Welcome NISE Network Partners!

While we wait for everyone to join, please type a response to the following question in the text box to get the conversation going.

Has your museum offered programs or activities specifically designed to reach girls?
Tips and Tricks for Engaging Girls in Museum Programming

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Today’s Conversation

Tips and Tricks for Engaging Girls in Museum Programming

Join NISE Net partners for a conversation on how to better engage girls in museum programming! Presenters will share lessons learned, resources from PBS programming SciGirls and NSF funded Girls RISE (Raising Interest in Science and Engineering) Museum Network, and some specific tips and tricks to better engage girls in upcoming NanoDays 2015 activities.
Reaching Diverse Audiences

Why use an Inclusive Audiences approach?

• Museums are uniquely situated to educate the public, inspire youth, and provide access to learning experiences.

• Inclusive approaches help reach all audiences more effectively.

• It allows us to go beyond education and inspiration to empowerment and social justice.
Our Work is a Journey...
A national partnership to help informal science educators engage and motivate minority girls in grades 6-12 to explore science and engineering careers.
Question for Attendees

Is anyone already a Girls RISEnet partner?

Has anyone used Girls RISEnet resources?
Regional Meetings

NISE Net/Girls RISEnet Regional Meeting
• OMSI in Portland, OR

Girls RISEnet Regional Meetings
• OMSI in Portland, OR
• Museum of The North, Fairbanks, AK
• Tahoe Environmental Research Center, Lake Tahoe, NV
NISE Net is creating a quick and easy tool for Nanodays 2015 kits for helping facilitators to engage with girls.

Tips for Engaging Visitors

Greet visitors
Say “hello,” make eye contact, and smile. Simply looking like you’re available and friendly will bring visitors to your station.

Let visitors do the activity
As much as possible, let visitors do the hands-on parts of the activity, and let them discover what happens. (If your activity has a surprise, don’t give it away!)

Share what you know
Use clear, simple language. Focus on one main idea—don’t feel that you need to tell visitors everything at once! Keep the information basic for starters, and be willing to expand on an idea for interested learners.

Use examples from everyday life
Familiar examples can help explain abstract concepts. Be aware of visitors’ abilities, keeping in mind that children do not have the same skills or vocabulary as adults.

Ask questions
Help visitors observe and think about the activity. Try to ask questions that have more than one answer, such as:
- What do you see happening?
- Why do you think that happened?
- What surprised you about what you saw?
- Does this remind you of anything you’ve seen before?

Be a good listener
Be interested in what visitors tell you, and let their curiosity and responses drive your conversation forward.

Offer positive and encouraging responses
If visitors haven’t quite grasped a concept, you might say, “That’s a good guess,” or “Very close, does anyone else have something to add?” Don’t say, “No” or “Wrong” in response to visitors’ observations or explanations.

Share accurate information
If you’re not sure about something, it’s OK to say, “I don’t know. That’s a great question!” Suggest that visitors go to nanohub.org to learn more about nanoscale science, engineering, and technology.

Remain positive throughout the interaction
Remember that nonverbal communication is important, too. Try to maintain an inviting face and body language.

Thank visitors
As your interaction ends, suggest that visitors explore other NanoDays activities.

HAVE FUN! A positive experience will lead to learning.
Tips for Engaging Girls

Tip 1: Feature female role models

Tip 2: Make it social

Tip 3: Engage the senses

Tip 4: Tell a story
Tips for Engaging Girls

Tip 5: Highlight altruism

Tip 6: Make it Personal

Tip 7: Use inclusive language

Tip 8: Encourage creativity

Tip 9: Make sure there are many “right” answers
Questions from the Audience

Please either type a question in the chat box or “raise your hand” to ask a question.
To change how millions of girls (ages 8-13) think about STEM
Our Approach

- On TV
  - national PBS Kids series

- Online
  - safe, social networking website

- On the Ground
  - activities and professional development
Girls everywhere can join the SciGirls revolution online at: pbskidsgo.org/scigirls
Scigirlsconnect.org is a great website for educators!
On the Ground

SciGirls

SciGirls Go Green Activity Guide

SciGirls Get Tech Activity Guide

SciGirls Live Healthy Activity Guide

scigirlsconnect.org
Can you share with the group a strategy that you have used that worked well with engaging girls?
1. Girls benefit from collaboration, especially when they can participate and communicate fairly. (Parker & Rennie, 2002; Fancsali, 2002)
1. **Girls benefit from collaboration, especially when they can participate and communicate fairly.** (Parker & Rennie, 2002; Fancsali, 2002)

2. **Girls are motivated by projects they find personally relevant and meaningful.** (Eisenhart & Finkel, 1998; Thompson & Windschitl, 2005; Liston, Peterson, & Ragan, 2008)
3. **Girls enjoy hands-on, open-ended projects and investigations.** (Chatman, Nielsen, Strauss, & Tanner, 2008; Burkam, Lee, & Smerdon, 1997; Fanscali, 2002)
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4. **Girls are motivated when they can approach projects in their own way, applying their creativity, unique talents and preferred learning styles.** (Eisenhart & Finkel, 1998; Calabrese Barton, Tan, & Rivet, 2008)
5. Girls’ confidence and performance improves in response to specific, positive feedback on things they can control – such as effort, strategies and behaviors. (Halpern, et al., 2007; Zeldin & Pajares, 2000; Blackwell, Trzesniewski, & Sorich Dweck, 2007; Mueller & Dweck, 1998)
5. Girls’ confidence and performance improves in response to specific, positive feedback on things they can control – such as effort, strategies and behaviors. (Halpern, et al., 2007; Zeldin & Pajares, 2000; Blackwell, Trzesniewski, & Sorich Dweck, 2007; Mueller & Dweck, 1998)

6. Girls gain confidence and trust in their own reasoning when encouraged to think critically. (Chatman, et al., 2008; Eisenhart & Finkel, 1998)
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6. Girls gain confidence and trust in their own reasoning when encouraged to think critically. (Chatman, et al., 2008; Eisenhart & Finkel, 1998)

7. Girls benefit from relationships with role models and mentors. (Liston, et al., 2008; Evans, Whigham, & Wang, 1995)
My Own Strategies

Play Music in the Background!
It’s fun to dance to, gets girls having fun

Share your own stories

Talk about real life problems
Girls like problem solving, and nano is a great way to talk about how scientists are figuring out solutions to real problems

Games and Icebreakers
SciGirls BrainSTEM Game
Nano Board Game
Nano and Society activities
National Girls Collaborative Project

Advancing the Agenda in Gender Equity
Encouraging girls to pursue careers in Science, Technology, Engineering, and Mathematics.

FIND
A Collaborative in your Area.

SUBMIT
Your Program to our Directory.

CONNECT
With Resources and Partners.

www.ngcproject.org
Looking for more?

pbskidsgo.org/scigirls
pbs.org/teachers/scigirls
pbs.org/parents/scigirls
scigirlsconnect.org
facebook.com/scigirlstv
twitter.com/SciGirls
ngcproject.org
spectrUM.umt.edu

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(406)728-STEM
Powerhouse Science Center
(formerly Durango Discovery Museum)

• Initially, we thought PSC was serving equal numbers of girls and boys, but upon closer examination of our stats:
  – Only 39% of program participants were girls
  – Only 4 of our 19 interns were girls

• So….we applied for a Girls RISEnet mini-grant and a Women’s Foundation of CO grant
Girl-Centric Marketing techniques

- Wording
- Visuals
- Color choices
- Creativity
- Collaboration
- Service-based
- Role Models
- Girls-only
Girl-Centric Marketing techniques

BUILDING ROBOTS. BUILDING TEAMWORK. BUILDING THE SCIENTISTS AND ENGINEERS OF THE FUTURE.

FIRST LEGO League Robotics is a global program for students ages 9-14 to build, test, and program an autonomous robot to conquer theme-based challenges. Four Corners FLL is now one of five official qualifying competitions for the New Mexico State FLL Tournament!

FOUR CORNERS FIRST LEGO LEAGUE
A new season gears up September 8, 2014.

HELP BUILD THE FUTURE. Team and individual registration is Sept. 2 and 4, from 5-6pm. Attending only one registration meeting is necessary. Contact Sarah at Sarah@PowSci.org for more information.
Girl-Centric Programming:
Girls Geek Boutique and Citizen Science Summer Camps
Girl-Centric Programming:
All-Girls LEGO League Team
Girl-Centric Programming:
Girls STEM-Power Event
Girl-Centric Programming: Sleepovers at the Museum
Mixed Audiences

What is the secret?

Variety!
Be careful of Assumptions.

Some girls like loud and messy!
Planning

- Style points
- Social
- Creative
- Open-ended
Planning

Stories

Examples

Analogies
Our Favorite Resources

- amightygirl.com
- Nisenet.org
- pbskids.org/scigirls/
- girlsrisen.net.org
Which picture would you choose?
Implementation

**Listening**
“What does it remind you of?”
“What does it look like?”
“What do you think?”
“How do you know?”

**Watching Interactions**
Is everyone engaged?
What interests them?
Be ready with extra supplies!

**Speaking**
Use inclusive language.
Use affective language.
What does success look like?

Mindful teaching benefits everyone!
Questions from the Audience

Please either type a question in the chat box or “raise your hand” to ask a question through audio for any of the presenters.
THANK YOU!

To all our partners - we could not do this work without you!
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