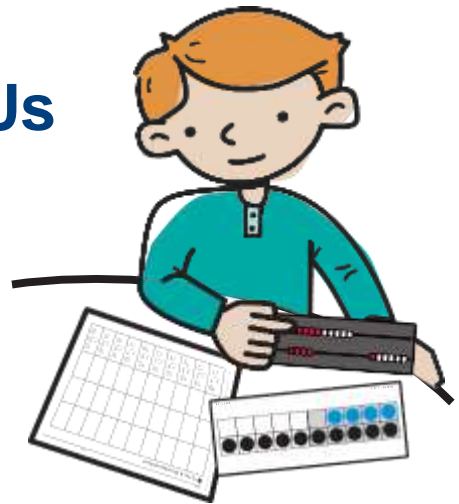


# Bridges in Mathematics Grade 1

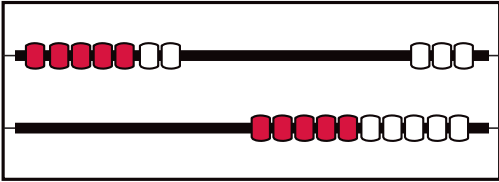
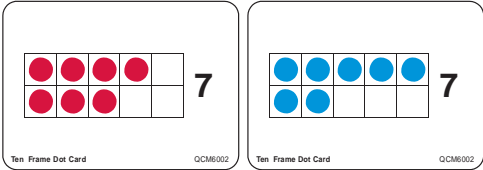



## Unit 1: Numbers All Around Us

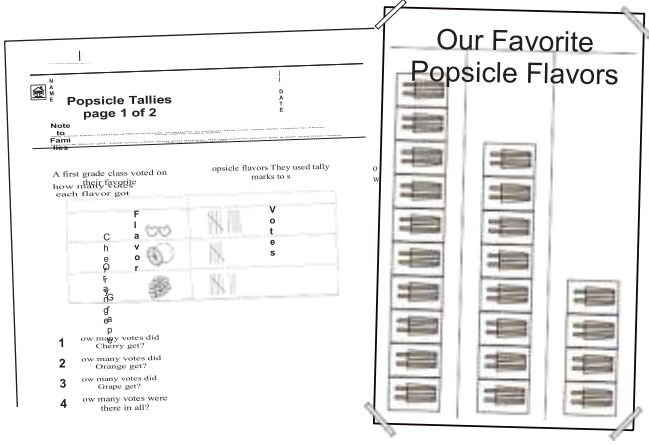


In this unit your child will:

- Quickly recognize how many objects are in a collection (up to 10), without counting from 1
- Identify 1 more and 1 less than a given number
- Explore number combinations that add up to 5 and 10
- Count by 1s, 2s, 5s, and 10s
- Make and read simple graphs using pictures and tally marks

Your child will learn and practice these skills by solving problems like those shown below. Keep this sheet for reference when you're helping with homework.

Problem	Comments
<p>Use the number rack to show 7.</p>  <p><i>"I used 5 red beads and 2 white beads. That makes 7."</i></p>	<p>The lessons in Unit 1 are designed to help students develop number sense. Students use number racks first to represent numbers and later for addition and subtraction. The <b>number rack</b> is a math tool made up of 2 strings of 10 beads; each string is broken into a group of 5 red beads and a group of 5 white beads. These groupings invite students to think in groups of 2, 5, and 10, rather than counting by 1s.</p>
<p>How many dots do you see? How many more dots are needed to make 10?</p>  <p><i>The number 7 shown two different ways on ten-frame cards.</i></p>	<p>The <b>ten-frame</b>, like the number rack, helps children make mental pictures of numbers in various ways. On the first card, students might see that 7 is made up of 4 and 3. Or, they might see 6 and 1 more. On the next card they might see 7 is made up of 5 and 2, or 4 and 3. Students begin to understand how two parts make a whole (the sum). By counting the empty boxes on the ten-frame, students can also see how many more are needed to make 10.</p>
<p><b>ex</b> Show 4 on the ten-frame.</p>  <p>Now show 1 more.</p>  <p><math>4 + 1 = \underline{5}</math></p> <hr/> <p>Study each number line carefully. Fill in the missing numbers.</p> <p><b>a</b></p> 	<p>Counting from 1 and then from any given number provides practice in adding <b>1 more</b>. Counting backward provides practice in subtracting <b>1 less</b>. Understanding this will help students recognize number relationships and help them count on to add (4 + 3 is 4 ... 5, 6, 7) and count back to subtract (8 - 2 is 8 ... 7, 6).</p>

Problem	Comments										
<p>Count how many tally marks there are in each column of the tally chart to answer the questions.</p>  <p><b>Popsicle Tallies</b> page 1 of 2</p> <p>Note to Family: _____</p> <p>A first grade class voted on how many votes each flavor got.</p> <table border="1" data-bbox="272 478 544 588"> <thead> <tr> <th>Flavor</th> <th>Votes</th> </tr> </thead> <tbody> <tr> <td>Cherry</td> <td>10</td> </tr> <tr> <td>Orange</td> <td>8</td> </tr> <tr> <td>Grape</td> <td>5</td> </tr> <tr> <td></td> <td>2</td> </tr> </tbody> </table> <p>1 How many votes did Cherry get? 2 How many votes did Orange get? 3 How many votes did Grape get? 4 How many votes were there in all?</p> <p><b>Our Favorite Popsicle Flavors</b></p>	Flavor	Votes	Cherry	10	Orange	8	Grape	5		2	<p>Students use graphs, tables, and tally marks to count, interpret, and discuss data. These graphic representations help students ask and answer questions about the information using mathematical vocabulary like <i>more than</i>, <i>fewer than</i>, and <i>equal</i>. Tally marks encourage grouping and counting by 5s, while sticks on a twin-pop encourage counting by 2s.</p>
Flavor	Votes										
Cherry	10										
Orange	8										
Grape	5										
	2										

## Frequently Asked Questions About Unit 1

**Q:** Why do some of these activities look like what my child did in kindergarten?

**A:** This unit reviews mathematical concepts explored in kindergarten while introducing and establishing routines that will be used in first grade. This review helps teachers assess students' skill level and plan future lessons in the days and months to come. Time spent on learning expectations and procedures is essential—it helps build a cooperative community of learners where students work together to build mathematical concepts.

**Q:** How much help should I give my child with homework assignments?

**A:** Even though the students are doing similar activities in class, your child may need your help at home. Make yourself available, but assist only when necessary. Begin each homework session by asking your child to describe what they notice about the task. If they can describe the task clearly and confidently, they can probably complete the assignment with little help from you (for example, to read each question). If your child seems hesitant or confused, spend a little time reviewing the assignment and helping them get started. Give them a chance to do as much work as can be done independently. Review the completed assignment, and ask them to explain their thinking about several problems. Ask questions, give encouragement, and show interest in the homework to build your child's confidence as a mathematician.