



# Million Girls Moonshot

Engaging one million more girls in STEM learning opportunities



*The Moonshot will be active in out-of-school programs in all 50 states, leveraging the Mott-funded 50 State Afterschool Network, which has access to more than 10 million youth and 100,000 afterschool programs across the country. Over the course of the new year NJSACC's STEM Specialist Chris Jorn will bring you The Million Girl Moonshot monthly newsletter. Each month Chris will be rounding up accessible training opportunities, role models, and most importantly STEM activities for New Jersey's after school community.*

This month the Million Girls Moonshot celebrates Earth Day and Environmental Education Week! Now is the time for all of us — education, business, and civic leaders — to take action on climate in order to preserve and protect our health, our families, and our livelihoods. To do this, we need to inspire the next generation of creative thinkers and problem solvers to design the solutions that will get us there. This Earth Day, let us act boldly, innovate broadly, and implement equitably. It is going to take all of us!

Finally, the MGM Annual Survey for Afterschool and Summer Programs is LIVE! As you know, STEM Next has partnered with Public Profit to evaluate the Million Girls Moonshot as a whole to help support our data collection efforts. They are coordinating the distribution and analysis of this **national program level STEM survey**.

Complete the survey by 6/30 & get entered a \$100 gift certificate!



Girls Collaborative Project

HOW DO YOU

# IF/THEN<sup>®</sup>

Collection

Moonshot needs YOU to help us understand how to best support afterschool and summer programs.

Please join this national effort for afterschool and summer programs - in all 50 states - to share more about how they do STEM.

\*\*The survey will take 5-10 minutes max!



MILLION GIRLS MOONSHOT



These assets feature IF/THEN Ambassador and forest ecologist, Lindsey Rustad, and can be used in marketing, presentations, social media, and for conferences presentations.

- [Ambassador Profile](#) of Lindsey Rustad
- [Draw Her Life](#) of Lindsey Rustad
- [Salt Crystal Tree Activity](#) with Lindsey Rustad



These assets feature IF/THEN Ambassador and carnivore ecologist, Dr. Rae Wynn-Grant. They can be used in marketing, presentations, social media, and for conferences presentations.

- [Long profile](#) of Dr. Rae Wynn-Grant
- [On-the-job video](#) of Dr. Rae Wynn-Grant

These assets feature IF/THEN Ambassador and climate scientist, Dr. Victoria Herrmann. These can be used in marketing, presentations, social media, and for conference presentations.

- [Long profile](#) of Dr. Victoria Herrmann
- [STEM Journey Video](#) of Dr. Victoria Herrmann

**Don't know where to start in the IF/THEN Collection? Here are some tools to help you!**

- [IF/THEN Collection Video Tour](#)
- [Collection Scavenger Hunt](#)
- [User Guide](#)



**Video:** [Earth Day Math - YouTube](#) - This 8-minute video has a short Trivia game about our planet. Great way to introduce Earth Day using math facts.

# QUALITY IMPROVEMENT OPPORTUNITY

## Are you leading engineering activities in summer of 2022?

If you expect to be conducting an engineering camp or leading engineering activities for middle school youth this summer, you may be able to help with the Million Girls Moonshot (MGM) evaluation. **In exchange for your assistance, we will provide \$2,000 for program expenses and a \$1,000 stipend for the facilitator.** Learn more about the opportunity [HERE](#). Apply [HERE](#) by April 15, 2022.



**Are You Leading Engineering Activities in Summer of 2022?**

Million Girls Moonshot is looking to pilot an assessment with camps or programs engaging youth in engineering activities this summer.

[Apply Today!](#)

Eligible programs will receive \$3,000 for program expenses and facilitator stipend

**Apply by April 15, 2022**

 MILLION GIRLS MOONSHOT

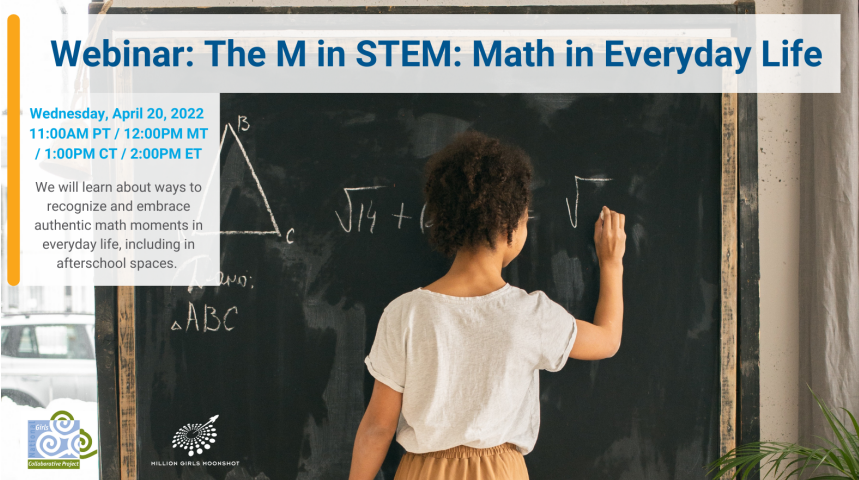
## FEATURED WEBINARS

### Engineering Mindsets - Math

- **Webinar: The M in STEM: Math in Everyday Life**

Wednesday, April 20, 2022 11:00AM Pacific / 12:00PM Mountain / 1:00PM Central / 2:00PM Eastern


This webinar will focus on ways math is prevalent and relevant in everyday life, including in afterschool spaces. We will learn about ways to recognize and embrace authentic math moments and activities to help engage afterschool youth in math. [REGISTER HERE](#)



**Webinar: The M in STEM: Math in Everyday Life**

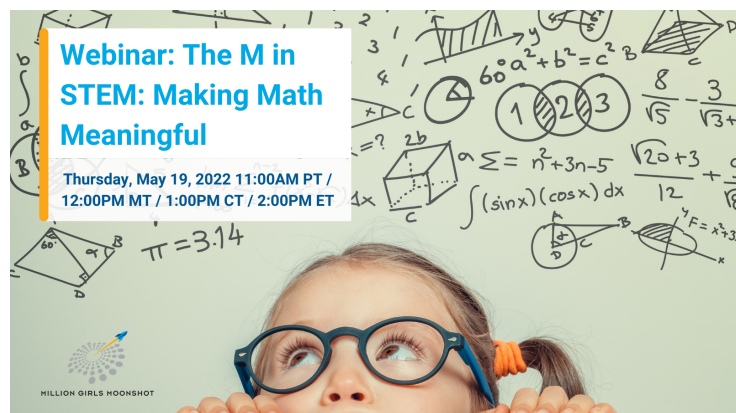
Wednesday, April 20, 2022  
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/ 1:00PM CT / 2:00PM ET

We will learn about ways to recognize and embrace authentic math moments in everyday life, including in afterschool spaces.

 MILLION GIRLS MOONSHOT



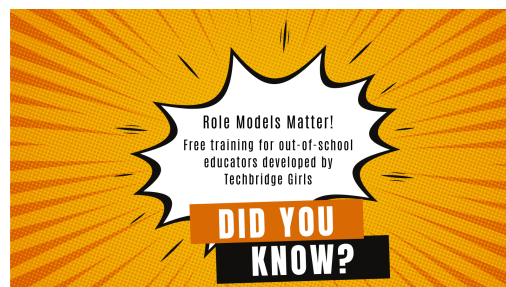
- Webinar: The M in STEM: Making Math Meaningful**  
 Thursday, May 19, 2022 11:00AM Pacific / 12:00PM Mountain / 1:00PM Central / 2:00PM Eastern  
 This webinar will focus on engaging and supporting youth in mathematics. We will learn from an AAAS IF/THEN® Ambassador who uses mathematics to positively impact society and share best practices and resources to help make the M in STEM meaningful and accessible in afterschool.  
[REGISTER HERE](#)



## Role Models And Mentors as an Equity Strategy

- Role Models Matters Training for STEM Volunteers**  
 Ready to train volunteers and role models in your Network, school, or afterschool program? [COMPLETE THIS REGISTRATION FORM](#) to gain access to the Role Models Matter training developed by Techbridge Girls.

*To promote this training, [click here](#) to access the Media Asset*



## QUALITY TRAININGS

### DOS Certification Training

The training process involves a two-day live webinar training, completion of video calibration exercises, a one-hour live calibration session, and successful completion of two practice observations in the field. PEAR staff offer live, webinar DoS trainings monthly and in-person training for state networks or organizations can be arranged as needed for an additional cost. PEAR staff provides ongoing technical assistance, quarterly data reports, and online data management support for all DoS observers for two years post-certification.

**Dates and times are:** April 20-21, 2022; 10am-4pm ET. The deadline to register is April 6.

[REGISTER HERE](#)





***ACRES is a nationally acclaimed coaching program that builds knowledge and skills so after school educators, librarians and anyone who works with youth in out-of-school settings can confidently facilitate Science, Technology, Engineering, and Math (STEM) experiences for youth. More information found [here](#).***



#### April Cohort: Ready, Set, STEM! & Asking Purposeful Questions

Are you ready to bring meaningful STEM learning into your program? This module offers educators who are new to facilitating STEM the opportunity to build supportive relationships with other educators while exploring the principles of STEM learning. This module combines an introduction to STEM facilitation with the skill of Asking Purposeful Questions. \*The expectation is that you will be live at all three sessions and an active member of this coaching cohort. Stipends are offered to participants who complete feedback surveys before and after a module.

**Cohort dates and times are:** Wednesdays April 27th, May 11 and 25th 10:00 - 11:30am EST

**[REGISTER HERE](#)**

#### April Cohort: Elevating Youth Voice and Choice

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.\*This ACRES skill and cohort is designed for participants who have ideally already done either Asking Purposeful Questions of Ready Set STEM.

**Cohort dates and times are:** Tuesday April 26th, May 10 and 14th 9:00 - 10:30am EST

**[REGISTER HERE](#)**

## **TRANSFORMATIVE PRACTICES**

### Equity and Inclusion

- **Toolkit:** [A Pathway to Equitable Math Instruction Toolkit | SABES](#) - Created to help educators develop an anti-racist, culturally responsive math practice. It offers “an integrated approach to mathematics that centers Black, Latinx, and Multilingual students in grades 6-8, addresses barriers to math equity, and aligns instruction to grade-level priority standards.
- **Article:** [Equity in Math Class: 5 Tips for Teachers - WeAreTeachers](#) - *Ways to Build Equity into Your Math Lessons* discusses how equity and social justice play a critical role in math instruction.

## Engineering Mindsets - Math

- **Activity Toolkit:** [Growing Math](#) - Provides ready-to-roll-out lessons and games combining math, agricultural science and Indigenous history and culture that can be easily used in classrooms, via hybrid models or through distance learning. The project will provide resources, curriculum, training and tech support to teachers and students in Grades 3-8 at schools in six states: Arizona, Minnesota, New Mexico, North Dakota, Oregon and South Dakota. For schools in the region, all participation and resources are supported through USDA funds.
- **Article:** [Critical Issue: Remembering the Child: On Equity and Inclusion in Mathematics and Science Classrooms \(ncrel.org\)](#) - The North Central Regional Education Laboratory (NCREL) addresses equity and inclusion in STEM classrooms as a critical issue in a paper that includes six effective practices for equity.

## Incorporating Role Models

*The following assets are free profile videos and photos of [IF/THEN Ambassadors](#). These can be used in marketing, presentations, social media, embedded on websites, during conferences, and more.*

- **Article:** [Incorporating the Stories of Women, People of Color, and LGBTQ+ Scientists Into the Physics Classroom](#) - Short article from NSTA about the contributions of women, people of color, and other diverse scientists to the field of Physics. Includes a link to lesson plans for lesson plans that could be adapted for K9-12.



## **NATIONAL ROBOTICS WEEK (APRIL 2-10)**

- **Role Model Video:** [Mission Unstoppable: Robots Learn How to Interact with Humans](#)
- **Role Model Video:** [Mission Unstoppable: Teaching Robots How to Dance](#) featuring IF/THEN Ambassador and roboticist, Catie Cuan

## **NATIONAL ENVIRONMENTAL EDUCATION WEEK (APRIL 18-22)**

- **Role Model Video:** [#SheCanSTEM](#) video featuring IF/THEN Ambassador and climate scientist, Dr. Victoria Herrmann
- **Role Model Video:** [Mission Unstoppable: Tracking Bears with Dr. Rae Wynn-Grant](#)
- **Posters:** [This is what a scientist looks like](#) of IF/THEN Ambassador and nuclear engineer, Dr. Rae Wynn-Grant. This poster can be used in your physical spaces to highlight an inspiring role model in nuclear engineering.

- **Student Activity:** Free activity sheet and accompanying video from GoldieBlox's Curiosity Camp series.
  - Curiosity Camp: [Recycled Plant Paper](#) activity sheet with the [I'm a Kid...Does Climate Change Affect Me?](#) video featuring IF/THEN Ambassador and climate scientist Kimberly Miner. This is one of many activity sheets and accompanying videos that can be found on the [IF/THEN Collection](#). These activity sheets and videos are designed to be plug and play for programs.

## Families

- **Website:** [Math Communities](#) – Students, parents, and educators coming together to play with math! Math Communities creates a virtual community that provides free access to joyful collaborative activities designed by professional mathematicians and math educators for K-12 students, educators, and families. There are lots of ways to communicate with other folks interested in math.

## STEM Transitions, Handoffs, and Coordination

- **Toolkit:** [Brokering Youth Pathways: A Toolkit for Connecting Youth to Future Opportunity](#) from the Hive Research Network - This toolkit shares ways in which various out-of-school educators and professionals have approached the challenge of brokering. We provide a framework, practice briefs and reports that focus on a particular issue or challenge and provide concrete examples, as well as illustrate how our partners worked through designing new brokering routines in partnership with our research team.



# April's STEM Spotlight

## You're Invited

Please join us for the next U.S. Department of Education STEM Webinar:

**Learning with NASA is Out of this World Inspiring Young Learners to Seek STEM Careers.**

**April 26, 2022 1:00-2:30 PM ET**



## [Register Here](#)

The National Aeronautics and Space Administration (NASA) has a long history of inspiring American students to reach for the stars. By engaging students in real life design challenges, teachers provide learning opportunities that have lifelong impacts. NASA's Artemis mission is inspiring students, in partnership with LEGO Education, by offering free Build to Launch Curriculum to schools nationwide, giving students a chance to learn from and interact with our nation's top aeronautics leaders as they progress towards a first launch in 2022. This exciting mission offers students meaningful, hands-on experiences that aim to inspire the STEM workforce of the future. Please join the U.S. Department of Education and NASA to learn more about the Artemis mission, their collaboration with LEGO Education, and how to spark joy in your classrooms.

## New Jersey artist Valentine Aprile's artwork is going to the moon!

[Valentine Aprile](#) grew up in New Jersey and spent her early creative years in Philadelphia. An artist of multiple disciplines, she has won varied arts awards for painting, performance, and aerial dance theater. Her work has been shown in galleries and stage venues throughout the country and will now be featured on the moon!

[The Lunar Codex](#) is an archive of contemporary art, books, music, poetry, and film, launched via NASA's Artemis partners to the Moon.



## Coollest Projects Global

Bring your tech ideas to life and share your projects with the world! Project registration closes **May 11th**.

### [Register Here](#)

[Coolest Projects online](#) is a celebration of creativity and innovation where young people can showcase what they've made with technology. This is a FREE and virtual event for youth under 18 to share their coding creations with a global audience.

Coolest Projects is an initiative run by the Raspberry Pi Foundation, and we welcome projects of all levels and stages. The project doesn't have to be finished! Project registration closes on May 11, 2022, and we are hosting an online showcase and live-streamed ceremony, meaning young creators can join from anywhere in the world! Check out [last year's showcase](#) for inspiration!



### [She Can STEM](#)

She Can STEM celebrates how messy, experimental and hands-on science, technology, engineering and math can be. Meet role models who are changing the world with STEM and begin your own STEM journey today.

**She Can STEM. So Can You.**

## ACTIVITIES FOR PROGRAMS

- **Activity Plans for Earth Day:** [Math and Climate Change](#) - Teach about the climate by understanding the math. This website has a variety of k-12 activities that teach and encourage youth to care for the planet.
- **Activity:** [Piles of Paper](#) - In this activity, learners keep track of how much paper the group uses in a week. Build awareness of paper waste, while strengthening measurement and estimation skills. Age range 4-14.
- **Activity:** [We're on the Rise!](#) - Learners build a simple aneroid barometer to learn about changes in barometric pressure and weather forecasting.

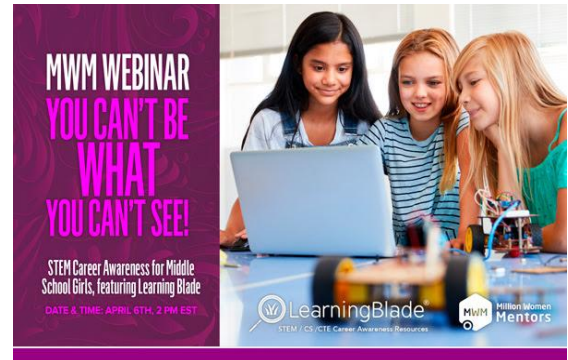
- **Activity:** [Reason for the Seasons](#) - This activity has a strong math element as learners will use a protractor to estimate the angle of the sun in a mode age range 8-14.
- **Activity:** [Sustainable Grazing](#) - Using math and problem solving skills, they will learn how many animals can live on their imaginary 100 acre ranch. Age range 8-18

## **ADDITIONAL PROFESSIONAL DEVELOPMENT**

- **Webinar: You Can't Be What You Can't See! STEM Career Awareness for Middle School Girls, featuring Learning Blade**  
**Wednesday, April 6 from 2:00-3:00 pm ET**

Join us to hear from Learning Blade's creator and President Sheila Boyington, who is also the MWM National States Chair, as well as actual Learning Blade users and state education leaders. "You Can't Be What You Can't See!" Career exposure early in the pipeline is key to giving students an opportunity to learn about all the possible career paths they can take. This is especially important when it comes to

encouraging more girls and women to pursue STEM/CS/CTE-related careers. Hear how the Learning Blade system helps support educators building the future STEM/CS/CTE workforce. [REGISTER HERE](#)



- **Webinar: Families & STEAM: Strengthening Relationships & Building Partnerships**  
**April 6th 1:00 - 2:00 pm PT / 4:00 - 5:00 pm ET**

Join NGCP and Linda Kekelis of STEM Next as we explore ways to strengthen relationships and build partnerships with families to create equitable and accessible STEAM learning for youth. Family engagement in STEAM can come in many forms—STEAM nights, science fairs, family newsletters, etc. But how can you move into a deeper partnership with families in the service of STEAM learning? In this webinar, we'll hear from practitioners and researchers who are working to deepen engagement with youth and their families to intentionally support equity in and access to STEAM opportunities. You will hear about strategies, examples, and current research, and will have the opportunity to ask questions. [REGISTER HERE](#)

- **Webinar: STEAM Resources for Libraries May 17th 11:00 am - 12:00 pm PT / 2:00 - 3:00 pm ET**

Libraries are instrumental in bringing high-quality STEAM experiences to their communities. Join us to learn about resources and opportunities specifically designed for libraries. In this webinar, we are joined by representatives from NASA's Universe of Learning, The National Citizen and Community Science Library Network, and Leap into Science who will share about resources and opportunities that support STEAM programming at libraries. [REGISTER HERE](#)



# MIZZEN BY MOTT MOONSHOT CONNECTION

The [Mizzen By Mott app](#) delivers inspiring and engaging activities that spark learning in young people. Supported by the Mott Foundation, Mizzen is available at no cost to afterschool professionals! Encourage partners to download the Mizzen By Mott app to access STEM activities at your finger-touch! You'll find it in Mizzen [here](#).



## Featured Activities & Playlists

- **Playlist: Helping the Planet for 3rd - 5th Grade at Home** - This playlist allows younger students to go outside and learn about ways to help the environment.
- **Playlist: Outdoor Activities for Middle School** - This playlist is all about getting outside and trying some STEM outdoors for middle school youth. Activities include building a mini greenhouse, egg drop and making a kite.
- **Module: S.INQ Up Earth and Space** - Earth and Space is an inquiry and exploration-based curriculum that uses hands-on activities focused on the relationship between the earth, the solar system, and human impacts on our global environment. Best for grades 6-8th.