
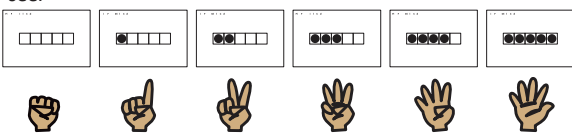
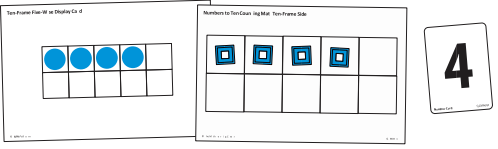
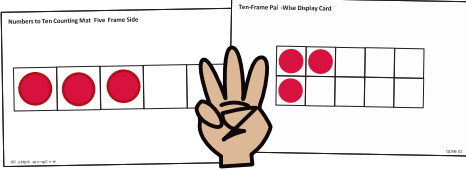
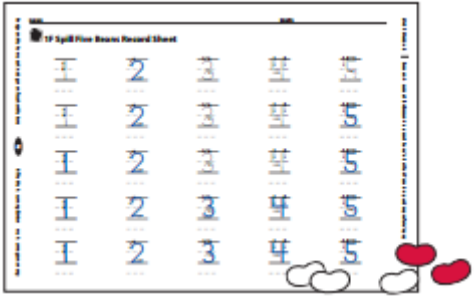


Early Number Sense and Routines

Welcome to Kindergarten Math! We are beginning Unit 1: Early Number Sense and Routines. In this unit students will establish classroom routines and engage one another as mathematicians. They will turn and talk to a partner, share their mathematical thinking, and explain their math ideas. During this unit students will focus on the numerals 0-5 with an emphasis on counting and matching numerals. They will use manipulatives like unifix cubes and pattern blocks to compare sets and numbers to 5.



Problem	Comments
<p>How many shoes in each group? How many shoes in all?</p> 	<p>The sorting activities in Unit 1 offer students many opportunities to count as they discuss the different features of the math manipulatives and sort them by attributes; we even sort our shoes! Students will use graphs to understand counting and compare sets of objects using the words more, less, and the same.</p>
<p>Look at the dots on the five-frame. Use your fingers to show how many you see.</p>  <p>How many dots do you see on the ten-frame? Build the number with cubes on your ten frame.</p> 	<p>Pictures help students understand how many. The five- and ten frames (shown below) help students learn how many more they need to make 5 and 10.</p>  <p>As students become familiar with the arrangement of the dots, they begin to quickly recognize them without having to count from 1. Fingers also help young children represent numbers. Students will investigate different ways to make a number. Example: Six can be made with 4 cubes on one hand and 2 cubes on another. Is there another way to make 6? Students will begin to explore the idea of conservation of number which is that the number of objects in a set remains the same regardless of the arrangement of the set.</p>
<p>Students play games such as Shake and Spill where they spill colored objects and count and write numerals.</p> 	<p>Games offer students opportunities to practice counting, recognizing, and writing numbers. During Unit 1, students will recognize and write the numbers 1-5. A variety of activities engage children in math thinking and talking—a way of making sense of their world.</p>



Frequently asked questions about unit 1:

Q: My child can count to 100. How will you keep her engaged?

A: Rote counting is one of many skills that help develop number sense in kindergarten. Along with counting come skills such as identifying the symbol for each number, building sets of objects that are equal to that number, and naming the number that comes immediately before and after a given number. While many lessons in this unit are centered on counting, we have suggestions to challenge and support students at all ability levels. Along with counting, the five- and ten-frame structures entice students to add, subtract, and compare numbers. During these first weeks, teachers get to know students and assess their skill levels. This helps them pose questions and plan future lessons in the days and months to come to meet the needs of all learners.

Q: Why do children count on their fingers?

A: Young children naturally use their fingers when they are developing beginning number concepts. When children are asked, “How old are you?” they often answer by showing their fingers. Fingers support children in exploring numbers and counting to 10. They also help students understand that numbers can be made in different ways. For example, they can show 7 as 5 fingers on one hand and 2 on the other, or as 4 on one hand and 3 on the other. Fingers may also be used to show how many more are needed to make a number.











show 7.	show 3. How many more to make 5?
	

Fingers serve as math tools just like cubes and other counting objects. At first, students count from 1 as they build groups on their fingers. Later, they pop their fingers up confidently, without having to count each one. Watch for this shift in finger use. As children learn other strategies and commit facts to memory, their reliance on fingers diminishes.

Q: How can I help my child with homework?

A: Kindergarteners enjoy showing their families what they are learning in school. Make this time special by choosing a spot away from other distractions, if possible. Some assignments might need small objects such as pennies or beans for counting, scissors, or glue or tape. Be sure to gather any needed supplies before starting. Begin by asking your child what they can tell you about the assignment. Listen to them explain what they already know about solving the problem. Homework gives you and your child the chance to talk about what is happening during math time at school and encourages discussions about how numbers are used in daily life at home. Asking questions, giving encouragement, and showing interest in the work builds your child’s confidence as a mathematician.

This chart shows how number writing is taught at school for numerals 1–5. You may want to refer to it when helping your child write numbers at home.

<p>Number 1 is like a stick, a straight line down that's very quick!</p>  	<p>For number 2 go right around, Then make a line across the ground!</p>  	<p>Go right around. What will it be? Go round again to make a 3!</p>  	<p>Down and over and down some more. That's the way to make a 4!</p>  	<p>Go down and around, then you stop. Finish the 5 with a line on top!</p>  
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Here is how you can help your child while our class is working on this unit:

- Count objects and items around the house, at the park, and in your yard. For example, ask your child to tell you how many bushes are in front of your house or how many cups are on the table for dinner. After your child counts, it is important to follow-up with the question, “So, how many do you count?” Your child may need to count again starting from one. This is perfectly normal development.
- Have your child help you do tasks like set the table to practice counting but also to see that there is one plate per person. Ask how many plates we need. Then ask your child to count out the plates. After the plates are set ask how many are on the table.
- Make graphs together with objects around the house. For example, you could put some pears and apples on the counter. Put them next to each other and ask are there the same amount of pears as apples? If not, how many more pears or fewer apples?
- Provide opportunities for your child to sort a collection of objects and then count how many are in each set. This can be done in a natural setting like cleaning up and putting toys away in bins, containers, drawers and the like.
- Read counting books with your child or make a game out of counting how many characters are on a page.
- Any games, board games or invented games that involve counting are a good way to practice counting.