




**DOMAIN: Number and Operations in Base Ten**

**CLUSTER: Work with numbers 11-19 to gain foundations for place value<sup>a</sup>**

STANDARDS FOR MATHEMATICAL CONTENT	STANDARDS FOR MATHEMATICAL PRACTICE	WHOLE GROUP RESOURCES	CENTER RESOURCES	FORMATIVE ASSESSMENT
<p><b>K.NBT.1</b> Compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g. by using objects or drawings, and record each composition or decomposition by a drawing or equation (e.g., <math>18 = 10 + 8</math>); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.</p>	<p><b>MP1</b> Make sense of problems and persevere in solving them.  <b>MP2</b> Reason abstractly and quantitatively.  <b>MP4</b> Model with mathematics.  <b>MP7</b> Look for and make use of structure.  <b>MP8</b> Look for and express regularity in repeated reasoning.</p>	<p><b>About Teaching Mathematics, 2<sup>nd</sup> Ed.</b> (Burns)</p> <ul style="list-style-type: none"> <li>Pinch a 10, p. 180</li> <li>How Many Pockets, p. 174 (Note: Small groups, limit to under 20 cubes)</li> </ul> <p><b>A Collection of Math Lessons from Grades 1 through 3</b> (Burns &amp; Tank)</p> <ul style="list-style-type: none"> <li>Chapter 6: Making Tens and Ones, pp. 63-70 (Note: Limit quantities to less than 20)</li> </ul> <p><b>Developing Number Concepts, Book 3</b> (Richardson)</p> <ul style="list-style-type: none"> <li>Introducing the Plus-One and Minus-One Games, pp. 15-19</li> <li>The Grouping Games with Groups of Other Sizes, p. 20</li> <li>Plus or Minus Any Number, pp. 21-23</li> <li>Number Patterns in the Plus-One and Minus-One Games, pp. 25-28</li> <li>Introducing Number Patterns in a Matrix, pp. 30-31</li> <li>Patterns on the 00-99 Chart, p. 37</li> </ul> <p><b>enVisionMATH: Transitioning to California's CCSS Teacher's Guide</b> </p> <ul style="list-style-type: none"> <li>8-3A Making 11, 12, and 13, pp. 13A-14C</li> <li>8-4A Making 14, 15, and 16, pp. 15A-16C</li> <li>8-6A Making 17, 18, 19, pp. 17A-18C</li> <li>8-7A Creating Sets to 19, pp. 19A-20C</li> <li>8-7B Parts of 11, 12, and 13, pp. 21A-22C</li> <li>8-7C Parts of 14, 15, 16, pp. 23A-24C</li> <li>8-7D Parts of 17, 18, and 19, pp. 25A-26C</li> </ul>	<p><b>A Collection of Math Lessons from Grades 1 through 3</b> (Burns &amp; Tank)</p> <ul style="list-style-type: none"> <li>Chapter 7: A Place Value Menu, pp.71-72 (Note: Limit quantities to less than 20)</li> </ul> <p><b>Developing Number Concepts, Book 3</b> (Richardson)</p> <ul style="list-style-type: none"> <li>Recording the Plus-One and Minus-One Patterns, p. 29</li> <li>Grab and Add, p. 49</li> <li>Rearrange-It!, p. 72</li> <li>Build It Fast, p. 73</li> </ul> <p><b>enVisionMATH: Transitioning to California's CCSS Teacher's Guide</b> </p> <ul style="list-style-type: none"> <li>8-3A Play a Game, p. 14C</li> <li>8-4A Helping Hands, p. 16C</li> <li>8-6A Play a Game, p. 18C</li> <li>8-7A Play a Game, p. 20C</li> <li>8-7B Look and See, p. 22C</li> <li>8-7C Listen and Learn, p. 24C</li> <li>8-7D Try Together, p. 26C</li> </ul>	<p><b>enVisionMATH: Transitioning to California's CCSS Teacher's Guide</b> </p> <ul style="list-style-type: none"> <li>Topic 8 Test Master, p. CC163</li> </ul> <p><b>About Teaching Mathematics, 2<sup>nd</sup> Ed.</b> (Burns)</p> <ul style="list-style-type: none"> <li>Individual Assessments, p. 182, #2</li> </ul>

## Domain Legend

- **Major Cluster:** Areas of intensive focus, where students need fluent understanding and application of the core concepts (approximately 70%)
- ▣ **Supporting Cluster:** Rethinking & linking; areas where some material is being covered, but in a way that applies core understandings (approximately 20%)
- **Additional Cluster:** Expose students to other subjects; may not connect explicitly to the major work of the grade (approximately 10%)
- 📄 Online resource located at [PearsonSuccessNet.com](http://PearsonSuccessNet.com), click **Other Resources**

### ADDITIONAL SUPPORT

LANGUAGE OBJECTIVES	ENDURING UNDERSTANDINGS	ESSENTIAL QUESTIONS	KEY VOCABULARY
<ul style="list-style-type: none"> <li>Student will use learned phrases to show how a number can be composed and decomposed. Example: ___ equals ___ plus ___; ___ is made of one ten and ___ ones.</li> </ul>	<ul style="list-style-type: none"> <li>Our number system is based on groups of ten.</li> <li>Ten ones can be grouped together to make a new group called a ten.</li> <li>The teen numbers are composed of one ten with some further ones.</li> </ul>	<ul style="list-style-type: none"> <li>How can we make a new group called a "ten"?</li> <li>In the teen numbers, what does the one represent? What does the digit in the ones place represent?</li> </ul>	ten one group left over

### DAILY ROUTINES

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| <ul style="list-style-type: none"> <li><b>MP5</b> Drop a bean into a cup each day. When there are ten in a cup, rename it a "ten." Start adding to another cup. Say "This is a ten and one, etc." Another alternative is to bundle straws or popsicle sticks as a "ten".</li> <li><b>MP6</b> Group objects in the room into groups of ten and some left over.</li> </ul> | <ul style="list-style-type: none"> <li><b>MP8</b> Look at the teen numbers while counting on the hundreds chart. Notice that they all have one ten and some further ones.</li> </ul> |
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### LITERATURE CONNECTIONS

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| <ul style="list-style-type: none"> <li><i>Fish Eyes</i> by Lois Ehlert</li> <li><i>Jack the Builder</i> by Stuart J. Murphy</li> </ul> | <ul style="list-style-type: none"> <li><i>Ten Flashing Fireflies</i> by Philemon Sturges</li> <li><i>One Moose, Twenty Mice</i> by Clare Beaton</li> </ul> |
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DIFFERENTIATION 

FRONT LOADING	ENRICHMENT	INTERVENTION
<ul style="list-style-type: none"> <li>Students should be adept at composing and decomposing numbers to 10 before grouping ten.</li> <li>Call the teen numbers “10 and 1”, “10 and 2” rather than their number name to reinforce concept.</li> </ul>	<ul style="list-style-type: none"> <li>Continue to make groups of ten and some left over into the twenties and beyond.</li> </ul>	<ul style="list-style-type: none"> <li>Start by making a group of 5 single objects and giving it a special name so students understand the concept of a group. Continue with 6, 7, 8, and 9 before going to a “ten.”</li> </ul> <p><b>Developing Number Concepts, Book 3</b> (Richardson)</p> <ul style="list-style-type: none"> <li><i>Introducing the Plus-One and Minus-One Games</i>, p. 15-19.</li> </ul>

## TRANSITIONAL KINDERGARTEN

- California Preschool Curriculum Framework, Vol. 1; Understanding Number Relationships and Operations pp. 251-255
- California Preschool Learning Foundations Vol. 1; Number Sense pp.148-152
- Richardson, Kathy, *Developing Math Number Concepts: Counting, Comparing and Pattern*, Book 1; pp. 29, 34, 45, 46-49
- Baratta-Lorton, Mary, *Mathematics Their Way; An Activity Centered Mathematics Program for Early Childhood Education*; 20th Anniversary Edition. Counting pp. 88-12 and Number at the Concept Level pp. 164-210
- Garland, Cynthia, editor, *Mathematics Their Way Summary Newsletter*, Center for Innovation In Education. Counting, 5.1-5.8 and Numeral Writing, 6.1-6.12