Collaborative for Early Science Learning

- 6 museums across the country
- Delivering
  - Webinar series
  - Online tool kit
  - Conference session workshops

This project was made possible by the Institute of Museum and Library Services
Series Overview

Series of three webinars to provide tools for museum professionals to start, expand, or improve early childhood teacher professional development

- May 9th – Building and Sustaining Partnerships with Head Start
- May 16th – Providing Science Professional Development for Early Childhood Teachers
- Today – Engaging Head Start Families in their Children’s Learning
Presenters

Bethany Resnick (Sciencenter, Ithaca, NY)
Zoe Peters (Bay Area Discovery Museum, Sausalito, CA)
Melissa Thomas (Saint Louis Science Center, St. Louis, MO)
Cheryl Juarez (Frost Science, Miami, FL)
Let’s learn a little about you...
Webinar Objectives

You will leave with

▶ An understanding of why family engagement is important

▶ Ready to use strategies to engage Head Start families that can be personalized for your site

▶ The resources needed to help plan and implement programs that engage Head Start families
Why focus on family engagement?

▶ Research Based
▶ “Families are their child’s most important teachers” - Head Start
Why focus on family engagement?

- Head Start has a family engagement component in their performance standards

Subpart E — Family and Community Engagement Program Services

§1302.51 Parent activities to promote child learning and development.

(a) A program must promote shared responsibility with parents for children’s early learning and development, and implement family engagement strategies that are designed to foster parental confidence and skills in promoting children’s learning and development. These strategies must include:

(1) Offering activities that support parent-child relationships and child development including language, dual language, literacy, and bi-literacy development as appropriate;

Why focus on family engagement?

- Breaks down barriers to science
  - Science can be simple and is all around us
  - Increases families’ awareness of how simple science can be
Why focus on family engagement?

- In-kind services
  - Parents must donate some of their time to Head Start

- Helps families recognize that museums are a local resource
Case Studies

Family Night  
Saint Louis Science Center

Connections: Parent Play Workshops  
Bay Area Discovery Museum

Family Engagement Workshops  
Sciencenter

Parent Leader Workshops and Family Events  
Frost Science
Planning Considerations

- Defining Objectives
- Funding
- Point Person
- Staffing
- Evaluation
- Marketing
- Food
- Attendance
- Scheduling
- Location
- Engaging Content
- Materials
Family Night - St. Louis Science Center

**Logistics**

- **Audience**
  - Head Start students, families, teachers
  - 400-700 people per event

- **Frequency**
  - One per year; 5-7pm, after hours

- **Funding**
  - Grant funded or fee based
Family Night - St. Louis Science Center

Logistics
▶ Location
  ▶ At the science center
  ▶ Buses provided by schools
▶ Food
  ▶ Pizza and salad dinner provided
Grace Hill Family Night
at the Saint Louis Science Center

Amazing Science Demonstrations
6pm  It’s A Blast (FIRE!)  
6:45pm  Boiling Hot, Boiling Cold (ICE!)

Dinner is available
5:30pm-7pm
Busses leave at 7:30pm to return to centers.

Grow Up Great is a program sponsored by PNC Bank to promote quality Early Childhood education and experiences. Grow Up Great partners Grace Hill with our fabulous cultural institutions including the Saint Louis Science Center, Saint Louis Art Museum, Saint Louis Symphony, and Missouri Botanical Garden. Look forward to seeing these institutions at your school this year.

KEY
- Restroom
- Food & Drink
- Elevator
- Stairs
- Early Childhood areas:
  2nd: Storytime Room, Museum, Bridge  
  1st: Human Adventure, Fish  
  Lower Level: Energy, Science, Insect demonstrations, Dj insects

Saint Louis Science Center
Grow Up Great Map

2nd Floor
1st Floor
Lower Level
Family Night - St. Louis Science Center

**Activities**

- Themed museum map
- Science Demonstrations
- Discovery Room open house
Connections Program
▶ Currently 43 schools, 90 classrooms, more than 1700 students
▶ Outreach & Field Trips with federally subsidized preschools
▶ Parent Play Workshop (PPW) is within this long term, multi touch point partnership program
▶ Funding: museum raises funds through grants, foundations, and individual donors
Connections: Parent Play Workshop- Bay Area Discovery Museum

Logistics

▶ Location
  ▶ At school: in classroom, all purpose room, etc.

▶ Audience
  ▶ Parents/Caregivers as adult learners
  ▶ Anywhere from 5-40 people
  ▶ 1-2 museum staff facilitating, often translated

▶ Frequency & Length
  ▶ Offered to each partner site once a school year
  ▶ 60-90 minutes
Connections: Parent Play Workshop- Bay Area Discovery Museum

What does a Parent Play Workshop look like?

- Science Process Skills Overview
- Nature Meditation & Collage
- Mystery Shakers
- Research Share
- Children Join
Family Engagement Workshops-
Sciencenter

**Logistics**

► **Audience**
  ► Head Start families (adults & children)
  ► ~100 people

► **Frequency & Length**
  ► Nine events a year; 1.5 hours each

► **Location**
  ► On-site at museum
  ► Transportation provided

► **Staffing**
  ► 2 to 3 educators

► **Funding**
  ► IMLS Science From the Start, donors, Tompkins Community Action

► **Food**
  ► Dinner provided
Family Engagement Workshops-
Sciencenter

Activities
▶ Teachers run activities, encourage adults to facilitate for children

▶ Complement PD curriculum

▶ Easy, use simple materials

▶ Examples
   ▶ Slime; leaf rubbings; sink or float; ramp painting; and block painting

Activity Signs

Sticker Cards
Family Engagement Workshops-Sciencenter

Wrap Up
► Gather everyone in amphitheater for story and science experiment
► Helps signify end of event.

Parent Cards

TRY IT AT HOME!
You can try sink or float at home! Next time your child is getting ready for a bath, collect items that you are ok with getting wet, and turn bath time into a science experiment.

What did you discover?

WWW.SCIENCENTER.ORG

Predictions
Sink or Float

In this activity you are predicting which items will sink or float before placing them into water.

Making predictions is a great way for children to explore the world around them.

WWW.SCIENCENTER.ORG

WWW.SCIENCENTER.ORG
Frost Science

Two primary strategies to engage Head Start families:

- Workshops for parent leaders
- Family Science Days

Based on Early Childhood Hands-On Science (ECHOS®)
Parent Leader Workshops @ Frost Science

Logistics
▶ Audience
  ▶ Parents Leaders (two per classroom)

▶ Frequency & Length
  ▶ One per quarter, 2.5 hours

▶ Location
  ▶ At science museum or Head Start center
Parent Leader Workshops @ Frost Science

- **Play is Learning**
- **Science and Math in Your Pocket**
- **Parent Café: Conversations to Keep Families Strong**
- **Learning Resources at the Science Museum**
- Parents try out and take home science activities
- Families try out activities during Family Day
Family Days @ Frost Science

Logistics

▸ Audience
  ▸ Children and families

▸ Frequency & Length
  ▸ Once a year per center
  ▸ Half day on Saturday or Sunday

▸ Location
  ▸ Frost Science; bus provided
Family Days @ Frost Science

Special Feature
▶ ECHOS ambassadors - high school students from Upward Bound Math/Science program

▶ Bilingual, trained to conduct activities, welcome and guide families
Family Engagement

Something to consider:

Children are awake about **6,000** hours per year.

Children are in school about **1,000** hours per year.

That leaves **5,000** hours per year for children to explore interests...
- at home,
- at parks and libraries
- science and children’s museums!
Evaluation

► Why
  ► To ensure your program fits the needs of your audience

► Tools
  ► Team Based Inquiry
  ► Surveys
  ► Head Start Evaluation
### Which aspect of tonight's event affected your decision to attend?

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<tr>
<td>Your child(ren)'s interest in science</td>
<td>58</td>
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<tr>
<td>Your interest in science</td>
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<tr>
<td>Food provided</td>
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<td>Free transportation</td>
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<td>Event with child(ren)'s peer group</td>
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<tr>
<td>Interest in visiting SLSC</td>
<td>40</td>
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<tr>
<td>Teacher invite</td>
<td>33</td>
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<tr>
<td>Timing (Wednesday Evening)</td>
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<tr>
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**How likely are you to return to SLSC on a field trip with your children's school?**

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<td>Likely</td>
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<td>Unlikely</td>
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<tr>
<td>Very unlikely</td>
<td>15</td>
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</table>

**How likely are you to return to SLSC not on a field trip?**

<table>
<thead>
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<tr>
<td>Likely</td>
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<td>Unlikely</td>
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<tr>
<td>Very unlikely</td>
<td>17</td>
</tr>
</tbody>
</table>
Planning Considerations

- Defining Objectives
- Funding
- Point Person
- Staffing
- Attendance
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Families, teachers and other professionals are invited to use and share our hands-on activities guides and professional materials. The Sciencenter will continuously add relevant information to this page.

KIDS & FAMILIES

- Chemistry Activities

EDUCATORS

- Field Trips Supplemental Activities
- Chemistry Activity Lesson Plans

COLLABORATIVE FOR EARLY SCIENCE LEARNING

Resources to support museums partnering with local Head Start programs to provide teacher professional development and family engagement focusing on early childhood science:

- Launch a Collaboration
- Working with Head Start Teachers
- Working with Head Start Families
Resources: Museumtools.org

Working with Head Start Families

Resources to organize and lead Head Start family workshops.

KEY COMPONENTS OF HEAD START FAMILY WORKSHOPS

- Family Workshop Planning Guide
- Process Skill Scavenger Hunt

FAMILY WORKSHOP ACTIVITY GUIDE

- Measuring
- Observing
- Predicting
- Table Signs

PARENT TAKE-HOMES: CONTINUE LEARNING AT HOME

- Measuring
- Observing
- Predicting
Questions

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- May 9th – Building and Sustaining Partnerships with Head Start
- May 16th – Providing Science Professional Development for Early Childhood Teachers
- May 23rd – Engaging Head Start Families in their Children’s Learning
Thank you for joining us

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