Mark Your Calendar and Register!

Infant and Toddler Perceptual, Motor, and Physical Development
Friday, April 20, 2018
3-4 p.m. ET
Click Here to Register

Preschool Perceptual, Motor, and Physical Development
Friday, May 18, 2018
3-4 p.m. ET
Click Here to Register

Welcome!

While you wait for Teacher Time to begin, please:
• Introduce yourself in the chat box, and let us know:
  1. Where are you from, and what is your role?
  2. Why is geometry important in the preschool years?

“The only way to LEARN mathematics is to DO mathematics.” – Paul Halmos

“In the context of play, preschoolers learn about the positions of their bodies in space.”
Head Start Early Learning Outcomes Framework: Ages Birth to Five

TEACHER TIME: Cognition for Preschoolers
March 16, 2018
Hosts: Judy Stevenson-Garcia & Treshawn Anderson
Guest Experts: Doug Clements & Crystal Day-Hess
Chat Room Facilitator: Jan Greenberg
Adobe Connect Features

Chat Room Facilitator: Jan Greenberg

- Download supporting documents
- Raise your hand!
- Video note
- Complete evaluation

Cognition: Mathematics Development

Geometry

Spatial Sense

A. B C
Geometry

- Math related to shapes, size, and positioning of figures.
- Early math skills predict later math success.
- More early, math-related activities predict math skills in elementary school.

Geometry

Literacy development
- Recognizing the difference between letter shapes
- Shapes and lines translate into writing

Problem-Solving
- Trial and error
- Close attention to shape characteristics

Early Science Learning
- Strengthens observation skills
- Practice categorization

Spatial Sense

- Math related to knowing the shape of your environment.
- Knowing the position of your body in space.
- Ability to recognize, visualize, represent, and transform geometric shapes
Spatial Sense

- Preschoolers are beginning to grasp spatial vocabulary with help from an adult;
- Older preschoolers understand basic spatial knowledge such as directionality, order, up/down, front/behind.

Cognition: Emergent Mathematical Thinking

Doug Clements & Crystal Day-Hess
Marsico Institute of Early Learning and Literacy

Geometry is part of how children come to know the world.
- Children develop spatial sense by moving through the world.
- Children need rich experiences with a wide variety of shapes.
We use spatial relationships to understand geometric forms.

Slides, flips, and turns are spatial relationships.

Combining shapes is a spatial relationship, as well as knowledge of how shapes go together to make other shapes.

Effective Teaching Practices:

- Use spatial words.
- Create activities for children to explore spatial concepts and talk to them about how they move.
- Offer a wide variety of shapes that are different and can be compared.
- Give children vocabulary for parts and attributes.
- Use shape books to teach about creativity and transformation of shapes.
Approaches to Learning

- Children learn to persist in a challenging task, like puzzles, even when it is frustrating.
- Preschoolers become more flexible in their thinking and are able to understand that shapes can take on different forms.
- Children use their imaginations and spatial sense when climbing on structures or building castles.

Ongoing Assessment

- Focused observation and intentional engagement.

If your birthday falls between January and June:

Where/when are you most likely to assess Geometry?

If your birthday falls between July and December:

Where/when are you most likely to assess Spatial Sense?
Ongoing Assessment

• Focused observation and intentional engagement
• Two-way communication
• Families are the best source of information

Resources:
Effective Practice Guides - Cognition
MyPeers
T4T
ELOF2GO

Remember to complete the evaluation – we value your feedback!

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