Math Activity
Be a Color and Shape Detective

SETUP

• The goal of this activity is for children to learn about shapes by exploring their outlines and playing the shape detective game. The activity can be played the same way to explore colors.

• Set up the table with the stencils, pipe cleaners, paper, and markers.

DO IT TOGETHER

• Let your child spend some time exploring the way the stencil shapes feel. “Try feeling the circle with your eyes closed. Slip the square on your arm and turn it to feel the different kinds of edges. Can you trace the diamond with your fingertips?” Handling a shape object is an important step in learning about shapes.

• For color exploration, let your child handle and play with the colored pipe cleaners. “What’s your favorite color? Can you show me the green one? Let’s pick out all of the red ones and line them up!”

• To become a shape detective, work with your child to create a “shape finder” (like a magnifying glass) in whatever geometric shape she would like. For your very young child, you can make it for her and talk her through the process. “See how I’m making this nice straight line and then—pop! I bend it to make a new side. This is how we make a circle. It goes round and round.”

• To make a color finder, let your child pick out a pipe cleaner and help her bend it into a magnifying glass shape. You can add more of the same color pipe cleaners to make it stronger, and talk with your child as you or she makes it. “Would you like to add another color? Can you find any more blues we can add to fill in the center more?”

• Now you and your child are ready to do some detective work! Take your finders and look around. Explore the room you are in, or head outdoors to match shapes and colors. “What shape are our buttons? Do they match your shape finder? Let’s look in the refrigerator and see what shapes we can find! How many red objects can you find in your room? Does your finder match anything that you’re wearing?”

(continued on side 2)
DO MORE OF IT!

- **Read Aloud.** Borrow the book Color Zoo from your local library. Read it aloud and look at the pictures together. Talk about how you can combine shapes to form new shapes; even animals, cars, or houses! Pre-cut or have your child cut out shapes from colored paper, and encourage her to use her imagination to create new shapes combining the ones she’s cut out. “Can you use your squares to make a triangle? What shape is this?”

- **Shape Detective.** Play a game with a group of your children’s friends where a leader holds up a shape finder and everyone helps to identify it. Then the children look for that shape on themselves; whoever has the shape steps out in front. As each shape is shown, more and more children can step out. If there are any children remaining, help to show them a shape anywhere on themselves (the palm of your hand can be square, a shirt sleeve can be a rectangle). The game can also be adapted so that children locate shaped objects in a room.

**BOOKS**

- *Round Is a Mooncake* by Roseann Thong
- *Shape Capers* by Cathryn Falwell
- *Color Zoo* by Lois Ehlert
- *My Very First Book of Shapes/Mi Primer Libro de Figuras* by Eric Carle
- *Mouse Paint* by Ellen Stoll Walsh

**OTHER RESOURCES**

- Visit your local library.
- Visit your local museum, nature center, zoo, or aquarium.
- Check out Brain Building Zones for local events in Massachusetts at http://brainbuildinginprogress.org/event-calendar.

**MATERIALS**

- Paper stencils: cut out a circle, square, triangle, rectangle, oval, and/or diamond from card stock or a paper plate
- Large colorful pipe cleaners
- Crayons and markers

**Learning Guideline:**

PreK-LS1-4: Use their five senses in their exploration and play to gather information.

Funded by:

Race to the Top – Early Learning Challenge Grant