Practice what you preach:
Training staff on STEM practices

—

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Why do we train staff in science?

- Trained staff can do a better job of helping us fulfill our missions to stimulate curiosity about science in our guests

- We want to increase scientific habits of mind in EVERYONE, including our staff

What we will cover

- Program description
- Audience
- Facilitators
- Goals
- Method
- Evaluation

COSI Speaker Series

COSI Speaker Series

Goals:

- Create foundation knowledge of content area
- Expose faculty to professionals in the content field
- Create relationships/partnerships with experts in our area

COSI Speaker Series

Target audience:

COSI Floor Faculty and Team at Large

Developed by:

Floor Faculty Manager(s),

Project Team Leads

Format:

1 - 3 hour long sessions.

Sessions are offered in person/and or video

COSI Speaker Series

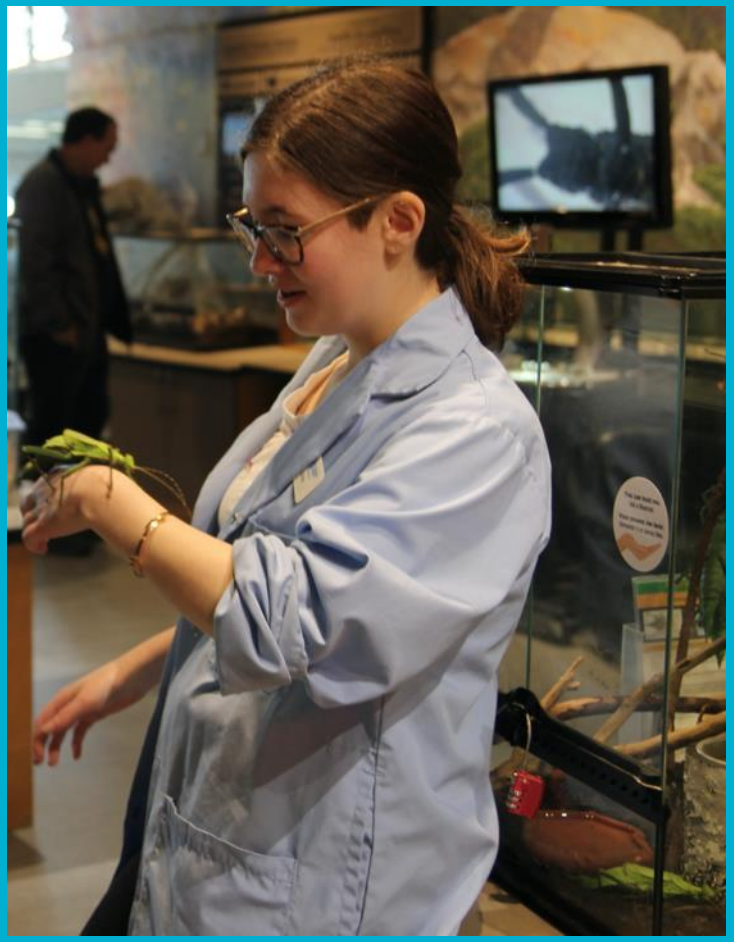
COSI Speaker Series

COSI Speaker Series

SCIENCE NORTH SCIENCE NORD

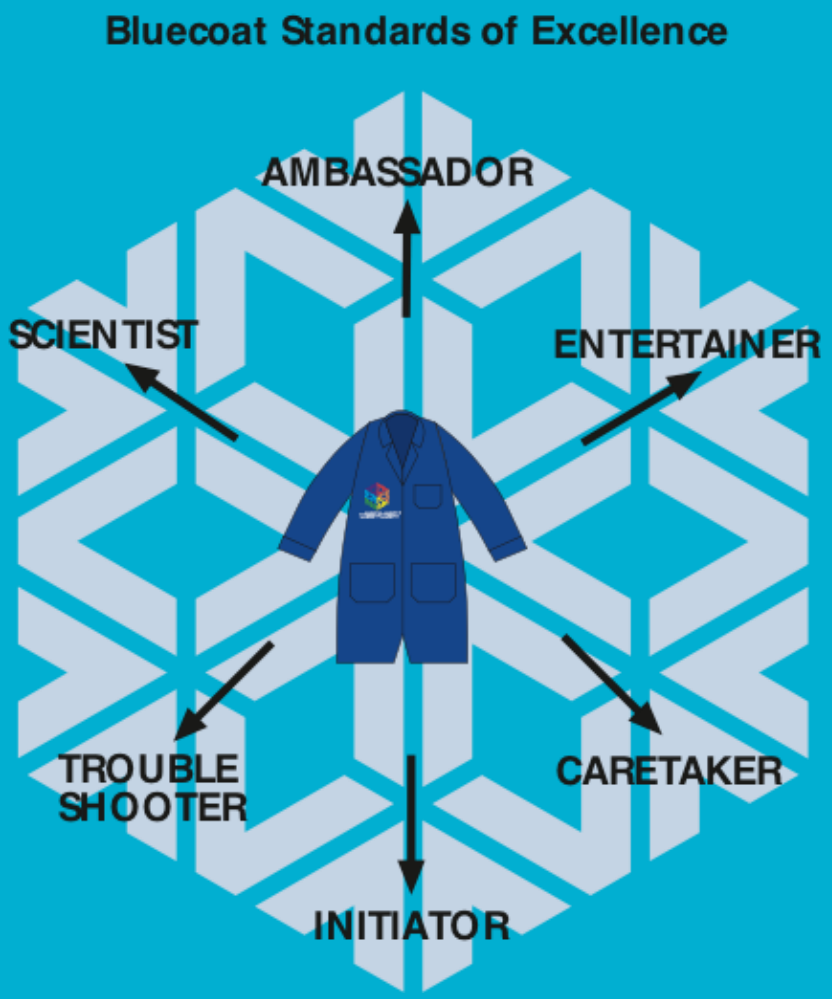
Bluecoat Badge Program

Well trained staff and volunteers are all about creating a better experience for our visitors.



SCIENCE NORTH SCIENCE NORD

Bluecoat Badge Program



SCIENCE NORTH SCIENCE NORD

Bluecoat Badge Program

The number of badges is a direct result of their desire and initiation to learn more.

SCIENCE NORTH SCIENCE NORD

Bluecoat Badge Program

SCIENCE NORTH SCIENCE NORD

Bluecoat Badge Program

Science Is...
Core training program

Target audience: the full California Science Center staff

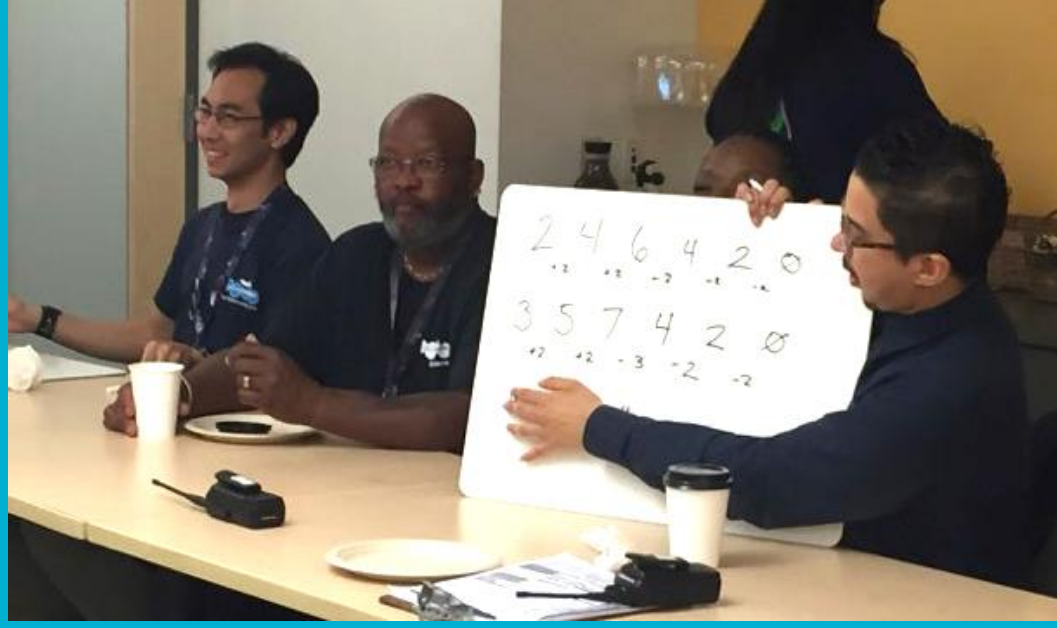
Developed by: interdepartmental team with members from guest services, education, human resources, living collections and exhibit development

Delivered by: Staff members from education, living collections and exhibit development departments

Format: Three-hour-long required staff training, divided into three parts.

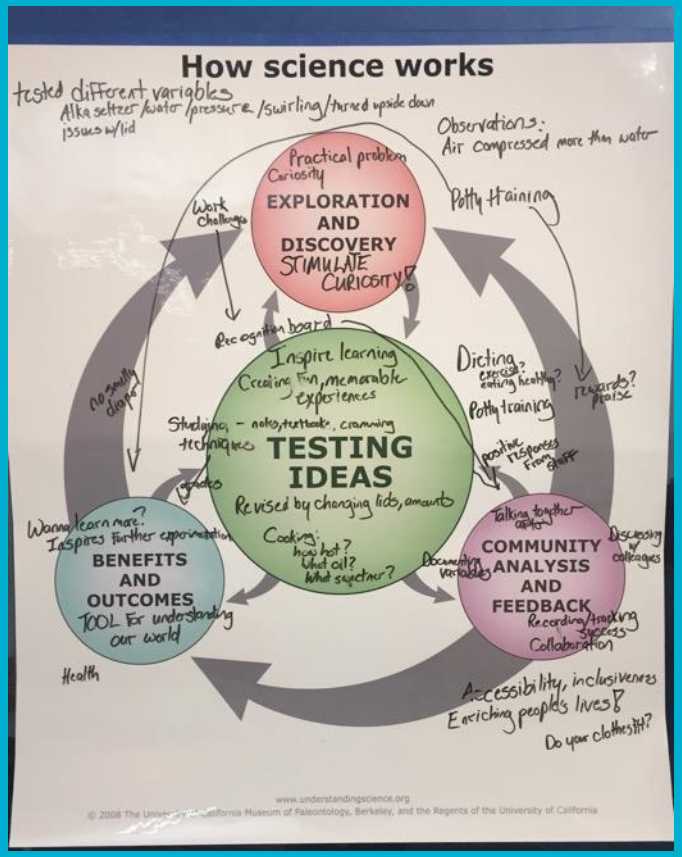
Part 1:
WHAT IS SCIENCE?

Staff participate in a presentation about the nature of science and divide into teams for a pattern-finding exercise.



Part 2:
Process of science

Staff experiment with Alka-Seltzer rockets to discover that the science process isn't linear (which often contradicts what we learned in school).



Science Is...
Core training program

Part 3: Everyone can do science!

Presenters explain the concept of informal science learning to staff, and then send staff off to the galleries to observe guests interacting with exhibits.

Program Goals

Staff will:

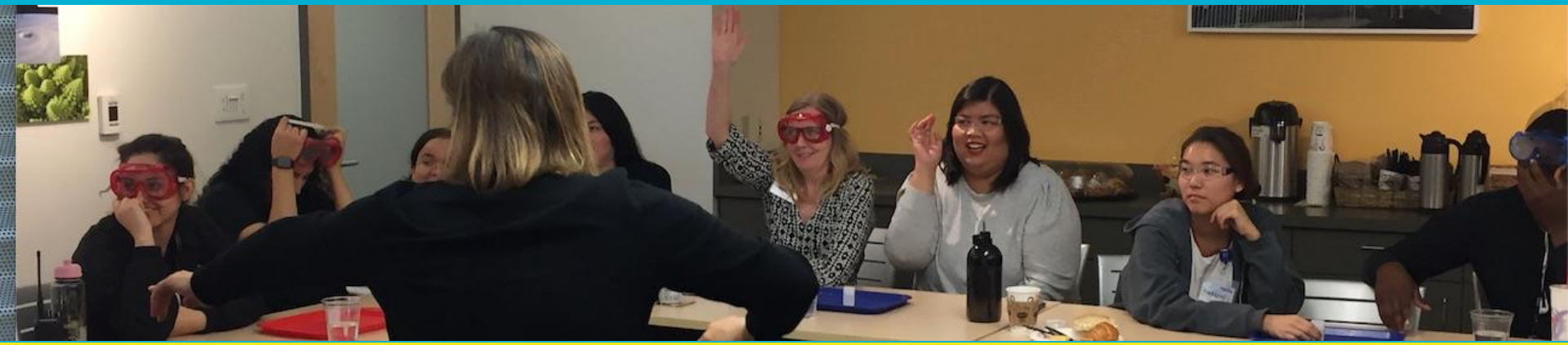
- Understand components of the nature and process of science
- Identify elements of the nature and process of science in exhibits and programs
- Apply elements of the training to better support the Science Center's mission
- See how they use science every day
- Be encouraged and empowered to use science as a tool to evaluate news and phenomena they see in the world around them

Evaluation results

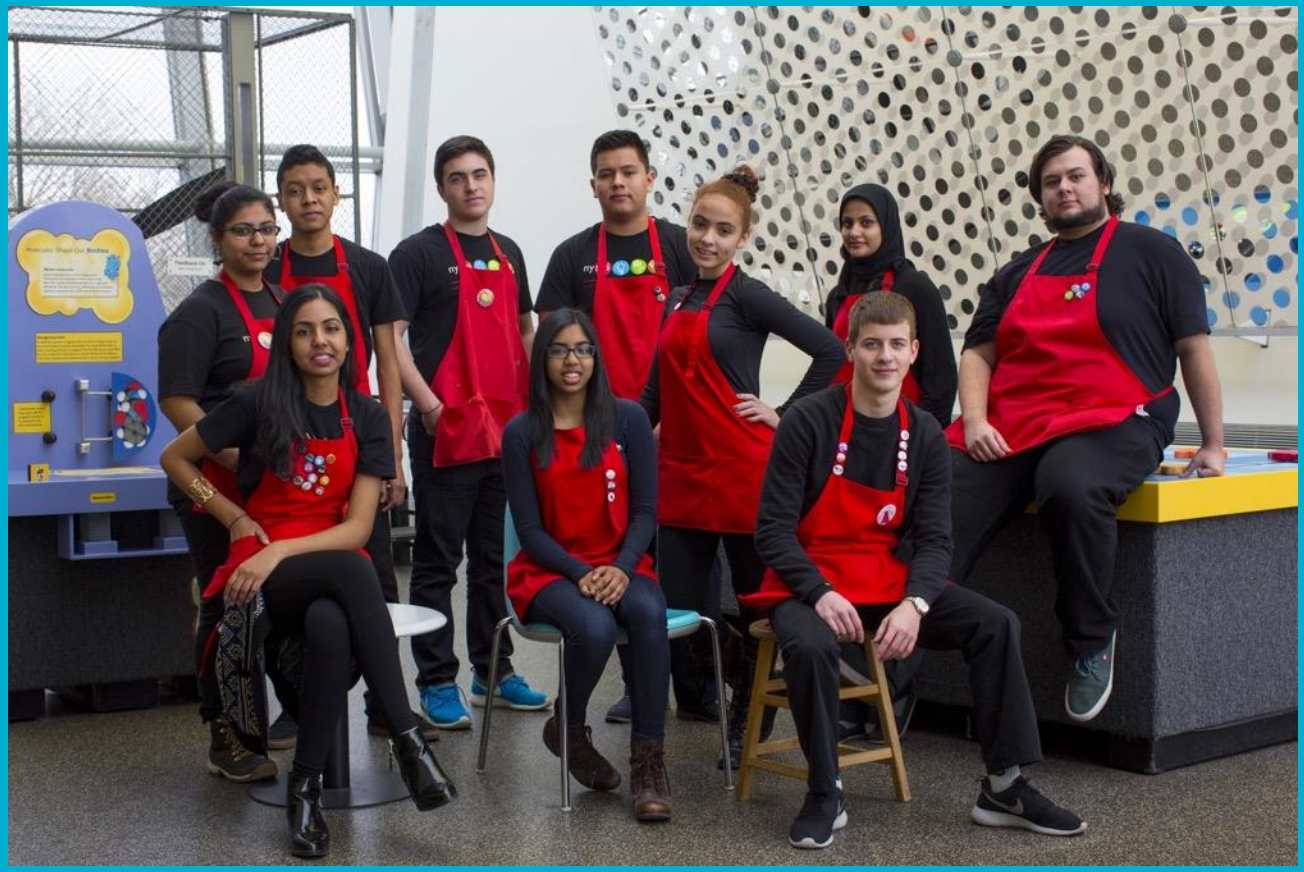
95 staff members and 71 volunteers have taken the class so far.

Of those surveyed, 67% say the course is extremely effective in helping them understand how science works.

After taking the workshop, 88% say they would be comfortable or extremely comfortable describing how science works to someone in their department who had not taken the course.



Evaluation results

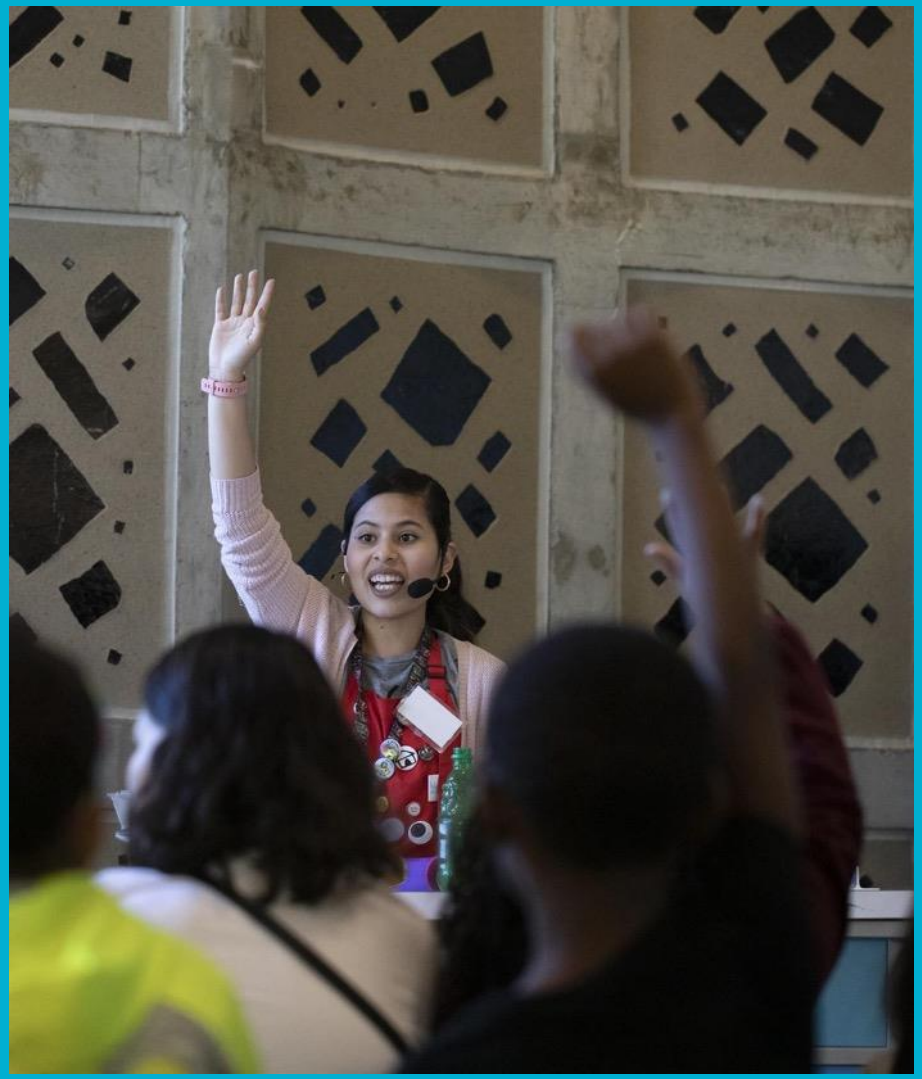


Explainer Habits of Mind

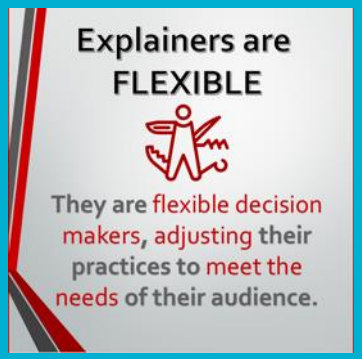
Science Career Ladder

Science Career Ladder Goals

The Science Career Ladder empowers Explainers to develop and grow their interest and agency in science. They discover multiple, dynamic pathways to learning and rewarding careers.



Science Career Ladder
Explainer Habits of Mind

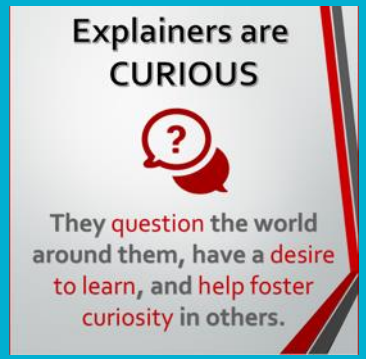


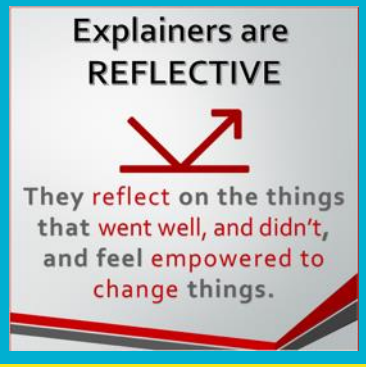
Target audience: Explainers- High School and College docents

Developed by: interdepartmental team with members from our Explainer Leadership Team, Exhibit Experience Team and Research Department.

Delivered by: Training staff

Format: Program Culture Shift- Daily trainings / New Explainer Orientation





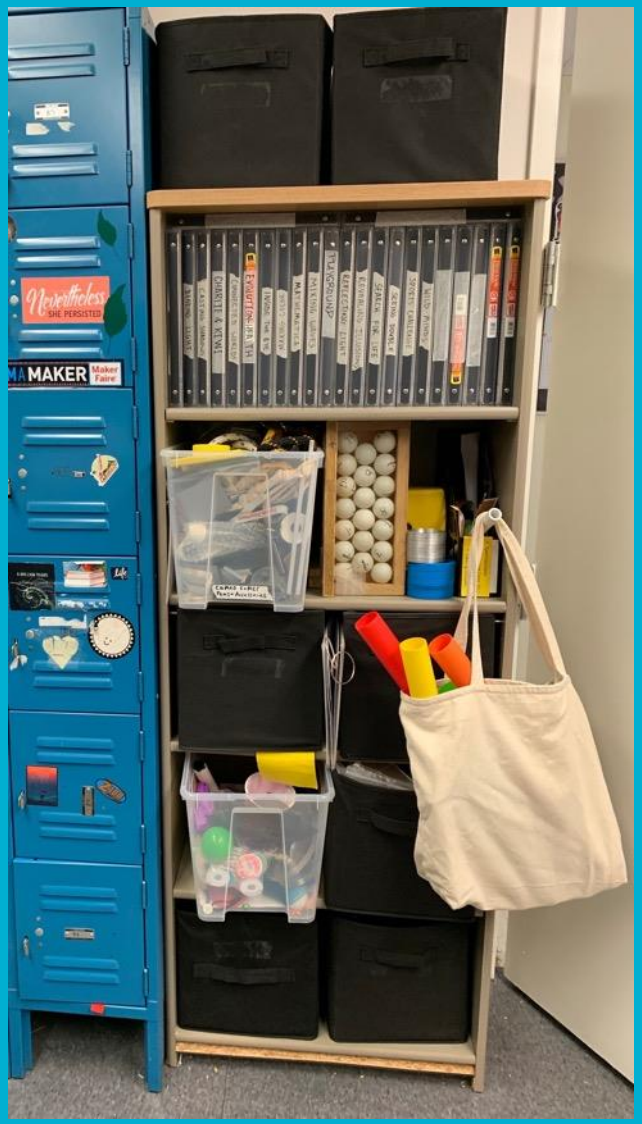
Science Career Ladder : Implementation Methods

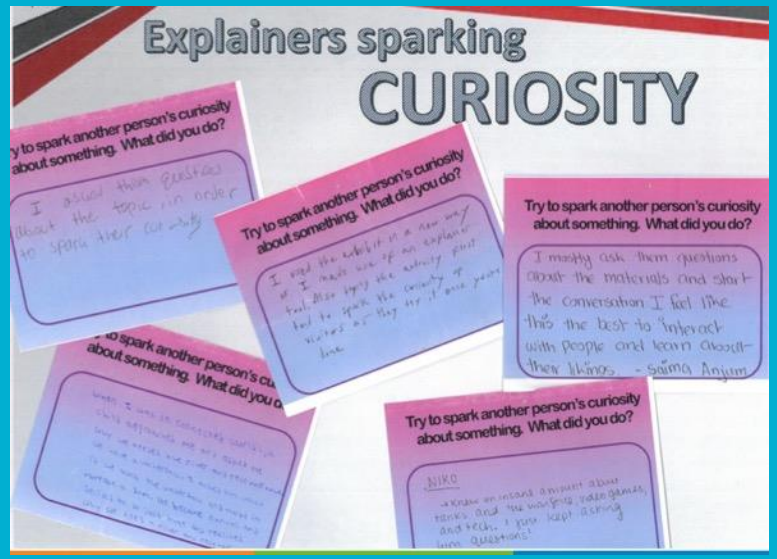
New Explainer Orientation

Science Career Ladder : Implementation Methods

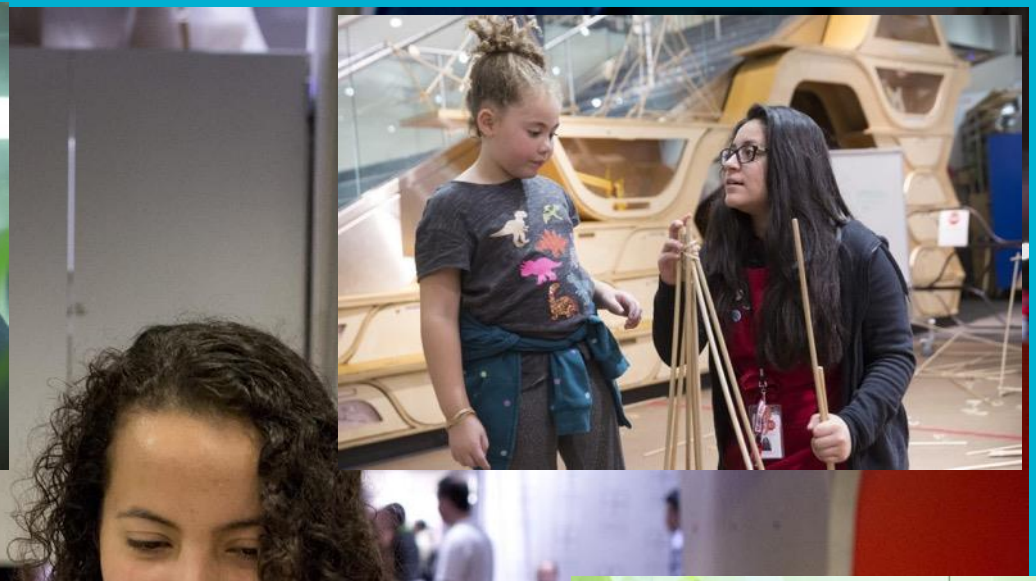
Daily Explainer Trainings

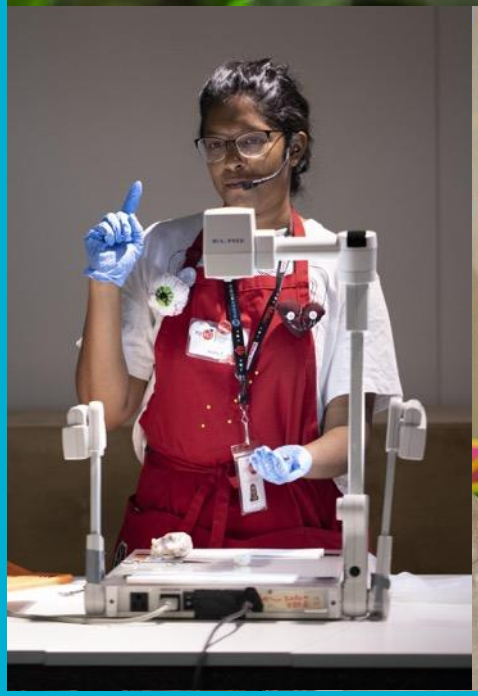
Science Career Ladder : Implementation Methods





Science Career Ladder : Evaluation Results





Science Conversations

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THE FRANKLIN INSTITUTE

GOAL

By 2024, The Franklin Institute will be a world-wide leader in promoting science and technology education and literacy through inspiring and engaging experiences that cultivate curiosity, critical thinking, and an understanding of the crucial role science plays in our lives.

CORE STRATEGIES

#1 World-Class Visitor Experience.

#2 Leading-Edge Science Communication.

#3 Impactful Education Programs.

#4 Best-in-Class Operational Effectiveness.

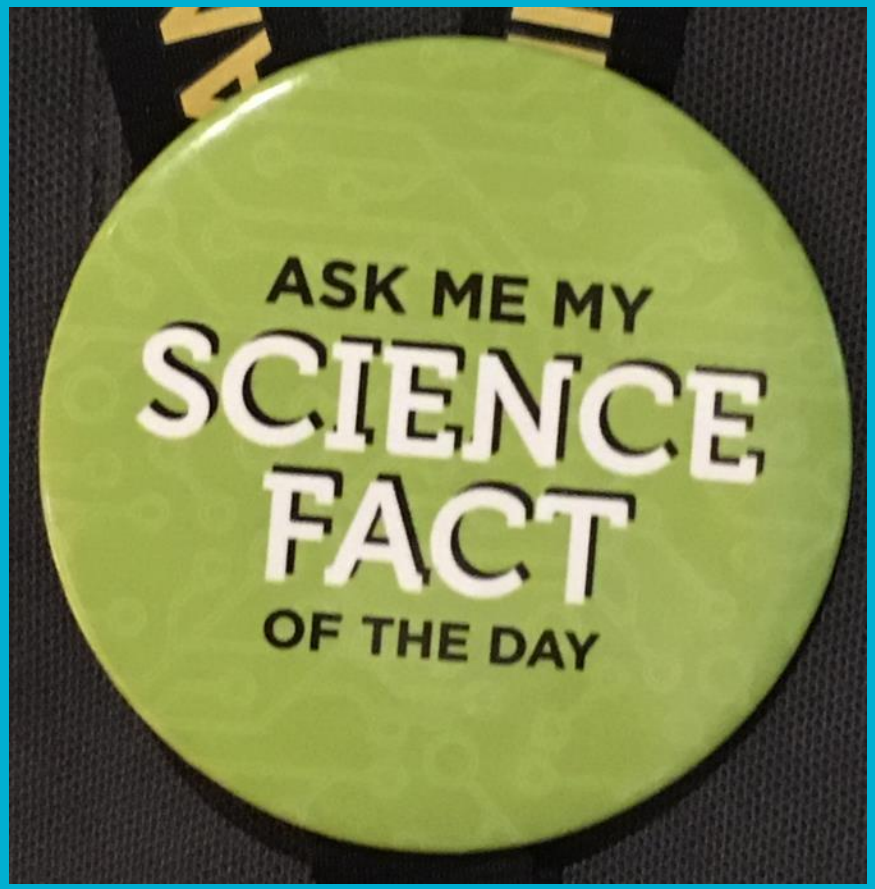
Target audience: Guest services staff

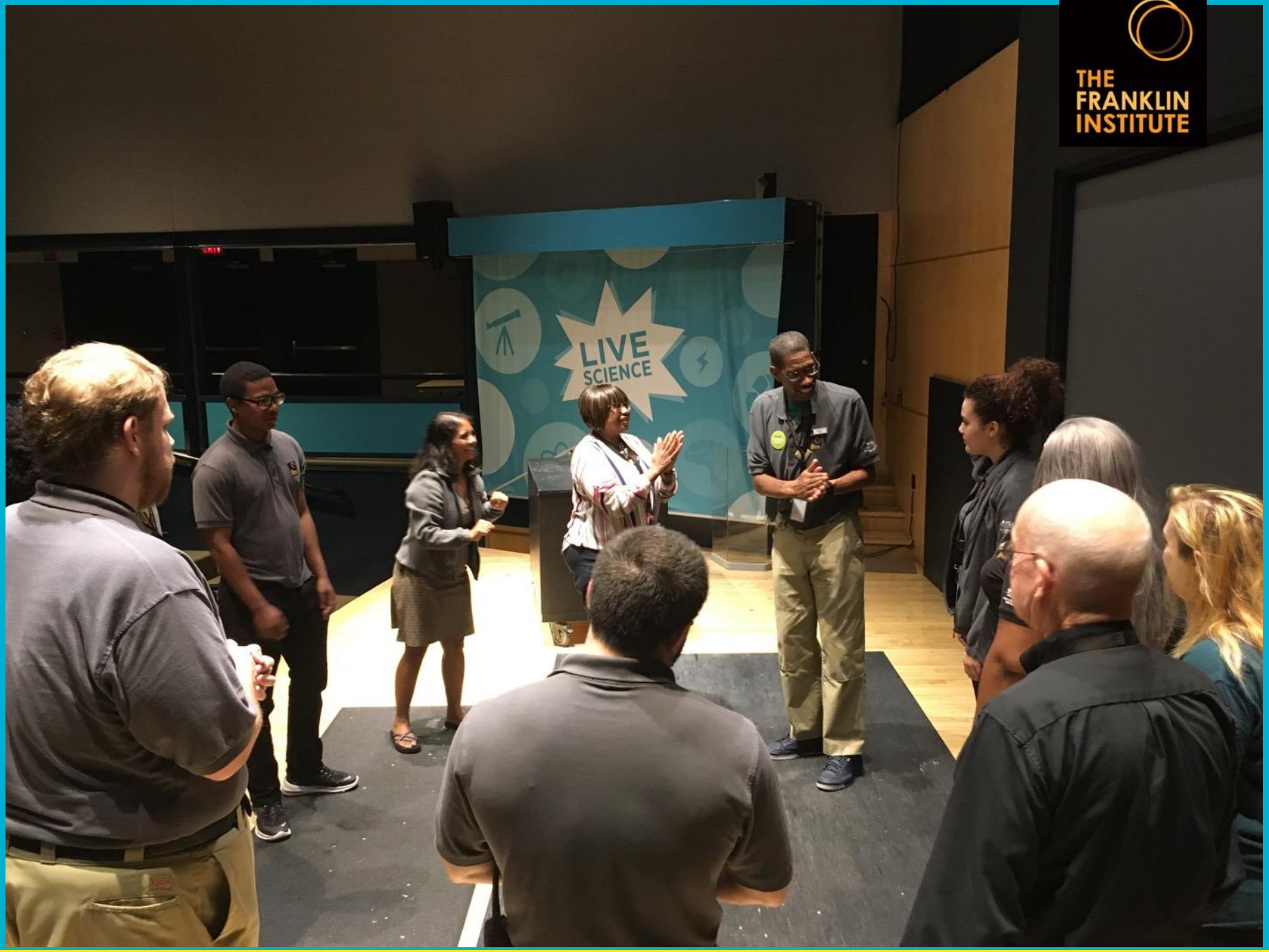
Developed by: interdepartmental team from guest services, science content, and museum programs

Goals:

- Empower guest services staff
- Offer more personalized experiences
- Seamless coordination of staff, services, and spaces

Format: One hour long staff training

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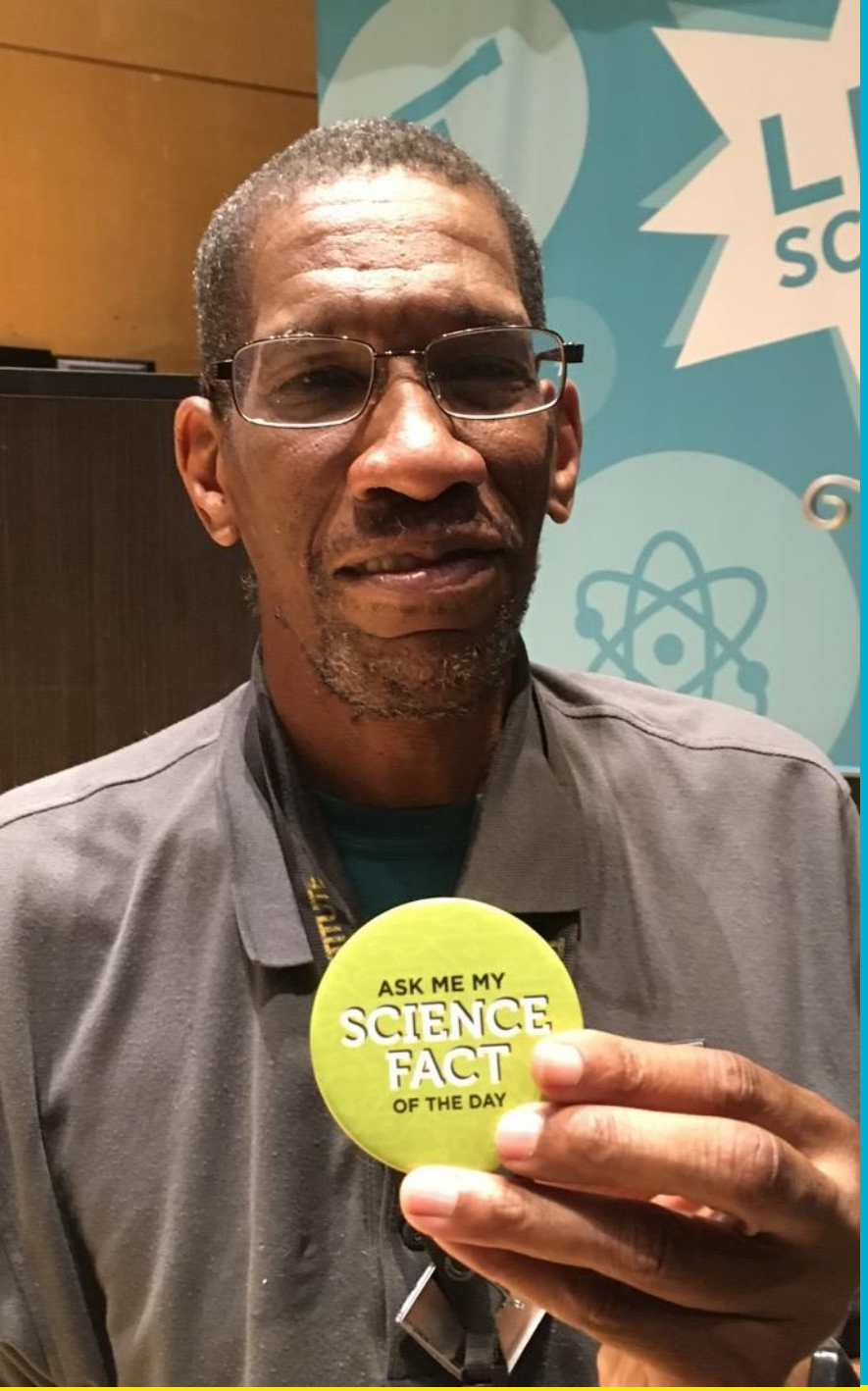

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SCIENCE STORIES

- Personally relevant
- Based on trustworthy sources
- What makes you say wow? What makes you wonder?
- Say “I don’t know!”
- Connect to exhibits if it makes sense

EVALUATION

- Great conversation prompt!
- Frequency and depth vary by location
- Practice builds confidence
- Perceived role as expert can be intimidating
- More guiding constraints

Common goals

- Science empowerment of staff and visitors
  You can do science!
- Cultivating scientific habits of mind
- More engagement between staff and guests
- Increased staff confidence, competence, collegiality, and collaboration
- Improved critical thinking skills
- Better fulfillment of organization's mission

Things that worked

- Making use of existing resources
- Being aware of logistical limitations
- Getting feedback from participants
- Giving participants choice
- Having a champion for the program
- Working in teams?
- Providing snacks!

Brainstorm time!

What would your program look like?

- Goals?
- Audience?
- Method?
- Who could develop?
- Who could deliver?
- Resources to leverage?

Sharing time!

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