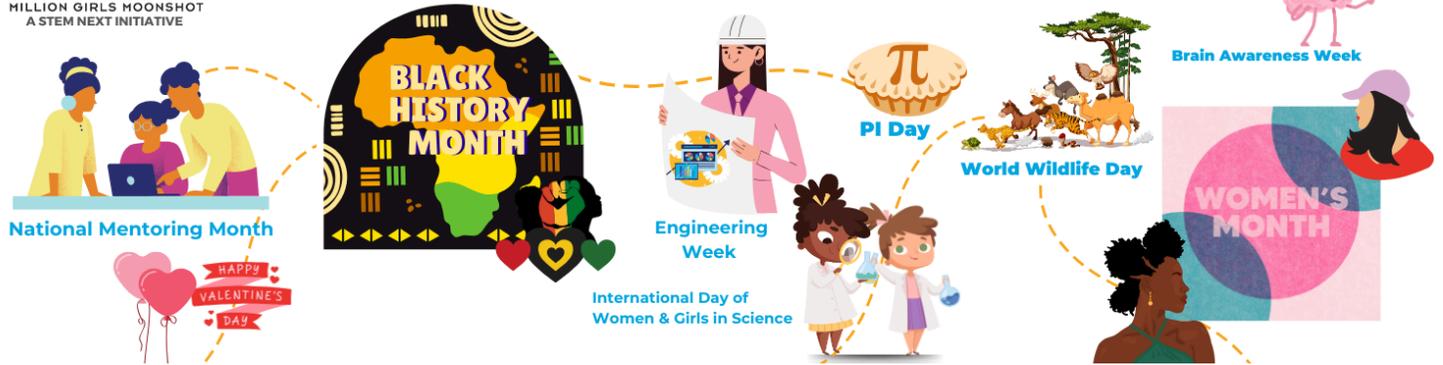




# January - March 2024 Asset Package



The 2024 quarterly asset is ready with some revisions based on your input ([Provide feedback here](#)) to suit the needs of **program providers and staff in your state**. Please share these assets widely with your partners and programs! Check back to see updates over the quarter. To promote these opportunities, media assets are provided monthly in the outline below.

## 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.

[Share with us!](#) We welcome feedback on the format and want to hear your impact stories.

## What's Happening? The Quarter at A Glance

### January: National Mentoring Month

[Trainings for January 2024](#)

[Transformative Practices for January 2024](#)

[Activities for January 2024](#)

[Media Assets for January 2024](#)

### February: Black History Month; Engineering Week (2/18 - 2/24)

[Trainings for February 2024](#)

[Transformative Practices for February 2024](#)

[Activities for February 2024](#)

[Media Assets for February 2024](#)

### March: National Women's History Month: 2024 Theme - Women Who Advocate for Equity, Diversity, and Inclusion

[Trainings for March 2024](#)

[Transformative Practices for March 2024](#)

[Activities for March 2024](#)

[Media Assets for March 2024](#)

## [Special Opportunities](#)

[Media Assets for Special Opportunities](#)

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# Special Opportunities

On-going and time-sensitive opportunities to engage in STEM learning, media campaigns and professional development opportunities with stipends.

## Announcing the 2024 Flight Crew

[STEM Next's](#) Million Girls Moonshot welcomed the third cohort of the [Flight Crew](#) - a youth ambassador program that is advancing equity for girls in science, technology, engineering, and mathematics (STEM).

The 2024 Flight Crew cohort includes 51 youth, ages 13-18, from all 50 states. The Flight Crew elevates youth voices to inspire more young people to become future STEM leaders. The group embodies the spirit of the [Million Girls Moonshot](#), a STEM equity initiative to engage millions more girls in afterschool and summer STEM learning opportunities by 2025.

[Get the toolkit to share more about the Flight Crew Here.](#)

## Bring Volunteers to Your Programs

Could your students benefit from mock interviews? Resume reviews? A conversation with a STEM professional to learn more about their career journey?

**Request a STEM Professional!** [Complete this brief form by March 8th](#) to schedule a session with STEM professionals from Verizon.

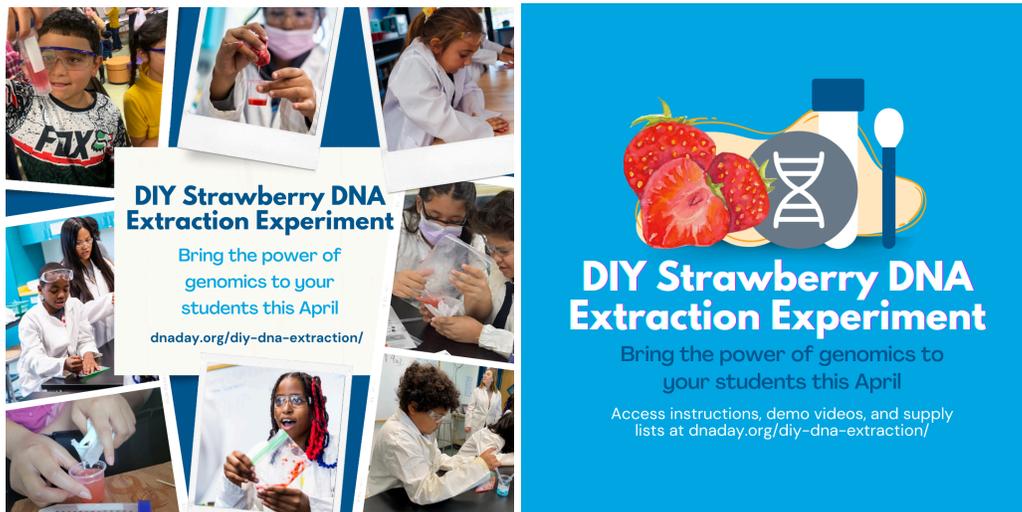


## Explore Genomics with DNA Extraction Experiments & More!

Celebrate [DNA Day](#) (April 25th) throughout April by peaking student interest in careers in genomics with Illumina. Looking for an activity to celebrate? Get your supply list, demo videos and instructions at [dnaday.org/diy-dna-extraction/](https://dnaday.org/diy-dna-extraction/)

Share your celebrations on social media using the hashtag **#Genomics4All** for a chance to win prizes!

Find more free resources at [www.dnaday.org](https://www.dnaday.org)



## NASA

### Earthrise - NASA's Monthly Collection of Earth and Climate Science Resources

Earthrise leverages NASA's digital community of practice for educators, and a broad network of learners associated with NASA's federal partners, to provide K-12 educators and learners with a focused, monthly collection of Earth and climate science resources from across the federal enterprise. The primary focus is centered around access to Earth and climate resources for the K-12 community, with a regular working group to inform plans for carrying this through the summer and beyond as well. [REGISTER](#) to receive Earthrise monthly collections of resources.

### 2024 Solar Eclipse

Are you ready for the [2024 Solar Eclipse](#) that will be visible across the U.S. on April 8, 2024? Get resources, top tips to watch and safety details [here](#).

Find local viewing events using [this listing](#) or create your own opportunity. Use [NASA Resources, Videos, Lessons and Materials](#) with students. Ensure Safe viewing - Everyone MUST wear solar eclipse glasses or use an alternate viewing method to look at any eclipse. Read more about eye safety during an annular eclipse [on our web page](#) and on this [safety flier](#).

### Surprisingly STEM Monthly Career Exploration

Surprisingly STEM is a video series that highlights exciting and unexpected careers at NASA. Each episode highlights a member of NASA's workforce, focusing on their unique job and how their personal journey led them to that career. Surprisingly STEM includes: A monthly release of new pre-recorded 5-minute career episode; Associated STEAM Activities; and Monthly Live Session with NASA expert to answer student questions.

The latest episode is out! [Learn more about Space Food Scientists and register for a live Q&A on March 1 at 3:00 PM ET.](#)



## Solar Science with Lockheed Martin

Planning to watch the April 8th Solar Eclipse? Before the midday event happens, learn more about solar science directly from a Solar Researcher working at leading global security and aerospace company, Lockheed Martin.

Prepare for the Solar Eclipse on April 8th at 9:00 AM PT and learn invaluable information about the incredible Solar Eclipse with Lockheed Martin. [Register here.](#)

**LEARN MORE ABOUT  
SOLAR SCIENCE**

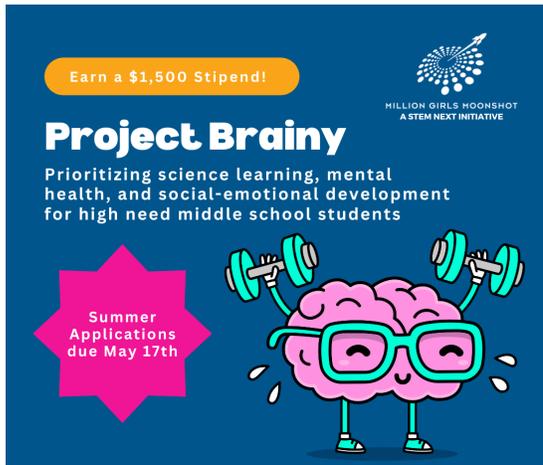
Prepare for the Solar Eclipse  
**April 8th at 9:00 AM PT**  
by joining a Lockheed  
Martin Solar Researcher

LOCKHEED MARTIN

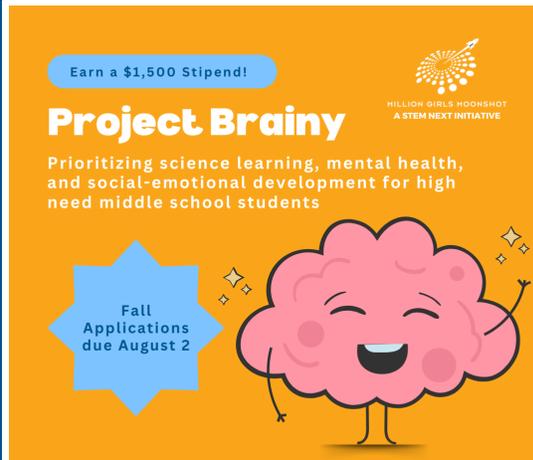
## Project Brainy

Project Brainy is a **six-session neuroscience-based curriculum** designed for out of school time (OST) programs. The curriculum enables middle-school students to build social-emotional skills, engage in interactive STEM learning and increase literacy. Summer and fall 2024 OST programs are invited to apply to participate in a

research project to study the implementation of the curriculum. Selected programs will receive training and ongoing support on the curriculum and a \$1,500 participation stipend. [Learn more and apply here.](#)



Poster for Project Brainy Summer Applications. The background is dark blue. At the top left, a yellow pill-shaped box says "Earn a \$1,500 Stipend!". At the top right is the Million Girls Moonshot logo. The title "Project Brainy" is in large white font. Below it, white text reads: "Prioritizing science learning, mental health, and social-emotional development for high need middle school students". A pink starburst on the left says "Summer Applications due May 17th". The central illustration is a pink brain with a smiling face, wearing green-rimmed glasses and holding two green dumbbells. At the bottom are logos for ISRY, Mass General Brigham McLean, Harvard Medical School Teaching Hospital, and TumbleHome.



Poster for Project Brainy Fall Applications. The background is orange. At the top left, a blue pill-shaped box says "Earn a \$1,500 Stipend!". At the top right is the Million Girls Moonshot logo. The title "Project Brainy" is in large white font. Below it, white text reads: "Prioritizing science learning, mental health, and social-emotional development for high need middle school students". A blue starburst on the left says "Fall Applications due August 2". The central illustration is a pink brain with a smiling face, wearing a yellow star-shaped headband and holding a yellow star. At the bottom are logos for ISRY, Mass General Brigham McLean, Harvard Medical School Teaching Hospital, and TumbleHome.

## Robot Champions: Mini Games to Learn More about Engineering

Join the adventure in Robot Champions on Roblox and unlock a world of learning, creativity, and fun! Students get to **BUILD** robots, **CUSTOMIZE** it, and **PLAY MINI-GAMES** with friends. [Learn more here.](#)



Poster for National Engineers Week 2024. The background is blue and white. The text "CELEBRATE National Engineers Week WITH 2024" is prominent. At the top right is the Million Girls Moonshot logo. Below it is a shield-shaped logo for "ROBOT CHAMPIONS" featuring a robot head and a trophy. The central illustration shows a blue and white robot on a red and white platform, with another robot in the background. A QR code is in the bottom right corner. At the bottom are logos for ISRY, Mass General Brigham McLean, Harvard Medical School Teaching Hospital, and TumbleHome.

## Media Assets for Special Opportunities

### Social Copy-Facebook/LinkedIn

We are thrilled to announce The 2024 Flight Crew! Featuring 51 remarkable youth from 50 states in the nation. The Flight Crew is committed to using afterschool and STEM learning to build a better future where young girls everywhere can envision a place for them in STEM.

Learn more about the 2024 Flight Crew and the new members here [Flight Crew – Million Girls Moonshot](#)

The Institute for Resilience in Youth (ISRY) is leading an opportunity for Out-of-school time (OST) programs providing STEM to K-12 youth in Winter/Spring 2023 to study how to partner with parents and caregivers effectively. Selected programs will receive professional development, learning community support and a \$2,500 stipend for their contributions.

Programs are encouraged to APPLY <https://redcap.partners.org/redcap/surveys/...> by December 22, 2023.

Are you an out-of-school time (OST) program that provides STEM education to K-12 youth? Here's an opportunity to learn how to effectively partner with parents and caregivers!

The Institute for Resilience in Youth (ISRY) is offering a unique opportunity for selected STEM programs in Winter/Spring 2023. Not only will you receive professional development and learning community support, but you'll also receive a \$2,500 stipend for your contributions!

Don't miss this chance to enhance your program and create stronger partnerships. Apply now before December 22, 2023, <https://bit.ly/3TfhydV>

NASA is launching "Earthrise," a monthly collection of Earth and climate science resources for K-12 educators and learners. 🚀 Join this initiative to access a wealth of resources and stay informed about the latest in Earth and climate science. Registration is open, and the first collection drops in January 2024. Let's inspire the next generation to explore and protect our home planet!

🌐 Register now: <https://lp.constantcontactpages.com/sl/sXGPfBK/Earthrise>

Calling all educators and learners! 🌐 NASA is embarking on a groundbreaking initiative with "Earthrise" – a monthly collection of Earth and climate science resources. Be part of this journey to enhance your understanding and access valuable resources. Register now to receive the first collection in January 2024. Let's empower our K-12 community with knowledge about our home planet!

🚀 Register here: <https://lp.constantcontactpages.com/sl/sXGPfBK/Earthrise>

You can join NASA to participate in the 2024 Solar Eclipse that will be visible across the United States on April 8, 2024. Discover local viewing events using the provided listing or create your own opportunity to engage students and families.

[https://solarsystem.nasa.gov/eclipses/news-events/events/?order=created\\_at+desc&per\\_page=50&page=0&search=&condition\\_1=upcoming%3Astart\\_date&filter\\_categories%5B0%5D%5B%5D=445&fs=&fc=&ft=&dp=&category=445](https://solarsystem.nasa.gov/eclipses/news-events/events/?order=created_at+desc&per_page=50&page=0&search=&condition_1=upcoming%3Astart_date&filter_categories%5B0%5D%5B%5D=445&fs=&fc=&ft=&dp=&category=445)

Are you prepared for the upcoming solar event of the year? You can utilize NASA's resources, videos, lessons, and materials to learn everything you need to know about the 2024 Solar Eclipse, which will be visible across the United States on April 8, 2024. Find it here: <https://solarsystem.nasa.gov/eclipses/home/>

Are you ready for the [2024 Solar Eclipse](#) that will be visible across the U.S. on April 8, 2024? Ensure Safe viewing with NASA. Everyone MUST wear solar eclipse glasses or use an alternate viewing method to look at any eclipse. Read more about eye safety during an annular eclipse <https://solarsystem.nasa.gov/eclipses/safety/>

## Social copy-Twitter/Threads

Meet The 2024 Flight Crew! Featuring XX remarkable youth from XX states in the nation. The Flight Crew is committed to using afterschool and STEM learning to build a better future where young girls everywhere can envision a place for them in STEM. Learn more about the 2024 Flight Crew and the new members here [Flight Crew – Million Girls Moonshot](#)

ISRY is offering STEM OST programs for K-12 kids an opportunity to partner effectively with parents & caregivers in Winter/Spring 2023. Selected programs will get professional development, learning community support & a \$2,500 stipend. Apply by Dec 22, 2023

<https://redcap.partners.org/redcap/surveys/>

Attention OST programs providing #STEM education to K-12 youth! Learn how to partner with parents and caregivers effectively with ISRY's Winter/Spring 2023 opportunity. Get professional development, a learning community support, and a \$2,500 stipend. Enhance your program and create stronger partnerships. Apply now before December 22, 2023 at <https://bit.ly/3TfhydV>

NASA's "Earthrise" initiative offers monthly resources on Earth and climate science for K-12 educators and learners. Register now to stay informed and access a wealth of resources. First collection drops Jan 2024. Visit ht to register. <https://lp.constantcontactpages.com/sl/sXGPfBK/Earthrise>

Join NASA to participate in the 2024 Solar Eclipse that will be visible across the United States on April 8, 2024. Discover local viewing events using the provided listing or create your own opportunity to engage students and families.

[https://solarsystem.nasa.gov/eclipses/news-events/events/?order=created\\_at+desc&per\\_page=50&page=0&search=&condition\\_1=upcoming%3Astart\\_date&filter\\_categories%5B0%5D%5B%5D=445&fs=&fc=&ft=&dp=&category=445](https://solarsystem.nasa.gov/eclipses/news-events/events/?order=created_at+desc&per_page=50&page=0&search=&condition_1=upcoming%3Astart_date&filter_categories%5B0%5D%5B%5D=445&fs=&fc=&ft=&dp=&category=445)

Did you know you can witness the 2024 Solar Eclipse visible across the US on April 8, 2024? Connect with NASA to find local viewing events or create your own opportunity for students and families.

[https://solarsystem.nasa.gov/eclipses/news-events/events/?order=created\\_at+desc&per\\_page=50&page=0&search=&condition\\_1=upcoming%3Astart\\_date&filter\\_categories%5B0%5D%5B%5D=445&fs=&fc=&ft=&dp=&category=445](https://solarsystem.nasa.gov/eclipses/news-events/events/?order=created_at+desc&per_page=50&page=0&search=&condition_1=upcoming%3Astart_date&filter_categories%5B0%5D%5B%5D=445&fs=&fc=&ft=&dp=&category=445)

Get ready for the biggest solar event of the year! NASA has everything you need to know about the 2024 Solar Eclipse. Find out more here: <https://solarsystem.nasa.gov/eclipses/home/>.

Ready for the 2024 Solar Eclipse? View it safely with NASA. Wear solar eclipse glasses or use an alternative method. Learn more at <https://solarsystem.nasa.gov/eclipses/safety/>.

# January: National Mentoring Month

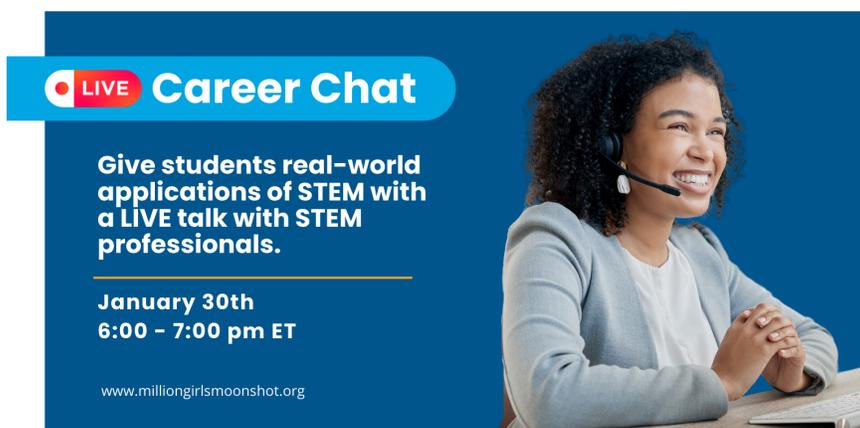
## Talk Technology with Verizon Employees

January 30th from 6:00 - 7:00 pm ET

Give your students real-world applications of STEM with a LIVE talk with STEM professionals.

With your students, tune into this live webinar, to learn more about the day-to-day from professionals working at a leading global communications technology company. Students will have an opportunity to ask questions.

[Register Here](#)



**LIVE Career Chat**

Give students real-world applications of STEM with a LIVE talk with STEM professionals.

January 30th  
6:00 - 7:00 pm ET

[www.milliongirlsmoonshot.org](http://www.milliongirlsmoonshot.org)

## Trainings for January 2024

Click2ComputerScience: Preparing Yourself to Lead Computer Science Virtual Workshops  
January 10, 12:00 - 1:30pm EST / 9:00 - 10:30am PST

Well-prepared CS learning experiences are relevant, engaging, and appropriate for youth. Knowing how to effectively prepare for computer science learning will support inclusiveness and safety, and help you maximize youth engagement. This workshop focuses on selecting and planning CS experiences for all your program participants. [REGISTER HERE](#)



## Lead Computer Science Virtual Workshops

January 10,  
12:00 - 1:30pm EST



### ACRES Coaching: Asking Purposeful Questions

Tuesdays: 1/16, 1/30, and 2/13/2024 6:00 - 8:00 pm EST / 3:00 - 5:00 pm PST

Questions begin a path toward discovery, imagination, and STEM exploration. How can we help youth expand and clarify their thinking and develop their reasoning through the questions we ask them? This module is a great way to train staff on how to facilitate STEM learning. Experienced educators also love being part of a cohort as a way to connect with other educators across the country, to learn new lesson plans, and to reflect on practice. This is our introductory module and a prerequisite to other opportunities. \*The expectation is that you will be live at all three sessions and an active member of this coaching cohort. Recordings are not available if you are unable to attend. [REGISTER HERE](#) Code: AC325PQ (Coach Emma C)

ACRES Coaching:  
**Asking Purposeful Questions**  
Tuesdays  
1/16, 1/30, & 2/13  
6:00 - 8:00 pm EST

MILLION GIRLS MOONSHOT  
A STEM NEXT INITIATIVE

### ACRES Coaching: Elevating Youth Voice and Choice (For OST professionals who have completed Asking Purposeful Questions)

Wednesdays: 1/17, 1/31, 2/14/2024 11am - 1pm EST / 8am - 10am PST

How often do youth in your program get to choose what they're investigating or designing, the materials they might use and/or how they engage with the work? In this module, participants try out strategies for elevating youth voice and choice and apply the ideas as they redesign a STEM activity to incorporate a greater variety of youth input. \*The expectation is that you will be live at all three sessions and an active member of this coaching cohort. Recordings are not available if you are unable to attend. [REGISTER HERE](#) Code: **AC346VC (Coach Becky T)**



MILLION GIRLS MOONSHOT  
A STEM NEXT INITIATIVE

ACRES Coaching:

## **Elevating Youth Voice and Choice**

Wednesdays:

1/17, 1/31, 2/14

11am - 1pm EST

\*For OST professionals who have completed  
Asking Purposeful Questions

### ACRES Coaching: Facilitating Engineering Practices

Mondays: 1/29, 2/12, 2/26/2024 12pm - 2pm EST / 9am - 11am PST

Engineering has become a staple of STEM programming for youth. How can we confidently bring engineering into our programming and support youth as they engage in problem solving? In this module, participants gain first-hand experience with engineering by solving a design problem. They examine the components of the engineering design process and discuss ways to model the process with youth.

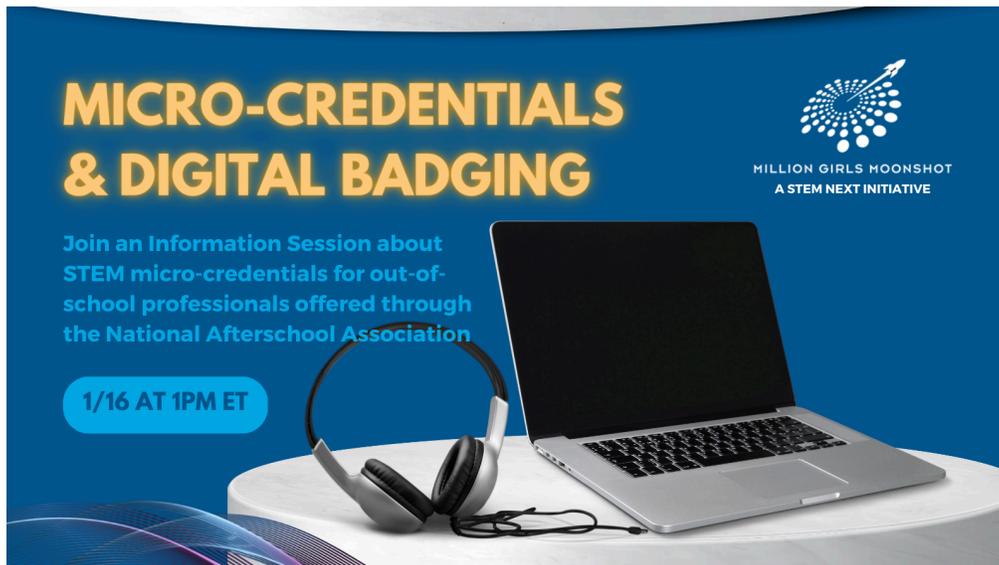
\*The expectation is that you will be live at all three sessions and an active member of this coaching cohort.

Recordings are not available if you are unable to attend. [REGISTER HERE](#) Code: **AC326EP (Coach Emma C)**



ACRES: Info Session about Micro-credentials and Digital Badging  
Tuesday January 16th 1:00 - 2:00pm EST / 10:00 - 11:00am PST

ACRES (Afterschool Coaching for Reflective Educators in STEM) is excited to offer additional Information Sessions about STEM micro-credentials, which are competency-based, digital badges for afterschool and out-of-school professionals offered through the National Afterschool Association. These sessions are free, live, interactive, and one hour in length. You will learn about what Micro-credentials are and how to apply for them. [PLEASE FILL OUT THIS FORM](#), choose the date that works best for you, and we'll reach out to you with the Zoom link. FMI contact [acres@mmsa.org](mailto:acres@mmsa.org) (Note: It isn't necessary to attend more than one informational session as the content is consistent.)



## Transformative Practices for January 2024

The Million Girls Moonshot aims to raise awareness of the following four research-based practices — Equity and Inclusion, Engineering Mindsets, Role Model, Mentors, and Families, and STEM Pathways and Transition — proven to remove barriers to access and quality STEM learning experiences. Resources, toolkits, blogs, and

activities that elevate these four Transformative Practices can be found below and on the [Million Girls Moonshot Toolkit](#)

## Equity and Inclusion

- **[Access to STEM Framework](#)**: To improve the overall quality of out-of-school STEM programs, we need to address how program providers design and implement programming to increase access in STEM for youth who have been underrepresented in the STEM fields. Partnering with the National Girls Collaborative Project (NGCP) and national experts, we have developed an Access to STEM Framework — a guide for supporting program providers in this transformation. [Download the Framework](#). Dive into the three main components of the Framework below:
  - [Increasing Access](#) - Strategies that address barriers to participation and build on the experiences within the community.
  - [Youth Centric](#) - Strategies that build on the specific strengths, needs, and challenges of youth.
  - [Skill Development](#) - Strategies that are personally relevant to youth and enable them to develop STEM and 21st century skills.
- **[Broadening Participating Toolkit](#)**: To help informal STEM education and science communication groups reflect on and strengthen their efforts to broaden participation in STEM, CAISE's Broadening Participation in STEM Task Force has developed a suite of professional development tools.
- **[The Genius of Play: Six Ways to Combat STEM Stereotypes through Play](#)** - In this Genius of Play Expert Advice article, Dr. Amanda Sullivan, Senior Program Developer at NGCP, explains that play is the perfect place for early educators and caregivers to start combatting STEM stereotypes with young children. This article provides six easy ways educators and caregivers can foster play that breaks STEM stereotypes.

## Engineering Mindsets

- **[Engineering Mindset Overview](#)**: An engineering mindset refers to the attitudes and thinking skills associated with engineering — using a systematic engineering design process, considering real-world problems, applying math and science, and working in teams. The Moonshot focuses on 10 engineering practices. An overview of each practice follows and subsequent briefs will explore each one individually.
  - [Engineering Practices Part 1 Recorded Training](#): A Moonshot webinar recording to review the following three of the ten Engineering Practices: 1) Consider real-world problems, 2) Use a systemic problem-solving process, and 3) Explore the properties and uses of materials.
  - [Engineering Practices Part 2 Recorded Training](#): A Moonshot webinar recording to review the following three of the ten Engineering Practices: 1) Balance criteria and constraints, 2) Apply science and math, and 3) Envision multiple solutions.
  - [Engineering Practices Part 3 Recording Training](#): A Moonshot webinar recording to review the following three of the ten Engineering Practices: 1) Evaluate designs and iterate, 2) Persist and learn from failure, 3) Work effectively in teams, and 4) Identify as engineers.
- **[Service Learning and STEM](#)**: This concise two page document lists connections between Service Learning and STEM. Multiple links to Spotlight on Service-Learning articles are also listed.

- [Youth Advisory Board Town Hall: The Impact of Artificial Intelligence on Society](#): During this Town Hall, NGCP's Youth Advisory Board and esteemed experts discussed how communities and individuals can equip themselves with knowledge about AI and assess its potential influence on their lives.

## Role Models, Mentors, and Families

Role models, mentors, and family engagement in a young person's STEM education leads to increased interest, greater self-confidence, and ultimately a stronger STEM identity. Developing a science-related identity increases the likelihood that students will work toward developing science literacy, or even pursue a career in a science or STEM-related field.

- [Creating Connections with Role Models: The Power of Collaboration](#): From Techbridge Girls, in collaboration with The National Girls Collaborative Project, this guide is intended to support leaders with the recruitment and preparation of role models to inspire girls in science, technology, and engineering. This is an outline of Techbridge's "recipe for success" for role models, while encouraging you to make changes that best fit your needs.
- [The Role of Diverse Mentorship in Education Equity](#) - Mentors are uniquely positioned to help increase diversity, equity and inclusion (DEI) in STEM by serving as role models for individuals that look and identify like them, encouraging a more welcoming environment for continued growth for marginalized communities. Four IEEE members describe their personal experience and the impact that diverse role models made on their STEM careers.
- [Role Models Matter Training](#): Virtual training program developed by Techbridge Girls to help role models develop the skills to best engage girls from marginalized communities.
- [STEM Family Engagement Planning Tool](#): A planning tool to support programs in uplifting and empowering all youth and families in STEM.

## ASSETS FROM THE IF/THEN® COLLECTION

These assets featuring IF/THEN® Ambassadors Roselin Rosario-Meléndez, Cosmetic Chemist, and Terry Burns, Technology Investor, can be used in marketing, social media, and conference presentations.

- [Roselin Rosario-Meléndez page](#), including profile, videos, images, and other assets.
- [Terry Burns page](#), including profile, videos, images, and other assets.

## Continuous STEM Learning Pathways

Research tells us that continuous engagement and exposure rather than limited one-time opportunities are needed to nurture the interest and motivation necessary for children to pursue STEM pathways long term. The Moonshot aims to understand and support transitions and handoffs that remove barriers for youth by connecting STEM learning across ages and settings, ensuring youth interest and motivation persists.

- [Possible Futures — Career Exploration Curriculum](#): Open source curriculum that complements and enriches both school and afterschool settings 1) expanding career awareness through authentic experiential learning opportunities; 2) encouraging students to explore their diverse interests, talents, and options; 3) enlivening STEM subjects by bringing in real-world and career contexts; 4) empowering students to develop vital employability skills; and 5) engaging students in making informed choices.

**Below are some adaptations of the Possible Futures Career Exploration Curriculum specifically for afterschool and summer programs:**

- [Career Foundations Adaptation](#): A collection of 14 lessons, a streamlined combination of the Lenses on the Future and Skills for Success units of Possible Futures curriculum.
- [College and Career Readiness Toolkit](#): Maryland Out of School Time (MOST) embedded the Career Foundations Unit of Possible Futures into this toolkit that serves as a guide for OST providers.
- [The Connected Learning Research Network: Reflections on a Decade of Engaged Scholarship](#): This report from the Connected Learning Research Network (CLRN) presents a vision for understanding and revitalizing the ways in which we support learning during these changing times. This report synthesizes a varied set of content and perspectives: empirical research on the changing landscape of new media and learning, design principles, evaluation approaches, learner and case studies oriented to identifying and spreading positive innovations.
- [Toolkit: Brokering Youth Pathways: A Toolkit for Connecting Youth to Future Opportunities](#): A Hive Research Lab toolkit to explore the various ways in which out-of-school educators and professionals have approached the challenge of brokering - supporting the identity development, social capital building and long-term, interest-driven learning across settings actively connecting program participants to new learning opportunities.

## Activities for January 2024

- [Can Plants Stop Soil Erosion?](#): Intermediate level environmental engineering activity lasting 2-4 weeks. Soil erosion can cost the world *billions* of dollars every year by washing pollutants into our streams and rivers and by causing the loss of farmland. What can you do about this problem? Help save the world (and some money!) with nothing more than a few plants!
- [Build a Jumping Robot](#): Intermediate level mechanical engineering activity lasting 2-5 days. Can you build a robot that hops like a frog? In this engineering project, you will learn how to build a simple robot that uses the energy stored in a stretched rubber band to jump. You will use the engineering design process to try to make your robot jump higher and farther. How far can you make it jump?
- [Gravity: It's What Keeps Us Together](#): This set of ten easy to understand activities use math to understand gravity on Earth and in space. The activities are kid-centered (for example, what would I weigh on Mars) and use math in an integrated format.
- [Space Weather Math](#): These hands-on activities combine an understanding of math with an understanding of weather and climate. Easy to prep, do, and follow up.
- [Beginner's Guide to Aerodynamics](#): Highly engaging activities for grades 5-8 and 9-12 combine math and engineering to create model planes.

## Media Copy and Assets for January 2024

[Twitter](#) and [Instagram](#) Templates

## Trainings for January

**FB/LI:** Click2ComputerScience: Preparing Yourself to Lead Computer Science Virtual Workshops are designed to guide you in selecting and planning computer science experiences that cater to all youth participants in your program. Your next opportunity to sit in happens Jan 10 at 12 PM EST/9 AM PST. To register, please follow the link provided. <https://unl.zoom.us/meeting/register/tJlkcuCsrDloHNJb7cN2hHdtG2e5AQANK3q7>

**TW:** Join the Click2ComputerScience: Preparing Yourself to Lead Computer Science Virtual Workshop on Jan 10 at 12 PM EST/9 AM PST for tips on selecting and planning computer science experiences that cater to all youth. To register, please follow the link provided.  
<https://unl.zoom.us/meeting/register/tJlkcuCsrDloHNJb7cN2hHdtG2e5AQANK3q7>

**FB/LI:** The "Asking Purposeful Questions" training from ACRES Coaching demonstrates how educators can use questions to expand and clarify their students' thinking and develop their reasoning skills. This session provides a great opportunity for educators to connect with one another and learn new tricks to improve their lesson plans. Participation in this module is a prerequisite for other opportunities with ACRES Coaching. To register for this training with Coach Emma C, save code AC325PQ and use the link provided to register for sessions happening on Jan 16, 30 and Feb 13 at 6:00 - 8:00 pm EST / 3:00 - 5:00 pm PST.  
<https://acrescoaching.org/modules/asking-purposeful-questions/>

**TW:** The "Asking Purposeful Questions" training from ACRES Coaching demonstrates how educators can use questions to expand and clarify their students' thinking and develop their reasoning skills. Register at  
<https://acrescoaching.org/modules/asking-purposeful-questions/>

**FB/LI:** Join the Elevating Youth Voice and Choice training with Coach Becky T, ACRES Coaching. This training is designed to help you try out different strategies for elevating youth voice and choice. You can then apply these ideas to redesign a STEM activity that incorporates a greater variety of youth input, leading to better engagement and retention. The training will take place on Jan 17, 31, and Feb 14 at 11 AM ET/ 8 AM PST. Use code AC346VC when you register at the provided link.  
<https://acrescoaching.org/modules/elevating-youth-voice-and-choice/>

**TW:** Join the upcoming Elevating Youth Voice and Choice training with Coach Becky T, ACRES Coaching Jan 17 for strategies on elevating youth voice and choice. Register to reserve your spot at  
<https://acrescoaching.org/modules/elevating-youth-voice-and-choice/>

## Engineering Mindsets

**FB/LI:** Engineering has become an essential part of STEM programs for young individuals. ACRES Coaching is hosting a "Facilitating Engineering Practices Questions" session to help educators gain hands-on experience with engineering. In this session, teachers will work together to solve design problems and explore various stages of the engineering design process and discuss different strategies for teaching the engineering design process to young people. This session will be held on January 29th, February 12th, and February 26th, 2024, from 12 pm to 2 pm EST / 9 am to 11 am PST.

To register, please use the code AC326EP for Coach Emma C at the sign up link provided.

<https://acrescoaching.org/modules/facilitating-engineering-practices/>

TW: ACRES Coaching is hosting a "Facilitating Engineering Practices Questions" session to help educators gain hands-on experience with engineering. This session will be held on January 29th from 12-2 EST. Register at

<https://acrescoaching.org/modules/facilitating-engineering-practices/>

ACRES (Afterschool Coaching for Reflective Educators in STEM) is offering Info Sessions about STEM micro-credentials, which are competency-based, digital badges offered through the National Afterschool Association. The one-hour info sessions are free and interactive, and explain just what Micro-credentials are exactly and how to apply for them. Start by filling out the form below to pick a date that works for your schedule. ACRES will then reach out to you directly with the Zoom link. For more information, please contact [acres@mmsa.org](mailto:acres@mmsa.org)

<https://forms.gle/AErfHcwt6P5zUG1SA>

TW: ACRES (Afterschool Coaching for Reflective Educators in STEM) is offering free Info Sessions about STEM micro-credentials. Learn just what Micro-credentials are exactly and how to apply for them during the next info session. Complete the intake form to reserve your spot. <https://forms.gle/AErfHcwt6P5zUG1SA>

## Transformative Practices for January 2024

### Equity and Inclusion

Dr. Amanda Sullivan, who is the Senior Program Developer at NGCP, explains in this Genius of Play Expert Advice article that play is an excellent way for early educators and caregivers to challenge STEM stereotypes with young children. Dr. Sullivan offers six simple ways for educators and caregivers to promote play that can help break STEM stereotypes. Read the entire article at the link provided.

<https://thegeniusofplay.org/genius/expert-advice/articles/6-ways-to-combat-stem-stereotypes-through-play.aspx>

**TW:** In this Genius of Play Expert Advice article, Dr. Amanda Sullivan offers six simple ways for educators and caregivers to promote play that can help break STEM stereotypes Engineering Midsets. Read more at

<https://thegeniusofplay.org/genius/expert-advice/articles/6-ways-to-combat-stem-stereotypes-through-play.aspx>

The Broadening Participation in STEM Task Force by CAISE has developed a set of professional development tools to support informal STEM education and enhance science communication groups' efforts towards diversifying participation in STEM. If you are a leader or trainer working on broadening participation, you can visit the Broadening Participation Toolkit to download the toolkit and find ways to plan and lead discussions around making informal STEM education and communication more inclusive.

<https://www.informalscience.org/broadening-perspectives>

**TW:** Are you a leader or trainer working on broadening participation in STEM? Download the Broadening Participation Toolkit and find ways to make informal STEM education and communication more inclusive.

<https://www.informalscience.org/broadening-perspectives>

## Engineering Mindsets

**FB/LI:** An engineering mindset is characterized as using a systematic engineering design process, considering real-world problems, applying math and science, and working in teams. The Engineering Mindset Overview provides an in depth explanation of 10 engineering practices necessary for success. Recorded trainings are also available to view at <https://www.milliongirlsmoonshot.org/engineering-mindset>

**TW:** The Engineering Mindset Overview provides an in depth explanation of 10 engineering practices necessary for success. Recorded trainings are also available to view at <https://www.milliongirlsmoonshot.org/engineering-mindset>

**FB/LI/TW:** Download the two-page Service Learning and STEM resource document to learn of the similarities between service learning and STEM and for examples of the impact service learning has on students. <https://iasp.org/wp-content/uploads/2020/11/service-learning-connections-to-stem.pdf>

**FB/LI:** In order to enhance the quality of STEM programs that operate outside of school, it is important to focus on how program providers can design and implement their programs in a way that provides greater access to STEM for underrepresented youth. Million Girls Moonshot along with The National Girls Collaborative Project (NGCP) and a group of national experts have collaborated to create an Access to STEM Framework; a guide for program providers to help transform their out of school time programs. The framework is composed of three key components: Increasing Access, Youth Centricity, and Skill Development.

Be sure to download the framework at

[https://static1.squarespace.com/static/63ddd4d3686ac83bfa8c608d/t/642b771b77255b06727e7e58/1680570141172/Access-to-Stem-A-Framework\\_Final-11-%C3%97-8.5-in+%281%29.pdf](https://static1.squarespace.com/static/63ddd4d3686ac83bfa8c608d/t/642b771b77255b06727e7e58/1680570141172/Access-to-Stem-A-Framework_Final-11-%C3%97-8.5-in+%281%29.pdf)

**TW:** Million Girls Moonshot along with The National Girls Collaborative Project (NGCP) have collaborated to create an Access to STEM Framework to increase STEM accessibility for youth. Download the framework at [https://static1.squarespace.com/static/63ddd4d3686ac83bfa8c608d/t/642b771b77255b06727e7e58/1680570141172/Access-to-Stem-A-Framework\\_Final-11-%C3%97-8.5-in+%281%29.pdf](https://static1.squarespace.com/static/63ddd4d3686ac83bfa8c608d/t/642b771b77255b06727e7e58/1680570141172/Access-to-Stem-A-Framework_Final-11-%C3%97-8.5-in+%281%29.pdf)

**FB/LI:** NGCP's Youth Advisory Board and esteemed experts discussed how communities and individuals can equip themselves with knowledge about AI and assess its potential influence on their lives during the most recent Youth Advisory Board Town Hall. View the recording and learn more about AI's influence at the link below. <https://ngcproject.org/resources/youth-advisory-board-town-hall-impact-artificial-intelligence-society>

**TW:** NGCP's Youth Advisory Board and esteemed experts discussed how communities can equip themselves with knowledge about AI during the Youth Advisory Board Town Hall. View the recording at <https://ngcproject.org/resources/youth-advisory-board-town-hall-impact-artificial-intelligence-society>

## Role Models, Mentors and Families

Creating Connections with Role Models: The Power of Collaboration is a guide created by Techbridge Girls in partnership with The National Girls Collaborative Project. It aims to assist leaders in recruiting and preparing role

models who can inspire girls in science, technology, and engineering. The guide outlines Techbridge's "recipe for success" for role models and encourages readers to make necessary modifications to better suit their needs.

Download the guide at

<https://static1.squarespace.com/static/63ddd4d3686ac83bfa8c608d/t/643d3d8fda25427c4392bfce/1681735055851/NGCP-Role-Model-Guide-Web-Version-1.pdf>

**TW:** Creating Connections with Role Models: The Power of Collaboration is a guide created by Techbridge Girls in partnership with The National Girls Collaborative Project. Access the guide at

<https://static1.squarespace.com/static/63ddd4d3686ac83bfa8c608d/t/643d3d8fda25427c4392bfce/1681735055851/NGCP-Role-Model-Guide-Web-Version-1.pdf>

Mentors can play an important role in increasing diversity, equity, and inclusion (DEI) in STEM fields. By serving as role models, mentors can encourage individuals who look and identify like them to pursue careers in STEM and create a more welcoming environment for marginalized communities. In a recent article, four members of the IEEE Transmitter shared their personal experiences and explained how having diverse role models impacted their own STEM careers. You can read more about their work at

<https://transmitter.ieee.org/the-role-of-diverse-mentorship-in-education-equity/>.

**TW:** Four members of the IEEE Transmitter shared their personal experiences with mentoring and explained how having diverse role models impacted their own STEM careers. Read more about the importance of mentoring at

<https://transmitter.ieee.org/the-role-of-diverse-mentorship-in-education-equity/>.

The Role Models Matter virtual training program developed by Techbridge Girls helps role models develop the skills to best engage girls from marginalized communities. Interested in volunteering? Visit the link below for more information on how to apply.

<https://www.techbridgegirls.org/what-we-do/capacity-building/role-models-matter/>

**TW:** Interested in volunteering with Techbridge Girls? For more information about the Role Models Matter virtual training program, visit <https://www.techbridgegirls.org/what-we-do/capacity-building/role-models-matter/>

**FB/LI:** The STEM Family Engagement Planning Tool is planning asset that supports programs in uplifting and empowering all youth and families in STEM. Discover the new CARE: (Connect, Act, Reflect, and Empower) framework and more by downloading the resource here.

[https://stemnext.wpenginepowered.com/wp-content/uploads/2021/10/STEM-Family-Engagement-Planning-Tool\\_finalv1\\_Oct2021rev-2.pdf](https://stemnext.wpenginepowered.com/wp-content/uploads/2021/10/STEM-Family-Engagement-Planning-Tool_finalv1_Oct2021rev-2.pdf)

**TW:** Discover the new CARE: (Connect, Act, Reflect, and Empower) framework to help plan your next program implementation. Download the planning tool here

[https://stemnext.wpenginepowered.com/wp-content/uploads/2021/10/STEM-Family-Engagement-Planning-Tool\\_finalv1\\_Oct2021rev-2.pdf](https://stemnext.wpenginepowered.com/wp-content/uploads/2021/10/STEM-Family-Engagement-Planning-Tool_finalv1_Oct2021rev-2.pdf)

## National Mentoring Month

☀️ January is National Mentoring Month, and we're celebrating the incredible impact of mentorship on the lives of young people and communities. Join us in recognizing the power of guidance, support, and inspiration in STEM.

👤💡 #MentorshipMatters #NationalMentoringMonth

☀️ Let's shine a spotlight on the transformative power of mentorship this January during National Mentoring Month. 🌐🔬 Join us as we celebrate the mentors and role models inspiring the next generation of innovators, builders and engineers.



**FB/TW** #RoleModelAlert! Follow Afua Bruce, a computer engineer and @IfThenSheCan Ambassador, as she answers questions about #computerengineering and her career: <https://t.co/6e1BnPCQ0Z> #MentoringMonth

**FB:** "I would 100% not be the same person if it wasn't for my mentor supporting me. It has made a significant difference in my life, especially academically. I'm super grateful for all my mentors and peers that have changed my life over the past four years."

Flight Crew Alumni Mackenzie H shares her thoughts on #mentoring and what it means to her. #MentoringMonth

**FB/TW:** As the first Mexican-born woman in space, Katya Echazarreta inspires a new generation of young girls to pursue careers in STEM. Follow this #RoleModel moment as she goes on a field trip with Intel to the Adler Planetarium and explores the mysteries of the universe with us. Content by Intel. <https://bit.ly/3Y1owTL>

**FB/TW:** Less than 50% of high school girls know a woman in a STEM career. Let's change that - recruit STEM professionals to support youth today! Register here to find role models and mentors in STEM for your students today: <https://www.milliongirlsmoonshot.org/find-a-stem-model>

**ASSETS FROM THE IF/THEN® COLLECTION**

**FB/LI:** The IF/THEN® Collection is a digital library of images featuring women in STEM fields, available for noncommercial use. Download assets featuring IF/THEN® Ambassador Roselin Rosario-Meléndez, Cosmetic Chemist, and Terry Burns, Technology Investor, including profile, videos, images, and other assets.

<https://ifthen.widen.net/s/jm95brhzwq>

**TW:** Download assets featuring IF/THEN® Ambassador Roselin Rosario-Meléndez, Cosmetic Chemist at

<https://ifthen.widen.net/s/jm95brhzwq>

## Continuous STEM Learning Pathways

**FB/LI:** The Possible Futures - Career Exploration Curriculum is an open-source curriculum designed to enhance career awareness and interest among students. This curriculum is suitable for both school and afterschool settings and offers authentic experiential learning opportunities for students to explore their diverse interests and talents. Furthermore, it enlivens STEM subjects and encourages students to consider their career options. You can download the curriculum by clicking on the link below.

<https://www.jff.org/idea/possible-futures/>

Additionally, consider the following adaptations of the Possible Futures curriculum in your future program planning. Download the curriculum at

<https://www.jff.org/idea/possible-futures/>

[Career Foundations Adaptation:](#)

[College and Career Readiness Toolkit:](#)

**The Connected Learning Research Network: Reflections on a Decade of Engaged Scholarship:**

**Toolkit: Brokering Youth Pathways: A Toolkit for Connecting Youth to Future Opportunities:**

**TW:** The Possible Futures - Career Exploration Curriculum offers authentic experiential learning opportunities for students to explore their diverse interests and talents. download the curriculum at

<https://www.jff.org/idea/possible-futures/>.

## Activities for January 2024

**FB/LI:** "Can Plants Stop Soil Erosion?" is an environmental engineering activity that is suitable for intermediate level learners. The activity is expected to last for 2-4 weeks. Soil erosion caused by oil can wash pollutants into streams and rivers, and also lead to the loss of farmland, costing the world billions of dollars every year. But what can we do to address this problem? The answer is simple: we can help save the world (and some money!) by planting a few plants!" For activity details visit

[https://www.sciencebuddies.org/science-fair-projects/project-ideas/EnvEng\\_p037/environmental-engineering/can-plants-stop-soil-erosion](https://www.sciencebuddies.org/science-fair-projects/project-ideas/EnvEng_p037/environmental-engineering/can-plants-stop-soil-erosion)

**TW:** Gather your young learners for an environmental engineering activity that is suitable for intermediate level learners. The 'Can Plants Stop Soil Erosion' experiment activity guide is available at

[https://www.sciencebuddies.org/science-fair-projects/project-ideas/EnvEng\\_p037/environmental-engineering/can-plants-stop-soil-erosion](https://www.sciencebuddies.org/science-fair-projects/project-ideas/EnvEng_p037/environmental-engineering/can-plants-stop-soil-erosion)

FB/LI: Are you searching for a way to engage children in STEM activities? The "Build a Jumping Robot" is an intermediate-level mechanical engineering project that lasts from 2 to 5 days. This project teaches children how to create a basic robot that uses the energy stored in a stretched rubber band to jump. By utilizing the engineering design process, participants will attempt to increase the height and distance of their robot's jump. A complete activity guide is available at

[https://www.sciencebuddies.org/science-fair-projects/project-ideas/Robotics\\_p047/robotics/rubber-band-jumping-robot](https://www.sciencebuddies.org/science-fair-projects/project-ideas/Robotics_p047/robotics/rubber-band-jumping-robot)

FB/LI: Gravity is a force that plays a significant role in keeping us together on Earth. To help young learners understand how gravity works, here are ten simple activities that use math as an integrated approach. These kid-friendly activities include fun concepts such as 'what would be my weight on Mars?' and are designed to make learning about gravity enjoyable and engaging. Visit

<https://www.nasa.gov/stem-content/gravity-its-what-keeps-us-together/> for a complete list of activities.

TW: This set of ten, kid centered, easy-to-understand activities uses math to understand gravity on Earth and in space. Navigate to <https://www.nasa.gov/stem-content/gravity-its-what-keeps-us-together/> for the complete list.

FB/LI: The Space Weather Math" booklet is an educational guide that offers hands-on activities to help learners explore the causes and effects of space weather, with a focus on Sun-Earth interactions. The guide is designed to help students understand the reasons behind space weather and the ways in which heliophysicists study solar storms to predict when adverse conditions may pose a hazard for satellites and human operations in space. The guide is inclusive and provides extensive background information for educators, along with easy-to-follow, hands-on activities that combine an understanding of math with weather and climate.

TW: The Space Weather Math" booklet is an educational guide that offers hands-on activities to help learners explore the causes and effects of space weather, with a focus on Sun-Earth interactions. Download for your next science activity at <https://science.nasa.gov/learn/heat/resource/space-weather-math/>

FB/LI: The Beginner's Guide to Aerodynamics is a collection of highly engaging activities that combine math and engineering to create model planes for grades 5-8 and 9-12. Find out how airplanes operate, why a wing changes shape on takeoff and landing and more while completing an activity!

<https://www.nasa.gov/stem-content/beginners-guide-to-aerodynamics/>

TW: Find out how airplanes operate, why a wing changes shape on takeoff and landing and more while completing an activity from the Beginner's Guide to Aerodynamics.

<https://www.nasa.gov/stem-content/beginners-guide-to-aerodynamics/>

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# February: Black History Month; Engineering Week (2/18 - 2/24)

## Trainings for February 2024

Click2Engineering: Asking Purposeful Questions Coaching  
2/1; 2/15; 3/7 from 12:00 - 2:00pm EST / 9:00 - 11:00am PST

Click2Engineering is offering an ACRES (Afterschool Coaching for Reflective Educators in STEM) training on *Asking Purposeful Questions* in February and March 2024. ACRES supports educators who engage youth in STEM learning experiences. This training is fully virtual and **FREE** with the goal of moving the needle on your skills to facilitate quality STEM experiences regardless of the age of youth you serve. We keep things casual but ask you to engage in your learning - this is NOT a series of passive webinars but a three-step interactive professional learning series to build your skills, network, and apply your learning in an immediate way to your work environment. Space is limited. [Register here.](#)



Click2ComputerScience: Building Strong Teen Leaders  
February 14th 12:00 - 1:30pm EST / 9:00 - 10:30am PST

Prepare yourself to support the growth and development of young staff members and teen volunteers. This workshop will provide resources, strategies, and ideas from the Click2ComputerScience team and an engaging discussion with colleagues. [REGISTER HERE](#)

# Building Strong Teen Leaders

Resources, strategies, and ideas to support the growth and development of young staff members and teen volunteers

**FEBRUARY 14TH**  
**12:00 - 1:30PM EST**

[www.milliongirlsmoonshot.org](http://www.milliongirlsmoonshot.org)



## ACRES Coaching: Asking Purposeful Questions

Wednesdays: 2/28, 3/13, 4/3/2024 1:00 - 3:00 pm EST / 10:00 - 12:00 pm PST

Questions begin a path toward discovery, imagination, and STEM exploration. How can we help youth expand and clarify their thinking and develop their reasoning through the questions we ask them? This module is a great way to train staff on how to facilitate STEM learning. Experienced educators also love being part of a cohort as a way to connect with other educators across the country, to learn new lesson plans, and to reflect on practice. This is our introductory module and a prerequisite to other opportunities. \*The expectation is that you will be live at all three sessions and an active member of this coaching cohort. Recordings are not available if you are unable to attend. [REGISTER HERE](#) Code: **AC347PQ (Coach Becky T)**



## ASKING PURPOSEFUL QUESTIONS

Help youth develop their reasoning through the questions we ask

**Wednesdays:**  
**2/28, 3/13, 4/3**  
**1:00 - 3:00 pm EST**



[www.milliongirlsmoonshot.org](http://www.milliongirlsmoonshot.org)

## Transformative Practices for 2024

The Million Girls Moonshot aims to raise awareness of the following four research-based practices — Equity and Inclusion, Engineering Mindsets, Role Model, Mentors, and Families, and STEM Pathways and Transition — proven to remove barriers to access and quality STEM learning experiences. Resources, toolkits, blogs, and

activities that elevate these four Transformative Practices can be found below and on the [Million Girls Moonshot Toolkit](#)

## Equity and Inclusion

- **[Access to STEM Framework](#)**: To improve the overall quality of out-of-school STEM programs, we need to address how program providers design and implement programming to increase access in STEM for youth who have been underrepresented in the STEM fields. Partnering with the National Girls Collaborative Project (NGCP) and national experts, we have developed an Access to STEM Framework — a guide for supporting program providers in this transformation. [Download the Framework](#). Dive into the three main components of the Framework below:
  - [Increasing Access](#) - Strategies that address barriers to participation and build on the experiences within the community.
  - [Youth Centric](#) - Strategies that build on the specific strengths, needs, and challenges of youth.
  - [Skill Development](#) - Strategies that are personally relevant to youth and enable them to develop STEM and 21st century skills.
- **[The Black Girls Create Project: A Pilot Culturally Responsive Informal STEM Learning Program](#)**: The program model encourages (1) the use of social history (i.e., learning about Black women's contributions to STEM), (2) culturally responsive instruction (i.e., anchoring STEM learning within the cultural context of girls' lives), (3) mentorship from young, diverse scientific role models, and (4) the development of transferable STEM skills through design and digital fabrication.
- **[NGCP Webinar: Choosing Toys to Inspire Young Girls in STEM](#)** - Science and engineering toys have a long history of being marketed to boys. Now, toy designers – and the parents and caregivers purchasing toys – are moving toward more equitable options regarding STEM toy offerings and the type of play that young children are encouraged to engage in. In this webinar recording, learn about research, resources, and innovative new toys to support girls' playful learning of the STEM skills they need to reach their full potential.

## Engineering Mindsets

- **[Engineering Mindset Overview](#)**: An engineering mindset refers to the attitudes and thinking skills associated with engineering — using a systematic engineering design process, considering real-world problems, applying math and science, and working in teams. The Moonshot focuses on 10 engineering practices. An overview of each practice follows and subsequent briefs will explore each one individually.
- **[Engineering Design Process](#)**: This resource helps educators understand the design process and how to facilitate engineering activities with youth in their programs. Offers printable posters and resources to display in the classroom.
- **[What is Engineering Design and the Engineering Design Process](#)**: One stop shop for Engineering including what is engineering, who are engineers and what they do and the Engineering Design process including videos and posters to help explain the process to youth and where to start.
- **[A Million Miles Away Viewing Guide](#)**: NGCP developed an Educational Viewing Guide to accompany the film A Million Miles Away to support families, educators, and youth themselves to explore a range of STEM concepts and ideas related to space while also taking time to reflect on their dreams and future aspirations. The guide includes discussion questions for elementary, middle, and high school audiences,

hands-on activities, and resources for families, youth, and educators to continue exploring space-related STEM concepts, projects, and careers.

## Role Models, Mentors, and Families

Role models, mentors, and family engagement in a young person's STEM education leads to increased interest, greater self-confidence, and ultimately a stronger STEM identity. Developing a science-related identity increases the likelihood that students will work toward developing science literacy, or even pursue a career in a science or STEM-related field.

- [Role Models Matter and Mentoring Works!](#): The National Alliance for Partnerships in Equity believes that one of the most effective ways to encourage students to consider nontraditional careers is to introduce them to diverse role models, particularly role models. This webpage serves as a resource for educators seeking STEM role models and mentors for their students.
- [Women of Color in STEM: The Past, Present, and Future](#): Learn about women who were ground breakers in STEM, organizations that support women in STEM and are approachable by educators, conferences, and a description of the educational path to STEM.
- [50 Black Women in STEM You Should Know About](#): Learn about 50 amazing women who are role models for success in STEM. Photos, biographies, and links to additional information can be found here.
- [STEM Family Engagement Planning Tool](#): A planning tool to support programs in uplifting and empowering all youth and families in STEM.

## ASSETS FROM THE IF/THEN® COLLECTION

These assets featuring IF/THEN® Ambassadors Adriana Bailey, Atmospheric Scientist, and Bea Mendez-Gandica, Security Engineer, can be used in marketing, social media, and conference presentations.

- [Adriana Bailey page](#), including profile, videos, images, and other assets.
- [Bea Mendez-Gandica page](#), including profile, videos, images, and other assets.

## STEM Pathways and Transitions

Research tells us that continuous engagement and exposure rather than limited one-time opportunities are needed to nurture the interest and motivation necessary for children to pursue STEM pathways long term. The Moonshot aims to understand and support transitions and handoffs that remove barriers for youth by connecting STEM learning across ages and settings, ensuring youth interest and motivation persists.

- [Possible Futures — Career Exploration Curriculum](#): Open source curriculum that complements and enriches both school and afterschool settings 1) expanding career awareness through authentic experiential learning opportunities; 2) encouraging students to explore their diverse interests, talents, and options; 3) enlivening STEM subjects by bringing in real-world and career contexts; 4) empowering students to develop vital employability skills; and 5) engaging students in making informed choices.

**Below are some adaptations of the Possible Futures Career Exploration Curriculum specifically for afterschool and summer programs:**

- [Career Literacy](#): Three units that combine the units Skills for Success and Lenses on the Future (from Possible Futures Career Exploration Curriculum). The units also provide a model for aligning

Possible Futures with state Career Literacy Standards and the development of required individual student postsecondary plans.

- [Growing Myself](#): Twelve lessons that combine the Self unit from Lenses on the Future and the Growth Mindset unit from Skills for Success from the Possible Futures Career Exploration Curriculum.
- [The Connected Learning Research Network: Reflections on a Decade of Engaged Scholarship](#): This report from the Connected Learning Research Network (CLRN) presents a vision for understanding and revitalizing the ways in which we support learning during these changing times. This report synthesizes a varied set of content and perspectives: empirical research on the changing landscape of new media and learning, design principles, evaluation approaches, learner and case studies oriented to identifying and spreading positive innovations.
- [Toolkit: Brokering Youth Pathways: A Toolkit for Connecting Youth to Future Opportunities](#): A Hive Research Lab toolkit to explore the various ways in which out-of-school educators and professionals have approached the challenge of brokering - supporting the identity development, social capital building and long-term, interest-driven learning across settings actively connecting program participants to new learning opportunities.

## Activities for February 2024

- [3D Printing by Hand](#): Students will explore how 3D printers work. Then, working in pairs, they will use the same methods used by 3D printers to create a 3D model of an object. This comes with a video for educators and a complete lesson plan.
- [Experiment with Parachutes](#): In this aerodynamics science project, kids test whether the size of the parachute is important for slowing down the speed of the fall. They make a series of parachutes from small to large and test how quickly they fall from the same height.
- [Marble Run Kit & Caboodle Activity](#): Don't be misled by the word "kit" in the title! This activity plan uses easy to find materials to make a marble run (think marble roller coaster!). The "kit" is a complete lesson plan and video.
- [12 Great Ideas for Engineers Week](#): These quick, easy to implement, and fun activities highlight design process and engineering principles. Materials are easy to find at the grocery store or in the afterschool setting.

## Media Assets for February 2024

[Twitter](#) and [Instagram](#) Templates

## Trainings for February

**FB/LI:** Click2Engineering is offering an ACRES (Afterschool Coaching for Reflective Educators in STEM) training Feb 1 at 12 PM EST/ 9 AM PST. The Asking Purposeful Questions training is aimed at supporting educators who are involved in STEM learning experiences for young learners. The goal of this training is to help you improve your skills in facilitating quality STEM experiences for young learners, regardless of their age. Attendees are asked for their participation and engagement during the three-step interactive professional learning series.

Register today at <https://unl.zoom.us/meeting/register/tJAduurrjguHNQUYwWHcc3odYA0eo7xrGFc>

**TW:** Improve your skills in facilitating quality STEM experiences for young learners by attending the Asking Purposeful Questions training happening Feb 1 at 12 PM EST/ 9 AM PST. Register today at <https://unl.zoom.us/meeting/register/tJAduurrjguHNQUYwWHcc3odYA0eo7xrGFc>

**FB/LI:** Get ready to support the growth of young staff and teen volunteers. Join the Click2ComputerScience team for the Building Strong Teen Leaders training happening on February 7th from 12:00 - 1:30pm EST / 9:00 - 10:30am PST Gain resources, strategies, and ideas, while engaging in discussions with fellow colleagues. Register today at <https://unl.zoom.us/meeting/register/tJAduurrjguHNQUYwWHcc3odYA0eo7xrGFc>

**TW:** Learn how to support the growth of young staff and teen volunteer by attending the Building Strong Teen Leaders training happening on February 7th. Register today at <https://unl.zoom.us/meeting/register/tJAduurrjguHNQUYwWHcc3odYA0eo7xrGFc>

## Transformative Practices for 2024

### Equity and Inclusion

**FB/LI:** In order to enhance the quality of STEM programs that operate outside of school, it is important to focus on how program providers can design and implement their programs in a way that provides greater access to STEM for underrepresented youth. Million Girls Moonshot along with The National Girls Collaborative Project (NGCP) and a group of national experts have collaborated to create an Access to STEM Framework; a guide for program providers to help transform their out of school time programs. The framework is composed of three key components: Increasing Access, Youth Centricity, and Skill Development.

Be sure to download the framework at

[https://static1.squarespace.com/static/63ddd4d3686ac83bfa8c608d/t/642b771b77255b06727e7e58/1680570141172/Access-to-Stem-A-Framework\\_Final-11-%C3%97-8.5-in+%281%29.pdf](https://static1.squarespace.com/static/63ddd4d3686ac83bfa8c608d/t/642b771b77255b06727e7e58/1680570141172/Access-to-Stem-A-Framework_Final-11-%C3%97-8.5-in+%281%29.pdf)

**TW:** Million Girls Moonshot along with The National Girls Collaborative Project (NGCP) have collaborated to create an Access to STEM Framework to increase STEM accessibility for youth. Download the framework at [https://static1.squarespace.com/static/63ddd4d3686ac83bfa8c608d/t/642b771b77255b06727e7e58/1680570141172/Access-to-Stem-A-Framework\\_Final-11-%C3%97-8.5-in+%281%29.pdf](https://static1.squarespace.com/static/63ddd4d3686ac83bfa8c608d/t/642b771b77255b06727e7e58/1680570141172/Access-to-Stem-A-Framework_Final-11-%C3%97-8.5-in+%281%29.pdf)

**FB/LI:** The Black Girls Create Project is a culturally responsive informal STEM learning program designed to encourage young Black girls to pursue STEM education and careers. The program model focuses on four key elements essential to facilitating learning experiences that are uplift and encourage participation in STEM. Learn more about this dynamic program at <https://www.wcwonline.org/Active-Projects/the-black-girls-create-project-a-pilot-culturally-responsive-informal-stem-learning-program>

**TW:** The Black Girls Create Project is a culturally responsive informal STEM learning program designed to encourage young Black girls to pursue STEM education and careers. Learn more at <https://www.wcwonline.org/Active-Projects/the-black-girls-create-project-a-pilot-culturally-responsive-informal-stem-learning-program>

FB/LIN: Toys related to science and engineering have traditionally been marketed towards boys. However, toy designers, parents, and caregivers are now shifting towards more equal choices when it comes to STEM toys and the type of play that young children are encouraged to participate in. In this recorded webinar, you can learn about the latest research, resources, and innovative toys to help girls learn STEM skills in a fun and playful way, which is essential for their growth and development. Watch the NGCP Webinar: Choosing Toys to Inspire Young Girls in STEM for inspiration on how you support girls' potential in STEM.

<https://ngcproject.org/resources/choosing-toys-inspire-young-girls-stem>.

TW: Watch the NGCP Webinar: Choosing Toys to Inspire Young Girls in STEM to learn about the latest research, resources, and innovative toys to help girls learn STEM skills in a fun and playful way .

<https://ngcproject.org/resources/choosing-toys-inspire-young-girls-stem>

## Engineering Mindsets

The National Alliance for Partnerships in Equity advocates that one of the best methods to inspire students to consider nontraditional careers is by exposing them to diverse role models and mentors, particularly in STEM fields. The Role Models Matter and Mentoring Works!

webpage serves as a valuable resource for educators who are seeking STEM role models and mentors for their students. For resources you can use to inspire students along their STEM journey, visit

<https://napequity.org/resources/role-models/>

TW: One of the best methods to inspire students to consider nontraditional careers is by exposing them to diverse role models and mentors in STEM. For mentors, role models and other resources to inspire students along their STEM journey, visit <https://napequity.org/resources/role-models/>

FB/LI: Women of color who have made significant contributions to STEM fields of study have often moved mountains without much recognition. This black history month, learn about women who made groundbreaking contributions to STEM, organizations that support women in STEM and are approachable by educators, conferences, and the educational path to STEM. <https://online.maryville.edu/blog/women-of-color-in-stem/>

TW: Women of color who have made significant contributions to STEM fields of study have often moved mountains without much recognition. Learn about women who made groundbreaking contributions to STEM at <https://online.maryville.edu/blog/women-of-color-in-stem/>

FB/LI: Discover 50 inspiring women in STEM while reading this exquisite article on Medium.com. This resource is filled with biographies, photos, and links to more information about some of the hardest working Black women you should know about.

<https://medium.com/rediscover-steam/50-black-women-in-stem-you-should-know-about-f74bd23503fd>

TW: This article, **50 Black Women in STEM You Should Know About**, is filled with biographies, photos, and links to more information about some of the hardest working Black women in STEM. A link for your viewing pleasure.

## Role Models, Mentors and Families

The IF/THEN® Collection is a digital library of images featuring women in STEM fields, available for noncommercial use. Download assets featuring IF/THEN® Ambassador Adriana Bailey, Scientist, National Center for Atmospheric Research. <https://ifthen.widen.net/s/jmdpkfzmjf>

The IF/THEN® Collection is a digital library of images featuring women in STEM fields, available for noncommercial use. Download assets featuring IF/THEN® Ambassador Bea Mendez-Gandica, Program Manager and Founder. <https://www.ifthencollection.org/bea>

## STEM Pathways and Transitions

FB/LI: The Possible Futures - Career Exploration Curriculum is an open-source curriculum designed to enhance career awareness and interest among students. This curriculum is suitable for both school and afterschool settings and offers authentic experiential learning opportunities for students to explore their diverse interests and talents. Furthermore, it enlivens STEM subjects and encourages students to consider their career options. You can download the curriculum by clicking on the link below.

<https://www.jff.org/idea/possible-futures/>

Also check out some of the amazing adaptations of the Possible Futures Career Exploration Curriculum linked below.

[Career Literacy:](https://drive.google.com/drive/folders/1TNcbmI0zDBeD8Wutz5msPo-Geynch0-E?usp=sharing) <https://drive.google.com/drive/folders/1TNcbmI0zDBeD8Wutz5msPo-Geynch0-E?usp=sharing>

[Growing Myself:](https://drive.google.com/drive/folders/1BMW8aEO4O0cWbugEbmYkuAH2j0ssN7OQ?usp=sharing)

<https://drive.google.com/drive/folders/1BMW8aEO4O0cWbugEbmYkuAH2j0ssN7OQ?usp=sharing>

The Connected Learning Research Network: Reflections on a Decade of Engaged Scholarship is a report that has been presented by the Connected Learning Research Network (CLRN). It outlines a vision for reenvisioning how we support learning in the current times of change. The report brings together a wide range of content and perspectives, including empirical research on the evolving landscape of new media and learning, design principles, evaluation approaches, learner, and case studies. The aim is to identify and disseminate positive innovations that can help in supporting learning. For more, visit

<https://clalliance.org/publications/the-connected-learning-research-network-reflections-on-a-decade-of-engaged-scholarship/>

TW: The Connected Learning Research Network: Reflections on a Decade of Engaged Scholarship report brings together a wide range of content and perspectives and aims to highlight positive innovations. For more, visit

<https://clalliance.org/publications/the-connected-learning-research-network-reflections-on-a-decade-of-engaged-scholarship/>

FB/LI: The Brokering Youth Pathways toolkit is a resource that offers insights into how educators and professionals in outside of school environments have tackled the challenge of brokering for young people. Brokering involves supporting the development of identity, building social capital, and encouraging long-term, interest-driven learning across multiple settings. The toolkit provides guidance on how to actively connect program participants to new learning opportunities. Navigate to <https://brokering.hiveresearchlab.org/> to the framework and other resources for brokering youth.

TW: The Brokering Youth Pathways toolkit is a resource that offers insights into how educators and professionals in outside of school environments have tackled the challenge of brokering for young people. Visit <https://brokering.hiveresearchlab.org/> to access the framework and other resources for brokering youth.

## Activities for February 2024

Engage students in a hands-on activity that allows them to create a 3D model of an object using paint and explore the workings of 3D printers. For a complete guide, visit <https://tryengineering.org/teacher/lesson-plans/3d-printing-by-hand/>

**FB/LI:** In this science project focused on aerodynamics, children are shown the importance of parachute size in slowing down the speed of a fall. Young learners will create a series of parachutes, ranging in size from small to large, and observe how quickly each one falls from the same height. For the Experiment with Parachutes activity instructions and list of requirements, visit [https://www.sciencebuddies.org/science-fair-projects/project-ideas/Aero\\_p017/aerodynamics-hydrodynamics/parachutes-does-size-matter](https://www.sciencebuddies.org/science-fair-projects/project-ideas/Aero_p017/aerodynamics-hydrodynamics/parachutes-does-size-matter)

TW: Science Activity alert! The Experiment with Parachutes activity focuses on helps children to grasp the principles of aerodynamics. For instructions and list of requirements, visit [https://www.sciencebuddies.org/science-fair-projects/project-ideas/Aero\\_p017/aerodynamics-hydrodynamics/parachutes-does-size-matter](https://www.sciencebuddies.org/science-fair-projects/project-ideas/Aero_p017/aerodynamics-hydrodynamics/parachutes-does-size-matter)

**FB/LI:** The Marble Run Kit & Caboodle Activity explores the world of physics is a fun learning activity that involves creating a marble run, which is essentially a marble roller coaster. The activity plan provides a complete lesson plan and instructional video in both English and Spanish. All the materials needed for the activity are easy to find. Let's get creative with curious minds today! You can find more information about the activity at <https://www.cmosc.org/marble-run/>

**TW:** Searching for science activities? The Marble Run Kit & Caboodle Activity provides young children a glimpse into the world of physics. Access a lesson plan and instructional videos in both English and Spanish at <https://www.cmosc.org/marble-run/>

**FB/LI:** Looking for ways to participate in E-Week? These activities make teaching design process and engineering principles easy, quick and fun. Materials can be easily found in grocery stores or afterschool settings. For the list of activities, visit <https://www.sciencebuddies.org/blog/great-ideas-for-engineers-week-1>

**TW:** Looking for ways to participate in E-Week? These activities make teaching design process and engineering principles easy, quick and fun. Visit

## February is Black History Month /E-week/Inventors Day

**FB:** Dr. Lilia Abron is the 1st Black woman to receive a doctorate in chemical engineering. She became the founder and CEO of PEER Consultants, PC, an environmental consulting firm headquartered in Washington DC. Learn more <https://t.co/2oy6gjA4eC> #BlackHistoryMonth #WomenInSTEM

**TW:** Let's celebrate the incredible achievements of these 8 inspirational Black women engineers and scientists who have defied the odds and paved the way for future women. #BlackHistoryMonth #EWeek2023 #DiversityMatters #WomenInSTEM 🦋✨

**FB/TW:** Engineering Tip: Persist through and learn from failure! Engineers learn from failure to revise and improve the design. This requires perseverance and improvement through multiple iterations. #EngineeringMindset #EWeek2023! 🚀

**FB/TW:** Happy Engineering Week! Did you know #Engineers solve problems using a systematic, iterative process called the engineering design process? Check this highlight of 10 engineering practices to learn more. #EngineeringMindset <https://t.co/Uv9z3cd00S>! ⚙️ #Eweek2024

**TW:** "The more we encourage girls to pursue careers in science, the more we are ensuring a brighter future for our world." - Ellen Ochoa, Astronaut and Former NASA Director  
#DayofWomenandGirlsInScience

**FB:** Happy International Day of Women and Girls in Science! 🚀 Today, we celebrate your incredible achievements. We celebrate YOU, who are breaking barriers, making groundbreaking discoveries, and paving the way for future generations. Together, we can create a future where every girl believes she can reach for the stars! 🧑🏫 #WomenInScience #GirlsInScience #IDWGS2023

**TW:** Always stay curious! This #InventorsDay, we celebrate and thank the brilliant minds who have shaped our world with innovative creations and inspired youth to dream big and create something extraordinary.

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## March: National Women's History Month: 2024 Theme - Women Who Advocate for Equity, Diversity, and Inclusion

### Trainings for March 2024

ACRES Coaching: Make Math Engaging

Wednesdays: 3/6, 3/20, and 4/3/2024 2:00 - 4:00 pm EST / 11:00 - 1:00 pm PST

Are you looking for fun ways to help youth build number sense and problem-solving skills? Math can take on new meaning when it is integrated into daily routines in our afterschool programs. In this module, afterschool educators will explore and practice strategies for making math engaging and accessible. \*The expectation is that you will be

live at all three sessions and an active member of this coaching cohort. Recordings are not available if you are unable to attend. Completion of the Asking Purposeful Questions module is a prerequisite for this module.

[REGISTER HERE](#) Code: AC361MP (Coach Hannah L)



MILLION GIRLS MOONSHOT  
A STEM NEXT INITIATIVE

# MAKE MATH ENGAGING

Explore and practice strategies for making math  
engaging and accessible

Wednesdays:  
3/6, 3/20, and 4/3  
2:00 - 4:00 pm EST

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[www.milliongirlsmoonshot.org](http://www.milliongirlsmoonshot.org)

## Info Session about Micro-credentials and Digital Badging

Wednesday, March 6th 6:00 - 7:00pm EST / 3:00 - 4:00pm PST

ACRES (Afterschool Coaching for Reflective Educators in STEM) is excited to offer additional Information Sessions about STEM micro-credentials, which are competency-based, digital badges for afterschool and out-of-school professionals offered through the National Afterschool Association. These sessions are free, live, interactive, and one hour in length. You will learn about what Micro-credentials are and how to apply for them.

[PLEASE FILL OUT THIS FORM](#), choose the date that works best for you, and we'll reach out to you with the Zoom link. FMI contact [acres@mmsa.org](mailto:acres@mmsa.org) (Note: It isn't necessary to attend more than one informational session as the content is consistent.)

# Micro-Credentials & Digital Badging

INFORMATION SESSION ABOUT STEM MICRO-CREDENTIALS FOR  
OUT-OF-SCHOOL PROFESSIONALS OFFERED THROUGH THE NATIONAL  
AFTERSCHOOL ASSOCIATION

WEDNESDAY, MARCH 6TH  
6:00 - 7:00PM EST

[www.milliongirlsmoonshot.org](http://www.milliongirlsmoonshot.org)



## Transformative Practices for March 2024

The Million Girls Moonshot aims to raise awareness of the following four research-based practices — Equity and Inclusion, Engineering Mindsets, Role Model, Mentors, and Families, and STEM Pathways and Transition — proven to remove barriers to access and quality STEM learning experiences. Resources, toolkits, blogs, and activities that elevate these four Transformative Practices can be found below and on the [Million Girls Moonshot Toolkit](#)

### Equity and Inclusion

- **[Access to STEM Framework](#)**: To improve the overall quality of out-of-school STEM programs, we need to address how program providers design and implement programming to increase access in STEM for youth who have been underrepresented in the STEM fields. Partnering with the National Girls Collaborative Project (NGCP) and national experts, we have developed an Access to STEM Framework — a guide for supporting program providers in this transformation. [Download the Framework](#). Dive into the three main components of the Framework below:
  - [Increasing Access](#) - Strategies that address barriers to participation and build on the experiences within the community.
  - [Youth Centric](#) - Strategies that build on the specific strengths, needs, and challenges of youth.
  - [Skill Development](#) - Strategies that are personally relevant to youth and enable them to develop STEM and 21st century skills.
- **[Focusing on Cultural Competency in STEM Education](#)**: Research on how to promote educators' cultural competence to spark and increase diverse students' interest in science learning. This article provides five strategies, or steps, to become more culturally competent.

- [SciGirls Strategies: How to Engage Girls in STEM](#): SciGirls empowers you to create a more gender equitable and culturally responsive learning environment that inspires, engages, and helps girls thrive in STEM. This book outlines our educational approach, rooted in what research has revealed engages girls in STEM. These strategies have also been proven to work with all learners. Everyone benefits from a gender equitable approach to STEM!

## Engineering Mindsets

- [EdWeek Webinar: Close the Gender Gap: Getting Girls Excited about STEM](#) - In this webinar recording, learn from women leaders from Logitech and Girls Who Code as they discuss the importance of early cheerleaders, real-life role models, and women support networks.
- [Service Learning in STEM](#): A collection of articles, links, and other resources on why Service Learning is important, resources to support Service Learning, and Service Learning to give STEM learning a real life context.
- [How can Students' Everyday Experiences Support Science Learning Through Engineering Design?](#): Article provides best practices for educators to design and introduce engineering design challenges that are relevant to students' lived experiences. It provides a list of recommended actions to take and how to attend to equity throughout the process.

## Role Models, Mentors, and Families

Role models, mentors, and family engagement in a young person's STEM education leads to increased interest, greater self-confidence, and ultimately a stronger STEM identity. Developing a science-related identity increases the likelihood that students will work toward developing science literacy, or even pursue a career in a science or STEM-related field.

- [Role Models and Mentors](#): Contains an extensive list of places to find a variety of role models, speaker bureaus, and mentoring resources. The site includes FabFems, MentorNet, and Women@NASA.
- [Which role models are effective for which students?](#): Four concrete recommendations for ensuring that STEM role models are motivating for students of all backgrounds and demographics—an important step toward diversifying STEM.
- [How to be an effective STEM role model](#): Advice to share with potential role models, and staff *who are role models*, on how to communicate the message in the most effective way.
- [STEM Family Engagement Planning Tool](#): A planning tool to support programs in uplifting and empowering all youth and families in STEM.

## ASSETS FROM THE IF/THEN® COLLECTION

These assets featuring IF/THEN® Ambassadors Samantha Porter, Digital Preservation Specialist, and Aisha Lawrey, Electrical Engineer, can be used in marketing, social media, and conference presentations.

- [Samantha Porte page](#), including profile, videos, images, and other assets.
- [Aisha Lawrey page](#), including profile, videos, images, and other assets.

## STEM Pathways and Transitions

Research tells us that continuous engagement and exposure rather than limited one-time opportunities are needed to nurture the interest and motivation necessary for children to pursue STEM pathways long term. The

Moonshot aims to understand and support transitions and handoffs that remove barriers for youth by connecting STEM learning across ages and settings, ensuring youth interest and motivation persists.

- [Possible Futures — Career Exploration Curriculum](#): Open source curriculum that complements and enriches both school and afterschool settings 1) expanding career awareness through authentic experiential learning opportunities; 2) encouraging students to explore their diverse interests, talents, and options; 3) enlivening STEM subjects by bringing in real-world and career contexts; 4) empowering students to develop vital employability skills; and 5) engaging students in making informed choices.

**Below are some adaptations of the Possible Futures Career Exploration Curriculum specifically for afterschool and summer programs:**

- [Communicating & Collaborating](#): Twelve lessons that combine lessons from the Communication and Collaboration units from the Skills for Success module from the Possible Futures Career Exploration Curriculum
- Career Exploration Activities: Designed specifically for Out-of-School Time (OST) providers looking for engaging hands-on and collaborative activities:
  - [Health Sciences](#) (6 activities + career posters)
  - [Information Technology](#) (4 activities)
  - [Lenses on the Future](#) - Self (7 activities)
- [The Connected Learning Research Network: Reflections on a Decade of Engaged Scholarship](#): This report from the Connected Learning Research Network (CLRN) presents a vision for understanding and revitalizing the ways in which we support learning during these changing times. This report synthesizes a varied set of content and perspectives: empirical research on the changing landscape of new media and learning, design principles, evaluation approaches, learner and case studies oriented to identifying and spreading positive innovations.
- [Toolkit: Brokering Youth Pathways: A Toolkit for Connecting Youth to Future Opportunities](#): A Hive Research Lab toolkit to explore the various ways in which out-of-school educators and professionals have approached the challenge of brokering - supporting the identity development, social capital building and long-term, interest-driven learning across settings actively connecting program participants to new learning opportunities.

## Activities for March 2024

- [Mathematics & Probability Science Activity](#): Asked to get an estimate for the famed mathematical constant, Pi, you might do what the ancient Greeks did: Divide the circumference of a circle by its diameter. Or you can estimate Pi by a less conventional method: the random tossing of toothpicks!
- [Cutting Pi: Mathematics & Measurement Science Activity](#): Cutting string diameters from a string circumference is a physical (kinesthetic) way to divide the circumference of a circle by its diameter. No matter what circle you use, you'll be able to cut three complete diameters and have a small piece of string left over.
- [Build a Bird Nest](#): Different types of birds lay their eggs in different places. Some build tiny nests in bushes, some build enormous nests in tall trees. Some lay their eggs directly on the ground or on rocky ledges. Those that build nests use many different types of materials. In this project kids try to build their own bird nest using only natural materials that you can find outside. Birds are engineers too!

- [Explore Biodiversity Using a Homemade Bug Vacuum!](#): Kids use engineering skills to support the role of a wildlife biologist. Kids create a bubble vacuum to collect and examine the biodiversity of bugs and other small invertebrates (such as spiders, centipedes, and roly-polies) in their neighborhood using a homemade bug vacuum!
- [M&M Survival Challenge](#): Test how mimicry works by using M&M and Skittles candies as the prey. Hunt for the M&M animals but at the same time avoid the poisonous Skittles animals. Will the camouflaged M&M's have a better chance of survival? Learn about animal survival in a fun context.

## Social copy-Media Assets for March 2024

### [Twitter](#) and [Instagram](#) templates

#### Facebook/LinkedIn Copy:

## Trainings for March 2024

☀️ Calling all afterschool educators! ☀️ Are you passionate about helping youth build number sense and problem-solving skills? Join this ACRES upcoming module to explore fun ways to integrate math into daily routines in afterschool programs.

 Date: Wednesdays: 3/6 and 3/20

 Time: 4:00 PM EST / 11:00 - 1:00 PM PST

 Register here: <https://acrescoaching.org/modules/facilitating-mathematics-practices/>

 Prerequisite: Completion of the Asking Purposeful Questions module.

Code: AC3613MP

 Coach: Hannah L

See you there for three exciting sessions! Let's empower the next generation with the magic of math!

#MathEducation #AfterschoolPrograms #ProblemSolving

Attention Afterschool Educators! Ready to transform math into an exciting adventure for our youth? Join Coach Hannah L. in this ACRES upcoming module to explore and practice strategies for making math engaging and accessible.  

 Save the Date: 4/3/2024 2:00

 Time: 4:00 PM EST / 11:00 - 1:00 PM PST

 Register Now: <https://acrescoaching.org/modules/facilitating-mathematics-practices/>

 Prerequisite: Completion of the Asking Purposeful Questions module.

Code: AC3613MP

Let's make a positive impact together! ☀️ #MathFun #AfterschoolLearning #ProblemSolving

☀️ Exciting Opportunity Alert! ☀️ Join ACRES (Afterschool Coaching for Reflective Educators in STEM) for an Information Session about STEM micro-credentials and digital badging!

 Date: Wednesday, March 6th

 Time: 6:00 - 7:00pm EST / 3:00 - 4:00pm PST

Learn about competency-based digital badges for afterschool professionals offered through the National Afterschool Association. It's free, live, interactive, and just an hour!

 Fill out this form to reserve your spot and receive the Zoom link: <https://forms.gle/AErfHcwt6P5zUG1SA>  
For more info, contact [acres@mmsa.org](mailto:acres@mmsa.org).

Take advantage of this chance to enhance your skills and credentials in STEM education! 🌐 #STEMEducation #MicroCredentials #DigitalBadges #ProfessionalDevelopment

Join ACRES for an Information Session about STEM micro-credentials and digital badging!

Date: Wednesday, March 6th Time: 6-7pm EST / 3-4pm PST

Learn about competency-based digital badges for afterschool professionals offered through the National Afterschool Association. Fill out this form to reserve your spot and receive the Zoom link:

<https://forms.gle/AErfHcwt6P5zUG1SA>. For more info, contact [acres@mmsa.org](mailto:acres@mmsa.org). Enhance your skills in STEM education! #STEMEducation #MicroCredentials #DigitalBadges #ProfessionalDevelopment

## Transformative Practices for March 2024

 Join the Million Girls Moonshot and be part of a transformative movement! We're raising awareness about four research-based practices that break barriers in STEM education: Equity and Inclusion, Engineering Mindsets, Role Model Mentors and Families, and STEM Pathways and Transition.

Explore the toolkit for valuable resources, toolkits, blogs, and activities to enhance STEM learning experiences. Let's empower the next generation of STEM leaders!

 Find everything you need in the Million Girls Moonshot Toolkit: <https://www.milliongirlsmoonshot.org/toolkit>  
#MillionGirlsMoonshot #STEMEducation #EmpowerGirlsInSTEM #TransformativePractices

 Calling all advocates for STEM education! The Million Girls Moonshot is shining a light on transformative practices that ensure equitable access and quality learning experiences in STEM. Dive into the toolkit for an abundance of resources, toolkits, blogs, and activities.

Let's pave the way for a brighter future in STEM together! 💡

 Explore the Million Girls Moonshot Toolkit here: <https://www.milliongirlsmoonshot.org/toolkit>  
#STEMAdvocacy #TransformativePractices #MillionGirlsMoonshot #EquityInSTEM

Explore the Access to STEM Framework. This exciting collaboration between Million Girls Moonshot, the National Girls Collaborative Project (NGCP), and national experts is designed to enhance the quality of out-of-school STEM programs by addressing access for youth underrepresented in STEM fields.

 Dive into the guide and join us in transforming STEM education for all!

Learn more: [Download the Framework](#)

Breaking Barriers in STEM! Introducing the Access to STEM Framework, a game-changer in transforming out-of-school STEM programs.  A collaboration between the Million Girls Moonshot, NGCP and national experts, this guide is a vital resource for program providers seeking to enhance access for underrepresented youth in STEM.

 Explore the framework: [Download the Framework](#)

Download the Access to STEM Framework, and explore three powerful components to transforming out-of-school STEM programs.

**Increasing Access:** We're breaking down barriers to participation and building on the rich experiences within our community. Let's make STEM accessible to all! 🚀

**Youth Centric:** Tailored strategies that recognize and harness the unique strengths, needs, and challenges of our incredible youth. Empowering them for success in STEM! 🧑🏫💡

**Skill Development:** Personalized strategies that make STEM personally relevant, fostering the development of crucial STEM and 21st-century skills. Let's equip our youth for a bright future! 🌐🔧

Ready to dive in? Download the Access to STEM Framework now and join us in revolutionizing STEM education for everyone! 📖🔗 [Download the Framework](#)

Hey STEM educators and out-of-school program leaders! Check out this insightful research on "Focusing on Cultural Competency in STEM Education." Dip into practical strategies to enhance educators' cultural competence and boost diverse students' interest in science learning. It's a game-changer!

Read the full article here: [Focusing on Cultural Competency in STEM Education](#)

If you're an STEM educator, you might be interested in reading "Focusing on Cultural Competency in STEM Education". It's a great resource that explores cultural differences in the science classroom and offers strategies to help you become more culturally skilled. By using these strategies, you can create a more inclusive and engaging learning environment for all your students. Give it a read, and let us know what you

think!<https://www.informalscience.org/sites/default/files/Focusing%20on%20Cultural%20Competence%20in%20STEM%20Education.pdf>

Excited to share a fantastic resource: "SciGirls Strategies: How to Engage Girls in STEM." This book is a game-changer, offering insights on creating gender-equitable and culturally responsive learning environments. You'll learn proven strategies rooted in research to inspire and engage girls in STEM, which apply to all learners. Explore the book here: <http://www.scigirlsconnect.org/scigirls-strategies-engage-girls-stem/>

Check out "SciGirls Strategies: How to Engage Girls in STEM" for proven strategies to inspire and engage girls in STEM. The book offers great insights on creating gender-equitable and culturally responsive learning environments. It's a game-changer and applicable to all learners. Explore the book here: <http://www.scigirlsconnect.org/scigirls-strategies-engage-girls-stem/>

## Engineering Mindsets

Watch this powerful webinar recording you will want to take advantage of. Women leaders from Logitech and Girls Who Code share insights on the significance of early cheerleaders, real-life role models, and women support networks in STEM. It is a must-watch for anyone passionate about fostering inclusivity and mentorship in our community.

👥 Check out the recording here:

<https://www.edweek.org/events/webinar/close-the-gender-gap-getting-girls-excited-about-stem>

Calling all STEM champions! Enjoy this enlightening webinar recording featuring women leaders from Logitech and Girls Who Code. Gain valuable perspectives on the importance of early cheerleaders, real-life role models, and women support networks in STEM. Don't miss out on this insightful discussion!

📺 Watch the recording here:

<https://www.edweek.org/events/webinar/close-the-gender-gap-getting-girls-excited-about-stem>

Discover the importance of Service Learning in STEM education with a curated collection of articles, links, and resources all in one place. This compilation emphasizes the significance of real-world context and provides valuable resources to enhance Service Learning in STEM. Click on the link to explore the collection here:

<https://www.boisestate.edu/servicelearning/stem/>

Please take a look at our latest collection of resources. It includes a variety of articles, links, and other helpful resources that showcase the importance of incorporating Service Learning into STEM education. By exploring this collection, you'll gain valuable insights into why Service Learning is transforming STEM education, and you'll find the support you need to integrate real-life contexts into STEM learning. Check out the collection today

<https://www.boisestate.edu/servicelearning/stem/>

How can Students' Everyday Experiences Support Science Learning Through Engineering Design? This resource offers best practices for educators to design and introduce engineering challenges rooted in students' experiences. Check it out for recommended actions and guidance on ensuring equity throughout the process.

Get the article here: <https://stemteachingtools.org/brief/39>

Check out this must-read resource on integrating students' everyday experiences into science learning through engineering design. The article provides educators with best practices and recommended actions to ensure relevance and equity. Take advantage of these valuable insights!

 Read the article: <https://stemteachingtools.org/brief/39>

## **Role Models, Mentors, and Families**

One of the most effective ways to encourage students to consider nontraditional careers is to introduce them to diverse role models, particularly those with whom they can relate. Here, you can navigate an extensive list of places to find a variety of role models, speaker bureaus, and mentoring resources. The site includes FabFems, MentorNet, and Women@NASA. <https://napequity.org/resources/role-models/>

Introducing students to diverse role models is one of the most effective ways to encourage them to consider nontraditional careers, especially those whom they can relate to. You can explore a comprehensive list of resources on this website that includes speaker bureaus, mentoring resources, and diverse role models. The website features @FabFems, MentorNet, and Women@NASA. Check out the website at <https://napequity.org/resources/role-models/>

Are you searching for resources on how to become an effective STEM role model? Here are some strategies you can incorporate the next time you participate in an outreach event. You can also share these tips with potential role models and staff who serve as role models to help them communicate their message more effectively.

<https://blogs.agu.org/sciencecommunication/2021/03/29/how-to-be-an-effective-stem-role-model/>

Are you interested in learning how to become an effective STEM role model? This article offers some awesome strategies that you can use the next time you're engaging in an outreach event. These tips are perfect for sharing with potential role models and staff who are already role models to help them communicate their message in the most effective way. Let's get

started!<https://blogs.agu.org/sciencecommunication/2021/03/29/how-to-be-an-effective-stem-role-model/>

Research studies and practical experience have established that children are more likely to engage in STEM learning and appreciate its value when their caregivers have positive attitudes toward STEM. In support of programs that uplift and empower all youth and families in STEM, STEM Next has developed the STEM Family

Engagement Planning Tool.

[https://stemnext.wpengepowered.com/wp-content/uploads/2021/10/STEM-Family-Engagement-Planning-Tool\\_finalv1\\_Oct2021rev-2.pdf](https://stemnext.wpengepowered.com/wp-content/uploads/2021/10/STEM-Family-Engagement-Planning-Tool_finalv1_Oct2021rev-2.pdf)

The role of families in their children's education is crucial, and this is particularly true for STEM education. Science, technology, engineering, and mathematics are critical fields that shape our modern world, and it is essential that we equip our children with the skills and knowledge they need to succeed in these areas. The STEM Family Engagement Planning Tool is an excellent resource designed to support programs that uplift and empower all youth and families in STEM. It provides guidance, strategies, and tools to help families engage with their children's STEM education and make it a fun and rewarding experience.

[https://stemnext.wpengepowered.com/wp-content/uploads/2021/10/STEM-Family-Engagement-Planning-Tool\\_finalv1\\_Oct2021rev-2.pdf](https://stemnext.wpengepowered.com/wp-content/uploads/2021/10/STEM-Family-Engagement-Planning-Tool_finalv1_Oct2021rev-2.pdf)

## **ASSETS FROM THE IF/THEN® COLLECTION**

Are you trying to inspire others with authentic and relatable images of women in STEM? The IF/THEN® Collection is a digital asset library of women STEM innovators for educational and other noncommercial use. Download assets featuring IF/THEN® Ambassador Samantha Porter, Digital Preservation Specialist, including profile, videos, images, and other assets. <https://www.ifthencollection.org/samantha>

Are you passionate about promoting women in STEM and want to inspire others with authentic and relatable images of women in these fields? Look no further than the IF/THEN® Collection! This digital asset library is chock-full of images of amazing women who are STEM innovators, all available for educational and noncommercial use. You can even download assets that feature IF/THEN® Ambassador Aisha Lawrey, Electrical Engineer. <https://www.ifthencollection.org/aisha>

## **STEM Pathways and Transitions**

Exciting news – JFF's Possible Futures provides a great resource for educators: "Possible Futures – Career Exploration Curriculum."  This open-source curriculum is designed to enrich both school and afterschool settings. It expands career awareness, encourages students to explore diverse interests, enlivens STEM subjects with real-world contexts, empowers vital employability skills, and engages students in making informed choices. Let's prepare the next generation for success! Explore the curriculum here:

<https://www.jff.org/idea/possible-futures/>

Great news! JFF's Possible Futures program has released an open-source curriculum called "Possible Futures - Career Exploration Curriculum" that can be used by educators in both school and afterschool settings. This curriculum aims to broaden students' understanding of career options, encourage them to explore diverse interests, integrate real-world contexts into STEM subjects, improve their employability skills, and help them make informed choices. Let's work together to prepare the next generation for success! Check out the curriculum here:

<https://www.jff.org/idea/possible-futures/>

Million Girls Moonshot is sharing this valuable resource to enhance communication and collaboration skills. Introducing "Communicating & Collaborating," a set of twelve lessons that combine insights from the Communication and Collaboration units of the Skills for Success module from the Possible Futures Career Exploration Curriculum. Perfect for preparing students for success in the modern world! Check out the lessons here: <https://drive.google.com/drive/folders/1-VRiwNF5wzT76OWWv9Sw-smqtxGqrKdR?usp=sharing>

Million Girls Moonshot is pleased to announce a valuable resource that can greatly enhance communication and collaboration skills. We would like to introduce "Communicating and Collaborating," a set of twelve expertly designed lessons that draw insights from the Communication and Collaboration units of the Skills for Success module, which is part of the widely recognized Possible Futures Career Exploration Curriculum. These lessons are an ideal tool for students to prepare for success in the modern world. We invite you to review the lessons at your convenience by following the link provided.

<https://drive.google.com/drive/folders/1-VRiwNF5wzT76OWWv9Sw-smqtxGqrKdR?usp=sharing>

The Connected Learning Research Network (CLRN) has published a report that aims to revive and enhance learning support in the digital era. The report presents a vision for understanding the changing landscape of new media and learning through empirical research, design principles, evaluation approaches, and case studies. It intends to identify and promote positive innovations and reflects on a decade of engaged scholarship.

<https://clalliance.org/publications/the-connected-learning-research-network-reflections-on-a-decade-of-engaged-scholarship/>

Have you heard about the Connected Learning Research Network's latest report? It's all about improving learning support in the digital age. The report is packed with many insights and ideas, including real-life case studies and practical tips for promoting positive innovations. It's a great resource for anyone interested in learning and education, so you should definitely check it

out!<https://clalliance.org/publications/the-connected-learning-research-network-reflections-on-a-decade-of-engaged-scholarship/>

Hello educators and youth advocates! ✨ We're excited to share a valuable resource – the "Brokering Youth Pathways Toolkit." Developed by Hive Research Lab, this toolkit explores innovative approaches to brokering, actively connecting youth to new learning opportunities. Dive in to support identity development, build social capital, and foster long-term, interest-driven learning across various settings. Empower the next generation with limitless possibilities! Explore the toolkit here:<https://brokering.hiveresearchlab.org/>

Attention to all educators and youth mentors! We present to you the "Brokering Youth Pathways Toolkit" by Hive Research Lab, a resource that can help you unlock the power of brokering. This toolkit provides innovative methods to connect young individuals to future opportunities, encourage identity development, establish social capital, and support long-term, interest-driven learning. By accessing this resource, you will have the opportunity to revolutionize your approach to teaching and mentoring. You may access the toolkit by clicking on the following link <https://brokering.hiveresearchlab.org/>

## Activities for March 2024

Attention math enthusiasts! Looking for fun math activities? Dive into the world of mathematics and probability with this fun activity. Including mathematical constant Pi, a unique approach to Greek calculations and more! 🎉 Get ready for a fun and unconventional math adventure.

Check out the activity here: <https://www.exploratorium.edu/snacks/pi-toss>

Calling all fellow math enthusiasts! Are you on the lookout for some thrilling math activities to do in your free time? Look no further than this fun-filled math adventure, where you will be exploring the fascinating worlds of mathematics and probability. This activity includes the mathematical constant Pi, a unique approach to Greek calculations, and much more! Get ready to be amazed and have a great time. Follow the link below to check out this exciting activity now: <https://www.exploratorium.edu/snacks/pi-toss>

Hey math enthusiasts! Let's explore the magic of Pi with this activity: "Cutting Pi." ✂️📏 Experience a physical and kinesthetic way to divide the circumference of a circle by its diameter. Spoiler alert: No matter the circle size, you can cut three complete diameters and have a small piece of string left over. Get ready for a hands-on journey into mathematics and measurement!

Check out the activity here: <https://www.exploratorium.edu/snacks/cutting-pi>.

Calling all bird lovers! Want to build a bird nest? 🐦✨ Explore the engineering marvels of bird nests as kids embark on creating their own using only natural materials found outside. From tiny nests in bushes to grand ones in tall trees, let's discover how birds build their homes. Nature-inspired engineering at its best! Check out the activity here: <https://www.sciencebuddies.org/stem-activities/build-bird-nest>

Explore the world of biodiversity with this latest activity: "Explore Biodiversity Using a Homemade Bug Vacuum!" Kids can unleash their engineering skills while playing the role of a wildlife biologist. Create a bubble vacuum and embark on a bug-hunting adventure to examine the diverse world of bugs and invertebrates in your neighborhood. Let the exploration begin! Check out the activity here:

<https://www.sciencebuddies.org/stem-activities/bug-vacuum>

Discover the world of mimicry by using M&M and Skittles candies as prey. Hunt for the M&M animals, but beware of the poisonous Skittles creatures. Will the camouflaged M&M's have a better chance of survival? It's a fun and delicious way to learn about animal survival in a whole new context! Check out the activity here:

[https://www.sciencebuddies.org/science-fair-projects/project-ideas/Zoo\\_p012/zoology/mms-survival-challenge-camouflage](https://www.sciencebuddies.org/science-fair-projects/project-ideas/Zoo_p012/zoology/mms-survival-challenge-camouflage)

## **March- Women's History Month/PiDay/Brain Awareness Week/World Wildlife Day**

Happy #WomensHistoryMonth! We celebrate women who tell our stories and continue to pave the way for future generations of #WomenInSTEM. Join us in celebrating their achievements and their impact on STEM fields. 🧑‍🏫👩‍🔬👨‍🔬👩‍🎓 #WomenInSTEM

Check out the incredible digital classroom resources from the National Women's History Museum for Women's History Month, featuring fascinating #STEMresources! #WomensHistoryMonth #STEMresources <https://t.co/RLxU9JmbxA>

Do you ever think about how we actually taste things? Hint: It's in your brain! In this #BrainAwarenessWeek, join Dr. DilWORTH as she tells us what we need to know about our brain and how we taste. <https://youtu.be/yhKQOnsJRAs?si=C8sPTXWsCfE4gNps>

It's #BrainAwarenessWeek, and we got some Tips and Tricks to Train Your Brain! Watch as Dr. Brain explains the science behind habits and the brain. Why are some habits so easy to form but others take more time. <https://youtu.be/P38gsnimbqW?si=Ogyu2rvirm0f8mAm>

What do wildlife biologists do? This #WorldWildlife Day, we invite you to celebrate all the world's wild animals and plants and their contribution to our lives and the planet's health while learning what biologists do and African Elephant tracking! <https://youtu.be/fW66dFTVriU?si=P1jrURCN5nSc84mS>

## Copy for Twitter/Threads

## Trainings for March 2024

Exciting News for Afterschool Educators! 🚀 Join ACRES for a dynamic math module to infuse fun into number sense and problem-solving skills. Explore strategies to make math engaging!

Register now: <https://acrescoaching.org/modules/facilitating-mathematics-practices/>

Code: AC3613MP |  Wednesdays: March 6 and 20 at 4:00 PM EST

 Coach: Hannah L

Don't miss out—let's create an interactive learning experience!

Dive into the world of engaging math with Coach Hannah L! 🚀 Afterschool educators, don't miss out on this opportunity to explore strategies for making math fun and accessible. Register now:

<https://acrescoaching.org/modules/facilitating-mathematics-practices/>

Code: AC3613MP |  4/3/2024 2:00 - 4:00 PM EST / 11:00 - 1:00 PM PST

#EducationMatters #MathIsFun

Join the free live Information Session on Wednesday, March 6th at 6-7pm EST / 3-4pm PST to learn about micro-credentials with ACRES and digital badges for afterschool professionals offered by the National Afterschool Association. Register now at <https://forms.gle/AErfHcwt6P5zUG1SA>. Don't miss out on unlocking new possibilities in STEM education! #STEMLearning  

🚀 Dive into the world of STEM micro-credentials with ACRES! 🏆 Join this free, live Information Session on Wednesday, March 6th, 6:00 - 7:00pm EST / 3:00 - 4:00pm PST. 🌐 Learn about digital badges for afterschool professionals offered by the National Afterschool Association.  Fill out the form here:

<https://forms.gle/AErfHcwt6P5zUG1SA>.

For more info, contact [acres@mmsa.org](mailto:acres@mmsa.org). Unlock new possibilities in STEM education! 🚀🔬 #STEMLearning

## Transformative Practices for March 2024

Dive into the world of transformative #STEM education with the @girlsmoonshot! 🚀 Explore resources and activities focusing on Equity and Inclusion, Engineering Mindsets, Role Model Mentors and Families, and STEM Pathways. 🔗 #MillionGirlsMoonshot Toolkit: <https://www.milliongirlsmoonshot.org/toolkit>  
#STEMGirls #TransformativePractices #MillionGirlsMoonshot #STEMEducation

🚀 Unlock the potential of #STEMeducation with the Million Girls Moonshot! Discover research-based practices: Equity and Inclusion, Engineering Mindsets, Role Model Mentors, and Families, and STEM Pathways. Dive into the toolkit for a wealth of resources! 💡🔬

🔗 Million Girls Moonshot Toolkit: <https://www.milliongirlsmoonshot.org/toolkit>

Download the Access to STEM Framework to explore three components to transforming out-of-school STEM programs: 1. Increasing Access: Make STEM accessible to all. 2. Youth Centric: Empower youth for success in STEM. 3. Skill Development: Equip youth for a bright future. Join us in transforming STEM education for everyone! 🔗

[Download the Framework](#)

"Focused on Cultural Competency in STEM Education" is a helpful resource for STEM educators. It explores cultural differences in the science classroom and offers strategies to help educators become more culturally skilled and create a more inclusive learning environment.

<https://www.informalscience.org/sites/default/files/Focusing%20on%20Cultural%20Competence%20in%20STEM%20Education.pdf>

Explore the latest research that delves into the crucial topic of cultural competency in STEM education. Learn about the five strategies outlined in this article to help educators become more culturally skilled, fostering a more inclusive and engaging science learning environment for all students.

Read more:

<https://www.informalscience.org/sites/default/files/Focusing%20on%20Cultural%20Competence%20in%20STEM%20Education.pdf>

Dive into the world of STEM education with "SciGirls Strategies: How to Engage Girls in STEM." This book discloses proven approaches rooted in research, fostering gender-equitable and culturally responsive learning environments. An essential read for educators and STEM advocates alike! Get the book: <http://www.scigirlsconnect.org/scigirls-strategies-engage-girls-stem/>

Attention STEM advocates! 📖 "SciGirls Strategies: How to Engage Girls in STEM" is a valuable resource offering proven strategies backed by research. Empower yourself to create inclusive learning environments that inspire and engage girls in STEM, with benefits extending to all learners. Check it out!

<http://www.scigirlsconnect.org/scigirls-strategies-engage-girls-stem/>

## Engineering Mindsets

Watch this must-see webinar recording featuring women leaders from Logitech and Girls Who Code, discussing the significance of early support, role models, and women networks in STEM. Click the link below to watch the recording.

 Watch here: <https://www.edweek.org/events/webinar/close-the-gender-gap-getting-girls-excited-about-stem>

Check out this webinar recording! Female leaders from Logitech and Girls Who Code share valuable insights on early encouragement, role models, and support networks for women in STEM. Don't miss this enlightening discussion! 

Watch here <https://www.edweek.org/events/webinar/close-the-gender-gap-getting-girls-excited-about-stem>

Get a curated collection of articles, links, and resources on why Service Learning is crucial in STEM education in just one place! Dive into this valuable compilation to discover the importance of real-world context and find resources to support and enhance Service Learning in STEM.

Explore the collection here: <https://www.boisestate.edu/servicelearning/stem/>

Take advantage of this resource collection! It highlights the importance of Service Learning in STEM education, shares insights on its transformational impact and provides support to integrate real-life context into your learning. Check it out here: <https://www.boisestate.edu/servicelearning/stem/>.

Unlock valuable insights with this resource on integrating students' everyday experiences into science learning through engineering design. Educators dive into best practices and recommended actions for equitable and relevant challenges. Check it out here: <https://stemteachingtools.org/brief/39>

STEM advocates, don't miss out on this fantastic resource! "How can Students' Everyday Experiences Support Science Learning Through Engineering Design?" offers best practices and recommended actions for creating equitable engineering challenges. <https://stemteachingtools.org/brief/39>

## Role Models, Mentors, and Families

Encouraging students to consider nontraditional careers involves introducing them to diverse role models. Find a list of resources on this website, including @FabFems, MentorNet, and Women@NASA. Check it out at

<https://napequity.org/resources/role-models/>.

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Want to be an effective STEM role model? Try these outreach strategies and communication tips. Perfect for sharing with potential role models and staff who serve as role models.

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Unlock your potential as a STEM role model with these outreach strategies and communication tips. Share them with other role models to inspire and empower them to make a difference.

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Families are crucial in STEM education. We must equip children with skills to succeed in science, technology, engineering, and mathematics. The STEM Family Engagement Planning Tool is a great resource that supports all youth and families in STEM. It provides guidance, strategies, and tools to make STEM education a fun and rewarding experience for families and their children. Explore the tool:

[https://stemnext.wpenginepowered.com/wp-content/uploads/2021/10/STEM-Family-Engagement-Planning-Tool\\_finalv1\\_Oct2021rev-2.pdf](https://stemnext.wpenginepowered.com/wp-content/uploads/2021/10/STEM-Family-Engagement-Planning-Tool_finalv1_Oct2021rev-2.pdf)

Families play an essential role in their children's science, technology, engineering, and mathematics (STEM) education. The **STEM Family Engagement Planning Tool** is designed to support programs that uplift and empower all youth and families in STEM. Get it here:

[https://stemnext.wpenginepowered.com/wp-content/uploads/2021/10/STEM-Family-Engagement-Planning-Tool\\_finalv1\\_Oct2021rev-2.pdf](https://stemnext.wpenginepowered.com/wp-content/uploads/2021/10/STEM-Family-Engagement-Planning-Tool_finalv1_Oct2021rev-2.pdf)

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Want to promote women in STEM with inspiring images? Check out the IF/THEN® Collection! It's a digital asset library with real images of women in STEM fields, available for non-commercial use. Download assets featuring Electrical Engineer and IF/THEN® Ambassador Aisha Lawrey. <https://www.ifthencollection.org/aisha>

## **STEM Pathways and Transitions**

JFF's Possible Futures program has released an open-source curriculum called "Possible Futures - Career Exploration Curriculum" that broadens students' understanding of diverse career options, improves employability skills, and helps them make informed choices. Check it out here: <https://www.jff.org/idea/possible-futures/>

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Million Girls Moonshot is sharing "Communicating & Collaborating," a set of 12 lessons that combine insights from the Communication and Collaboration units of the Skills for Success module from the Possible Futures Career Exploration Curriculum. These lessons are perfect for enhancing communication and collaboration skills in students. Access the lessons here: <https://drive.google.com/drive/folders/1-VRiwNF5wzT76OWWv9Sw-smqtxGqrKdR?usp=sharing>

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The Connected Learning Research Network's report aims to improve learning support in the digital age. It includes empirical research, design principles, evaluation approaches, and case studies to identify and promote positive innovations.

<https://clalliance.org/publications/the-connected-learning-research-network-reflections-on-a-decade-of-engaged-scholarship/>

The Connected Learning Research Network (CLRN) has released a new report that explores how we can improve learning support in the digital age. The report is packed with many practical tips, real-life case studies, and innovative ideas that aim to promote positive changes in education. It's definitely worth checking out if you're interested in learning new media.

<https://clalliance.org/publications/the-connected-learning-research-network-reflections-on-a-decade-of-engaged-scholarship/>

Attention educators and youth mentors! The "Brokering Youth Pathways Toolkit" by Hive Research Lab can help you connect youth to future opportunities, foster identity development, build social capital, and promote interest-driven learning. Access the toolkit here: <https://brokering.hiveresearchlab.org/>

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Check out the activity here: <https://www.exploratorium.edu/snacks/pi-toss>

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Hey math fans! Let's explore the magic of Pi with this activity: "Cutting Pi." ✂️ 📏 Experience a physical and kinesthetic way to divide the circumference of a circle by its diameter. Get ready for a hands-on journey into mathematics and measurement!

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Explore the wonders of bird engineering with this "Build a Bird Nest" activity. 🐦 ✨ Kids can create their own nests using natural materials found outside, celebrating the diversity of bird home designs.

Nature-inspired fun awaits! <https://www.sciencebuddies.org/stem-activities/build-bird-nest>

Explore Biodiversity Using a Homemade Bug Vacuum! is a fun activity for kids to discover the world of bugs and invertebrates in their neighborhood. By creating a bubble vacuum, they can examine and learn about these creatures. Check out the activity now!

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Science meets sweets in this "M&M Survival Challenge" activity! Explore mimicry with M&M and Skittles candies as prey. Hunt for camouflaged M&M animals while avoiding the poisonous Skittles creatures. A delicious way to learn about animal survival!

[https://www.sciencebuddies.org/science-fair-projects/project-ideas/Zoo\\_p012/zoology/mms-survival-challenge-camouflage](https://www.sciencebuddies.org/science-fair-projects/project-ideas/Zoo_p012/zoology/mms-survival-challenge-camouflage)

## March- Women's History Month/PiDay/Brain Awareness Week/World Wildlife Day

Discover the remarkable journeys of pioneering women in #STEM this #WomensHistoryMonth. Dive into the inspiring profiles from Astra Femina: <https://t.co/mgvRlwn0dF>

Biologist Samantha Wynns is taking her love for [#science](#) & wildlife to help educate people about environmental conservation. #WorldWildlifeDay <https://youtu.be/FxLFvRidZwM?si=kJLfZi22Ety7mxt7>

It's #BrainAwarenessWeek, and we got some Tips and Tricks to Train Your Brain! Watch as Dr. Brain explains the science behind habits and the brain. Why are some habits so easy to form but others take more time. <https://youtu.be/P38gsnimbqw?si=Ogyu2rvirm0f8mAm>