical thinking while helping youth make meaningful connections to real-world STEM careers. Participants will leave ready to use the activities in their afterschool and summer programs. Participants will also have an opportunity to win STEM kits or a $100 gift card for their programs.

Register here: https://stemnext.org/event/bring-career-connected-stem-activities-to-life/

Sample social copy to promote this opportunity

Long version (IG, LinkedIn, FB)

> Bring career-connected STEM learning to your afterschool program. Join @stemnext on November 17 from 2:00–3:00 PM ET to explore the new Out-of-School Time Top Ten Activity Bundle, a collection of hands-on STEM activities designed specifically for afterschool.
>
> Educators will learn practical ways to use the activities with common, low-cost materials while helping youth build skills like problem-solving, collaboration, creativity, communication, and critical thinking and connect those skills to real-world STEM careers.
>
> Participants will also have a chance to win STEM kits or a $100 gift card for their programs.
>
> Register: https://bit.ly/4xxbrSC
>
> #CareerConnectedLearning #STEMCareers #Afterschool #STEMEducation

Shortened for X

> Discover 10 hands-on, career-connected STEM activities designed for afterschool! Join @stemnext on Nov. 17 at 2 PM ET for practical ideas to help youth build durable skills and explore STEM careers.
>
> Plus, a chance to win STEM kits or a $100 gift card.
>
> Register: https://bit.ly/4xxbrSC

Graphic download here.

Activities for Youth

Career Profiles to Help Connect Youth to STEM Careers in Afterschool

STEM Next has developed a new set of ten career profiles to help youth explore career paths in STEM. Each profile introduces a different profession, explains how it contributes to the industry, and highlights the skills, education, and day-to-day responsibilities involved.

These profiles complement the Out-Of-School Time Top Ten Activity Bundle for all grade levels. Educators and families can use these profiles to demonstrate to youth the variety of STEM career paths that are open to them in fields they are interested in. **Download the career profiles here.**

Sample social copy to promote this opportunity

Long version (Newsletters, IG, LinkedIn, FB)

> STEM Next has developed a new set of ten career profiles to help youth explore career paths in STEM. Each profile introduces a different profession, explains how it contributes to the industry, and highlights the skills, education, and day-to-day responsibilities involved.
>
> Educators and families can use these profiles to demonstrate to youth the variety of STEM career paths that are open to them in fields they are interested in.
>
> Check them out: https://bit.ly/4hcR47c

Shortened for X

> New STEM career profiles from STEM Next help youth explore career paths, highlighting the skills, education and key responsibilities needed. Check them out: https://bit.ly/4hcR47c

Graphic Download here.

Other Resources

Research-Based Practices & Career Awareness and Exploration

STEM Next aims to raise awareness of research-based practices proven to increase the quality of STEM learning experiences for youth and is committed to strengthening career awareness and exploration in out-of-school time so youth are prepared for whatever comes NEXT.

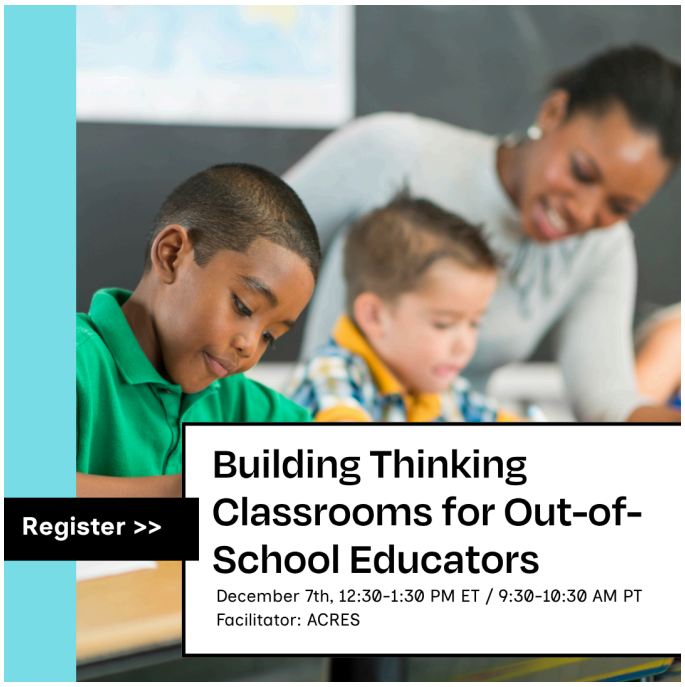
- Preparing Tomorrow's Workforce: How Boys & Girls Clubs Help Power America's Economic Engine — New data shows how, through its Life & Workforce Readiness strategy, Boys & Girls Clubs helps teens build the skills, explore career pathways, and gain real-world experience needed to thrive after high school and in a rapidly changing economy. As graduates prepare for what's next, Boys & Girls Clubs of America is teaming up with national partners to ensure more young people are ready for life after graduation.
- Students Want Career Education. More Research Can Improve It, New Report Says — Policymakers in Congress and the Trump administration should make career-connected learning a key part of the federal education research agenda, a coalition of more than 130 organizations recommends in a detailed new report released June 9, 2026, by the Alliance for Learning Innovation during a briefing on Capitol Hill. The report says there is a "relevance gap," or "a disconnect between what students learn and what they need to learn to thrive in the workforce. Read more to learn about what you can do to join the coalition of education groups calling on the federal investment in research to strengthen career-connected learning.

DECEMBER

Professional Development Opportunities

Building Thinking Classrooms for Out-of-School Educators

Date: December 7th,12:30-1:30 PM ET / 9:30-10:30 AM PT



Discover the ideas behind Building Thinking Classrooms, one of the most influential approaches in mathematics education today, and explore how its principles can be adapted for out-of-school settings. This introductory session will highlight key concepts, share a few practical examples, and inspire new ways to spark curiosity, collaboration, and mathematical thinking in your program. For more information, email acres@mmsa.org.
REGISTER HERE

Sample social copy to promote this opportunity

Long version (IG, LinkedIn, FB)

> What does a “thinking classroom” look like in an out-of-school setting? Join ACRES on December 7 from 12:30–1:30 PM ET for a free virtual introduction to Building Thinking Classrooms, an approach to mathematics education focused on getting learners thinking, collaborating, and engaging more deeply with math.
>
> Explore key concepts, practical examples, and ways to adapt the approach to spark curiosity and mathematical thinking in your own program.
>
> Register: https://bit.ly/4xtzd1V

#MathLearning #STEMEducation #Afterschool

Shortened for X

Explore Building Thinking Classrooms for out-of-school learning! Join ACRES on Dec. 7 at 12:30 PM ET for practical ideas to spark curiosity, collaboration, and deeper mathematical thinking.

Register: https://bit.ly/4xtzd1V

Graphic download here.

Activities for Youth

STEM Next's Aeronautics & Aerospace Activity Bundles by Grade Level

Bring the science of flight and space exploration to life with hands-on activities designed for different grade levels and step-by-step guides for afterschool educators to facilitate them with youth. Each bundle includes four ready-to-use lessons that build STEM skills while introducing youth to related careers. Explore the bundles of activities for grades K-2, 3-5, and 6-8 in STEM Next's new Launching Futures Toolkit Powered by RTX.

Sample social copy to promote this opportunity

Long version (IG, LinkedIn, FB)

Bring the science of flight and space exploration to your afterschool program! STEM Next's Aeronautics & Aerospace Activity Bundles include hands-on activities designed specifically for youth in grades K–2, 3–5,

and 6–8. Each free bundle features four ready-to-use lessons with step-by-step guidance to help youth build STEM skills while discovering related careers.

Find all three bundles in STEM Next's new Launching Futures Toolkit Powered by RTX. Choose the bundle for your grade level and get started: https://bit.ly/46dqmpD

Shortened for X

Explore flight, space, and STEM careers with ready-to-use activities from STEM Next! Each free grade-level bundle includes four hands-on lessons for youth.

Explore the bundles for grades K–2, 3–5, and 6–8: https://bit.ly/46dqmpD

Graphic download here.

Numeracy in Nature

Use this bank to find number routines, activities, lessons, and tools that support meaningful learning outdoors and inspire children to investigate, wonder, and discover the mathematics all around them. The collection includes resources created by participating educators and MMSA staff, along with educator recommendations of additional materials developed by other organizations.

Other Resources

Research-Based Practices & Career Awareness and Exploration

STEM Next aims to raise awareness of research-based practices proven to increase the quality of STEM learning experiences for youth and is committed to strengthening career awareness and exploration in out-of-school time so youth are prepared for whatever comes NEXT.

- Shaping an Inclusive AI Future: Insights & Recommendations from A National Landscape Study — Artificial intelligence (AI) is reshaping how young people learn, play, and prepare for future careers. With these changes, supporting educators to navigate AI safely, ethically, and effectively has never been more vital. With support from the AMD Foundation, the National Girls Collaborative Project (NGCP), in partnership with Ingenia Learning and STEM Next Opportunity Fund, launched Building AI Literacy for Inclusion in STEM, an initiative designed to examine the current state of AI literacy across formal and informal K-12 learning environments. At the core of this initiative was a national landscape study implemented to better understand how education professionals are currently engaging with AI and the types of support and training they need. In August, NGCP and their partners officially released the National AI Literacy Landscape Study Report. This article outlines the core findings of what they learned.
- Math Happens, Naturally — What if some of the best opportunities for math learning were already waiting just outside the door? Many families look for ways to keep math skills strong through holiday breaks and vacation. Supporting math learning doesn't require special materials or structured lessons. While access to outdoor spaces varies from a balcony to a neighborhood sidewalk, park, backyard, or riverbank, rich math conversations can happen through noticing, wondering, and exploring outdoors. This article provides specific ways educators and parents/caregivers can support math learning in afterschool and at home.