Bridges in Mathematics Kindergarten Unit 2

Numbers to 10

In this unit, your student will:

- Recognize how many objects are in a set (up to 5) without counting one by one
- Compare sets using the words *more* and *less*
- Develop number sense with combinations that make 5 and 10



- Count objects and match the quantity to the written numeral
- Build with two-dimensional shapes

PROBLEM	COMMENTS
Students represent and discuss the number of dots shown on 5- and 10-frames. How many red dots do you see? How many blue dots? How many dots do you see in all?	The 5-frames and 10-frames help students develop number sense and 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, there are 5 in all.
How many dots do you see? How do you see them?	On the 10-frame card, they see 7 is made up of 5 red dots and 2 white dots. They might notice that 7 is 3 less than 10. Seeing the "parts" of numbers sets the stage for addition and subtraction.
Use the number rack to show 3 (and other small quantities) in one push.	The number rack is a math tool made up of two strings of 10 beads broken into a group of 5 red beads and a group of 5 white beads. Like the 10-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, as well as modeling numbers within 20.
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 10-frame structure, they see which quantity fills more of the squares. They learn that when two quantities are the same, they are said to be equal.

PROBLEM		COMMENTS
Can you show 8 with your cr can arrange them like a tally.	aft sticks? See whether you I can make 8. It's 1, 2, 3, 4, then I turn the next stick to make the gate. That's 5, then 6, 7, 8.	In this unit, number frames, tally marks, and the number rack help students think about numbers between 5 and 10 as a group of 5 and some more. For example, 7 can be seen as a group of 5 and 2 more.
Mark the numbers on your bingo board that match these cards.	••••••• 5 2 7 •••••• 6 4 8 ••••• 9 1 3	Students also match quantities with numerals as they play games such as Dots, Tallies & Number Bingo.

Frequently Asked Questions About Unit 2

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

A: While some kindergarteners will continue to count quantities one by one when developing their counting skills early in the year, the ability to quickly recognize groups of 5 or fewer helps them develop an understanding of quantity. It also supports their development of efficient strategies for computation, such as counting on to add (for instance, "5 + 2 is 5 ... 6, 7").



Q: How can I support my student's learning?

A: Young children like to know what to expect. At home and elsewhere, you can develop special routines for practicing math and working together.

To further support your student in learning mathematics, you can:

- Visit <u>mathathome.mathlearningcenter.org</u> and do some or all of the activities in Kindergarten: Set 2 together. These activities complement the learning taking place in the classroom during Unit 2 and provide fun ways to engage children in mathematical thinking. This set also includes digital versions of games that your student has learned at school, such as Count & Compare Dots, Which Bug Will Win?, and Pattern Block Puzzles.
- Practice different ways to show the same number or quantity. For example, have your student show 5 with fingers, a numeral, tally marks, or a collection of five objects. Teach them different ways to say or write the number in languages other than English.
- Visit <u>apps.mathlearningcenter.org</u> and invite your student to explore the Number Rack, Number Frames, and Pattern Shapes apps. Throughout Unit 2, students explore these tools in their physical forms in the classroom.
- Read books about quilts, as students will be making a classroom quilt in this unit. Reading such books invites students to notice patterns and provides counting opportunities. Here are some suggested titles:
 - » The Arabic Quilt: An Immigrant Story by Aya Khalil, illustrated by Anait Semirdzhyan
 - » *Belle, the Last Mule at Gee's Bend: A Civil Rights Story* by Calvin Alexander Ramsey and Bettye Stroud, illustrated by John Holyfield
 - » Cassie's Word Quilt by Faith Ringgold
 - » Eight Hands Round: A Patchwork Alphabet by Ann Whitford Paul, illustrated by Jeanette Winter
 - » Bracelets for Bina's Brothers by Rajani LaRocca, illustrated by Chaaya Prabhat
 - » From My Window by Otávio Júnior, illustrated by Vanina Starkoff
 - » Grandma's Purse by Vanessa Brantley-Newton

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