Leading With the Littles:
Applying Brain Science to Museum Experiences for Young Children

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Someone you have learned from

- Think about a relationship where you learned something from someone (this does not have to be work related!)
- What were the qualities of that relationship?
- What made you open to learning from this person?

Share with a partner.
Basic Brain Development

- We are born “wired” for relationships
- Most brain development occurs in the first five years
- Use it or lose it! (synaptic pruning)
Making connections...and pruning
Building Baby’s Brains
Infant and Toddlers Learn through Responsive Interactions

- Learning through interactions
- Adults are “in tune”
- Contingent and responsive
How can an exhibit inspire adults to be in tune with infants and toddlers?
The importance of repetition

- Master skills
- The world is predictable
- Strengthen neural connections
How can a museum experience support strengthening connections?
The context of relationships

- Infants seek connection
- Trusting relationships make room for learning
- Relationships set expectations
What opportunities exist for connection and relationships?
From Theory to Practice: How this shows up in Museum Settings
Reinforcing Brain Architecture
Sensory Experiences
Objects and Sounds
A Variety of Materials And Textures

Madison Children’s Museum
Language Development

Symbolic Representation
Images and Words
Different languages
Serve and Return Interactions in the Museum Setting

Helping Caregivers Practice Being Responsive
Practicing Social Interactions

Pittsburgh Children’s Museum’s Nursery
Consumables to Share

Magic House:
For Baby and Me
Role Playing

Magic House: *For Baby and Me*
Mirrors

Minnesota Children’s Museum
Surprises
Repetition
The Children's Museum of Denver
Boston Children’s Museum:
PlaySpace
Community Workshops
Boston Basics
Relationship-Building Opportunities in Museums
Admissions and Membership
Visitor Services Staff
Join CCM’s open playgroup every day in Pritzker Playspace. It’s exclusively for babies, toddlers, and preschoolers—and a great place to meet other families, get inspired, and play!
Story Time

Children’s Discovery Museum of San Jose
Messaging for Parents and Caregivers

Did you learn something new about your child today?

¿Aprendió hoy algo nuevo sobre su hijo?

Bạn có học được điều gì mới về con em mình ngày hôm nay không?
Community-focused Initiatives

Welcome Baby Program
Children’s Museum of Houston

- Parents build relationships *with their children*
- Parents build relationships *with other Parents*
- Community-Based Organizations *build relationships with each other* to support parents and children
Community-focused Initiatives

Boston Basics

- Maximize Love, Manage Stress
- Talk, Sing and Point
- Count, Group and Compare
- Explore Through Movement and Play
- Read and Discuss Stories
Additional Resources

- Zero to Three
- www.developingchild.harvard.edu
- Dana Foundation
- BrainFacts.org
- Hand to Hand--issue on Neuroscience
- Boston Basics
Questions for Discussion

What more might we do that could help support:

- brain architecture development
- relationship building
- serve and return responses?
Questions for Discussion

What might a collaborative relationship with neuroscience researchers look like?

What should the relationship between children’s museums and neuroscience researchers be?
Rather than looking to neuroscience to provide a brand new framework for understanding learning, museum practitioners should consider how neuroscience findings relate to their existing understanding of how people learn, and what questions remain to be answered by gathering information from other fields or with other methods...

But museums are messy, real-world settings that require multidisciplinary perspectives, and neuroscience can play a key supporting role without taking center stage.
Leading With the Littles

Successful Strategies to Engage Infants and Toddlers in Museum Experiences