Further investigations:
Ask your child to put things into groups. When you do the laundry, let your child separate items of clothing: all the socks in one pile, all the shirts in another pile, and all the pants in another pile.

Make a pattern of sounds by clapping, snapping, and/or tapping your feet, such as; clap, clap, tap, clap, tap, tap. Ask you child to repeat the pattern. Reverse roles.

Draw a picture with your child; discuss how a circle is used to draw a head, a rectangle or square is used to draw a body, 4 rectangles are used to draw arms and legs.

Play the game "Positions." Call out a position such as beside, below, in front of, behind, inside, and outside. Have your child move their favorite stuffed animal into these positions.

Terminology:
Triangle: a polygon with three sides
Rectangle: a parallelogram with four right angles
Square: a rectangle with four equal sides
Circle: the set of all points in a plane that are the same distance from a fixed point
Pattern: a combination of qualities that form a consistent arrangement
Graph: a diagram that represents connections among 2 or more items

Book’em:
The Secret Birthday Message
by Eric Carle
What’s Next Nina?
by Sue Kassire and Page Eastburn
M & M’s Brand Pattern Book
by Barbara McGrath
Beep, Beep, Vroom, Vroom
by Stuart Murphy
Caps For Sale
by Esphyr Slobodkira
3 Little Firefighters
by Stuart Murphy
Measuring Penny
by Loren Leedy
Bart’s Amazing Charts
by Dianna Ochiltee
Grandma’s Button Box
by Margarete Reid

Related Files:
www.ceismc.gatech.edu/csi

Shapes, Shapes, and More Shapes

Students will:

- Identify the name of a pattern and determine the shape missing in a pattern
- Count objects and show the quantity by drawing pictures
- Sort shapes into groups made up of members sharing the same attributes
- Find and name shapes in the environment
- Use shapes to create items in the environment
- Compose and decompose shapes
- Use a graph to represent information about themselves and their classmates
- Describe and name basic spatial positions and relationships

Classroom Cases:
1. Describe the patterns below.

<table>
<thead>
<tr>
<th>Set 1</th>
<th>Set 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\square$ $\bigcirc$</td>
<td>$\triangle$ $\square$</td>
</tr>
<tr>
<td>$\square$ $\bigcirc$</td>
<td>$\triangle$ $\square$</td>
</tr>
</tbody>
</table>

Case Closed - Evidence:
Set 1: ABAB pattern or square, circle, square, circle, square, circle
Set 2: ABB pattern or triangle, square, square, triangle, square, square

2. What characteristic is used for sorting in each set?

Set A:

Case Closed - Evidence:
A. The shapes are sorted by shape. B. The shapes are sorted by color. C. The shapes are sorted by size.

3. In the picture at right, what shape was used to make
   a. the roof? b. the window? c. the door? d. the house?

Case Closed - Evidence:

a. A triangle was used to make the roof.
b. A square was used to make the window.
c. A rectangle was used to make the door.
d. A square was used to make the house.