

Bridges in Mathematics Pre-K Unit 3

November



This month’s theme is shapes—circles, rectangles, squares, and triangles. In this unit, your child will:

- Count to 10, read numbers to 6, and match sets and numbers to 6
- Compare sets of objects and tell which has more
- Identify, describe, compare, and sort shapes
- Put shapes together to make pictures and larger shapes
- Identify and extend AABB repeating patterns

Your child will learn and practice these skills by doing activities and playing games like those shown below.

ACTIVITY OR GAME	COMMENTS
<p>Teach the puppet how to count a set of objects correctly.</p>	<p>When the class puppet discovers a set of circles in a box, she’s eager to count them. She knows how to say the numbers in order, but she’s not very good at counting objects. After three tries and lots of advice from the children—“Be more careful! Slow down! Don’t skip any! Only count them once! It helps if you move them so you can see which ones you still have to count! Touch them! Point to them!”—she finally gets it right.</p>
<p>Help Chirpy the Counting Cricket put the shapes cards back in the right order.</p>	<p>Chirpy is curious about the mysterious objects on the lower number path. Are they good to eat? No? Then what do people do with them?</p> <p>The children tell him about the shapes on each card and hold up their fingers to show how many there are. Soon though, Chirpy realizes that the sets of shapes don’t match the numbers above them. He asks the children to help put the cards back in the right order. As they do, they get practice reading numbers, counting objects, and connecting the written symbols with actual quantities.</p>
<p>Play Hungry Caterpillars.</p>	<p>Children take turns spinning, finding the matching shape, and “feeding” it to their caterpillar. Each caterpillar has three hexagon-shaped tummies, and the game is over when both caterpillars are full. As children play, they identify triangles, diamond-shaped rhombuses, and trapezoids. They also turn and flip the shapes to make them fit. It doesn’t take long for them to see they can make a hexagon with 2 trapezoids, 3 rhombuses, or 6 triangles.</p>
<p>Make squares and triangles and help arrange them in an AABB, AABB pattern.</p>	<p>Children trace, color, and cut out squares and triangles to make a pattern. They’ve been working with very simple ABAB repeating patterns since early September, so they move on to a more challenging AABB pattern this month: square, square, triangle, triangle; square, square, triangle, triangle. After they’ve shown the first eight shapes in the pattern, children tell which shape comes next and explain their thinking. This is repeated until everyone has joined the line.</p>

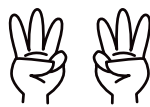
FREQUENTLY ASKED QUESTIONS ABOUT UNIT 3

Q: Why are you teaching the children to count on their fingers? Isn't that a bad habit?

A: If you ask a young child how old they are, they often answer by showing their fingers. Using their fingers is an intuitive and appropriate way for young children to learn to count and represent numbers. We capitalize on this in preschool and kindergarten by teaching standard finger patterns and asking the children to use them every day. At first, most children count from 1 as they build groups on their fingers. Later, they pop their fingers up confidently, without having to count each. At that point, we challenge them to use fingers on both hands to show different ways to make 4, 5, and 6.



I can make 6 like this, with 5 and 1 more.



I can do 3 and 3, see? 1, 2, 3 ... 4, 5, 6!



Look! I did 4 and 2. That makes 6.

As children move on to first and second grade, their reliance on fingers diminishes. And while you don't want to see third graders counting their fingers one by one to solve simple addition and subtraction problems, recent research supports the use of fingers in math class.

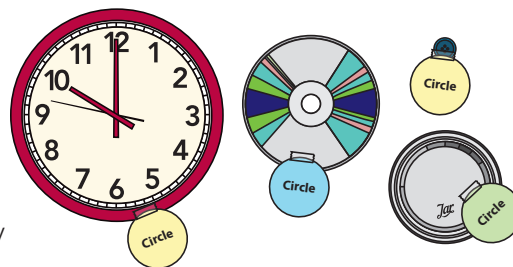
Q: I think my child knows the difference between a rectangle and a triangle, but he often gets the names mixed up. How can I help?

A: Try making the shape names part of everyday conversations. Next time you're making toast or sandwiches, ask your child if you should cut the bread in rectangles or triangles. Most children have a preference or enjoy making a choice, and doing so provides an opportunity to use the names of the shapes. If your preschooler has had experience with tricycles or loves dinosaurs, you can talk about how a tricycle has three wheels, a triceratops has three horns, and a triangle has three sides and three corners.

Q: What else can I do at home to help my child learn about shapes?

A: Since the world is made up of shapes, this is an easy one. Here are a few suggestions.

- Give your child plenty of time to play with building toys and puzzles, including wooden blocks, Magna-Tiles, Tinker Toys, Legos, Duplos, and marble-run sets.
- Look for a certain kind of shape with your child. Count how many you find. Label some of them if you like.
- Play a shapes version of "I Spy," as in, "I spy with my little eyes a blue rectangle on the table. Can you find it?" or, "I spy with my little eyes three small circles on the refrigerator. Can you find them?"
- Read books about shapes with your child. There are lots of good ones, but here are a few of our favorites:
 - *The Greedy Triangle* by Marilyn Burns
 - *Perfect Square* by Michael Hall
 - *Cubes, Cones, Cylinders, & Spheres* by Tana Hoban
 - *Changes, Changes* by Pat Hutchins
 - *Color Zoo* by Lois Ehlert
 - *Mouse Shapes* by Ellen Stoll Walsh



For more ideas and resources, go to www.mathlearningcenter.org/families