

CESL



— Collaborative for —
Early Science Learning

Engaging Head Start Families in their Children's Learning

May 23, 2017

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

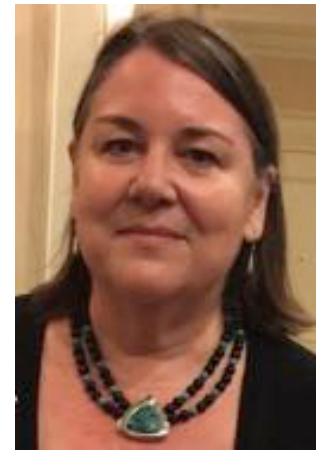
Presenters

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...

CESEL



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Early Science Learning

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;

<http://eclkc.ohs.acf.hhs.gov/hslc/hs/docs/hspss-final.pdf>



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



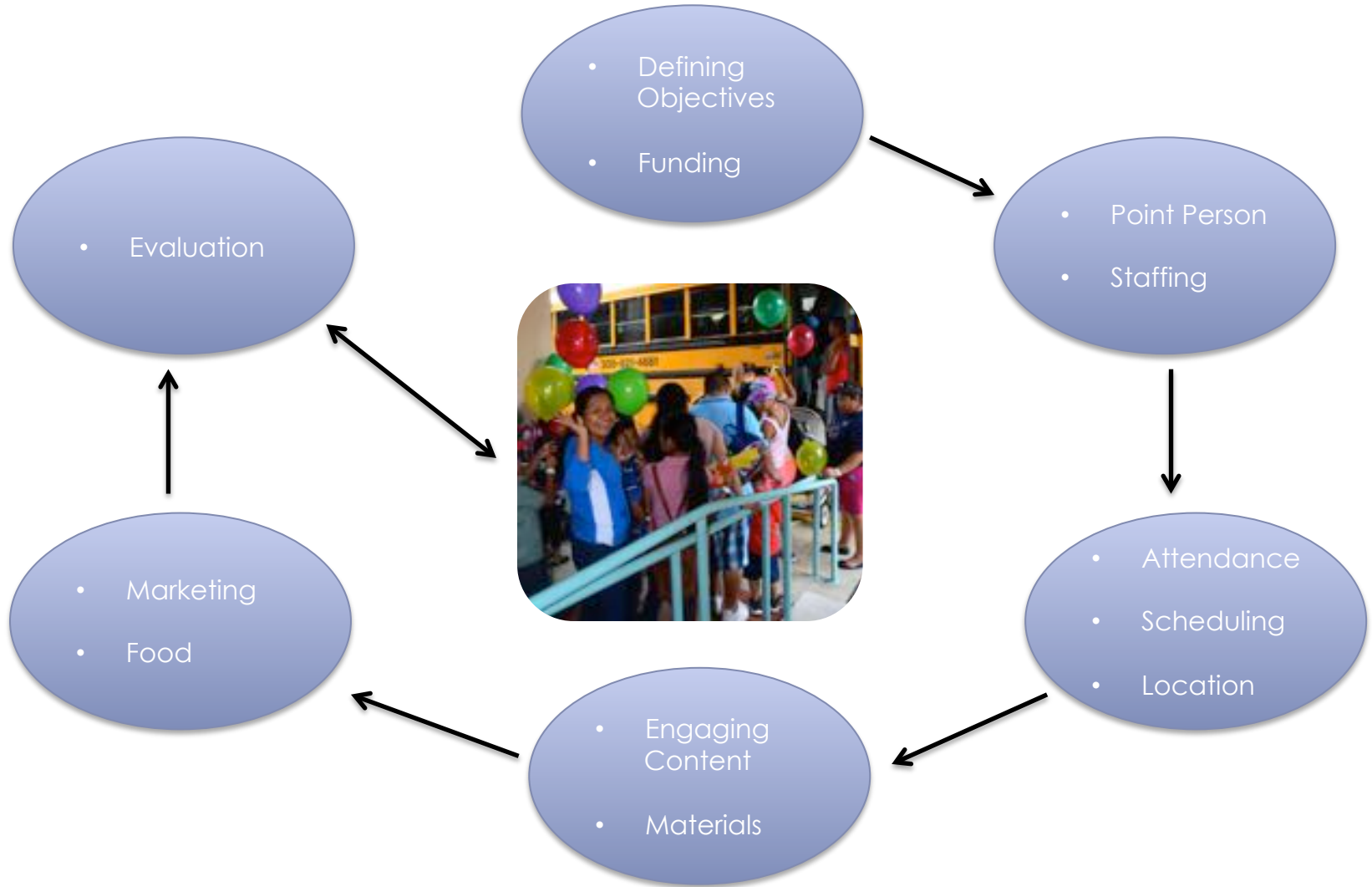
Sciencenter

Parent Leader Workshops and Family Events



Frost Science

Planning Considerations



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!)

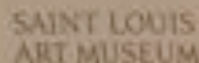
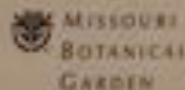
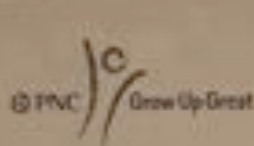
Dinner is available

5:30pm-7pm

Busses leave at 7:30pm to return to centers.

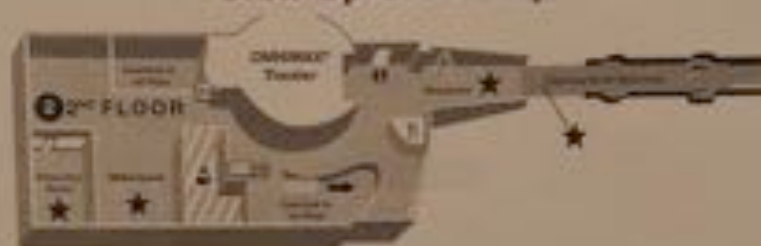
Grow Up Great is a program sponsored by PNC Bank to promote quality Early Childhood education and experiences. Grow Up Great partners Grace Hill with six fabulous cultural institutions including the Saint Louis Science Center, Saint Louis Art Museum, Saint Louis Symphony, and Missouri Botanical Garden.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

Sponsored by



Saint Louis Science Center

Grow Up Great Map



KEY



Stairs



Food & Drink



Elevator



Restroom



Early Childhood access:

2nd: University Room, Main Lobby, Structures, Bridge

1st: Human Museum, Egg

LL: Demonstrations, Top Site

Family Night - St. Louis Science Center

Activities

- ▶ Themed museum map
- ▶ Science Demonstrations
- ▶ Discovery Room open house



Connections: Parent Play Workshop - Bay Area Discovery Museum

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

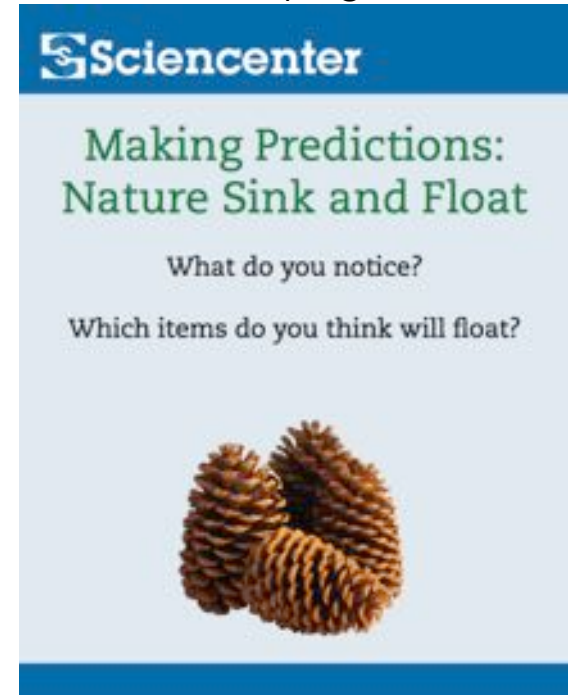


Family Engagement Workshops- Sciencenter

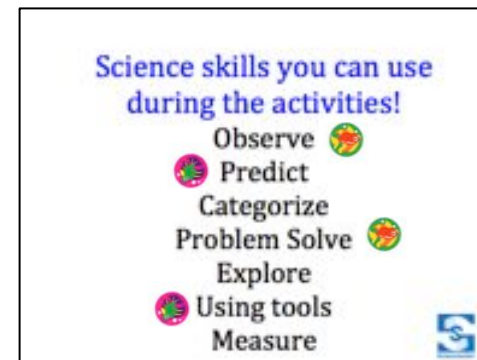
Activities

- ▶ 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



Science from the Start

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.



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



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*

ECHOS[®]
Busy Buzzing
Bees

Creative Arts iCard
Fingerprint Bee Cards

Children create bee picture cards.

Materials

- black washable finger paint
- crayons
- hand wipe/wet paper towels
- Honeybee photograph

For each child:

- one index card
- one small paper plate

Preparation

1. Place black washable finger paint onto each plate.
2. Place the Honeybee photograph in an area visible to the children.

Procedure

1. Say: Today we are going to use our fingers to create bee cards.
2. Give each child an index card and a small plate with a small amount of black finger paint.
3. Model how to make a fingerprint bee by using your index finger to make one fingerprint at a time side by side: one to represent the head, one for the thorax and one for the abdomen.
4. Assist children in using crayons to add legs, wings and antennas to their fingerprint bee, if needed, refer to the bee diagram to create the fingerprint bee card.
5. Provide hand wipes or wet paper towels for the children to clean their fingers following the activity.



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ECHOS[®]
Abejas
Trabajadoras

Tarjeta de Artes Creativas
Abejas de Huellas Digitales

Los participantes crean tarjetas de abejas hechas con huellas digitales.

Materiales

- pintura de dedos negra lavable
- crayones
- toallas húmedas/papel toalla húmedo
- fotografía de la Abeja de Mar

Para cada participante:

- una ficha
- un plato de papel pequeño

Preparación

1. Coloque un poco de pintura en cada plato.
2. Ponga la foto de la Abeja de Mar a la vista de todos los participantes.

Procedimiento

1. Diga: Hoy vamos a usar nuestros dedos para crear tarjetas de abejas.
2. Dé a cada participante una ficha y un plato pequeño con un poquito de pintura de dedos de color negro.
3. Muéstrelas cómo crear una abeja de huellas digitales con el dedo índice. Haga tres huellas, una para representar la cabeza, una para el tórax y una para el abdomen.
4. Ayude a los participantes a usar los crayones para dibujar las patas, alas y antenas de su abeja de huellas digitales. Si es necesario, consulte el diagrama de la abeja para crear la tarjeta de abeja de huellas digitales.
5. Proporcione toallitas húmedas o pedazos de papel toalla húmedo para que los participantes se limpien los dedos después de la actividad.



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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



Family Night - St. Louis Science Center

Which aspect of of tonight's event affected your decision to attend?	
Event for the whole family	79
Your child(ren)'s interest in science	58
Your interest in science	52
Food provided	50
Free transportation	49
Event with child(ren)'s peer group	43
Interest in visiting SLSC	40
Teacher invite	33
Timing (Wednesday Evening)	25
Other	1

Family Night - St. Louis Science Center

How likely are you to return to SLSC on a field trip with your children's school?

Very likely **63**

Likely **22**

Unlikely **0**

Very Unlikely **15**

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

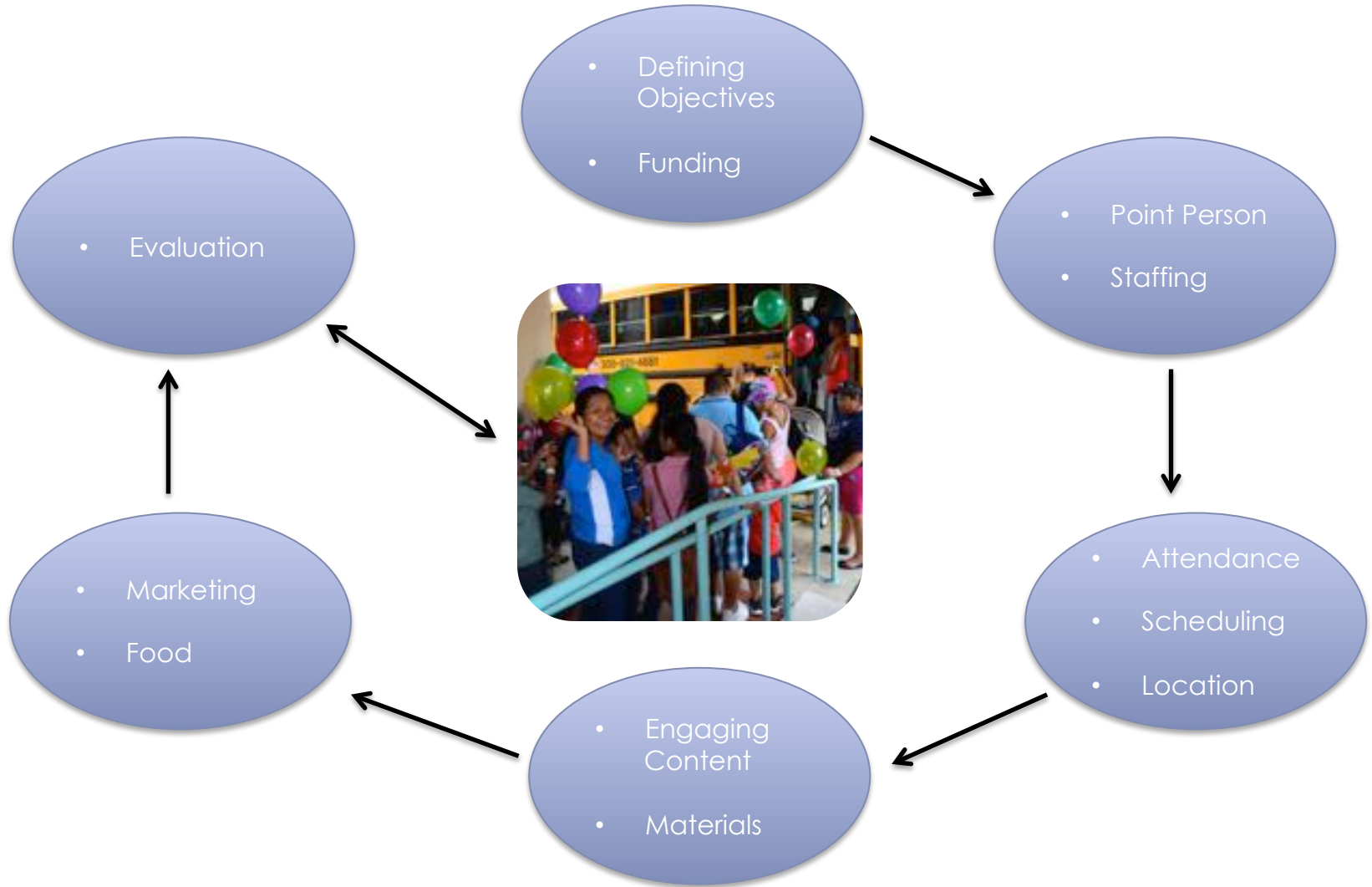
Very likely **54**

Likely **24**

Unlikely **1**

Very unlikely **17**

Planning Considerations



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RESOURCES

Engage. Educate. Empower.

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](#)

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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