Welcome!

• Please introduce yourself, organization, and Collaborative in the chat box.

• What do you hope to learn on this webinar?

November 8, 2018
Agenda

- Introduction to and how to access Girls STEAM Ahead with NASA Resources
- Sharing from SUNY-Schenectady
- Sharing from Glazer Children’s Museum
- Closing
Speakers

Holly Ryer,
Senior Education Specialist,
Space Telescope Science Institute

Dr. Lorena Harris
Director,
Collegiate Science and Technology Entry Program at SUNY

Pam Hillestad
Director of School and Youth Programs,
Glazer Children’s Museum
Girls STEAM Ahead with NASA
WHO?
An Astrophysics STEM Informal Learning Program funded by NASA SMD

Learners of all ages and backgrounds are engaged and immersed in exploring the universe for themselves.
Our Content
Providing a Direct Connection to the Science

How did we get here?
Are we alone?
How does the universe work?
How did we get here?
WHAT?
Our Portfolio of Resources

NASA Astrophysics Science & Technology, EPO Professionals, Subject Matter Experts, Audience Needs

Data Tools & Participatory Experiences

Multimedia & Immersive Experiences

Exhibits & Community Programs

Professional Development
Girls STEAM Ahead with NASA

Empower public libraries and community-based organizations to engage girls and their families in STEM

Provide accessible exhibits, community programs, hands-on resources that feature NASA Astrophysics science and technology

Provide interactions with Subject Matter Experts (SMEs), to increase awareness of how we know what we know about our universe and to foster STEM identity.
Resources: STEM Activities
Resources: SME Speakers/Presenters

Virtual (Zoom, Skype, Google Hangouts)
In Person (select locations)
Resources: Exhibits/Posters

Exhibits
• Here, There, Everywhere
• AstrOlympics (Winter and Summer)
• Light: Beyond the Bulb
• From Earth to the Universe
• Visions of the Universe

Posters
• Women in STEM series
• Women of Color: Pioneers and Innovators
• Exoplanet Travel Posters
Resources: Multimedia

AstroViz Science Visualizations

ViewSpace

Universe Unplugged Videos
Resources: Professional Learning
Science Briefings & Webinars

Speakers

Dr. Emma Marcucci, Education and Outreach Scientist at STScI
Carolyn Slivinski, Community Engagement Specialist at STScI
Mary Dussault, Astronomy Educator and Instructional Systems Specialist, Harvard-Smithsonian Center for Astrophysics

A Window to the UV Universe: The Engineering and Science Helmed by Dr. George Carruthers
Credit: U.S. Naval Research Laboratory

Multi-messenger Astronomy: A New Era in Space Science
Credit: NASA

Credit: NGCP
WHY?
Our Priorities

- Increase scientific literacy
- Reach underserved/underrepresented communities
- Reinforce scientific practices
- Support the development of a scientific identity
- Employ emerging technologies
Empower public libraries and community-based organizations to engage girls and their families in STEM

Provide accessible exhibits, community programs, hands-on resources that feature NASA Astrophysics science and technology

Provide interactions with Subject Matter Experts (SMEs), to increase awareness of how we know what we know about our universe and to foster STEM identity.
WHERE?
Questions?

http://universe-of-learning.org/girls_steam_ahead
girlsSTEAMahead@universe-of-learning.org

This product is based upon work supported by NASA under award number NNX16AC65A to the Space Telescope Science Institute, working in partnership with Caltech/IPAC, Jet Propulsion Laboratory, Smithsonian Astrophysical Observatory, and Sonoma State University.

Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Aeronautics and Space Administration.
SUNY Schenectady Mission

We are an inclusive, collaborative community, build on a foundation of excellence in teaching and learning, quality support services, and a personalized approach to education, which empowers our students and engages our communities.

Our goals and vision are to be a regional leader in supporting and expanding innovative and collaborative educational programs that transform our students and communities.

Collegiate Science and Technology Entry Program

The mission of CSTEP is to support historically underrepresented and economically disadvantaged groups from New York State who are pursuing professional licensure and careers in mathematics, science, engineering, technology, and health-related STEM fields. CSTEP provides professional development opportunities and many types of support services to participants, allowing for greater academic success.
NGCP connected our SUNY Schenectady CC with a myriad of educational curriculum, connections and networking opportunities. 

Followed by a Seminar Keynote speaker with Dr. Marshall Jones (2017 Hall of Fame Inductee) + inventor of > 80 patents.

Different links such as https://www.universe-of-learning.org/gsawn/

http://chandra.harvard.edu/edu/pencilcode
The Nuts and Bolts Coloring the Universe Part 1 and 2.
P-tech students
MS → HS

Different links such as
https://www.universe-of-learning.org/gsawn/

→ To make ART

The hour of code: programming in pencil code

They watched the video and applied their learning in the computer
Science Action Club
CryptoClub
Girls STEAM Ahead with NASA

Summer '18 NGCP +NYS₂G Collaborative

13+13
27+21
37+29

The NYS STEAM Girls Collaborative

Schenectady CCC

The NYS STEAM Girls Collaborative impact

Total
75+73 = 148
<table>
<thead>
<tr>
<th>NGCP STEAM educational resource</th>
<th>Girls</th>
<th>Boys</th>
<th>Notes</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Science Action Club</td>
<td>13</td>
<td>13</td>
<td>MS</td>
<td></td>
</tr>
<tr>
<td>CryptoClub</td>
<td>37</td>
<td>29</td>
<td>MS/HS</td>
<td>Fascinating!</td>
</tr>
<tr>
<td>Girls STEAM Ahead with NASA NASA’s Universe of Learning</td>
<td>27</td>
<td>21</td>
<td>MS</td>
<td>Out of these world tools!!</td>
</tr>
<tr>
<td>Total number of life enriched by NGCP + NYS STEAM Girls Collaborative</td>
<td>75</td>
<td>73</td>
<td>148</td>
<td></td>
</tr>
</tbody>
</table>
• NGCP and the NYS SGC allowed us to connect with CryptoClub developers + The Girls STEAM Ahead with NASA resources + NASA’s Universe of Learning.

• All these opportunities in STEAM allowed us to share wonderful programs with our students and community this Summer 2018.

• NGCP helped us achieve our goals and mission of increasing gender equity in science, technology, engineering, arts and mathematics (STEAM) one scholar at a time.

• SUNY Schenectady STEM DAY Conference 4/2016 (~30, no data 😞)

• SUNY Schenectady STEM DAY Conference 4/2017 (60, 50%, 50%)

• SUNY Schenectady STEM DAY Conference 4/2018 (97, 66%+34%)
STEAM scholars education connection:
Total of at least 148 students, 75 girls and 73 boys from a variety of programs that support underrepresented and minority students, from middle school all the way to college, including but not limited to Liberty Partnership Program (LPP) middle school students (26), STEP program (MS= 30, HS =24), CSTEP program (College = 10), College in the High School and P-tech scholars (58).
Questions?

Thank you for all you do to support our youth and communities!

https://www.jasondavies.com/wordcloud/
Mission: To create a learning laboratory where children play, discover, and connect with the world around them to develop as lifelong learners and leaders.
Here. There. Everywhere.

Glazer Children’s Museum

July 1-August 10
Daily Programming

Binary Name Tags
Eyes on Exoplanets
Where the Wind Blows
Zap! Electric Discharge
Subject Matter Expert:
Air Force Fighter Pilot
A lesson in the physics of flight by a real fighter pilot for the opening of Here, There, and Everywhere! #gcmkids #physics
Brainstorming on how to Make the Most of Girls STEAM Ahead

• What groups are you engaging in your Girls STEAM Ahead work?
• What kind of promotion are you planning to do for Girls STEAM Ahead?
• Are there other ideas you’d like to share?
Upcoming webinar

Bridging the “Encouragement Gap” in STEM +C
Thursday, December 6, 2018
1:00PM Pacific/4:00PM Eastern
Thank you for joining us today!

Take the survey: https://ngc2018.typeform.com/to/OtnADI