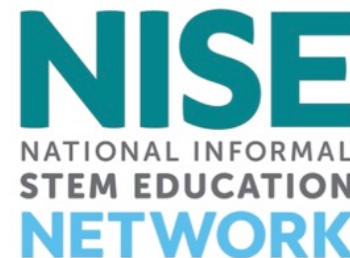


NISE Network Online Workshop

New to the NISE Network? Getting Familiar with Network Resources, Partners, Projects, and Events

January 29, 2019



Welcome! Today's presenters are:

NISE Network Regional Hub Leaders

- **Ali Jackson**, Northeast Region, Sciencenter, Ithaca, NY
- **Christina Leavell**, Midwest Region, Science Museum of Minnesota, Saint Paul, MN
- **Frank Kusiak**, West Region, Lawrence Hall of Science, Berkeley, CA

NISE Network Partners

- **Mike Rathbun**, Discovery Center Museum, Rockford, IL
- **Sheila Montgomery**, Powerhouse Science Center, Sacramento, CA
- **Hardin Engelhardt**, Marbles Kids Museum, Raleigh, NC



As we wait to get started with today's discussion, please:

- **Update your display name.** Include your first and last names, and institution
- **Introduce yourself!** Type your name and institution into the Chat Box
- **Questions?** Feel free to type your questions into the Chat Box at any time throughout the online workshop or use the raise your hand function in the participants list and we'll unmute your microphone

All workshops are recorded and archived online at: <http://www.nisenet.org/event-type/online-workshop>

Workshop Agenda

- **Overview – NISE Network Regional Hub Leaders**
 - Current Projects
 - Hub Structure
 - Toolkit
- **NISE Network Partner Presentations**
 - Mike Rathbun
Discovery Center Museum, Rockford, IL
 - Shelia Montgomery
Powerhouse Science Center, Sacramento, CA
 - Hardin Engelhardt
Marbles Kids Museum, Raleigh, NC
- **Q & A**



NISE
NATIONAL INFORMAL
STEM EDUCATION
NETWORK

WHAT IS THE
NISE NETWORK?

The National Informal STEM Education Network

is dedicated to supporting learning about science, technology, engineering, and math (STEM).

NISE Net

includes
informal educators
and scientists.



NISE Net supports **informal learning about STEM** in communities across the United States.



Network partners
engage
**11 million people
each year** in high-
quality STEM
learning.

Leadership

Arizona State University
Children's Creativity Museum
Children's Museum of Houston
Museum of Life and Science
Museum of Science
Oregon Museum of Science & Industry
Science Museum of Minnesota
Sciencenter
The Franklin Institute
Tulsa Children's Museum
University of California Berkeley



Advisors

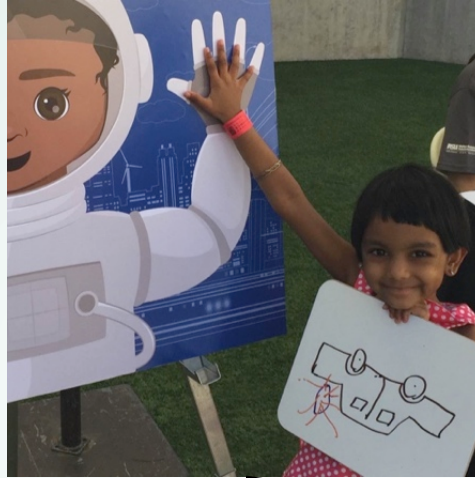
Afterschool Alliance
Association of Children's Museums
Center for the Advancement of Informal STEM Learning,
Association of Science-Technology centers
National Girls Collaborative Project

NISE Net has projects in many areas of STEM:

Synthetic biology
2014-2018



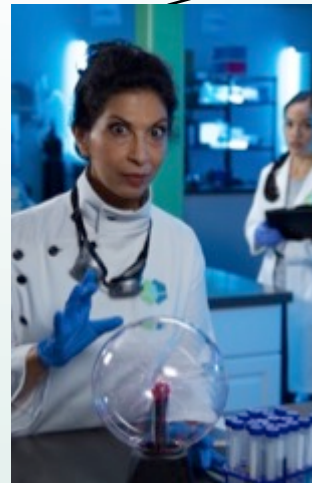
Sustainability
2015-2017



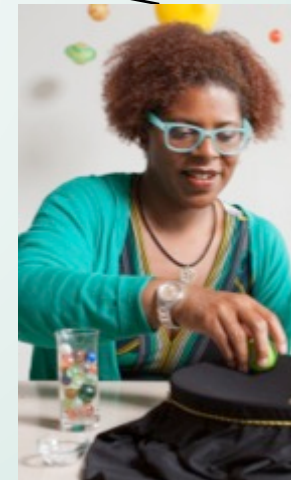
Chemistry
2016-2019



Nanotechnology
2005-2017



Frankenstein
2015-2019



Earth & Space
2016-2020

NISE Net has projects in many areas of STEM:



EXPLORE SCIENCE
Zoom into Nano



EXPLORE SCIENCE
Earth & Space



Activities and Conversations about Synthetic Biology

FRANKENSTEIN²⁰⁰



EXPLORE SCIENCE
Let's Do Chemistry

What we create



Educational products

- kits of hands-on activities for use in museums (and similar settings)
- exhibits for museums



Professional development tools

- training videos
- online workshops
- written guides
- planning resources

Development Process



Our rigorous development process includes:

- scientist review
- peer review
- prototyping + visitor testing
- evaluation

All of our products:

- are designed for sharing + adaptation
- use an inclusive audience approach

How we work

Through our national
collaborative
NETWORK

We create, refine, and disseminate
EDUCATIONAL PRODUCTS
and
PROFESSIONAL DEVELOPMENT RESOURCES

In order to
INCREASE THE CAPACITY of
informal educators

PARTNERS

hundreds of organizations

RESOURCES

museums



colleges + universities



**LOCAL
COLLABORATORS**



schools



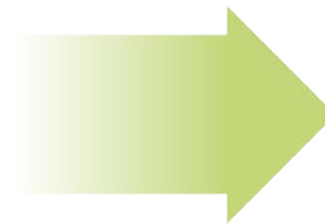
libraries + community
organizations



youth-serving
organizations



scientists



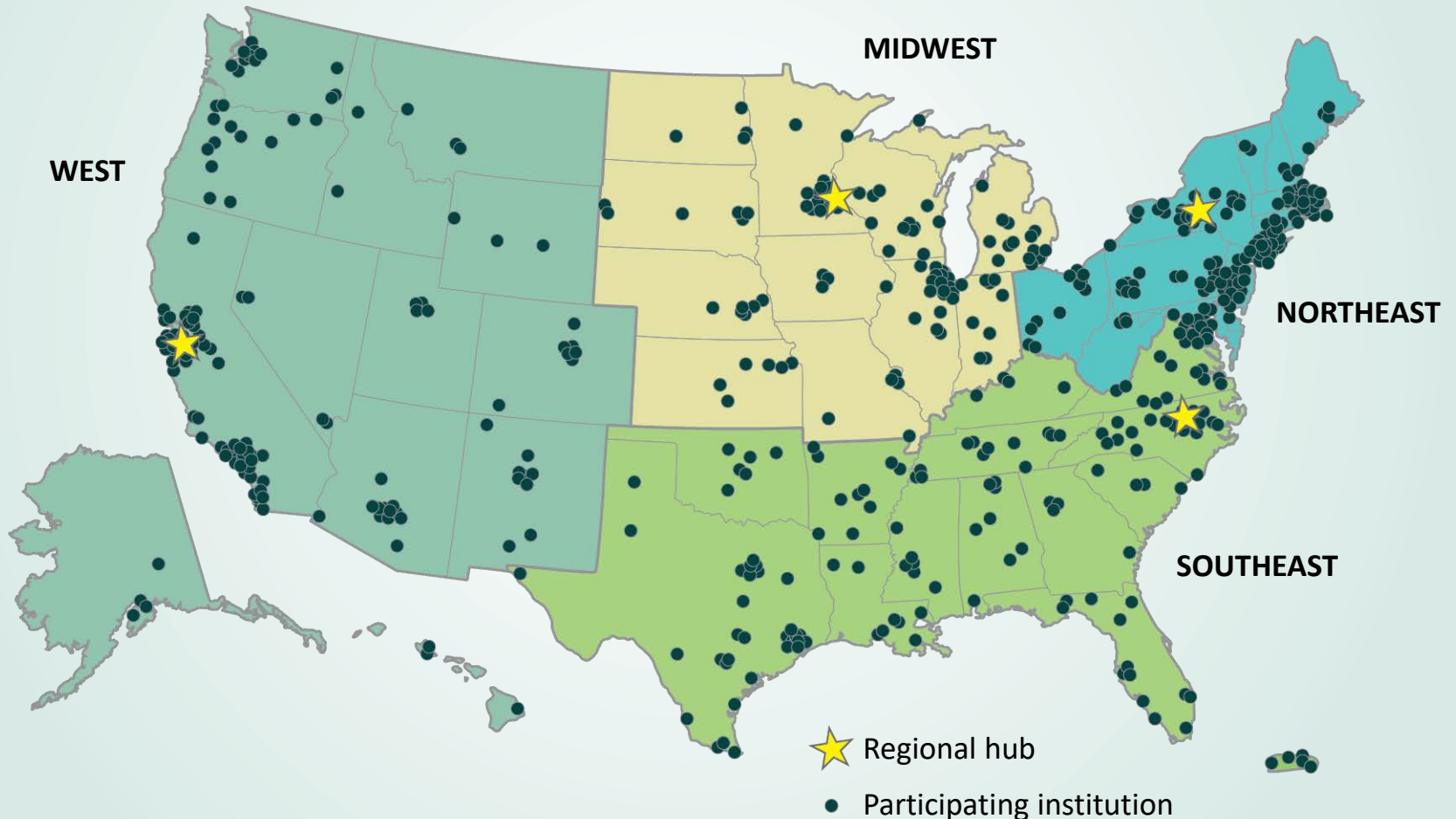
to
ENGAGE PUBLIC AUDIENCES
in STEM learning



Hub Structure

HUNDREDS OF ORGANIZATIONS

participate in NISE Network activities across the United States.



NISE Net is has four “Regional Hub” contacts:

Northeast: CT, DC, DE, MA, MD, ME, NH, NY, NJ, OH, PA, RI, VT, WV

- **Ali Jackson**
- Sciencenter, Ithaca, NY
- ajackson@sciencenter.org

Midwest: IA, IL, IN, KS, MI, MN, MO, ND, NE, SD, WI

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

Southeast: AL, AR, FL, GA, KY, LA, MS, NC, OK, PR, SC, TN, TX, VA, USVI

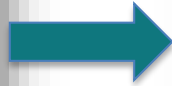
- **Brad Herring**
- Museum of Life and Science, Durham, NC
- brad.herring@lifeandscience.org

West: AK, AZ, CA, CO, HI, ID, MT, NM, NV, OR, UT, WA, WY, Guam & American Samoa

- **Frank Kusiak**
- Lawrence Hall of Science, Berkeley, CA
- frank_kusiak@berkeley.edu

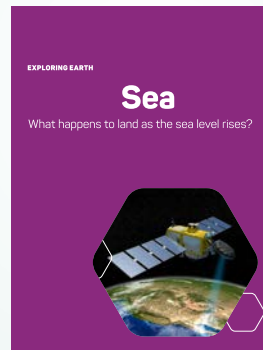
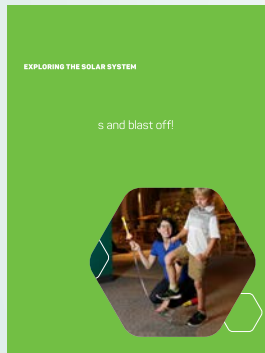
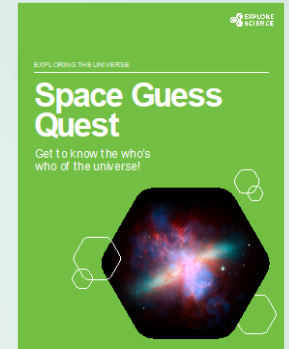
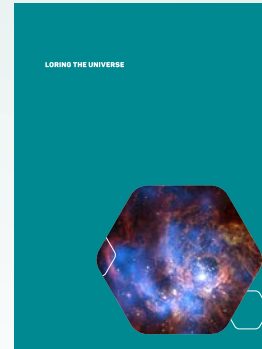
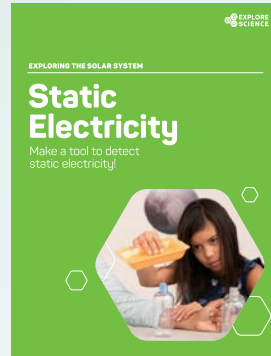
Toolkit

Explore Science: Earth & Space Toolkit



EXPLORE SCIENCE
Earth & Space

2019 Explore Science: Earth & Space





EXPLORE SCIENCE Earth & Space



Network resources are open source and freely available to use and adapt.

Each activity includes:

- all necessary materials
- step-by-step instructions
- facilitator guide & background info
- activity sign
- activity and content training videos



Staff and Volunteer Training Videos

<https://vimeopro.com/nisenet/explore-science-earth-space>



Explore Science: Earth & Space Toolkit Training Videos

These Explore Science: Earth & Space toolkit activity and content training videos were developed by the National Informal STEM Education Network (NISE Net).



Edu-Cathalon: A facilitation...



Exploring Earth: Temperatur...



Exploring the Solar System:...



Exploring the Universe:...

Upcoming NISE Network Online Workshops



The Science Behind the 2019 Explore Science: Earth and Space Toolkit – Exploring Earth and Our Solar System

February 26, 2019

2pm-3pm Eastern/ 11am-12pm Pacific

The Science Behind the 2019 Explore Science: Earth and Space Toolkit – Exploring the Universe

March 12, 2019

2pm-3pm Eastern/ 11am-12pm Pacific

<http://www.nisenet.org/events>

Mike Rathbun



Discovery Center
Museum
Rockford, IL



Nano at Afterschool



Afterschool Audience

80-100 students per school

- 1st- 5th Grade
- 95% free and reduced lunch
- Students are invited to be part of program because they have fallen behind or are in danger of falling behind.



Afterschool Nano Activities

- Activity bins including Mini-mes, Surface area, biomimicry and nano tools
- Science demo on Nanotechnology
- NanoDay for afterschool families



Explore Science: Earth & Space



Exploring the Universe: Orbiting Objects (2017)



Description

"Exploring the Universe: Orbiting Objects" is a hands-on activity that invites visitors to experiment with different sized and weighted balls on a stretchy fabric gravity well. The activity models gravitational attraction in space. Participants investigate how changing conditions can cause phenomena like stellar wobble and planet formation.

Product category

Programs and Activities
Short Activities

Audience

Ages 4 - Adult

Topics

Earth and Space Science | Astronomy | Earth, Moon and Sun |
Solar System | Physical Sciences | Motion and Forces

Frankenstein200



NanoDays



Small Science Saturday

Saturday, November 25
11:30 am - 3:30 pm

Small is mighty on the nano-scale. Explore the huge impact this teeny tiny science already has on your life. Included with Discovery Center admission.

[Learn more](#)



Collaboration with NISE Net



SHEILA MONTGOMERY
PUBLIC ENGAGEMENT MANAGER



Who are we?



Mission Statement:

“The Powerhouse Science Center is a dynamic regional hub that engages and inspires people of all ages to explore the wonders, possibilities, and responsibilities of science.”

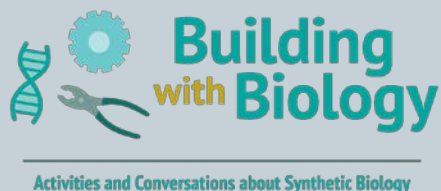


Powerhouse and NISE Net

Kits received:



2011, 2013, 2014, 2015



2016



2017, 2018



2018

Powerhouse and NISE Net



Exhibitions received:



Nano Mini-Exhibition



Sun, Earth, Universe Exhibition

Summer Camps



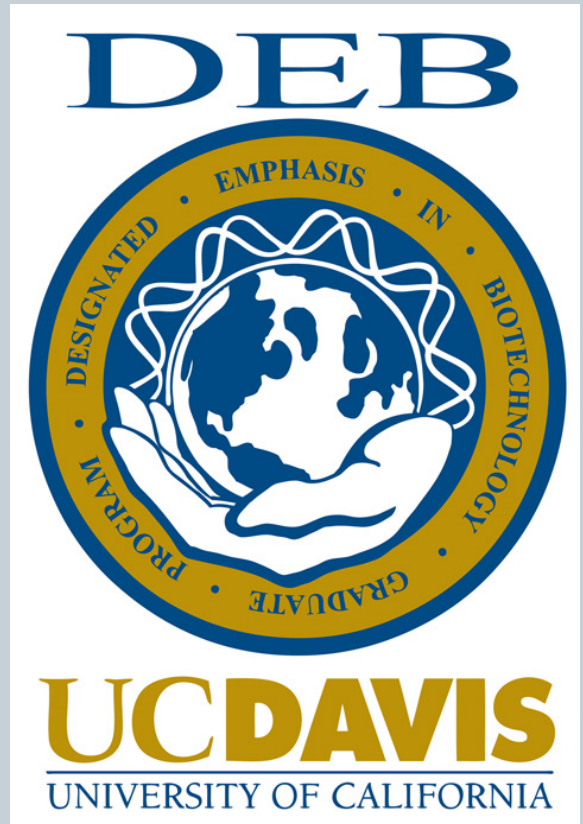
Summer Camps



Floor Demonstrations



Scientist Partnerships



Science Communication Fellowship



Science Communication Fellowship



Any questions?



The image shows the exterior of the Marbles Kids Museum in Raleigh, NC. The building is constructed of red brick and features a large, multi-story glass facade. A vibrant, abstract sculpture made of numerous interlocking, colorful loops (red, orange, yellow, green, blue, and purple) is mounted on the glass facade. Below the glass section, the brick wall displays the 'Marbles kids museum' logo, which includes a stylized green and red swirl. To the left of the entrance, a tree with green leaves partially obscures the view. In the foreground, a person is walking on the sidewalk, and a parking sign is visible. The sky is blue with some clouds.

NISENet Programming at Marbles Kids Museum, Raleigh, NC



Marbles sparks imagination, discovery, and learning through play.



On Beyond Kits

- STEM Events
- Daily Programs
- Field Trip Programs
- Community Presence
- Special Events



Engaging Partners and Volunteers

- Share activities and training videos ahead of time
- Host a pre-event training
- Allow partners to bring their own activities



Marbles Teen Play Corps

- Share activities and training videos ahead of time
- Host a pre-event training
- Allow partners to bring their own activities

Questions?

Current partners - feel free to share about your experiences too!

Upcoming NISE Network Online Workshops



The Science Behind the 2019 Explore Science: Earth and Space Toolkit – Exploring Earth and Our Solar System

February 26, 2019

2pm-3pm Eastern/ 11am-12pm Pacific

The Science Behind the 2019 Explore Science: Earth and Space Toolkit – Exploring the Universe

March 12, 2019

2pm-3pm Eastern/ 11am-12pm Pacific

<http://www.nisenet.org/events>

Get Involved with the NISE Network!

Learn more and access online digital library:
nisenet.org

Monthly newsletter

nisenet.org/newsletter



Social networking

nisenet.org/social



NISE Net is has four “Regional Hub” contacts:

Northeast: CT, DC, DE, MA, MD, ME, NH, NY, NJ, OH, PA, RI, VT, WV

- **Ali Jackson**
- Sciencenter, Ithaca, NY
- ajackson@sciencenter.org

Midwest: IA, IL, IN, KS, MI, MN, MO, ND, NE, SD, WI

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

Southeast: AL, AR, FL, GA, KY, LA, MS, NC, OK, PR, SC, TN, TX, VA, USVI

- **Brad Herring**
- Museum of Life and Science, Durham, NC
- brad.herring@lifeandscience.org

West: AK, AZ, CA, CO, HI, ID, MT, NM, NV, OR, UT, WA, WY, Guam & American Samoa

- **Frank Kusiak**
- Lawrence Hall of Science, Berkeley, CA
- frank_kusiak@berkeley.edu

THANK YOU!



Acknowledgements

The **Nanoscale Informal Science Education Network** was 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. **Increasing Learning and Efficacy** is supported by the National Science Foundation under award number 1516684. **ChemAttitudes** is supported by the National Science Foundation under award number 1612482. 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.



Space and Earth Informal STEM Education is supported by NASA under cooperative agreement number NNX16AC67A and 80NSSC18M0061. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the view of the National Aeronautics and Space Administration (NASA).

