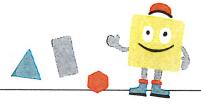
LET'S TALK ABOUT MATH

# EVERYDAY FUN WITH SHAPES



Research finds that having a strong foundation in early math can lead to higher achievement in both math and reading later in school. Starting from birth, young children benefit from exploring shapes using their senses. Later, they combine shapes and objects of different sizes, like making a block tower or art collage. **Understanding shapes** is one of the early math concepts that children are developing from birth to age five by exploring:

- Shape characteristics—noticing what makes each shape different, like knowing that a triangle has 3 straight sides and 3 angles.
- Matching—recognizing common elements of shapes and matching pairs (circles, triangles, and squares).
- Positioning shapes—understanding how shapes fit together and can be combined, like putting together a puzzle.

It's fun and easy to help your child learn these important concepts. Whether you're at home, outside or at the grocery store, simply describe the shape and position of objects as you go about your day together.

### HAVE FUN WITH MATH: PLAYFUL PARENT-CHILD SHAPE ACTIVITIES

### 0-12 MONTHS

Hold an orange in your hand and say, "An orange is round and smooth." Hold a dish towel and say, "A dish towel is a square and feels soft." Encourage your baby to explore these objects using her hands and, when safe, her mouth (like sucking on a rattle).

### 12-24 MONTHS

Explore shapes by rolling a ball back and forth, stacking flat objects on top of one another, or putting small objects inside a box or bucket. Narrate the activity using "shape words" such as "The ball is round and rolls," "The newspapers are flat and make a neat stack," and "This piece fits into the cup because it's smaller."

### **24-36 MONTHS**

Have a "shape snack" with your toddler. Offer a square (or rectangle) cracker. Cut a grape in half to show your child its round shape. Cut a piece of cheese into a triangle. Talk about and trace each shape with your finger before you eat it. Ask your child, "Would you like your sandwich cut in four triangles or four squares?"

### 3-5 YEARS

Go on a shape hunt. Shapes are all around us so have fun looking for shapes and talk about them. "The window is a rectangle. Look, it has  $4 ext{sides}$  and  $4 ext{corners}$ . Let's see how many rectangles we can find." or "The mirror is shaped like an oval." It's fun to make shapes too. Using a stick, draw a shape in sand or dirt while at the park. See if your preschooler would like to try. You can also "paint" shapes on the sidewalk or driveway using a paintbrush and water. Practice making BIG circles and then little ones, BIG squares and little ones, etc.

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# LET'S TALK ABOUT MATH

## EVERYDAY FUN WITH SPATIAL AWARENESS



Research finds that having a strong foundation in early math can lead to higher achievement in both math and reading later in school. Starting from birth, babies begin to develop spatial awareness as they observe and interact with the world around them. Spatial awareness is the child's ability to notice and understand spatial relations—the position of objects and people in relation to other things. You can help your child develop spatial awareness by using language that describes how objects fit and move in relation to one another.

From birth to five, children develop spatial relations skills as they explore and learn to talk about:

- Shape and size—noticing, describing and comparing shapes and sizes of objects.
- Space and position—recognizing where a person or object is in relation to other people and objects, understanding concepts like "on top of" or "under," and putting objects together in different ways.
- Direction and movement—following and predicting the path of a moving object, like a rolling ball.

It's fun and easy to help your child learn spatial awareness skills as you talk, play, and explore together. When you describe the shape, size, and position of objects as your child plays, you help him learn these important concepts.

### HAVE FUN WITH MATH: PLAYFUL PARENT-CHILD PLAY SPATIAL AWARENESS ACTIVITIES

### 0-12 MONTHS

When you move your baby from one position or place to another, put words to your actions. Say "up, up, up" when you lift your baby from the changing table, crib, or floor. When you place her down, say "now down you go to play!"

#### 12-24 MONTHS

Make an obstacle course for your baby with pillows to climb over and to sit on. As your baby explores the course, describe her position in words: "Now you're sitting on top of the cushion!" "Now you're crawling over it." "You went around it!"

### 24-36 MONTHS

Give your toddler a large cardboard box to climb inside and outside. Describe his position as he plays. Provide empty boxes or kitchen containers of various sizes for your child to stack or place inside of, next to, or behind the larger box or each other.

### 3-5 YEARS

Invite your preschooler to help with the laundry by guiding him to retrieve the shirt that is farthest away in the pile and also the one that is closest to him. As you fold, ask him to make piles of the clothes and point out which pile is nearest and which pile is farthest.

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