



January 2023 Assets For the Field

Happy New Year! January is [National Mentoring Month](#) - a national celebration of the role models and mentors that have made monumental differences in the lives of so many. Listed as one of Moonshot's four transformative practices, role models and mentors play a significant role in showing young women what is possible for them in STEM.

"A mentor is someone who allows you to know that no matter how dark the night, in the morning, joy will come. A mentor is someone who allows you to see the higher part of yourself when sometimes it becomes hidden to your own view." –Oprah Winfrey



Million Girls Moonshot monthly asset packages are curated to suit the needs of the **Field — partners and program providers and staff**. The following assets are categorized by: (1) no cost professional development, (2) no cost training on curriculum, (3) no cost activities, and (4) resources focused on the transformative programming areas. We ask that Networks share, lift and lay these assets in all their distribution efforts to the field. This month's [media assets](#) are also linked within sections below.

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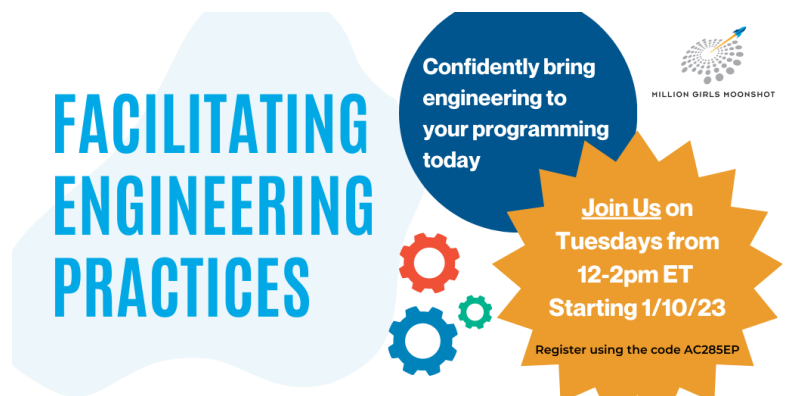
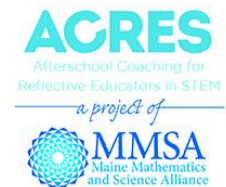
NO COST PROFESSIONAL DEVELOPMENT

 To promote these professional development opportunities, [click here](#) to access the Media Assets

ACRES Training Cohort: [Facilitating Engineering Practices](#)

Dates: 12:00 PM-2:00 PM EST on the following Tuesdays: 1/10/2023, 1/24/2023 & 2/7/2023

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, you'll gain first-hand experience with engineering by solving a design problem. As a participant, you'll 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. Register: Use the code AC285EP



ACRES Training Cohort: [Asking Purposeful Questions](#)

Dates: 10:00 AM-12:00 PM EST on the following Mondays: 2/13/2023, 2/27/2023 & 3/13/2023

Questions begin 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 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. Register: Use the code AC227PQ



Click2Computer Science Virtual Workshop: Developing Computational Thinking in Afterschool

January 17th 1:30-2:30 PM ET



Computational thinking builds problem-solving strategies to help youth prepare for their future. Computational thinking can be a game changer for young people when they learn problem solving skills with computers. This virtual workshop focuses on practice strategies for developing a computationally rich environment in afterschool – with or without computers – and resources so you can get started right away.



Quality STEM Webinar: Dimensions of Success Program Planning

Tool January 23rd and 25th 10:30 - 12:-00 PM PT 1:30 - 3:00 PM ET (register by January 5, 2023)

The DoS-PPT is a free resource for facilitators of out-of-school and in-school STEM learning programs. The planning tool provides a brief introduction to each dimension of the DoS framework, sample videos, and examples to guide the use of DoS when preparing activity plans for youth. During this training, participants will:

1. Develop high-level understanding of the DoS Framework, dimensions of quality
2. Working with the PPT learn how to plan high quality STEM learning experiences using the DoS Program Planning Tool
3. Work with the newly revised DoS Program Planning Tool to identify and plan for high-quality program and activity planning practices.



Click2Engineering Winter Community of Practice February 1st, 15th and March 1st and 15th
4:00-5:30 PM ET



The Click2Engineering community of practice (CoP) introduces out-of-school time educators to the basics of engineering and leading engineering activities with youth. The CoP is organized around the 10 Practices for an Engineering Mindset, and includes hands-on engineering activities, developing engineering experiences for youth, and learning skills to facilitate engineering practices. The CoP sessions are as follows: 1) Using a Systematic Engineering Design Process; 2) Work in Teams; 3) Identify as Engineers; 4) Equity.



Click2Engineering Virtual Workshop: Connecting Computational Thinking and the Engineering Mindset February 21st 11:30 AM-12:30 PM ET

Out-of-school programs have the capacity to encourage youth to engage in computational thinking and practices that support an engineering mindset. This virtual workshop explores how the practices that support computational thinking intersect and support the practices for developing and engineering mindset, and how both provide problem-solving strategies that help prepare youth for their future.



NO COST TRAINING ON CURRICULUM



To promote these no cost training opportunities, [click here](#) to access the Media Assets

ENGAGING GIRLS IN HANDS ON ENGINEERING with Scientific Adventures for Girls February 21st 9:00-10:15 am PST / 12:00-1:15 pm EST

Join [Scientific Adventures for Girls](#) (SAfG) in a three part curriculum training series focused on their **no cost, open-sourced curriculum** aimed to engage and excite more girls in engineering and design.

In this first session, participants will learn strategies to:

1. Build a high quality afterschool STEM program specifically for girls in K-6th grades
2. Plan for inquiry and components of the engineering design process — hands-on planning, creating, testing, redesigning, and reflection
3. Design a youth centered environment with a strong SEL - STEM component



Participants will leave the series with four engineering design projects and a materials list that they can implement with youth immediately. Participants will also be given access to additional engineering and design projects through SAfG. [REGISTER FOR THE FIRST SESSION HERE.](#)

February 28th 9:00-10:15 am PST / 12:00-1:15 pm EST

Join [Scientific Adventures for Girls](#) (SAfG) in a three part curriculum training series focused on their **no cost, open-sourced curriculum** aimed to engage and excite more girls in engineering and design.

In this second session, participants will walk through **two specific, no cost**, hands on Product Design Lessons. In the first lesson, “Light Up Your Art”, students will learn about circuits and use that knowledge to design a piece of light up art or greeting card. In the second lesson, “Your Cookies Have Shipped”, students will gain understanding of product packaging & design and work to create packaging for cookies that will pass three stress tests. They will also learn about constraints during the design process having limited “money” for materials and limited materials supply - incorporating math concepts into the lesson. Participants will leave this session with two specific Product Design Lessons with a materials list that can be implemented immediately with youth. First session recording here. **ZOOM LOGIN INFORMATION GIVEN AFTER ATTENDING FIRST SESSION.**

March 7 9:00-10:15 am PST / 12:00-1:15 pm EST

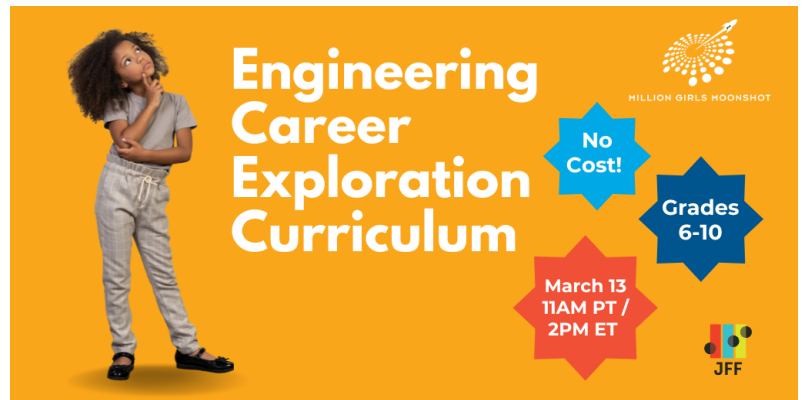
Join [Scientific Adventures for Girls](#) (SAfG) in a three part curriculum training series focused on their **no cost, open-sourced curriculum** aimed to engage and excite more girls in engineering and design.

In this third session, participants will walk through **two specific, no cost**, on Product Design Lessons. In the first lesson, the “Toy Design Challenge,” students will have to design and prototype a toy that can effectively pass through a “maze” and ring a bell. This lesson will focus on redesign and testing. For the second lesson, “Bionic Hand”, students will be supported by the teacher to understand the basic design of a bionic finger and use that experience to create their own bionic hand that can function during testing at the end of the lesson. Participants will leave this session with two more specific Product Design Lessons with a materials list that can be implemented immediately with youth. First session recording [here](#), second session recording [here](#). **ZOOM LOGIN INFORMATION GIVEN AFTER ATTENDING FIRST SESSION.**

Possible Futures Possible Selves: Engineering Module March 13th

11:00-12:15 pm PST / 2:00-3:15 pm EST

Join [Jobs for the Future](#) (JFF) as they unpack Possible Futures, a **no cost** career exploration curriculum for learners in grades 6 through 10, consisting of six units that help learners: develop essential employability skills, explore STEM occupations, and better understand themselves and the world of work. In this webinar, participants will dive into the Engineering unit — a series of twelve lessons that help youth explore the role of engineering professionals as they tackle engineering challenges based on relevant, real-world problems. Participants will leave with everything you need to implement the lessons with youth: digital copy of the 12 lessons, facilitator guide, lesson materials, and youth worksheets. [REGISTER HERE.](#)



NO COST ACTIVITIES



To promote these no cost activities, [click here](#) to access the Media Assets

Activity Playlist

Looking for a sequence of activities you can implement in your afterschool program today? Say goodbye to googling or searching on Pinterest. Use the following activities in sequence to support youth in building an engineering mindset. **Note:** The following two sets of activities last 5-8 sessions. The first requires hardware and the second does not in case your program does not have access.

1. **Lesson 1-3:** [Educator Guide: Explore Mars With Scratch | NASA/JPL Edu](#) Grades 3-8, *requires hardware, multiple sessions* - This activity is divided into multiple sections. The first section is an introduction to setting up a Mars rover game using the Scratch

programming language. It can be completed as a stand-alone lesson, or in conjunction with several other sections, depending on student and teacher familiarity with Scratch and block-based programming languages.

2. **Lesson 4-6:** [Educator Guide: Mars Rover Driver Board Game | NASA/JPL Edu](#) Grades 3-8 *No hardware required, multiple sessions.*

In this board-game lesson, students play the roles of a Mars rover, scientist, and engineer to make exploration decisions and accomplish science goals. Students learn to write basic command sequences, which lay the groundwork for developing computer programming skills. Includes a variety of videos and other resources to learn about computing and Mars.



Looking for EVEN More Activities at NASA?! Activity Toolkit: [Engineering is Elementary's NASA Partnership free units](#) - A suite of free NASA-funded STEM resources for students in grades 3-8. All resources are research-based and classroom-tested. They are designed to support students' understanding of space, while helping them see themselves as capable problem solvers.

Recruit STEM Experts as Volunteers!



**RECRUIT THE
VOLUNTEERS
YOU NEED**

Register, for free, and
connect with the
largest audience of
committed STEM
professionals today!

Less than 50% of high school girls know a woman in a STEM career. Let's change that - recruit STEM professionals to support the youth you serve today!

VolunteerMatch attracts more than 1M site visits each month, and is easily one of the best ways to find strong role models for the youth you serve.

The Moonshot has partnered with VolunteerMatch to connect STEM experts with OST programs! Create a free VolunteerMatch account and post volunteer opportunities to work with your youth today! [Register here](#) to find role models and mentors in STEM.



More graphics for your newsletters, social media and more and [HERE](#).

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

- **Mizzen Activity:** Beach Ball Math
- **Mizzen Playlist:** STEM Activities for 9-12th Grades - Students engage in science and engineering activities that contain accessible materials.
- **Mizzen Playlist:** STEM Activities for K-5th Grade in Small Groups - This playlist is a great mix of engineering and science activities that are easy and fun for small groups of kids K-5th.



NO COST ADDITIONAL RESOURCES



To promote these no cost resources, [click here](#) to access the Media Assets

- **Educator Guide:** [Educator Guide: STEM Activities for Families | NASA/JPL Edu](#) Easy to implement engaging activities for families (as a follow up to after school activities.)
- **Resources for Mentoring Month**
 - [Career Girls](#) - A comprehensive video-based career exploration tool for girls featuring diverse women STEM role models. It's free to use and contains 16,000 videos, as well as career quizzes and resources.
 - [FabFems](#) - A collection of resources for role models, educators, and parents to inspire and educate girls about science, computer science, technology, engineering, and mathematics courses and careers. The website includes [Resources for Role Models](#) and [Resources for Girls](#).
 - [National Mentoring Resource Center](#) - A collection of mentoring resources including handbooks, curricula, manuals, and other resources that practitioners can use to implement and further develop program practices.
 - [Techbridge Role Model Training and Resources](#) - These resources are for adult or near-peer role models to develop skills for engaging girls and historically excluded youth in STEM through guides, videos, and questions.

ASSETS FROM THE IF/THEN® COLLECTION

These assets feature IF/THEN® Ambassadors Afua Bruce, Computer Engineer and Allison Fundis, Ocean Explorer, and can be used in marketing, presentations, social media, and conference presentations.



- [Ambassador Profile, Will Computers Take Over the World?! Make a Change with Data Activity](#), Afua Bruce
- [Ambassador Profile, On the Job, Bottled Ocean Waves Activity](#), Allison Fundis



ABOUT THE MOONSHOT

www.milliongirlsmoonshot.org

Please feel free to contact me with any questions. Also available to provide support are Sabrina Gomez (ms.sabrina.gomez@gmail.com), Andria Parrott (aparrott@stemnext.org) or Victoria Wegener.