

MILLION GIRLS MOONSHOT

During the month of May, the Million Girls Moonshot celebrates Asian/Pacific American Heritage Month (AAPI Heritage Month). Our country owes a lot of our success to many hardworking, innovative AAPI computer scientists, engineers, and other STEM professionals. These assets will support Networks and program providers as they pay tribute to and highlight a host of AAPI professionals who have contributed to the STEM fields.

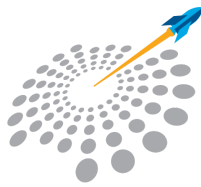
## [Million Girl Moonshot's Annual Survey for Afterschool and Summer Programs is LIVE!](#)

The Moonshot seeks to re-imagine who can engineer, who can build, who can make. It will inspire and prepare the next generation of innovators by engaging one million more girls in Science, Technology, Engineering, and Math (STEM) learning opportunities through afterschool and summer programs over the next 5 years.

Every state is asking afterschool and summer programs to share more about how they do STEM. Please join this important effort! Your answers will help us to better understand how we can best support afterschool and summer programs statewide. The survey should take 5-10 minutes to complete.

**\*Everyone who responds will be entered into a drawing to win one of ten \$100 Visa gift cards.**

**[Click here to take the survey!](#)**



MILLION GIRLS MOONSHOT

## Inventors and Inventions

**Printables:** [Printable Famous Female Inventors and their Inventions for Kids \(123homeschool4me.com\)](https://123homeschool4me.com) - Learn about famous scientists and inventors and their inventions. This free downloadable, printable booklet has lessons on inventing.

**Article/Blog:** [5 Tips to Inspire an Innovative Mindset](#) - Whether you're carving your path to entrepreneurship or have found yourself in an innovation rut, here are five strategies to help you develop an innovative mindset and get your mental gears turning.

**Article:** [Why Inventing For Diversity And Inclusion Is So Essential](#) - What would the world look like if there was more diversity and inclusion in inventing? Over the past few years, academic research has identified significant disparities in the rate at which people obtain patents. Women (especially African American and Hispanic women), people of color, and individuals from lower income families obtain patents much less often than their counterparts.

### **For AAPI Heritage Month**

These assets feature IF/THEN Ambassador and biologist, Dr. Claire Meaders, and can be used in marketing, presentations, social media, and for conferences presentations.

- [Ambassador Profile](#) of Dr. Claire Meaders
- [Long Profile](#) of Dr. Claire Meaders
- [Short Profile 1](#) of Dr. Claire Meaders

**Role Model Profile Videos:** The below assets are free profile videos of AAPI IF/THEN Ambassadors:

- [Long Profile Video](#) of Samantha Porter
- [On-the-Job Video](#) of Samantha Porter



**IF/THEN**  
*Collection*



**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](#)



MILLION GIRLS MOONSHOT

## FEATURED WEBINARS

### Engineering Mindsets - Math

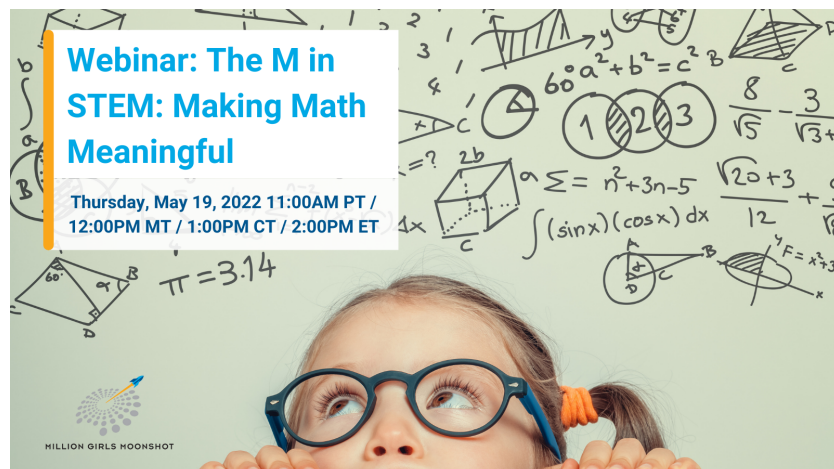


- **Webinar: The M in STEM: Making Math Meaningful**

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](#)



- [Webinar Recording](#): **The M in STEM: Math in Everyday Life**

### Role Models And Mentors as an Equity Strategy

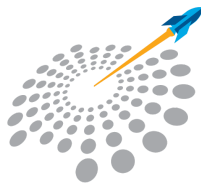
- **Role Models Matters Training for STEM Volunteers**

Ready to train volunteers and role models in your Network, school, or afterschool program?

[COMPLETE THIS REGISTRATION FORM](#) to gain

techbridge girls™  20  
Celebrating 20 Years





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access to the Role Models Matter training developed by Techbridge Girls.

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

## QUALITY TRAININGS

PEAR staff provides ongoing technical assistance, quarterly data reports, and online data management support for all DoS observers for two years post-certification.



### **PEAR- 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 training 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:**

- July 13-14, 2022; 10am-4pm ET. (register by June 29)
- October 19-20; 10-4pm ET. (register by October 5)

[REGISTER HERE](#)

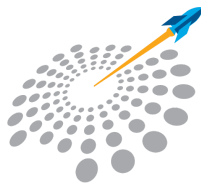
### **Recertification Training for DOS Observers**

Please note that observers that have been certified for two or more years need to complete recertification to make sure they are continuing to use the tool reliably. **Dates and times are:**

- August 9, 2022; 10-1pm ET (register by July 26)
- November 8, 2022; 10-1pm ET (register by October 25)

***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](#).***





## MILLION GIRLS MOONSHOT

### May Cohort: Asking Purposeful Questions

Questions are the beginning of a path towards 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 new summer 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. Stipends are offered to participants who complete feedback surveys before and after a module.

**Cohort dates and times are:** 10:00 to 12:00 EST on the following Thursdays  
5/26, 6/9, 6/23; [REGISTER HERE](#)

### June Cohort: Asking Purposeful Questions

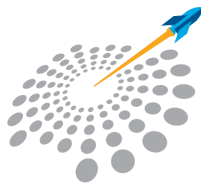
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**Cohort dates and times are:** 3:00 to 5:00PM EST on the following Wednesdays  
6/15/2022, 6/29/2022, 4/20/2022; [REGISTER HERE](#)

### June Cohort: Modeling Engineering Practices

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. Asking Purposeful Questions is a prerequisite to this skill. \*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:** 1:00 to 3:00 EST on the following Thursdays  
6/17/ 2022, 7/1/2022, 7/22/2022; [REGISTER HERE](#)



MILLION GIRLS MOONSHOT

### July Cohort: Asking Purposeful Questions

Questions are the beginning of a path towards 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 new summer 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. Stipends are offered to participants who complete feedback surveys before and after a module.

**Cohort dates and times are:** 10:00 to 12:00 EST on the following Tuesdays  
7/26/ 2022, 8/9/2022, 8/23/2022; [REGISTER HERE](#)

## TRANSFORMATIVE PRACTICES

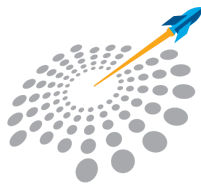
### Equity and Inclusion

- **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.
- **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.

### Engineering Mindsets

- **Network Spotlight:** [Engineering Mindset — Alaska Afterschool Network \(akafterschool.org\)](#)
- **Network Spotlight:** [Getting Started with "Engineering Mindset" in Afterschool STEM Programs - Vermont Afterschool](#)
- **Network Spotlight:** [Engineering Mindset - HAWAI'I AFTERSCHOOL ALLIANCE \(hawaiiiafterschoolalliance.org\)](#)





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## 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.

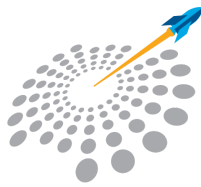


## ADDITIONAL PROFESSIONAL DEVELOPMENT

- **LIVE 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](#)
- **Webinar Recording:** [NGCP Archived Webinar: Families & STEAM: Strengthening Relationships & Building Partnerships](#) - 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.

## 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.



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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.

## Role Models in STEM

- [Meet Kelly Korreck](#)
- Kelly Korreck's [STEM Journey](#)
- Click [here](#) for more assets featuring Kelly Korreck

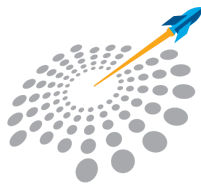


- [Meet Sydney Hamilton](#)
- [On-the-Job](#) with Sydney Hamilton
- Click [here](#) for more assets featuring Sydney Hamilton

- [Meet Jasmine Sadler](#)
- Jasmine Sadler's [STEM Journey](#)
- [On-The-Job](#) with Jasmine Sadler

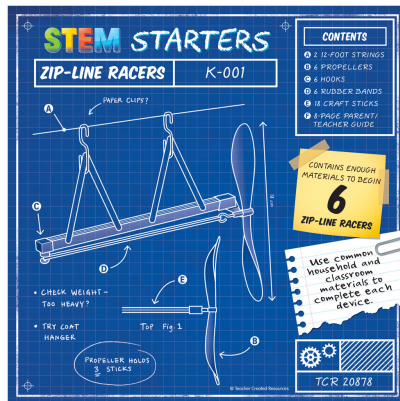






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## May's STEM Spotlight



### Zip-Line Racers

This Zip-Line Racer activity kit challenges students to create a propeller-powered device that travels along a string. The essential pieces—propellers, rubber bands, craft sticks, and string—are provided; it's up to the young scientists to determine the best materials to use in order to effectively propel their racer.

[Teachercreated.com](http://Teachercreated.com)

### Bacteria Growth Kits

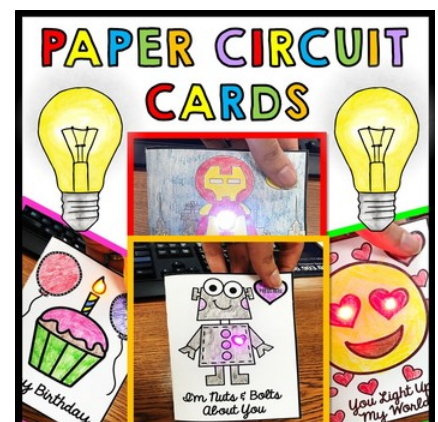
- Detect bacteria on household or school objects.
- Detecting bacteria on body parts.
- Test the 5 second rule.
- Test before/after washing experiments with water or cleaning agents.

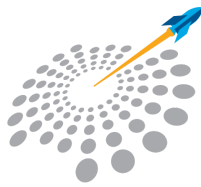


### LED Card Design

#### Supplies:

- LED Lights
- Lithium Batteries
- Copper Tape
- Card Templates (Cardstock paper)
- Tape
- Coloring supplies





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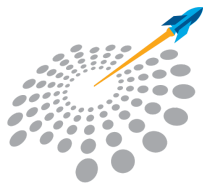
## ACTIVITIES FOR PROGRAMS

- **Activity:** [After-School Science PLUS](#) - Download *Building with Wonderful Junk* and take the challenge! Build a bridge or a platform that meets a set of requirements and test it. Challenge the kids to add to the activity (For example build a bridge that will hold a student up 6 inches from the floor).
- **Activity:** [Design Squad: Invent it, Build It: Making the world a better place](#) - Research tells us that when kids think their activity helps others it increases engagement. Activities encourage kids to think of themselves as inventors, discuss inventing and engineering, and dispels the stereotype that engineering is boring.
- **Activity:** [10 Simple Yet Thrilling Invention Ideas For Kids](#) - These are highly engaging activities for students including directions and videos. These activities use materials that are easy to find and can be done in a family setting.
- **Activity:** [8 Best Invention Ideas for Children](#) - Try some fun and silly inventions that are very engaging: These activities are free, easy to set up, and use materials familiar to kids.
- **Activities:** [17 Innovative Mathematics Projects that Inspire Students | by Ali | However, Mathematics](#) - A list of some unique, hands-off, and fun mathematical projects for any blooming mathematician.

## 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](#).





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#### 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.