Welcome to the National Girls Collaborative Project National Mentoring Month Webinar

Techbridge Girls, GOALS for Girls, and FabFems: Strategies for Mentoring Girls in STEM

January 11, 2018
Agenda

- NGCP Vision and Goals
- Techbridge Girls’: Toolkit Takaways
- GOALS for Girls: Mentoring in Real Life (IRL)
- FabFems Overview
- Questions
- Closing
NGCP Vision

The National Girls Collaborative Project (NGCP) brings together organizations that are committed to informing and encouraging girls to pursue careers in science, technology, engineering, and mathematics (STEM).
NGCP Goals

1. **Maximize access** to shared resources within organizations interested in engaging girls in STEM.

2. **Strengthen the capacity** of programs by sharing exemplary practice research and program models.

3. **Use the leverage of a network** to achieve gender equity in STEM.
National Network of Collaborative Teams
Techbridge Girls

Tania Tauer

Senior Program Manager for Professional Development, Techbridge Girls
Techbridge Girls excites, educates, and equips girls from low-income communities by delivering high quality STEM programming that empowers a girl to achieve economic mobility and better life chances.
You can’t be it if you don’t see it!

50% of high school girls know a woman in a STEM career
You can’t be it if you don’t see it!

82% of Techbridge girls say that interactions with role models made them more interested in working in STEM
Breaking Stereotypes
Mentoring Resources

<table>
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<tr>
<th>U</th>
<th>STEM Role Models 101</th>
<th>The Role Model Impact</th>
<th>Where can I volunteer?</th>
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<tbody>
<tr>
<td></td>
<td>Sharing About You</td>
<td>STEM Messaging</td>
<td>Breaking the Ice</td>
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<td>Choosing a STEM activity</td>
<td>Engineering Design Process</td>
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<td>Giving Girls Feedback</td>
<td>Reflection - Making Meaning</td>
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www.techbridgegirls.org/rolemodelsmatter
Key Strategies

1. Introducing Yourself
2. Encouraging Girls During Hands-on Activities
3. Engaging with Girls
Key Strategies: Role Model Introductions

1. Your work
2. Your experiences in STEM
3. Who are you outside of work
Key Strategies: Role Model Introductions

1. **Sharing about your work:**
   - Use kid-friendly language
   - Relate your work to things kids know
   - Share how STEM can help others
Key Strategies: Role Model Introductions

2. **Sharing about your experiences:**
   - Share the challenges
   - Highlight positive experiences in STEM
Key Strategies: Role Model Introductions

2. **Sharing about your experiences:**
   - Share the challenges
   - Highlight positive experiences in STEM
Key Strategies: Role Model Introductions

3. Sharing about who you are outside of work
Key Strategies: Hands-on Activities

1. Hands-off facilitation
2. Use open-ended questions
3. Give useful and specific feedback
Key Strategies: Hands-on Activities

1. Use hands-off facilitation to promote active engagement.

vs.

[Images of students engaged in activities]
### Key Strategies: Hands-on Activities

#### 2. Use open-ended questions to guide youth’s thinking.

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<th>Question Type</th>
<th>Question Starters to Ask</th>
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<tr>
<td>Remembering</td>
<td>Where have you seen…? Describe what happened when…?</td>
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<tr>
<td>Understanding</td>
<td>Can you describe …? Who do you think…? What is the difference between … and …?</td>
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<tr>
<td>Analyze</td>
<td>What are the parts or features of ….? How does….compare/contrast with ….? What evidence can you present that….?</td>
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<tr>
<td>Evaluate</td>
<td>What changes to….would you recommend? How do you justify…? Is there a better solution to…?</td>
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2. Use open-ended questions to guide youth’s thinking.

**Now you try!**

Imagine a youth is struggling to design a 12 inch tower that can hold a book on top. The tower has met the height requirement, but isn’t stable enough to hold the book. What questions could you ask to help guide them?

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3. Give useful and specific feedback to promote growth mindset.
Key Strategies: Hands-on Activities

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Praise *process & skills* over the *product & person*!
Key Strategies: Hands-on Activities

3. Give useful and specific feedback to promote growth mindset.

Now you try!

What feedback might you give to a youth whose code is not working despite multiple attempts?
Key Strategies: Engaging with Girls

1. Empathy
2. Empathy
3. Empathy
4. Empathy
5. Empathy
6. Empathy
7. Empathy
THANK YOU!
Questions?

www.techbridgegirls.org/rolemodelsmatter
GOALS for Girls

Shihadah “Shay” Saleem

FabFem
Senior Museum Educator
Co-Founder of GOALS for Girls at the Intrepid Sea, Air & Space Museum
GOALS for Girls: Mentorship

Shay Saleem (ssaleem@intrepidmuseum.org)
Intrepid Sea, Air & Space Museum
New York, New York

www.intrepidmuseum.org/GOAL5forGirls
Greater Opportunities Advancing Leadership & Science

GOALS for Girls is a multi-faceted, school year-long program. Offers various pathways for girls to explore STEM topics and connect with women STEM fields:

- **Six week, STEM-focused Summer Intensive:** 8th and 9th grade female students of NYC (no-cost): 450+ students since 2009

- **GOALS Forums:** STEM and Youth development programs for teens and families (no-cost): 1,000+ participants since 2013

- **Internship-Mentorship Program:** GOALS alumnae of summer programs and women in STEM (stipend and honorarium): 80+ since 2013
GOALS MENTORSHIP

Summer: Mentorship Fridays

Staff-led Workshops: COMMUNICATION & NETWORKING

- 50 GOALS students
- Types of mentorship
- Engagement: the art of conversation
- Be yourself & memorable

Discussion with Mentors: STORYTELLING

- The audience
- How to engage & make connections
- Sharing your STEM passion
- Be yourself & memorable
GOALS MENTORSHIP

March, Women’s Month: Mentorship Days

Full day of programming:

▪ Teen girls (14 to 18 years old) interested in STEM
▪ Mentorship Booklet
▪ Ice-breaker activity

Mentors, STORYTELLING

▪ Women from diverse STEM disciplines & pathways
▪ Connect with fellow mentors
▪ Share personal stories
GOALS MENTORSHIP

School Year: Internship-Mentorship Program

The Program: Evolved over 4 years

- Increased level of engagement
- Evaluation and Assessment
- Working group & project based
- Guest workshops & Intrepid events

Connections & Development:

- Trainings and workshops
- Monthly meetings and updates: levels of success
- Staff support for interns and mentors
Questions?

Shay Saleem (ssaleem@intrepidmuseum.org)
Intrepid Sea, Air & Space Museum
New York, New York

www.intrepidmuseum.org/GOALSforGirls
Role Model Directory: FabFems is an international, online, searchable directory of women STEM professionals interested in outreach to girls.

Audience:
- Role Models
- Girl-Serving Programs
- Parents and Girls

www.fabfems.org
Questions?
Get Involved with NGCP

- Join **FabFems** and follow, @FabFems
- Follow us on social media, @NGCProject
- Attend local events and national webinars
- Join your local Collaborative leadership
- Collaborate to serve more girls in STEM
Upcoming NGCP Webinars

SWENext: The Society of Women Engineers
Sparking Excitement About STEM and
Fostering Community

February 8, 2018
11:00AM Pacific/2:00PM Eastern
Thank you for joining us today!