Infant/Toddler

Answer Key for Observing M^5 in Action: Shapes

Video:
[Exploring Shapes with Play Dough (18–36 months)]

[Exploring Shapes with Play Dough (18–36 months) – Audio Descriptive Version]

Mutual Learning

- In what ways was the educator responsive to children's interests, languages, cultures and lived experiences, abilities, and emerging knowledge and skills?
- What did the educator learn about each child during this learning experience?
- In what ways did the educator respond to each child's individual needs?

Some Possible Responses

- The educator carefully observed the shapes that each child was stamping in their play dough.
- The educator learned about the children's understanding of shape vocabulary by noticing what shape names the children used.
- The educator was responsive to the children's emerging language abilities by repeating words the children said and introducing new vocabulary. For example, one child said, "shape," and the educator responded, "That is a shape. That is a triangle shape."

Meaningful Investigations

- In what ways did this learning experience allow children to question, experiment, and use math to solve problems that they are interested in?
- What open-ended questions and prompts did the educator use to encourage children's thinking and problem-solving?
- In what ways did the educator encourage children to continue exploring and reasoning about shapes?

Some Possible Responses

- The children explored different shapes and their similarities and differences.
- The educator asked one child, "What shape are you pressing into your play dough?" This question encouraged the child to observe their shapes and name them.
- In the video clip each child had two different shape stampers to use. In future learning opportunities, the educator might consider providing a variety of shape stampers so children can explore a variety of shapes.

Materials and Learning Environment

- What did you notice about the materials and learning environment?
- In what ways did the materials and learning environment promote learning about shapes?
- In what ways did the materials and learning environment represent the cultural background and everyday experiences of the children?

Some Possible Responses

- The materials were open-ended and offered opportunities for children to make shapes in different ways. For example, children could stamp shapes into the play dough or make shapes using play dough. Because the educator allowed children to physically manipulate the shapes—they used two senses (sight and touch)—children were able to explore the similarities and differences between shapes.
- The materials were set up in the environment as an invitation. Each child had their own tray that included play dough, two shape stampers, and a rolling pin. By providing a limited amount of materials, the educator ensured the children were not overwhelmed by options and could focus their exploration on shapes.

Math Vocabulary and Discourse

- What shape vocabulary did the children and educator use?
- How does the educator use what they know about the children's home languages and cultural backgrounds to support children's participation in math discussion?

Some Possible Responses

- The educator modeled shape vocabulary such as "star" and "triangle."
- The educator helped children learn shape vocabulary by highlighting similarities and differences between shapes. For example, one child said "square" to a heart shape stamper. In response, the educator showed the child a square, traced the square, and said, "This is a square. You made a heart."
- The educator might use shape vocabulary in children's home languages.

Multiple Representations

- What other learning experiences or materials might the educator provide to continue building on children's learning of shapes?

Some Possible Responses

- The educator might offer physical shapes like shape puzzles or foam blocks for children to explore and physically manipulate. These different representations provide opportunities for children to feel shapes' attributes (like the number of sides and corners). These experiences extend children's explorations of similarities and differences between shapes.