NISE
NATIONAL INFORMAL STEM EDUCATION NETWORK

K–12 COLLABORATIONS & PROFESSIONAL DEVELOPMENT

Presenters

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NISE
NATIONAL INFORMAL STEM EDUCATION NETWORK

EXPLORE SCIENCE
Earth & Space

Barrier Bingo

Identifying Barriers to Collaborating with K-12 Schools

Then Hacking the Kit to Overcome These Barriers

MUSEUM of IDAHO

Chloe Doucette, Director of Education
Museum of idaho

My Barrier:Must Be Convenient

Barrier Description

Educators are expected to accomplish a lot in a small amount of time. In order for them to buy in to new activities, they must be convenient.

Activity/Kit Hack

Simplify and organize activities into a “Discovery Trunk” which educators can borrow.

Results

Educators feel supported, students enjoy relevant activities, and your institution builds its resources and reputation.

MAINE DISCOVERY MUSEUM

What will you discover?

Barrier:

MDM does not have a planetarium or easy access to outdoor sky viewing spaces.

Activity Hack:

Results:

Seeing interest from area schools for the

2019 Field trip season.

Barrier:

MDM provides STEM education to younger audiences.

Activity Hack:

Incorporating NISE kit content into existing programs and combining with Pre-K specific materials and language to scale science learning and science work to younger learners.

Results:

NISE activities have been informing and shaping most STEM programs across all areas at MDM and helped greatly broaden the range of our STEM education.

Barrier:

High interest, high need for quality STEM enrichment in underserved, underfunded, remote, & rural communities.

Activity Hack:

Development of a mini traveling interactive exhibit about the effects of climate change in the Gulf of Maine based on the overall concept of NISE mini exhibits and NISE Earth and Space Science content in collaboration with GMRI and NASA.

Results: Coming in 2019.

THe Children’s Museum of Indianapolis

My Barrier: No time for Programs

Barrier Description: Educators are reluctant to add programs during a short field trip. They want students to experience the entire museum.

Activity Hack

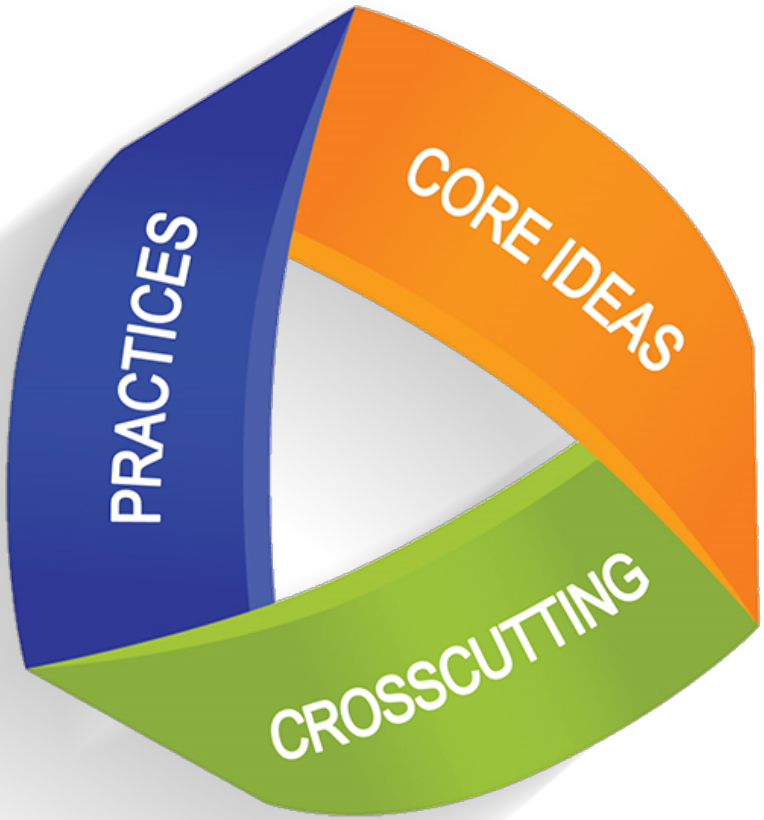
Combine several kit activities connected to standards, and spread them out along the natural path of students through the museum.

Results

Short interactives over the course of a field trip provide students with STEM interactions than a field trip alone.

EXPLORE SCIENCE Earth & Space

Lindsay Bartolone, NISE Earth & Space Science Subject Matter Expert



My Barrier: Must Meet Standards

Barrier Description

Teachers can't receive approval for outreach or field trip activities without "documentation" that the experience will address standards

Activity/Kit Hack

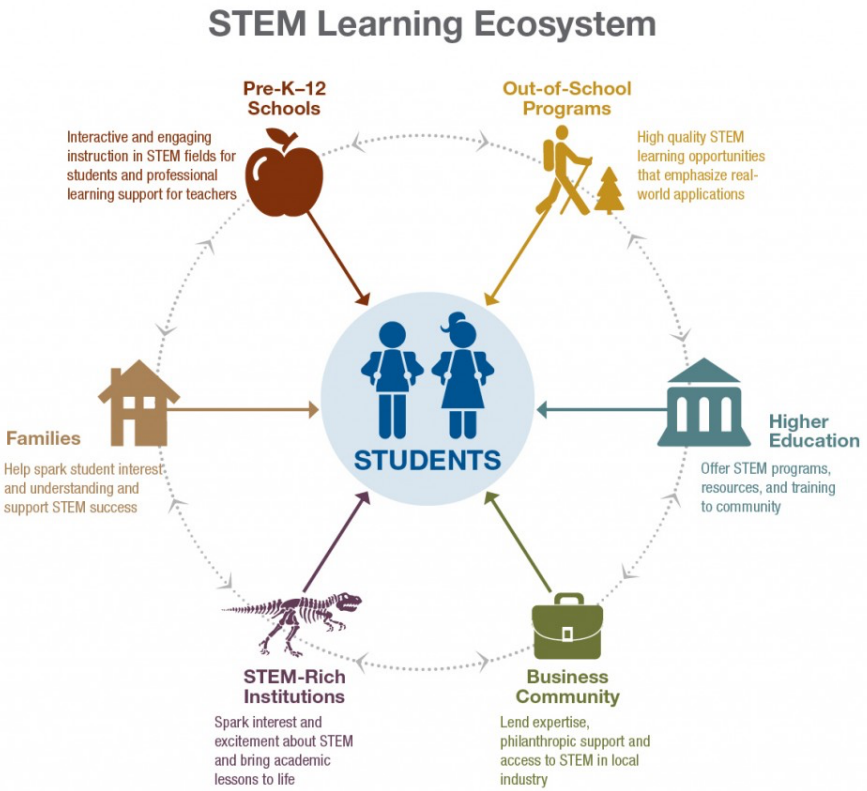
Although it is unlikely any one experience (esp an Informal Ed one) will be "explicitly designed to build to a performance expectation," you can use the "3D" components with phrases to describe programs like:

- Provides an opportunity to practice (an SEP)
- Provides hands-on experience to build towards (a DCI)
- Provides opportunities to reflect on connections to (CCC)

Results

School leadership sees Informal experiences as relevant to school achievement

My Barrier: Must Meet Standards



Barrier Description

Teachers can't receive approval for outreach or field trip activities without "documentation" that the experience will address standards

Activity/Kit Hack

- Use resources like "Connecting Formal and Informal STEM education" and "What afterschool STEM Does Best" to support conversations with Local School Leadership and Professional Development to reframe the conversation about Formal and Informal outcomes and cultivating a whole STEM Ecosystem
- Use simple outcomes like "I like STEM," "I can DO STEM," and "STEM is important to me"

Results

School leadership sees Informal experiences as valuable to school achievement

EXPLORE SCIENCE
Earth & Space

Barrier Bingo

Identifying Barriers to Collaborating with K-12 Schools

Then Hacking the Kit to Overcome These Barriers

Barrier Bingo

Work with a small group

- Identify 4-5 other people around you and work as a group
- You will receive an activity to hack
- You may pick more than one activity if you want
- If we run out of activities (printed) go to nisenet.org to get more.

How does it work?

Your group will identify 3 barriers to overcome:

- Hopefully they're in a row or diagonal (thus the bingo theme)
- Identify what aspects of the activity (or activities) you'll hack to overcome barriers.
- If you're stuck, we encourage you to ask other groups how they've overcome barriers: this is a coopetition!

Gamifying Sharing Out:
Collaborating with k-12 schools is about relationships

The Dating Game

(matching k-12 educators with informal educators)

The Principal
The Teacher
The Homeschool Coop
The Student

Thank You

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