Bringing Science experts into your museum – why, how and wow!

Association of Children’s Museums Conference

May 2018
Presenters

• Catherine McCarthy, Science Museum of Minnesota, Saint Paul, MN cmccarthy@smm.org

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• Christina Leavell, Science Museum of Minnesota Saint Paul, MN cleavell@smm.org

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• Celeste Kathleen, Marbles Kids Museum, Raleigh, NC cckathleen@marbleskidsmuseum.org
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- **Celeste Kathleen**, Marbles Kids Museum, Raleigh, NC Forming connections with local scientists and businesses, preparing them for play-based programming
- **Discussion**
Do you already bring science experts into your museum?
Why?

• inspirational
• excitement for content
• role model for young visitors
• opportunity to meet a scientist
• chance to have a conversation
More reasons why

• content expertise you don’t have
• make connections to members of your local community (businesses, industry, college)
• broader impact relationship with local university/college
• science communication opportunity for students/scientists
• two-way communication and conversations (public engagement in science)
When?

- daily
- weekly
- special events
  - Earth Day
  - National Chemistry Week
  - Astronomical / Celestial events
  - NanoDays
  - Special STEM days and events
Resources

Handouts

- STEM events and holidays
- NISE Network training materials and professional development resources
- Planning Guest Presentations
- Tips for guest speakers
- Tips for leading hands-on activities
Thank you to our funders

**The Nanoscale Informal Science Education Network** is supported by the National Science Foundation under award numbers 0532536 and 0940143. **Multi-Site Public Engagement in Science** is supported by the National Science Foundation under award number 1421179. **Transmedia Museum** is supported by the National Science Foundation under award number 1516684. **ChemAttitudes** is supported by the National Science Foundation under award number 1612482. **Collaborative Research: Grounding Institutional Partnerships in Structures for Broader Impacts Design** is supported by the National Science Foundation under award number 1610039. Any opinions, findings, and conclusions or recommendations expressed in this presentation are those of the authors and do not necessarily reflect the views of the Foundation.

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• **Discussion**
Michelle Kortenaar
mkortenaar@sciencenter.org
Sciencenter
Ithaca, NY
In the Community
Meet a Scientist
Every Saturday (52+ times/year!)
Broader Impact Design
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- **Discussion**
Finding Volunteers – Amateur Astronomers and Beyond

Christina Leavell
Manager, Network Projects and NISE Network Midwest Regional Hub Leader at The Science Museum of Minnesota

 haz space ship. 
WHAT am I talking about…

• Professional societies and expert networks:
  – NOT a comprehensive overview!
  – Earth and Space Project
  – Chemistry Project

• Why, When & How to connect

• Specific experiences with the Solar System Ambassadors program
WHY

I work with these volunteers
WHY

• Incredibly **passionate**
  – Special way of engaging with audiences around this content
• Professionally **trained** and/or experienced working in a museum setting
  – Easily oriented to working with your audiences – less staff time training
• New and unique **resources** to share
  – Telescopes
  – Model Rovers
  – Make and takes

• **Seeking these opportunities!**
WHEN

• National Festivals & Events:
  – 2017 Total Solar Eclipse
  – Earth Day, Yuri’s Night, etc.
  – National Chemistry Week

• Passionate Speakers:
  – Special Events - *Sit with an Amateur Astronomer*
  – Evening Programs - *Scientist Speed Dating*
  – Large group presentations

• Hands-on Activities:
  – Summer Camps
  – Afterschool programs
  – Regular floor demos and toolkit activities

*More ideas: nisenet.org/seasons*
HOW do I find volunteers?
Earth and Space Science

- **Night Sky Network**: amateur astronomy clubs, members share their time and telescopes to provide unique astronomy experiences at science museums, observatories, classrooms, and under the real night sky. 
  http://nightsky.jpl.nasa.gov/index.cfm

- **American Astronomical Society**: “Astronomy Ambassadors,” program provides mentoring and training experiences for young astronomers 
  http://aas.org/outreach/roster-aas-astronomy-ambassadors

- **Solar System Ambassadors Program (SSA)**
  http://solarsystem.nasa.gov/ssa/home.cfm
WOW!
Great Experiences with Solar System Ambassadors
Solar System Ambassadors Program

• Professional Development – Collaboration with the NASA Museum Alliance at JPL
• Program over 20 years old
• Over 750 space enthusiast volunteers in 2017
• Public engagement across all 50 states as well as:
  – Puerto Rico, Guam, US Virgin Islands
  – US citizens living abroad: Netherlands, Nigeria, Germany, Japan, Republic of Korea, United Kingdom
Christopher Mick has had a life long passion for space travel and the continuing mysteries of the universe. From winning a science fair competition in the third grade with his styrofoam model of the Saurian System to commemorate the Voyager flyby to having the honor of getting to interview astronaut Scott Kelly this past summer after the completion of his year long mission on the ISS, Christopher has taken advantage of every opportunity to share his passion for space exploration with the students in his community of Hudson, Wisconsin.

Christopher was born in San Francisco, and has been an educator in Illinois, Florida, and Minnesota. He lives with his wife and two children in Hudson, Wisconsin, which has been his home since 2003.

Past Events Hosted By This Ambassador:

- **Cassini Grand Finale**
  - Hudson Middle School, 1300 Carmichael Rd. Hudson, WI.

- **Explore Science: Earth & Space Day**
  - Science Museum of Minnesota

- **Celestial Events of 2017**
  - Harwood Creek Library

- **How to Become Astronaut**
  - Hammond Community Library

- **Astronomical Events You Don't Want To Miss**
  - Harwood Creek Library

Past Events Collaborated On By This Ambassador:

None So Far

Click here to view all upcoming events
WAIT!
What about Chemistry?
Chemistry

- American Chemical Society (ACS) Local Sections: 185 nationwide
  https://lslookup.acs.org/lslookup/local_search

- American Chemical Society (ACS) Student Chapters: located on many college campuses across the country.
  https://www.acs.org/content/acs/en/education/students/college/studentaffiliates/find-a-chapter.html
Applications due June 1, 2018
Kit Overview document and how to apply:
http://www.nisenet.org/chemistry-apply

• In collaboration with the American Chemical Society, the NISE Network has assembled a set of engaging, hands-on experiences designed to stimulate interest, sense of relevance, and feelings of self-efficacy about chemistry among public audiences.

• 250 free physical kits awarded to successful applicants for public events between October and December 2018.

• A great opportunity to use the Explore Science: Let’s Do Chemistry kit is during National Chemistry Week taking place October 21-27!
Conclusion: WHY NOT!?

• Working with professional societies and networks...
  – Access to current pool of passionate professionals
  – Expands upon program offerings at your museum
  – No additional training required
  – Gives audiences an engaging and unique experience
Thank You!

Contact me with questions & find your local

Christina Leavell, Science Museum of Minnesota: cleavell@smm.org

I haz better
space ship.

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Scientists and Large Scale Events

Becky Wolfe
Before You Recruit

1. Set your goals and objectives
2. Identify your target audience
3. Choose your location, venue and time of day
4. Identify science content for event

Reminder - not everyone will be a good fit
Questions to Ask

• Have you ever presented to children or middle school students before?
• Will you have any visuals to share?
• What is the length of your presentation?
• Would it be possible for me to preview?
  – Ask about TED talks, other local events
Prepping Your Speaker & Event

1. Share venue photos
2. Explain your audience
3. Provide a tour
4. Logistics, logistics, logistics
5. Contracts
6. Social media
7. Promotion
1. Provide a handler
2. Green room
3. Plan extra time for tech issues
4. Offer lunch (or coffee)
5. Plan the Q & A
6. Find a bouncer
7. Thank yous
The Good and the Questionable

- Astronaut visits
- Magnet Man
- Paleontologists
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Engaging Scientists at Marbles Kids Museum

- Downtown Raleigh, NC
- Over 650,000 visitors per year
- Over 100,000 SQ FT

Smaller opportunities: monthly

Large Scale Programs: quarterly
Engaging Scientists at Marbles Kids Museum

SMALL SCALE

- 1 program per month
- 2 hours in length
- One partner per program focusing on his or her work
Engaging Scientists at Marbles Kids Museum

**LARGE SCALE**
- 1-2 times per year each
- 3-4 hours in length
- Involve ten or more partners
- One common theme (Blast Off, Kids Code, Engineer It)
Engaging Scientists at Marbles Kids Museum

**RECRUITMENT:**
- Local STEM Expos
- Networking Events
- Career Fairs
- Neighbors
- Personal Connections
- Local Universities

**KEYS TO SUCCESS:**
- Keep your mission at the forefront
- Pair the science experts with play experts
- Prepare the scientists for the type of audience your museum will be.
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Discussion Questions

How do you select and screen volunteers?
Discussion Questions

Can you tell us about things that didn’t go so well? Any cautionary tales we can learn from
Please fill out an evaluation form