

Best program ever!

**NISE**  
NATIONAL INFORMAL  
STEM EDUCATION  
**NETWORK**



# Presenters

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# Session overview



## **PART 1:**

**Program delivery:** Team-building and improv games

**Program development:** Iterative development process

**Brainstorming activity:** Program planning

**Improvement:** Evaluation and team-based inquiry

## **PART 2:**

**Program delivery:** Team-building and improv games

**Program development:** Brief overview of iterative process

**Rapid prototyping:** Program planning and development

**Resources:** Available for free download

# Goals

## Our goals for participants:

- Learn and apply methods and practices for engaging diverse public audiences
- Gain access to resources to help create great programming, especially related to STEM learning
- Feel part of a broader museum community

## Your goals:

- One big thing you each hope to learn

# IMPROV GAMES

[nisenet.org](http://nisenet.org)

# Red Ball Improv Exercise

1. Form a circle and start by passing around a pantomimed Red Ball. While passing the Red Ball, say the following
  - A: “Red Ball?”
  - B: “Red Ball!”
  - A tosses the ball; B catches the ball
  - B: “Thank You, Red Ball.”
2. While the Red Ball is being tossed, introduce another colored ball, or different object, and begin to pass it around the circle.



# Red Ball Debrief

## Debrief questions

1. What three components do you think make up the communication pattern in this exercise?
2. (*Offer, acknowledge/accept offer, confirm/thank*)
3. Where would you find those same components within a guest engagement?
4. How did you react to having multiple balls added into the mix?
5. What skills did you need to use to be successful in this exercise?
6. How could you use (*the skills identified by the group*) to help us better engage guests in conversations?



# BEST PRACTICES

[nisenet.org](http://nisenet.org)



# Planning process



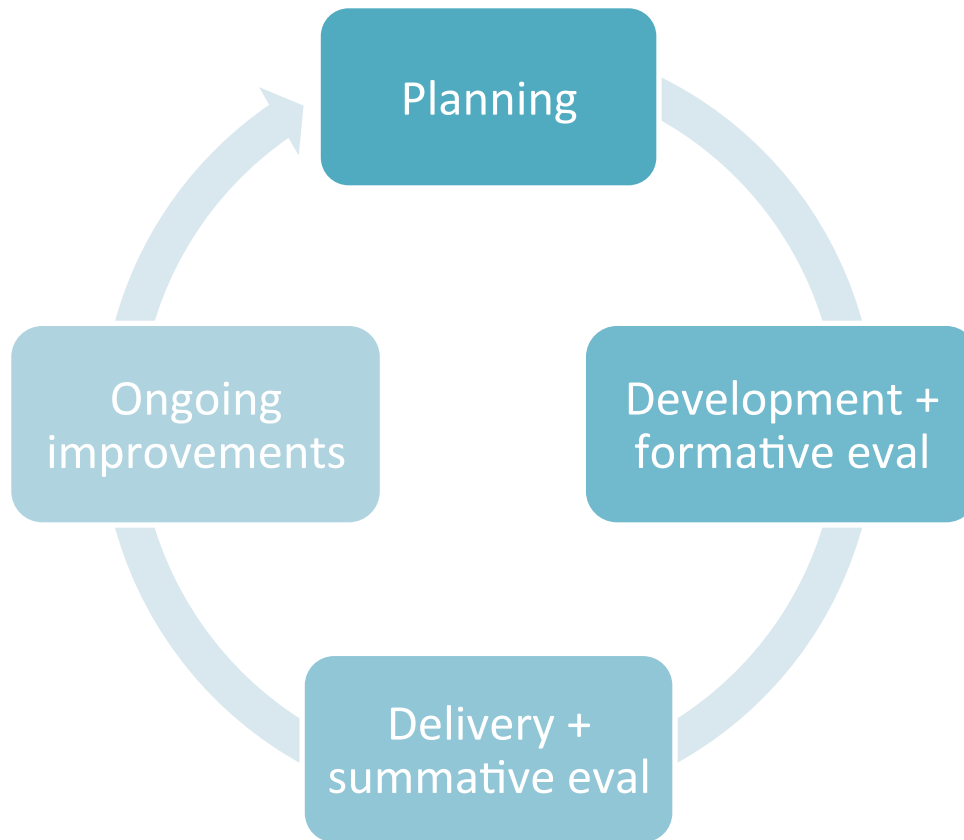
## Define the program:

- Target audience
- Program format
- Learning objectives

## Identify the parameters:

- Space (setting)
- Budget
- Timeline
- New program or adaptation?

# Program development



# Development process



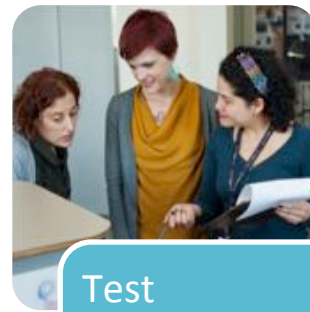
## Create prototype

- Research online
- Find successful examples
- Try things out



## Get input

- Educators
- Experts
- Participants



## Test systematically

- Traditional eval
- Reflective practice
- Team-based inquiry



## Make improvements

- Strengthen learning
- Polish materials

# Development – tips

## LEARNING OBJECTIVES

- **Be explicit** about your audience and objectives
- **Be ruthless** about designing for them
- **Be realistic** about what's possible in an informal learning environment

## BEST PRACTICES

- **Use an iterative process**
- **Use universal design** principles
- **Get feedback** from peers, participants, and experts

## PRACTICAL CONSIDERATIONS

- **Think ahead** to implementation, so it's easy to set up, deliver, clean up, and store materials
- **Document** the program so others can learn and use it



# Development – program strategies

**Social:** Fosters positive social interactions

**Multigenerational:** Offers challenges that are fun for all ages

**Straightforward:** Easy to understand to quickly and easily engage participants

**Aligned:** Interactive aspects are directly related to the learning objectives



# Development – universal design

All phases of development and implementation

Three guiding principles:

- Repeat and reinforce the main concepts
- Create multiple entry points and multiple ways of engagement
- Provide physical and sensory access to all aspects of the program



**PROGRAM  
DEVELOPMENT IN  
ACTION**

# STEM IN SPRING REVAMP





# Needs Assessment



Teacher

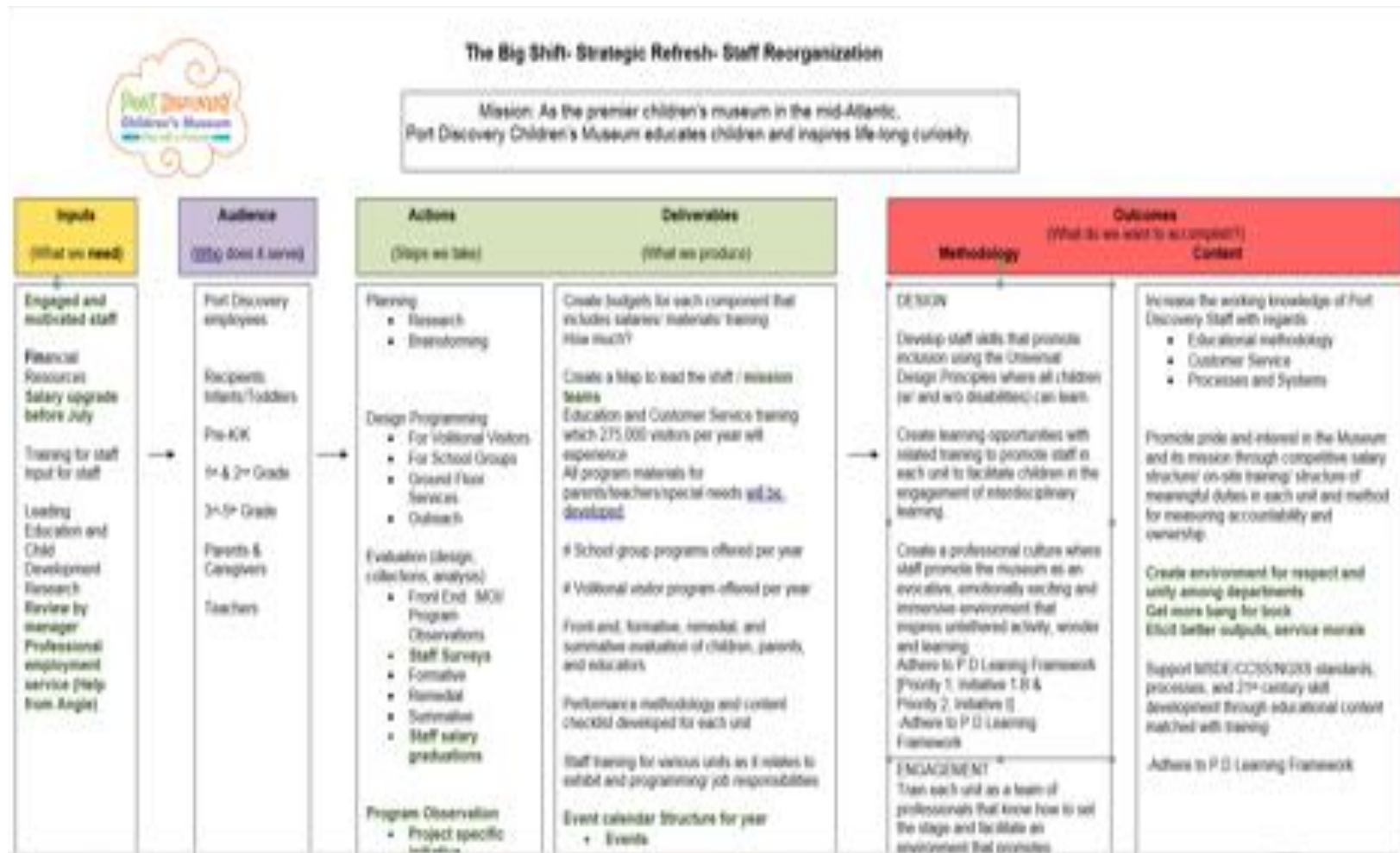


Parents/Care givers



Kiddos

# Create a Logic Model



# Brainstorming Objectives As Team

**Activities for each development age groups**

**DIVIDE & CONQUER**

**Work in small  
groups to design  
framework**

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groups to design  
framework**

# CRITIQUE SESSION

Each Team presents to the large session

```
graph LR; A[Create Narratives] --> B[Send Narratives to Ed ventures]; B --> C[Prototype]
```

Create  
Narratives

Send  
Narratives to  
Ed ventures

Prototype

# IMPLEMENT WITH THE PUBLIC



# REVIEW AS A TEAM





# RAPID PROTOTYPING

# Rapid development activity



**CHALLENGE:** Sketch out a program idea in the next ~25 minutes.

**MATERIALS:** You'll be given some silly props that you must incorporate! You're also free to use the materials on the supply table.

**PROGRAM AUDIENCE & FORMAT:** These are up to you, but be sure your group has a specific audience in mind.

**PRESENTATION:** You have just a few minutes total to introduce your topic and deliver your program. In your intro, tell us:

- Your challenge
- Your program's name
- Your program's "big idea"
- Your target audience and program format

**HAVE FUN 😊**

# WRAP UP + RESOURCES

# NISE Net

**Website:**

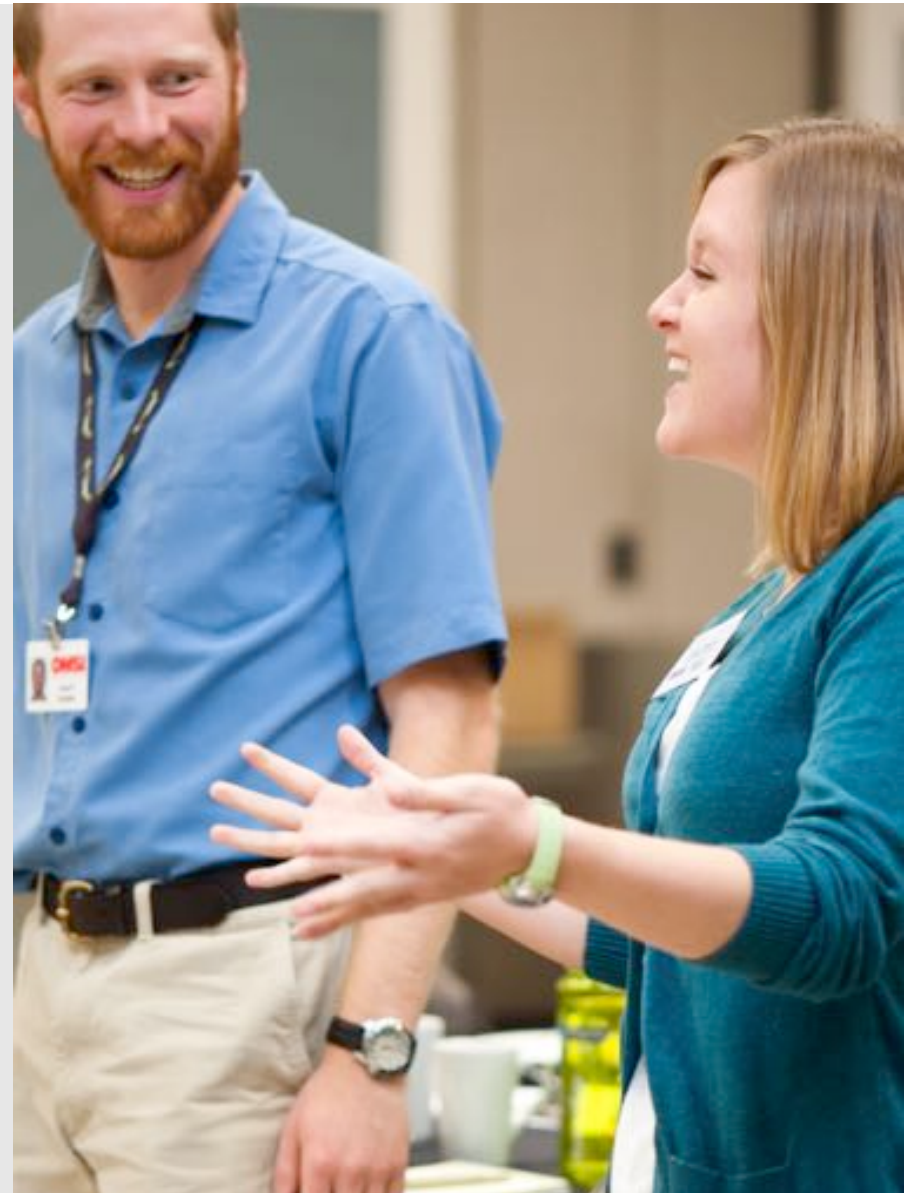
[nisenet.org](http://nisenet.org)

**Newsletter:**

[nisenet.org/newsletter](http://nisenet.org/newsletter)

**Social media:**

[nisenet.org/social](http://nisenet.org/social)



# nisenet.org

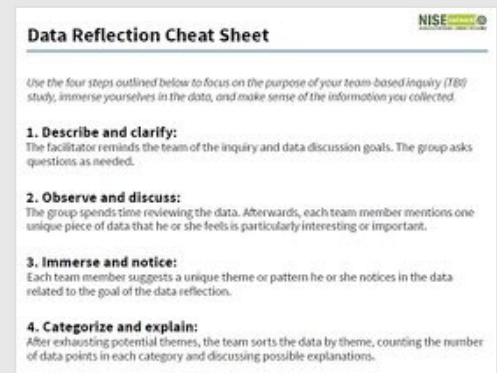
## READY-TO-USE RESOURCES

Professional development guides  
Program templates  
Evaluation tools  
Training slides and videos  
Improv exercises  
...and more!



## MANY TOPICS

Programs, activities, games  
Presentation skills  
Partnerships and collaborations  
Universal design  
Team-based inquiry  
...and more!



# Professional resources – nisenet.org

## **Guides**

Bilingual Design Guide for Educational Experiences in Museums  
Collaboration Guide for Museums Working with Community Youth-Serving Organizations  
Gaming and the NISE Network: A Gameful Approach to STEM Learning  
NanoDays: A NISE Network Guide to Creating Activity Kits, Building Communities, and Inspiring Learning  
Nanotechnology and Society: A Practical Guide to Engaging Museum Visitors in Conversation  
Program Development: A Guide to Creating Effective Learning Experiences for Public Audiences  
Team-Based Inquiry: A Practical Guide for Using Evaluation to Improve Informal Education Experiences  
Translation Process Guide for Educational Experiences in Museums  
Universal Design Guidelines for Public Programs in Science Museums

## **Videos**

America's Next Top Presenter  
Speed-ucate Video, or How to Have an Effective Science and Society Conversation  
Team-Based Inquiry Training Videos  
(Plus lots of training videos for specific activities!)

## **Tools**

Improv Exercises  
Museum & Community Partnerships: Collaboration Guide and additional resources  
NanoDays Training Materials  
Nano and Society Training Materials  
NISE Network Program and Activity Templates  
NISE Network Program Evaluation Tools

## **Workshop Recordings and Packages**

Bilingual Audiences Workshop Resources  
Improving NanoDays Trainings with Team-Based Inquiry: Partner Examples  
Making Evaluation Design Decisions: When Basic Evaluation Methods Meet the Real World  
Team-Based Inquiry Stories: NISE Network Partners Share What Works (and What Doesn't!)  
Universal Design of Educational Programs Workshop Resources  
Videos 101: Tips, Tricks, and Strategies for Small-Scale to Large-Scale Video Production

# Workshop – TBI

## Questions:

- A. Through this workshop I learned new practices for engaging diverse audiences in informal science learning
- B. I plan to use some of the practices discussed today when I return to work
- C. Through this workshop I strengthened my connections to professionals outside my institution who can help me with my work

## Rating scales:

Thumbs up = Agree

Thumbs to side = Not sure

Thumbs down = Disagree

Right side of room = Agree

Middle of room = Not sure

Left side of room = Disagree

# Thank you



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