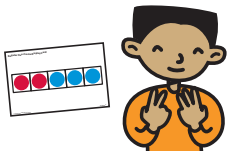
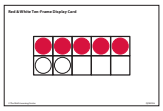
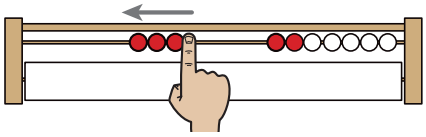
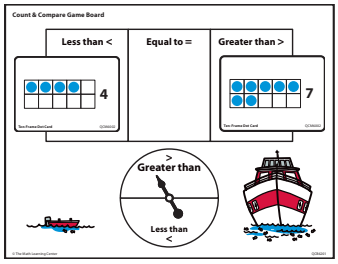
Bridges in Mathematics
Kindergarten Unit 2

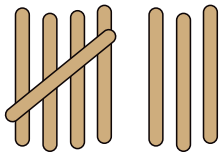
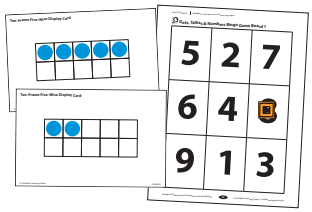
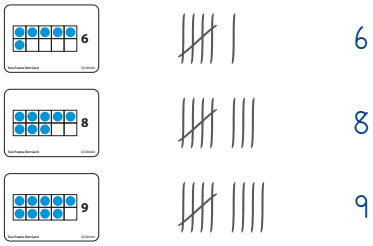
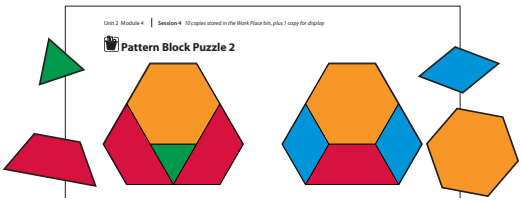
Numbers to Ten

In this unit your child will:

- Quickly recognize how many objects are in a collection (up to 5) without counting
- Compare sets using the words *more* and *less*
- Develop number sense with combinations that make 5, and then 10
- Count objects and match the quantity to the written numeral
- Build with two-dimensional shapes

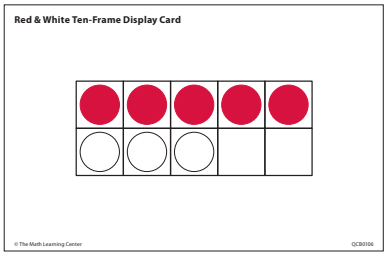
Your child will practice these skills by solving problems like those shown below.

PROBLEM	COMMENTS
How many red dots? Show me on your fingers. How many blue dots? Show me with the fingers on your other hand. How many in all?  How many dots do you see? How do you see it? 	***Five- and ten-frames*** help students develop number sense. The frames help them make mental pictures of numbers in various ways. On the first card, students see that 5 is made up of 2 red dots and 3 blue dots. Many children can recognize 2 and 3 without having to count each dot. They might also know that when the whole row is filled, we have 5. On the ten-frame card, they see 7 is made up of 5 red dots and 2 white dots. They may notice that 7 is 3 less than 10. Seeing the "parts" of numbers is foundational for adding and subtracting.
Use the number rack to show 3 in one push. 	The ***number rack*** is a math tool made up of 10 beads broken into a group of 5 red beads and a group of 5 white beads. Like the ten-frame, it helps students see numbers in relation to 5 and 10. In later units, students will use the number rack for more formal practice with addition and subtraction.
Count how many dots are on each card. Decide which card has more and which card has less. 	Young children visually recognize ***more*** before they can count collections. ***Less*** is a more difficult term. In this game and other activities like it, students determine "which is more" and "which is less" by counting the dots on each card and then comparing the two quantities. Using the ten-frame structure, they see which quantity fills more of the squares. If two quantities are the same, they are said to be ***equal***.

PROBLEM	COMMENTS
Show 8 with tally marks. *"I can make 8. It's 1, 2, 3, 4, and 5 makes the gate. I have 5 and 3 more. So, 5…6, 7, 8."*  How many do you see on the ten-frame? Put a marker on the number on your bingo card that shows 8. 	The frames, number rack, and tally mark models in this unit help students think about numbers between 5 and 10 as "5 and some more." For example, 6 can be seen as a group of 5 and 1 more.  Students also match quantities with numbers.
Use pattern blocks to fill in the design. 	Students build with two-dimensional shapes, learning the shape names and attributes. They begin to find that, like puzzles, shapes can fit together to make a new shape.

FREQUENTLY ASKED QUESTIONS ABOUT UNIT 2

Q: Why is there an emphasis on seeing groups instead of counting by 1s?



A: The ability to quickly recognize groups less than 5 helps students develop an understanding of quantity. First we build the model with counters they can hold in their hands, then we use cards to illustrate the model they made, and finally we ask children to picture it in their minds. This progression from the concrete to the abstract helps develop efficient strategies for computation, such as counting on to add ("5 + 3 is 5…6, 7, 8"). Some kindergarteners will continue to count by 1s as they develop their counting skills early in the year.

Q: How can I help my child with mathematics?

A: Kindergarteners enjoy showing their families what they are learning in school. Asking questions, giving encouragement, and showing interest in their work builds your child's confidence as a mathematician.

This chart shows how number writing is taught at school for numerals 6–10. You may want to refer to it when helping your child write numbers at home.

Down around in a circle you go. That's a 6 just as you know!	Slide to the right. Then slant the line. That makes 7 every time!	Make an "S" but do not wait. Slant back up to make an 8!	Loop to the left and add a line. Now you've made number 9!	Make a 1 and then 0 That makes 10! Now you know.