

While you are waiting for Teacher Time to begin...



Download the Viewer's Guide found in the green "Resource List" widget. Use the Guide to take notes during the webinar.



Open the yellow "Idea" widget and share: What is your favorite number-related song or fingerplay to sing with infants and toddlers?

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**TEACHER TIME**  
Little Scientists: Exploring **MATH** with Infants and Toddlers

**Hosts:**  
Judi Stevenson-Garcia & Treshawn Anderson

**Guest Expert:**  
Dawson Nichols, I-LABS

April 7, 2020

 **NATIONAL CENTER ON**  
Early Childhood Development, Teaching and Learning

**NCECDTL**

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Take care of yourself so you can take care of others



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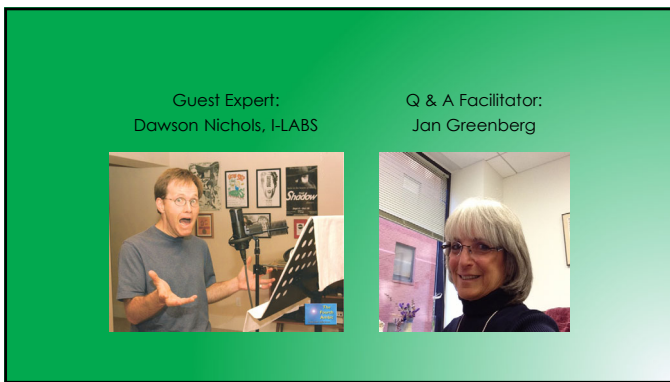
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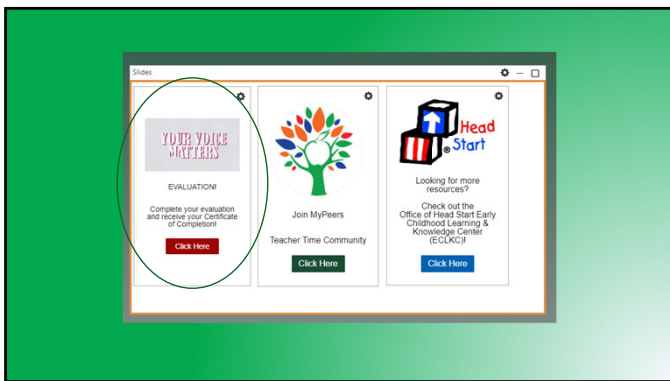
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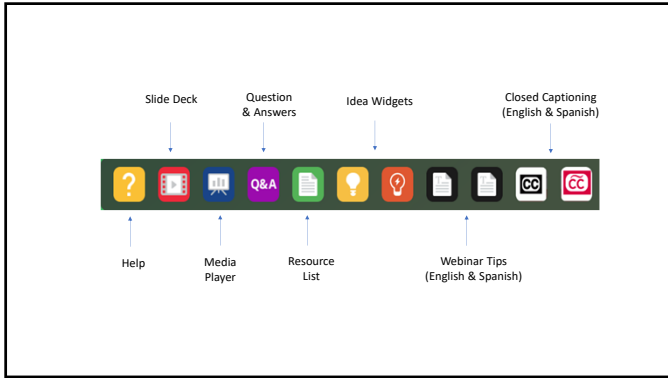
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### Technical Tips

Enable Adobe Flash Player on your computer

Press f5 to refresh your browser

Log off your VPN

Close any open browsers



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### Viewer's Guide

NCECDTL National Center on Early Childhood Development, Teaching and Learning  
2019-2020 TEACHER TIME  
LITTLE SCIENTISTS—EXPLORING MATH WITH INFANTS AND TODDLERS

**Viewer's Guide**  
This viewer's guide helps you remember notes for about exploring MATH with infants and toddlers. It also has reflection questions and activities to stimulate your thinking about how you can support children's math learning. You can also find additional resources in the Resources section of this guide.

**1. Little Mathematicians Video Reflections**

A. What did the video do to help the children develop their sense of number and quantity? Did you hear what each language?

B. What else you might say or do to help these children explore counting and sorting?

C. What special language did you hear the child use?

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Comparing & sorting  
(Classification)

Exploring shapes  
(Geometry)

Learning how objects fit together  
(Spatial Thinking)

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Early Learning Outcomes Framework (ELOF)

	CENTRAL DOMAINS				
	APPROACHES TO LEARNING	SOCIAL AND EMOTIONAL DEVELOPMENT	LANGUAGE AND LITERACY	COGNITION	PERCEPTUAL, MOTOR, AND PHYSICAL DEVELOPMENT
INFANT/TODDLER DOMAINS	Approaches to Learning	Social and Emotional Development	Language and Communication	Cognition	Perceptual, Motor, and Physical Development
PRESCHOOLER DOMAINS	Approaches to Learning	Social and Emotional Development	Language and Communication Literacy	Mathematics Development Scientific Reasoning	Perceptual, Motor, and Physical Development

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### Early Learning Outcomes Framework (ELOF)

	APPROACHES TO LEARNING	SOCIAL AND EMOTION DEVELOPMENT	LANGUAGE AND LITERACY	COGNITION	PERCEPTUAL, MOTOR, AND PHYSICAL DEVELOPMENT
INFANT/TODDLER DOMAINS	Approaches to Learning	Social and Emotions Development	Language and Communication	Cognition	Perceptual, Motor, and Physical Development
PRESCHOOLER DOMAINS	Approaches to Learning	Social and Emotions Development	Language and Communication Literacy	Mathematics Development Scientific Reasoning	Perceptual, Motor, and Physical Development

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### Support Math Thinking & Learning

Engaging Environments

Nurturing, Responsive, and Effective Interactions

Learning Experiences and Opportunities

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### Support Math Thinking & Learning



Engaging Environments

- Open-ended
- Varied
- Accessible

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Open-Ended

Objects to count, describe, move, fit together, match & sort

Different sized containers

Nesting cups/boxes/bowls

Simple puzzles



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Varied

Objects to describe, count, move, fit together, count, match & sort

Represent children and families



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Share your ideas

What materials are your infants and toddlers interested in, and how do they support mathematical thinking?



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### Teacher Example Video



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### Video Reflection

- Use math vocabulary during routines and play
- Observe and respond to cues
- Support growth toward ELOF goals



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- **Support growth toward ELOF goals**

Example ELOF Goal

- Cognition
- Goal IT-C 8.
- Birth to 9 months: Children attend to quantity by reaching or looking for more than one object



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Teacher Example Video



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Teacher Time Minute

How did the adult help children develop number sense?



Teacher Time

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**Mathematize**  
Use math language during daily routines & interactions

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Teacher Example Video



The top photograph shows a teacher kneeling on the floor, interacting with a young child who is holding a yellow toy. The bottom photograph shows the same teacher sitting on the floor with two other children, engaged in a play activity with colorful blocks.

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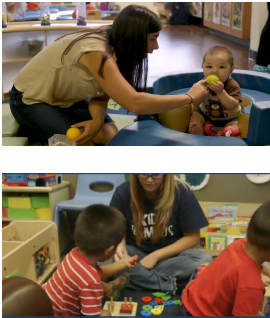
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Expand math language  
Focus on one attribute at a time



The top photograph shows a teacher kneeling on the floor, interacting with a young child who is holding a yellow toy. The bottom photograph shows the same teacher sitting on the floor with two other children, engaged in a play activity with colorful blocks.

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**Spatial and Geometric Language**

- Children's use of spatial language predicts children's later spatial problem-solving skills
- Spatial Language examples: in, out, on, under, up, down, top, bottom,
- Complex Spatial Language: in front of, behind, next to, near, and far
- Include both 2D and 3D shapes when talking with infants and toddlers

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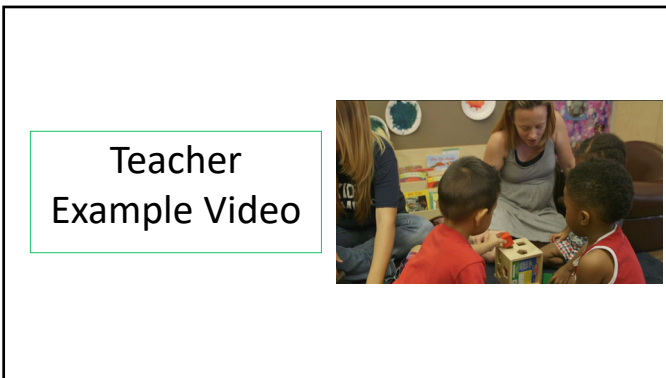
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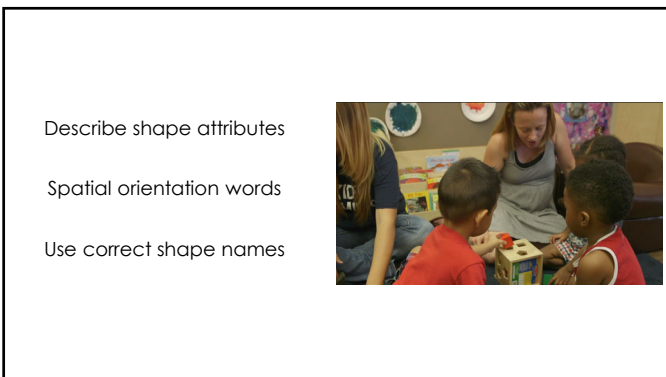
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Guest Expert:  
Dawson Nichols  
I-LABS

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- Math skills predict later school success
- Math is EVERYWHERE!
- Math for infants and toddlers include:
  - Numbers
  - Patterns (including rhythm, routines, and music)
  - Shapes
- Share one math concept at a time

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Teacher  
Example Video



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**ECLKC** About Topics Policy

### Math Learning Trajectories


Children are learning math every day in Head Start programs across the country. These Learning Trajectories (LT) videos show teachers working with children to help them learn math skills. These skills include number recognition, spatial awareness, and sorting. Each video illustrates a goal in the Head Start Early Learning Outcomes Framework. Watch them to see how these teachers encourage math development with the children in their programs.

**Explore Resources**




Introduction to LT12

[View Resource](#)




Early Number Development

[View Resource](#)



Spatial Awareness

[View Resource](#)



Sorting

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**myP MyPeers**



CULTIVATE GROWING PEDAGOGIES

Effective Teaching Practices



Education Leaders Community



HEAD START SCHOOL CONNECTIONS









HOME VISITING COMMUNITY

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Text4Teachers



Ready DLL



ELOF2GO  
Your Mobile ELOF  
Ages Birth to Five



MILOF  
So ELOF move!  
Check-in app  
Ages 0-5, 6-18, 20-24

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Thank you for tuning in this season!!



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Take care of yourself so you can take care of others



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New on the ECLKC: Coronavirus Page

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**myP MyPeers**  
Complete the survey  
in our Teacher Time  
Community!

May 5  
**Teacher Time**  
Exploring **MATH** with  
Preschoolers



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