Los Angeles Unified School District • Kindergarten

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

**CLUSTER:** Work with numbers 11-19 to gain foundations for place value

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<th>STANDARDS FOR MATHEMATICAL CONTENT</th>
<th>STANDARDS FOR MATHEMATICAL PRACTICE</th>
<th>WHOLE GROUP RESOURCES</th>
<th>CENTER RESOURCES</th>
<th>FORMATIVE ASSESSMENT</th>
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<tr>
<td>K.NBT.1</td>
<td>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., 18 = 10 + 8); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.</td>
<td>MP1 Make sense of problems and persevere in solving them. MP2 Reason abstractly and quantitatively. MP4 Model with mathematics. MP7 Look for and make use of structure. MP8 Look for and express regularity in repeated reasoning.</td>
<td>About Teaching Mathematics, 2nd Ed. (Burns) • Pinch a 10, p. 180 • How Many Pockets, p. 174 (Note: Small groups, limit to under 20 cubes)</td>
<td>A Collection of Math Lessons from Grades 1 through 3 (Burns &amp; Tank) • Chapter 6: Making Tens and Ones, pp. 63-70 (Note: Limit quantities to less than 20)</td>
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| DOMAIN: Number and Operations in Base Ten |

**STANDARDS FOR MATHEMATICAL CONTENT:**

K.NBT.1: 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., 18 = 10 + 8); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.

**MP1: Make sense of problems and persevere in solving them.**

**MP2: Reason abstractly and quantitatively.**

**MP4: Model with mathematics.**

**MP7: Look for and make use of structure.**

**MP8: Look for and express regularity in repeated reasoning.**

**WHOLE GROUP RESOURCES:**

About Teaching Mathematics, 2nd Ed. (Burns) • Pinch a 10, p. 180 • How Many Pockets, p. 174 (Note: Small groups, limit to under 20 cubes)

_A Collection of Math Lessons from Grades 1 through 3_ (Burns & Tank) • Chapter 6: Making Tens and Ones, pp. 63-70 (Note: Limit quantities to less than 20)

_Developing Number Concepts, Book 3_ (Richardson) • Introducing the Plus-One and Minus-One Patterns, p. 29 • Grab and Add, p. 49 • Rearrange-III, p. 72 • Build It Fast, p. 73

_Developing Number Concepts, Book 3_ (Richardson) • Introducing the Plus-One and Minus-One Games, pp. 15-19 • The Grouping Games with Groups of Other Sizes, p. 20 • Plus or Minus Any Number, pp. 21-23 • Number Patterns in the Plus-One and Minus-One Games, pp. 25-28 • Introducing Number Patterns in a Matrix, pp. 30-31 • Patterns on the 00-99 Chart, p. 37

_enVisionMATH: Transitioning to California’s CCSS Teacher’s Guide_ • 8-3A Making 11, 12, and 13, pp. 13A-14C • 8-4A Making 14, 15, and 16, pp. 15A-16C • 8-6A Making 17, 18, 19, pp. 17A-18C • 8-7A Creating Sets to 19, pp. 19A-20C • 8-7B Parts of 11, 12, and 13, pp. 21A-22C • 8-7C Parts of 14, 15, 16, pp. 23A-24C • 8-7D Parts of 17, 18, and 19, pp. 25A-26C

**CENTER RESOURCES:**

_A Collection of Math Lessons from Grades 1 through 3_ (Burns & Tank) • Chapter 7: A Place Value Menu, pp. 71-72 (Note: Limit quantities to less than 20)

_Developing Number Concepts, Book 3_ (Richardson) • Introducing the Plus-One and Minus-One Patterns, p. 29 • Grab and Add, p. 49 • Rearrange-III, p. 72 • Build It Fast, p. 73

_enVisionMATH: Transitioning to California’s CCSS Teacher’s Guide_ • 8-3A Making 11, 12, and 13, pp. 13A-14C • 8-4A Making 14, 15, and 16, pp. 15A-16C • 8-6A Making 17, 18, 19, pp. 17A-18C • 8-7A Creating Sets to 19, pp. 19A-20C • 8-7B Parts of 11, 12, and 13, pp. 21A-22C • 8-7C Parts of 14, 15, 16, pp. 23A-24C • 8-7D Parts of 17, 18, and 19, pp. 25A-26C

_enVisionMATH: Transitioning to California’s CCSS Teacher’s Guide_ • Topic 8 Test Master, p. CC163

_About Teaching Mathematics, 2nd Ed._ (Burns) • Individual Assessments, p. 182, #2
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, click Other Resources

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### ADDITIONAL SUPPORT

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<tr>
<th>LANGUAGE OBJECTIVES</th>
<th>ENDURING UNDERSTANDINGS</th>
<th>ESSENTIAL QUESTIONS</th>
<th>KEY VOCABULARY</th>
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<td>• 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.</td>
<td>• Our number system is based on groups of ten.</td>
<td>• How can we make a new group called a “ten”?</td>
<td>ten one group left over</td>
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<tr>
<td></td>
<td>• Ten ones can be grouped together to make a new group called a ten.</td>
<td>• In the teen numbers, what does the one represent? What does the digit in the ones place represent?</td>
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<td></td>
<td>• The teen numbers are composed of one ten with some further ones.</td>
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### DAILY ROUTINES

- **MP5** 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.”
- **MP6** Group objects in the room into groups of ten and some left over.
- **MP8** Look at the teen numbers while counting on the hundreds chart. Notice that they all have one ten and some further ones.

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### LITERATURE CONNECTIONS

- *Fish Eyes* by Lois Ehlert
- *Jack the Builder* by Stuart J. Murphy
- *Ten Flashing Fireflies* by Philemon Sturges
- *One Moose, Twenty Mice* by Clare Beaton
## DIFFERENTIATION

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<th>FRONT LOADING</th>
<th>ENRICHMENT</th>
<th>INTERVENTION</th>
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| • Students should be adept at composing and decomposing numbers to 10 before grouping ten.  
• Call the teen numbers “10 and 1”, “10 and 2” rather than their number name to reinforce concept. | • Continue to make groups of ten and some left over into the twenties and beyond. | • 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.”  
  *Developing Number Concepts, Book 3* (Richardson)  
  • *Introducing the Plus-One and Minus-One Games*, p. 15-19. |

## 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
- 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