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Your December STEAM Girls' Collaborative Newsletter!

1 message

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Fri, Dec 1, 2023 at 9:30 AM

New York STEAM Girls' Collaborative Newsletter

December 2023



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December Webinar: Connect with Girls Who Code



Computer science skills are some of the most sought-after and highest-paying in the US job market, with demand growing 3X the national average. **In 1995, 37% of computer**

scientists were women. Today, only 24% of computer scientists are women.

This is where Girls Who Code steps in: We are on track to close the gender gap in technology by 2030 through our **100% free** programs, resources and curricula for students and their communities.

Join Girls Who Code for a presentation in partnership with the New York State Network for Youth Success, where we will provide an overview of Girls Who Code's educational philosophy and impact, and introduce our free, coeducational Clubs Program.

We'll also discuss the ways that we can directly support communities in growing their clubs, building their networks, and engaging with students at all levels of coding. We hope to see you there!

When: December 12, 2023

Time: 3:15-4:15

Where: Via Zoom

[Click here](#) to register.

DiscoverE Future City Competition



Do things that engineers do, students build cities of the future.

Using the Engineering Design Process (EDP) and project management skills, students showcase their solutions to a citywide sustainability issue. This year's challenge asks students to build 100% electrically powered city with energy generated from sources that keep your citizens and the environment healthy and safe.

Want to learn more about the future city competition, [click here](#) to find out what students get from this engineering competition.

Register [here](#) for the Future City Competition.

Surprisingly STEM Video Series



Surprisingly STEM is a video series that highlights exciting and unexpected careers at NASA. This series is designed to inform students about the broad range of career opportunities at NASA – outside of the typical associations of rocket scientists and astronauts – and to break down perceived barriers for working at the agency.

- Monthly Release of new prerecorded 5 minute career episode
- Associated STEAM Activities
- Monthly Live Session with NASA expert to answer Student Questions

December 2023 - Marine Biologists

NASA's Kennedy Space Center is known for its launch pads, rocket launches, and cutting-edge technology—it's also a national wildlife refuge! NASA has a team of biologists whose mission is to protect and preserve threatened and endangered species living near launch sites. Biologists Eric Reyier, PhD, and Bonnie Ahr share how their ecological work contributes to the agency's larger mission and how they personally ended up on a boat in the Florida wetlands doing exciting work for NASA.

[View the Episode](#), [Explore the Activity](#), [Register for the live Q&A on December 6 at 5pm](#)

[CHECK OUT THE FLYER HERE](#)

Terra NYC STEM Fair

2024 NYC STEM Fair Application is open!

The 2024 Terra NYC STEM Fair application is now open! The Terra NYC STEM Fair is a unique platform, as it is the only student STEM research exhibition event in New York City affiliated with the Regeneron International Science and Engineering Fair (ISEF). Winners of this fair will have the chance to represent the region at the Regeneron ISEF, where they will compete with 1,600 students from around the world for nearly \$9 million in awards, prizes, and scholarships.



Terra NYC participating students have the chance to receive:

Awards and cash prizes: Not only will they receive recognition for their efforts, but they will also have the chance to win cash prizes, which can further support their scientific endeavors. For example, The NYU Tandon School of Engineering is sponsoring cash awards for winning projects and the Office of Naval Research.

A network of peer and professional STEM researchers: Interacting with fellow STEM enthusiasts and researchers will enable your students to expand their horizons, learn from others, and create lasting connections within the scientific community.

Application and project plan feedback: We are here to help your students refine their applications and guide them through the process.

For teachers with students applying, we encourage you to register [HERE](#). This will enable you to track your student's progress and support them throughout the application process.

The application period is open until December 20, 2023. If you have any questions or need assistance, please don't hesitate to reach out to us at tncfair@terraed.org. Tips and updates are being shared daily on social media. You can follow [@thefairnyc](#) on Instagram and Facebook.

Million Girls Moonshot Mini Grant

\$1,000 Grants for programs with engineering!

The Million Girls Moonshot wants to engage one million girls in engineering practices. The Network for Youth Success will award ten (10) up to \$1,000.00 mini grants to programs who need support in order to engage girls and young women in engineering practices.

Mini-grants are meant to primarily serve girls, but can also serve other youth. Programs that serve youth, including girls, can apply. Funds must be spent by March 31st, 2024. There will be a short report required, showing how the funds were spent on engaging girls in engineering practices.

Who Should Apply: Any K-12th grade youth-serving program or organization, such as before and afterschool, community centers, schools, community schools, etc. that are interesting in doing or currently doing engineering programming with girls can apply. Programs must serve girls in some capacity, but do not have to only serve girls. If you are unsure if you qualify, please email [Timothy Fowler](mailto:Timothy.Fowler).

Amount: up to \$1,000.00 per program. These funds can be used for any expense related to the project. Funds must be spent by March 31, 2024.

Application Deadline: Friday, December 15th, 2023 at 1 PM ET

[Click here to apply](#)

Power to Explore Student Challenge

Engineer Challenges for students

The third Power to Explore Student Challenge from NASA is underway.

The writing challenge invites K-12th grade students in the United States to learn about radioisotope power systems, a type of nuclear battery integral to many of NASA's far-reaching space missions, and then write an essay about a new powered mission for the agency.

For more than 60 years, radioisotope power systems have helped NASA explore the harshest, darkest, and dustiest parts of our solar system and has enabled many spacecrafts to conduct otherwise impossible missions in total darkness. Ahead of the next total solar eclipse in the United States in April 2024, which is a momentary glimpse without sunlight and brings attention to the challenge of space



exploration without solar power, NASA wants students to submit essays about these systems.

Entries should detail where students would go, what they would explore, and how they would use the power of radioisotope power systems to achieve mission success in a dusty, dark, or far away space destination with limited or obstructed access to light. Submissions are due Jan. 26, 2024.

Judges will review entries in three grade-level categories: K-4, 5-8, and 9-12. Student entries are limited to 250 words and should address the mission destination, mission goals, and describe one of the student's unique powers that will help the mission.

One grand prize winner from each grade category (three total) will receive a trip for two to NASA's Glenn Research Center in Cleveland, to learn about the people and technologies that enable NASA missions. Every student who submits an entry will receive a digital certificate and an invitation to a virtual event with NASA experts where they'll learn about what powers the NASA workforce to dream big and explore.

[Click here](#) for more information and to submit your entry.

LEARN ABOUT NUCLEAR "BATTERIES" THAT POWER SPACE EXPLORATION AND DREAM UP A NEW SPACE MISSION

If you are a 9-12th grade student in the United States, your challenge is to research past and future impacts of climate-related hazards in your community, including drought, wildfire, flooding, and extreme heat, then develop a proposed action to help build a more resilient community. Your entry must be original and include a written explanation of your proposed climate action (200 words max) and an image (max 3GB) of a "poster" that supports your climate action. The poster can be a digital design or a photo of a hand-made poster. Your climate action should explain at least one way your community can prevent, withstand, respond to, or recover from a climate-related event. The grand prize winner will present their poster at the [Innovations in Climate Resilience Conference](#) in Washington, D.C., and receive a \$5,000 STEM grant for a U.S. nonprofit organization, public library, or public school. The 2nd - 5th place finalists will receive a \$1,500 STEM grant for a U.S. nonprofit organization, public library, or public school.

Students are encouraged to use these five "steps to resilience" to guide their entry development process:

- **Understand Exposure & Climate Hazards** - What is the normal climate for your community? What is changing or likely to change in your local climate?
- **Assess Vulnerability & Risk** – What aspects of your community (e.g., roads, parks, schools, businesses) will be affected by a climate hazard?
- **Investigate Options** – Brainstorm potential actions to help build a more resilient community. Your climate action could be a technology solution, a change of behavior, a school or community program, a response plan, or more.
- **Prioritize & Plan** – Develop a plan to implement your proposed climate action.
- **Take Action** – This student challenge is asking for proposed climate actions. Actual implementation of your proposed climate action will not be judged; however, we encourage students to take steps in your community, whether big or small, to make your climate action happen!

The grand prize winner will present their poster at the Innovations in Climate Resilience Conference in Washington, D.C., and receive a \$5,000 STEM grant for a U.S. nonprofit organization, public library, or public school. The 2nd - 5th place finalists will receive a \$1,500 STEM grant for a U.S. nonprofit organization, public library, or public school.

[Click here](#) for more information and to submit your entry.

Chat with Change Makers

DiscoverE

Invite Your Students to a Live Q&A with Jay Abbott!



Get excited to hear from the latest Change Maker, field engineer, Jay Abbott on December 7th. Students will hear about Jay's work with drones and laser scanners on complex projects in the minerals and metals industry!

Register now to join Kavya and Jay live to ask questions, hear stories, and learn about Jay's career in engineering!

Register [here](#). Check out the other month Q&A chats [here](#).

Computer Science Education Week

December 4-10

Next week from December 4-10 is Computer Science Education Week. We encourage you to celebrate CSEd Week and have provided some helpful resource with computer science focus through these resources:

- **Hour of Code**—During [Computer Science Education Week](#), tens of thousands of Hours of Code events will happen around the world. Any afterschool program can register as an official Hour of Code event and add their location to the global map.
- **Code.org's Free CS curriculum**—Free, flexible, and fun curriculum for every grade level (elementary, middle, and high school), includes lesson plans, videos, slides, assessments, and programming tools.
- **Hour of Code Activities**—A collection of one-hour tutorials designed for all ages in over 45 languages. Join millions of students and teachers in over 180 countries starting with an Hour of Code!
- **What Are the Chances?**—This activity includes an introductory video to illustrate the activity. Youth experiment with probability to tell how likely it is that an event will occur. In this activity, youth will do these calculations and then test if your calculations hold true for reality.

- **Educator Guide: Make a Planetary Exploration Balloon**—This activity for grades 3-12 uses math and engineering to design a balloon and gondola system capable of supporting weight. In this design challenge, students will then determine the mass needed to cause the balloon to ascend at a given rate, descend at a given rate, and/or maintain a constant altitude over a set period of time.

More STEAM Events

Dec. 6: STEM Equity Learning Community Information Session (1 PM)

Techbridge Girls Curriculum Programming - Applications Open!

Techbridge Girls is recruiting afterschool educators to participate in STEM and equity training, curriculum, resources, and ongoing support. Services equip educators with gender- and culturally-responsive teaching tools and program materials to support youth persistence in STEM and expose girls to BIPOC peers and role models from STEM fields. You can visit the [Programming Information Session and Application](#) to learn more about how to participate in this program. Resources include curriculum, training, ongoing support, and access to mini-grant funding.

Join the application information session on December 6 to learn more about the program and how to apply. *Participation in this community of practice includes 5 sessions and access to \$1,000 mini-grants.*

Join our STEM Equity Learning Community!

Apply now for Spring 2024!

Learn more at a virtual information session:

Dec 6, 2023

10 a.m. PDT | 1 p.m. EST

techbridge girls

[Click here](#) to register.

Dec. 7: DiscoverE Chats with Change Makers (Thursdays 1pm)

KAVYA

DISCOVERE

CHATS WITH CHANGE MAKERS

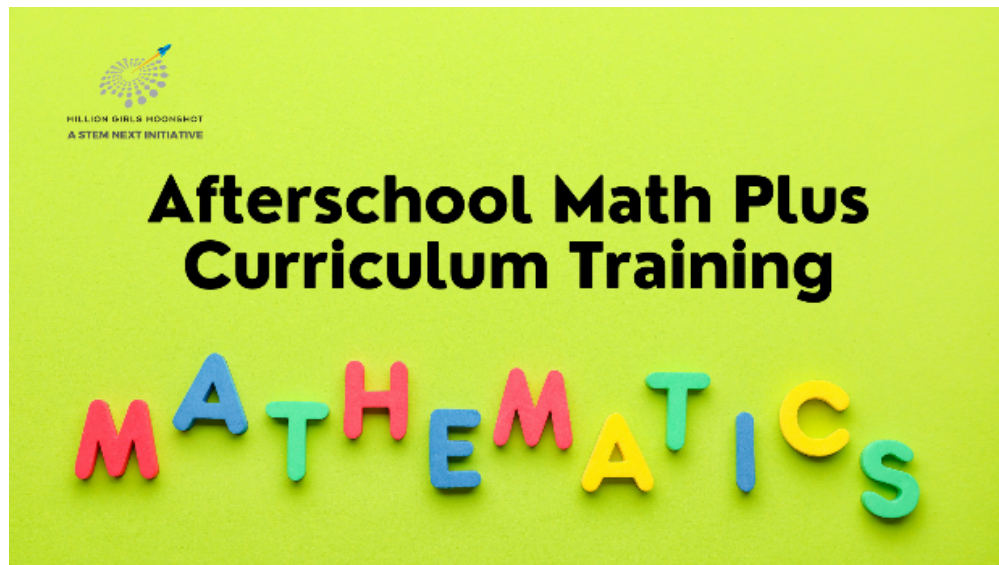
Introducing elementary & middle school learners to STEM careers & professionals.

Tune into the DiscoverE monthly series “Chats with Change Makers,” hosted by high school senior Kavya, to meet STEM professionals who are working hard to change the world.

Teachers and parents are invited to tune-in along with their students to meet an engineer and ask questions.

Join on Thursdays at 1pm for LIVE monthly chats!

- [Dec 7](#)
 - [Jan 25](#)
 - [Feb 22](#)
 - [Mar 21](#)
 - [Apr 25](#)
 - [May 23](#)
-



Click below to register for one or more of the webinars and learn how to use Afterschool Math Plus activities in your afterschool time program.

December 12th | MusicMath: Orchestration

Use fractions to create musical compositions, then perform the compositions using found instruments (pans, boxes, pencils, whistles). Create new combinations and permutations for the music fractions.

Note: Each webinar will include strategies to support a positive Math Identity (e.g., role models, career connections, family connections, literacy connections).

Register for each individual training session [here](#).

View previous recordings below:

[April](#)

[May](#)

[June](#)

[July](#)

[August](#)

Want even MORE news and updates?

Follow us on social media!

Keep up with news, views, and events through our social media. The STEAM Girls' Collaborative Leadership Team contributes to our feeds, giving you even more content about STEAM learning and equity.

Like us on [Facebook](#), search for @NYGCP.

Follow us on [Twitter](#), @NYSTEAM4girls

Interested in other work with youth? Stay tuned to the Network for Youth Success' channels!

Like us on [Facebook](#), search for @NetworkforYouthSuccess

Follow us on [Twitter](#), @NYSYouthSuccess

Contribute to our next newsletter...

Submit your news, events, trainings, and resources

Do you have STEAM related events, workshops, conferences, resources, or celebrations you would like to share with the NY STEAM Girls' Collaborative network? We would like to help you share! Each month, we send out an e-newsletter, and we need your content and contributions to make it a truly collaborative effort!

Our reach includes formal and informal educators, as well as others who are interested in girls' access to opportunities.

There are two types of content we can send out:

- **Short** - these blurbs are no more than **80 words** and are great for event or resource sharing.
- **Long** - these are no more than **130 words** and can have more description or detail. These are the featured articles in each newsletter.

Some things to keep in mind:

- **Include web links.** Link to more information, resources, registration, etc. The newsletter promotes and highlights, but the full story should be elsewhere.
- **Include an image.** Small, square image files, such as logos, help draw attention and improve the overall look of the newsletter.
- **Edit for clarity.** Please read your submission before sending it to make sure it makes sense to someone who doesn't know you, your organization, or your event.

Any material submitted may also be promoted via the NY STEAM GC Twitter feed, Facebook page, or LinkedIn page, increasing the range of promotion!

Please send your January submissions to NYSTEAM4girls@gmail.com by 1 PM on Friday, December 29th. We will try our best to include all inputs received! Email us at the same address if you have questions.

12/19/23, 12:20 PM

New York State Network for Youth Success Mail - Your December STEAM Girls' Collaborative Newsletter!



New York State Network for Youth Success, Inc.
415 River Street
Troy, NY 12180

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