Table of Contents

GRADE K • MODULE 5

Numbers 10–20; Count to 100 by Ones and Tens

Module Overview .................................................................................................................. i

Topic A: Count 10 Ones and Some Ones .............................................................................. 5.A.1

Topic B: Compose Numbers 11-20 from 10 Ones and Some Ones; Represent and Write Teen Numbers ........................................................................................................... 5.B.1

Topic C: Decompose Numbers 11-20 and Count to Answer "How Many?" Questions in Varied Configurations ........................................................................................................... 5.C.1

Topic D: Extend the Say Ten and Regular Count Sequence to 100 .................................. 5.D.1

Topic E: Represent and Apply Compositions and Decompositions of Teen Numbers ........................................................................................................... 5.E.1

Module Assessments ............................................................................................................. 5.S.1

This work is licensed under the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 Unported License. To view a copy of this license, visit http://creativecommons.org/licenses/by-nc-sa/3.0/.
Grade K • Module 5

Numbers 10–20; Count to 100 by Ones and Tens

OVERVIEW

Students have worked intensively within 10 and have often counted to 30 using the Rekenrek during fluency practice. This sets the stage for Module 5, where students clarify the meaning of the 10 ones and some ones within a teen number and extend that understanding to count to 100. In Topic A, students start at the concrete level, counting 10 straws.

T: Count straws with me into piles of ten.
S: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10. 1, 2, 3, ... 8, 9, 10. 1, 2, 3, ... 8, 9, 10.
T: Let’s count the piles!
S: 1 pile, 2 piles, 3 piles, 4 piles.

Thus, kindergarten students learn to comfortably talk about 10 ones, setting the foundation for the critical Grade 1 step of understanding 1 ten. They next separate 10 objects from within concrete and pictorial counts up to 20, analyzing the total as 10 ones and no ones or 10 ones and some ones (K.CC.1, K.NBT.1). They see two distinct sets which are then counted the Say Ten way: ten one, ten two, ten three, ten four, ten five, ten six, ten seven, ten eight, ten nine, two ten. The students hear the separation of the 10 ones and some ones as they count, solidifying their understanding as they also return to regular counting, eleven, twelve, thirteen...etc. (K.CC.5)

In Topic B, the two distinct sets of ones are composed, or brought together, through the use of the Hide Zero cards (pictured below) and number bonds. Students represent the whole number numerically while continuing to separate the count of 10 ones from the count of the remaining ones with drawings and materials (K.NBT.1). Emerging from Topic B, students should be able to model and write a teen number without forgetting that the ‘1’ in 13 represents 10 ones (K.CC.3).
Topic C opens with the students making a simple Rekenrek to 20 (pictured below) and modeling numbers thereon. The tens can be seen both as two lines with a color change at the five or two parallel uni-color fives.

In Topic C, the focus is now on the decomposition of the total teen quantity so that one part is ten ones. This is what makes Topic C a step forward from Topics A and B. Previously, the ten and ones were always separated when modeled pictorially or with materials. Now, the entire teen number is a whole quantity represented both concretely and pictorially in different configurations: towers or linear configurations, arrays (including the 10-frame or 5-groups,) and circles. The students decompose the total into 10 ones and some ones. Through their experiences with the different configurations, students have practice both separating 10 ones within teen numbers and counting/conservation as they count quantities arranged in different ways and, as always, use math talk to share about their observations (K.CC.5). They also come to know each successive teen number as one larger than the previous number (K.CC.4a).

In Topic D, students extend their understanding of counting teen numbers to numbers 21 to 100. They first count by tens both the Say Ten way, 1 ten, 2 tens, 3 tens, 4 tens, etc. and the regular way, twenty, thirty, forty, etc. They then count by ones to 100, first within a decade and finally across the decade (K.CC.1, K.CC.2). Topic D involves the Grade 1 standard 1.NBT.1 as students also write their numbers from 21-100. We include the writing of larger numbers because of the range of activities they make possible. The writing of these numbers is not assessed or emphasized, however. Topic D closes with an optional exploration of numbers on the Rekenrek, bringing together counting with decomposition and finding embedded numbers within larger numbers. This lesson is optional because it does not directly address a particular Kindergarten standard.

In Topic E, students apply their skill with the decomposition and composition of teen numbers. In Lesson 20, they represent both compositions and decompositions as addition statements (K.NBT.1). In Lesson 21, they model teen quantities with materials in a number bond and hide one part. The hidden part is represented as
Module Overview

NYS COMMON CORE MATHEMATICS CURRICULUM

Module 5

Numbers 10–20; Count to 100 by Ones and Tens

Date: 2/4/13

© 2012 Common Core, Inc. All rights reserved. commoncore.org

—an addition sentence with a hidden part, e.g. 10 + ___ = 13 or 13 = ___ + 3. The missing addend aligns Lesson 21 to the Grade 1 standard \textbf{1.OA.8}. In Lesson 22, students apply their skill with decomposition into 10 ones and some ones to compare the some ones of two numbers and thus to compare the teen numbers. They “stand” on the structure of the 10 ones and use what they know of numbers 1–9 (\textbf{MP.7}). Comparison of numbers 1–9 is a Kindergarten standard (\textbf{K.CC.6, K.CC.7}).

In Lesson 23, students reason about situations to determine whether they are decomposing a teen number (as 10 ones and some ones) or composing 10 ones and some ones to find a teen number. They analyze their number sentences that represent each situation to determine if they started with the total or the parts, and if they composed or decomposed, e.g., 13 = 10 + 3 or 10 + 3 = 13 (\textbf{K.NBT.1}). Throughout the lesson, students draw the number of objects presented in the situation (\textbf{K.CC.5}).

The module closes with a culminating task wherein students integrate all the methods they have used up until now to show decomposition. For example, they are instructed, “Open your mystery bag. Show the number of objects in your bag in different ways using the materials you choose.” (\textbf{MP.5}). This experience also serves as a part of the End-of-Module Assessment, allowing the student to demonstrate skill and understanding using all he has learned throughout the module.

<table>
<thead>
<tr>
<th>Lessons</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>5</td>
</tr>
<tr>
<td>6</td>
</tr>
<tr>
<td>7</td>
</tr>
<tr>
<td>8</td>
</tr>
<tr>
<td>9</td>
</tr>
<tr>
<td>10</td>
</tr>
<tr>
<td>11</td>
</tr>
<tr>
<td>12</td>
</tr>
</tbody>
</table>

\begin{itemize}
  \item \textbf{Fluency Practice}
  \item \textbf{Concept Development}
  \item \textbf{Application Problems}
  \item \textbf{Student Debrief}
\end{itemize}

\textbf{MP} – Mathematical Practice

\textbf{Distribution of Instructional Minutes}

This diagram represents a suggested distribution of instructional minutes based on the emphasis of particular lesson components in different lessons throughout the module.

© 2012 Common Core, Inc. All rights reserved. commoncore.org
Focus Grade Level Standards

Know number names and the count sequence. ¹

K.CC.1 Count to 100 by ones and by tens.
K.CC.2 Count forward beginning from a given number within the known sequence (instead of having to begin at 1).
K.CC.3 Write numbers from 0 to 20. Represent a number of objects with a written numeral 0–20 (with 0 representing a count of no objects).

Count to tell the number of objects. ²

K.CC.4 Understand the relationship between numbers and quantities; connect counting to cardinality.
   c. Understand that each successive number name refers to a quantity that is one larger.
K.CC.5 Count to answer “how many?” questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1–20, count out that many objects.

Work with numbers 11–19 to gain foundations for place value.

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.

Focus Standards for Mathematical Practice

MP.2 Reason abstractly and quantitatively. Students represent teen numerals with concrete objects separated as 10 ones and some ones.
MP.3 Construct viable arguments and critique the reasoning of others. Students explain their thinking about teen numbers as 10 ones and some ones and how to represent those numbers as addition sentences.
MP.4 Model with mathematics. Students model teen quantities with number bonds, place value cards and teen numbers.
MP.7 Look for and make use of structure. Students use the structure of 10 ones to reason about teen numbers. They compare teen numbers using the structure of the 10 ones to compare the some ones.

¹ Within 10.
² K.CC.4d is taught in Module 6.
# Overview of Module Topics and Lesson Focus

<table>
<thead>
<tr>
<th>Standards</th>
<th>Module Topics</th>
<th>Days</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A</strong> K.NBT.1</td>
<td><strong>Count 10 Ones and Some Ones</strong></td>
<td>5</td>
</tr>
<tr>
<td>K.CC.1</td>
<td>Lesson 1: Count Straws into Piles of Ten; Count the Piles as 10 Ones</td>
<td></td>
</tr>
<tr>
<td>K.CC.2</td>
<td>Lesson 2: Count 10 Objects Within Counts of 10 to 20 Objects; Describe as</td>
<td></td>
</tr>
<tr>
<td>K.CC.4a</td>
<td>10 Ones and ___ Ones</td>
<td></td>
</tr>
<tr>
<td>K.CC.4b</td>
<td>E.g., “I have 10 ones and 4 ones.”</td>
<td></td>
</tr>
<tr>
<td>K.CC.4c</td>
<td>Lesson 3: Count and Circle 10 Objects Within Images of 10 to 20 Objects;</td>
<td></td>
</tr>
<tr>
<td>K.CC.5</td>
<td>Describe as 10 Ones and ___ Ones</td>
<td></td>
</tr>
<tr>
<td></td>
<td>E.g., “I have 10 ones and 4 ones.”</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lesson 4: Count Straws the Say Ten Way to 19; Make a Pile for Each Ten</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lesson 5: Count Straws the Say Ten Way to 20; Make a Pile for Each Ten</td>
<td></td>
</tr>
<tr>
<td><strong>B</strong> K.NBT.1</td>
<td>**Compose Numbers 11–20 from 10 Ones and Some Ones; Represent and Write Teen</td>
<td>4</td>
</tr>
<tr>
<td>K.CC.3</td>
<td>Numbers**</td>
<td></td>
</tr>
<tr>
<td>K.CC.1</td>
<td>Lesson 6: Model with Objects and Represent Numbers 10 to 20 with Place</td>
<td></td>
</tr>
<tr>
<td>K.CC.2</td>
<td>Value or Hide Zero Cards</td>
<td></td>
</tr>
<tr>
<td>K.CC.4a</td>
<td>Lesson 7: Model and Write Numbers 10 to 20 as Number Bonds</td>
<td></td>
</tr>
<tr>
<td>K.CC.4b</td>
<td>Lesson 8: Model Teen Numbers with Materials from Abstract to Concrete</td>
<td></td>
</tr>
<tr>
<td>K.CC.4c</td>
<td>E.g., “Look at my number (show the numeral 16.) Show me this many cubes.”</td>
<td></td>
</tr>
<tr>
<td>K.CC.5</td>
<td>Lesson 9: Draw Teen Numbers from Abstract to Pictorial</td>
<td></td>
</tr>
<tr>
<td></td>
<td>E.g., “Look at my number (show the numeral 16). Make a drawing showing that</td>
<td></td>
</tr>
<tr>
<td></td>
<td>many circles.”</td>
<td></td>
</tr>
<tr>
<td><strong>C</strong> K.CC.4c</td>
<td>**Decompose Numbers 11–20 and Count to Answer “How Many?” Questions in</td>
<td>5</td>
</tr>
<tr>
<td>K.CC.5</td>
<td>Varied Configurations**</td>
<td></td>
</tr>
<tr>
<td>K.NBT.1</td>
<td>Lesson 10: Build a Rekenrek to 20</td>
<td></td>
</tr>
<tr>
<td>K.CC.3</td>
<td>Lesson 11: Show, Count, and Write Numbers 11 to 20 in Tower Configurations</td>
<td></td>
</tr>
<tr>
<td>K.CC.4a</td>
<td>Increasing by One—A Pattern of “One Larger”</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lesson 12: Represent Numbers 20 to 11 in Tower Configurations Decreasing by</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1—A Pattern of “One Smaller” (Extension of K.CC.4c)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lesson 13: Show, Count, and Write to Answer “How Many?” Questions in Linear</td>
<td></td>
</tr>
<tr>
<td></td>
<td>and Array Configurations</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lesson 14: Show, Count, and Write to Answer “How Many?” Questions with Up to</td>
<td></td>
</tr>
<tr>
<td></td>
<td>20 Objects in Circular Configurations</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Mid-Module Assessment: Topics A through C (interview style assessment)</strong></td>
<td>3</td>
</tr>
</tbody>
</table>
## Module Overview

### Standards

<table>
<thead>
<tr>
<th>Standards</th>
<th>Module Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>K.CC.1</td>
<td><strong>Extend the Say Ten and Regular Count Sequence to 100</strong></td>
</tr>
<tr>
<td>K.CC.2</td>
<td>Lesson 15: Count Up and Down by Tens to 100 with Say Ten and Regular</td>
</tr>
<tr>
<td>K.NBT.1</td>
<td>(Includes 1.NBT.1, Writing Numbers 21-100)</td>
</tr>
<tr>
<td>K.CC.3</td>
<td>Lesson 16: Count Within Tens by Ones</td>
</tr>
<tr>
<td>K.CC.4a</td>
<td><em>E.g., 30, 31, 32, 33... 39 or 43, 44, 45, 44, 43, or 67, 68, 69.</em> (Includes 1.NBT.1, Writing Numbers 21-100)</td>
</tr>
<tr>
<td>K.CC.4b</td>
<td>Lesson 17: Count Across Tens When Counting by Ones Through 40</td>
</tr>
<tr>
<td>K.CC.4c</td>
<td><em>E.g., 28, 29, 30, 31 first with and then without objects placed on 10-frames (Includes 1.NBT.1, Writing Numbers 21-100)</em></td>
</tr>
<tr>
<td>K.CC.5</td>
<td>Lesson 18: Count Across Tens by Ones to 100 with and without Objects</td>
</tr>
<tr>
<td>1.NBT.1³</td>
<td>Lesson 19: (Optional Lesson) Explore Numbers on the Rekenrek</td>
</tr>
<tr>
<td>K.NBT.1</td>
<td><strong>Represent and Apply Compositions and Decompositions of Teen Numbers</strong></td>
</tr>
<tr>
<td>K.CC.5</td>
<td>Lesson 20: Represent Teen Number Compositions and Decompositions as Addition Sentences</td>
</tr>
<tr>
<td>K.CC.1</td>
<td><em>E.g., 10 + 3 = 13 or 13 = 10 + 3</em></td>
</tr>
<tr>
<td>K.CC.2</td>
<td>Lesson 21: Represent Teen Number Decompositions as 10 Ones and Some Ones and Find a Hidden Part (Aligns to 1.OA.8)</td>
</tr>
<tr>
<td>K.CC.3</td>
<td>Lesson 22: Decompose Teen Numbers as 10 Ones and Some Ones; Compare the “Some Ones” to Compare the Teen Numbers (Aligns to 1.NBT.3)</td>
</tr>
<tr>
<td>K.CC.4a</td>
<td>Lesson 23: Reason About and Represent Situations: Decompose Teen Numbers into 10 Ones and Some Ones; Compose 10 Ones and Some Ones into a Teen Number</td>
</tr>
<tr>
<td>K.CC.4b</td>
<td>Lesson 24: Culminating Task—Represent Teen Number Decompositions in Various Ways <em>E.g., “Open your mystery bag. Show the number of objects in your bag in different ways using the materials you choose.”</em></td>
</tr>
<tr>
<td>K.CC.4c</td>
<td></td>
</tr>
<tr>
<td>K.CC.6</td>
<td></td>
</tr>
<tr>
<td>1.OA.8⁴</td>
<td></td>
</tr>
<tr>
<td>1.NBT.3⁵</td>
<td></td>
</tr>
</tbody>
</table>

### Days

<table>
<thead>
<tr>
<th>Standards</th>
<th>Module Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>End-of-Module Assessment: Topics D through E (interview style assessment)</td>
</tr>
<tr>
<td></td>
<td>3</td>
</tr>
<tr>
<td>K.NBT.1</td>
<td>Total Number of Instructional Days</td>
</tr>
<tr>
<td>K.CC.5</td>
<td>30</td>
</tr>
</tbody>
</table>

---

³ Students write numbers 21–100, aligned to Grade 1 standard 1.NBT.1.

⁴ While using concrete materials, a hidden part is related to 10 + ____. Missing addends are aligned to 1.OA.8.

⁵ Kindergarten standards K.CC.6 and K.CC.7 compare numbers to 10. Grade 1’s standard 1.NBT.3 compares numbers greater than 10.
Terminology

New or Recently Introduced Terms

- Say Ten counting by tens to 100 (i.e., 1 ten, 2 tens, 3 tens, 4 tens, 5 tens, 6 tens, 7 tens, 8 tens, 9 tens, 10 tens)
- Regular counting by ones from 11 – 20 (i.e., eleven, twelve, thirteen,...etc.)
- Regular counting by tens to 100 (i.e., ten, twenty, thirty, forty, fifty, sixty, seventy, eighty, ninety, one hundred)
- Hide Zero cards (in later grades called Place Value cards, pictured to the right)
- 10 ones and some ones
- Teen numbers
- 10 and __
- 10 plus

Familiar Terms and Symbols

- Count 10 ones
- Circle 10 ones
- Circular count
- Number tower
- Number bond
- Part, whole, total
- Dot path, empty path, number path
- Scatter count
- 5-group
- 10-frame
- Linear count
- Say Ten counting (e.g., 11–20 is spoken as “ten one, ten two, ten three, ten four, ten five, ten six, ten seven, ten eight, ten nine, two ten”)

---

6 These are terms and symbols students have used or seen previously.
Suggested Tools and Representations

- 50 sticks or straws for each group of 2 students
- Student made Rekenrek (pictured to the right): 10 red and 10 white pony beads, 1 cardboard strip, 2 elastics
- 1 egg carton per pair of students with 2 slots cut off to make a carton with 10 slots
- Hide Zero cards (in later grades called Place Value cards)
- Objects to put in the egg carton such as mandarin oranges, plastic eggs or beans
- Single and double ten-frames
- A variety of worksheets for lessons and Sprints
- Linker cubes: ideally 10 of two different colors per student
- Number bond template
Scaffolds

The scaffolds integrated into *A Story of Units* give alternatives for how students access information as well as express and demonstrate their learning. Strategically-placed margin notes are provided within each lesson elaborating on the use of specific scaffolds at applicable times. They address many needs presented by English language learners, students with disabilities, students performing above grade level, and students performing below grade level. Many of the suggestions are applicable to more than one population. The charts included in Module 1 provide a general overview of the lesson-aligned scaffolds, organized by Universal Design for Learning (UDL) principles. To read more about the approach to differentiated instruction in *A Story of Units*, please refer to the *How to Implement A Story of Units* document.

Assessment Summary

<table>
<thead>
<tr>
<th>Assessment Type</th>
<th>Administered</th>
<th>Format</th>
<th>Standards Addressed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mid-Module Assessment Task</td>
<td>After Topic C</td>
<td>Interview with Rubric</td>
<td>K.CC.1, K.CC.2, K.CC.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>K.CC.4a,b,c</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>K.CC.5, K.NBT.1</td>
</tr>
<tr>
<td>End-of-Module Assessment Task</td>
<td>After Topic E</td>
<td>Interview with Rubric</td>
<td>K.CC.1, K.CC.2, K.CC.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>K.CC.4a,b,c</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>K.CC.5, K.NBT.1</td>
</tr>
<tr>
<td>Culminating Task</td>
<td>Last Instructional Day, Lesson 24</td>
<td>Cooperative Group Task</td>
<td>K.NBT.1</td>
</tr>
</tbody>
</table>

Students with disabilities may require Braille, large print, audio, or special digital files. Please visit the website, www.p12.nysed.gov/specialed/aim, for specific information on how to obtain student materials that satisfy the National Instructional Materials Accessibility Standard (NIMAS) format.
In Topic A, students count two separate parts within teen numbers, 10 ones and some ones. They start by counting piles of 10 straws to understand 10 ones. In the second lesson, students separate 10 ones and some ones from within teen quantities using an egg carton cut off to have 10 compartments. Continuing with decomposing, in Lesson 3 students circle 10 ones within teen quantities at the pictorial level. In Lessons 4 and 5, students count their 10 ones and some ones to 20 the Say Ten way, e.g., ten one, ten two, ten three, ten four, ten five, ten six, ten seven, ten eight, ten nine, 2 ten.¹

¹ In the NBT Progression on page 5, this is referred to as the East Asian way of counting.
### Concept Chart: A Teaching Sequence Towards Mastery of Counting 10 Ones and Some Ones

**Concept 1:** Count Straws into Piles of Ten; Count the Piles as 10 Ones  
(Lesson 1)

**Concept 2:** Count 10 Objects Within Counts of 10 to 20 Objects; Describe as 10 ones and ___ Ones  
*E.g., “I have 10 ones and 4 ones.”*  
(Lesson 2)

**Concept 3:** Count and Circle 10 Objects Within Images of 10 to 20 Objects; Describe as 10 Ones and ___ Ones  
*E.g., “I have 10 ones and 4 ones.”*  
(Lesson 3)

**Concept 4:** Count Straws the Say Ten Way to 19; Make a Pile for Each Ten  
(Lesson 4)

**Concept 5:** Count Straws the Say Ten Way to 20; Make a Pile for Each Ten  
(Lesson 5)
Lesson 1:
Count Straws into Piles of Ten; Count the Piles as 10 Ones

K.NBT.1, K.CC.1

Suggested Lesson Structure

- Fluency Practice (12 minutes)
- Application Problem (6 minutes)
- Concept Development (25 minutes)
- Student Debrief (7 minutes)
- Total Time (50 minutes)

Fluency Practice (12 minutes)

- Finger Counting from Left to Right K.CC.2, K.CC.4 (2 minutes)
- 5-Frame Flashes K.CC.1, K.CC.4 (4 minutes)
- 10-Frame Flashes K.CC.2 (6 minutes)

Finger Counting from Left to Right (2 minutes)

Count by ones within 10 on the fingers from left to right, from pinky on the left hand as 1 to pinky on the right hand as 10.

Hover the fingers as if playing the piano. Drop the finger as it is counted and leave it down. Start and end at different numbers, e.g., count from 5 to 7. (The five fingers of the left hand have played. The students says, “6, 7” while playing the thumb and pointer finger of the right hand.)

5-Frame Flashes (4 minutes)

Materials: (T) Large 5-Frame cards  (S) 5-Frame cards

T:  (Show 4 dots.) How many dots do you see?
S:  4.
T:  How many more to make 5?
S:  1.
T:  Say the number sentence.
S:  4 and 1 makes 5.
Continue with the following possible sequence: 3, 2, 1, 4, 2, 3, 5, 0, 5. Have students play with a partner. Give pairs sets of 5-frame cards.

10-Frame Flashes (6 minutes)

Materials: (T) 10-frame cards (S) 10-frame cards

T: (Show 9 dots.) How many dots do you see?
S: 9.
T: How many more does nine need to be 10?
S: 1.

Repeat for possible sequence: 8, 5, 7, 6, 1, 4, 3, 5, 2, 9. Have students play with a partner. Give pairs of sets of cards.

Application Problem (6 minutes)

Marta loves to share her peanuts at recess. She counted 10 peanuts into the hands of her friend Joey. Draw a picture of the peanuts in Joey’s hand.

NOTES ON SCAFFOLDING DIVERSE LEARNERS:

For students below grade level, post example 10-frames that show the parts of ten illustrated with two colors.

For students above grade level, provide an extension of the application.

- If Marta had 15 peanuts to start with, how many does she have left?
- How many more peanuts does Marta need to have 10 in her hand?
- Draw a picture to show Marta’s peanuts.
Lesson 1: Count Straws into Piles of Ten; Count the Piles as 10 Ones

Date: 2/3/13

5.A.5

Concept Development (25 minutes)

Materials: (S) 1 egg carton cut to have 10 compartments for each pair of students, 10 bags with different items in each (suggestions to the right), 40 straws

T: Count to find out how many slots there are in your egg carton. Wait for the signal to tell me. (Pause, when all are ready, give the signal.)
S: 10!
T: Each team will explore 10 bags. Find out which bags have 10 things in them.

Have the students in pairs investigate each bag by placing the materials into the egg carton to see if there are enough to count 10 ones. After counting the items in their bag, students will pass it to the next pair on a signal.

T: (Once the students have investigated all 10 bags.) Discuss with the partner next to you, which bags had 10 things?
S: The erasers, the linker cubes, the walnuts and the cards!
T: How many times did we count 10 things?
S: 4 times!
T: Let’s count these straws into 4 piles of 10 to match the erasers, linker cubes, walnuts and cards.
T: Count with me to match the number of erasers.
S: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10.
T: 1 pile! Let’s count another pile to match the number of linker cubes.
S: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10.
T: How many piles of 10 do we have now?
S: 2 piles!
T: Let’s count another pile to match the number of walnuts.

Continue with the walnuts and 3x5” cards.

T: Let’s count how many piles of 10 we made.
S: 1 pile, 2 piles, 3 piles, 4 piles.
T: How many straws are in each pile?
S: 10 straws.
T: Let’s count the bags of 10, too.
S: 1 bag, 2 bags, 3 bags, 4 bags.
T: How many things are in each bag?
S: 10 things.

Bag Contents:
- 8 clothes pins
- 8 pasta shells
- 8 beads
- 9 3x5” cards
- 9 pennies
- 9 pencils
- 10 erasers
- 10 linker cubes
- 10 walnuts in the shell
- 10 play dollars
Lesson 1: Count Straws into Piles of Ten; Count the Piles as 10 Ones

Date: 2/3/13

T: Talk to your partner about what is the same and different about the bags of things and the piles of straws.

T: (Allow time.) How many times did we count 10 ones when we were counting the straws?
S: 4.

T: How many times did we count 10 things when we were counting the things in the bags?
S: 4.

T: How many of the bags didn’t have 10 things?
S: 6 bags!

Activity Worksheet (5 minutes)

Distribute worksheets to students.

Have the students circle which of the pictures show 10 things.

Note: Students have been counting linear, array, circular and scatter configurations through 10 since the first module (K.CC.5). They have further developed skill in circling pictorial sets in Module 4 when learning to add and subtract.

Student Debrief (7 minutes)

Have the students bring their worksheet to the carpet and discuss with a partner which things they circled and why. Suggested sentence frames:

“I circled _________ because I counted 10 of them.”
“I didn’t circle _________ because I counted _____ of them.”

Have them count the number of sets of 10 ones they counted.

Help students to remember that there were also 4 piles of 10 straws and 4 bags with 10 things in them. Have them discuss how the paper worksheet is the same as and different from their work with the bags and straws. Would you ever put apples or soccer balls in bags of 10?

To review and apply K.CC.4, discuss how many objects the other groups are missing to make 10. Have students draw in the missing objects and circle all the sets of 10 ones. “Now how many times did we count 10 ones?”

Exit Ticket

After the Student Debrief, instruct students to complete the Exit Ticket. A quick review of their work will help you assess the students’ understanding of the concepts that were presented in the lesson today. Students have two minutes to complete the Exit Ticket. You may read the questions aloud to the students.
Circle the groups that have 10 ones.

How many times did you count 10 ones?
Circle the groups that have 10 things.

How many times did you count 10 things?
Circle 10.

Count the number of times you circled 10 ones. Tell a friend or adult how many times you circled 10 ones.
Lesson 2:
Count 10 Objects Within Counts of 10 to 20 Objects

Suggested Lesson Structure

- Fluency Practice (9 minutes)
- Application Problem (5 minutes)
- Concept Development (30 minutes)
- Student Debrief (6 minutes)
- Total Time (50 minutes)

**Fluency Practice (9 minutes)**

- How Many is One More K.CC.2 (3 minutes)
- Show One More on Fingers K.CC.2 (3 minutes)
- Count Piles of Ten K.CC.2, K.CC.4 (3 minutes)

**How Many is One More (3 minutes)**

Materials: (T/S) 10-frame cards (large teacher set and smaller sets per pair of students)

T: (Show 3.) How many dots?
S: 3.
T: What’s one more than 3?
S: 4 is one more than 3.

Continue with the following possible sequence: 1, 4, 2, 4, 5, 6, 7, 9, 5, 8, 7. Eliminate asking them to identify the base number as quickly as possible. Students then continue this activity with each other in pairs.

**Show One More on Fingers (3 minutes)**

Materials: (T) Rekenrek

T: (Show 5 beads.) Count the number of beads.
S: 1, 2, 3, 4, 5.
T: Count one more on your fingers left to right.
S: (Students hover hands as if playing the piano. They drop a finger or “play a note” starting with the left pinky.) 1, 2, 3, 4, 5, 6.

Continue with the following possible sequence: 6, 4, 7, 9, 8, 7, 6.
Count Piles of Ten (3 minutes)

Materials: (S) About 40 straws for each pair of students

Have students see how many piles of 10 straws they can count.

**Application Problem (5 minutes)**

Lisa counted some sticks into one pile of 10. She counted 5 other sticks into another pile. Draw a picture to show Lisa’s piles of sticks.

Note to the teacher: For now, just focus on the pile of 10 sticks and the pile of 5 rather than composing the teen number.

(Bonus: Have early finishers draw Lisa’s piles on another day when she made one pile of 10 sticks and one pile of 8 sticks!)

**Concept Development (30 minutes)**

Materials: (S) 1 egg carton cut to have 10 compartments for each pair of students, 10 bags with different items in each (suggestions to the right)

T: Count to find out how many slots there are in your egg carton. Wait for the signal to tell me.

S: (Pause. When all are ready, give the signal.) 10!

T: Each team will count the objects in ten bags. To count the objects in your bag, start by placing the objects in the egg carton, then put any extra objects next to the carton.

T: Tell your partner, “I have 10 ones and ____ ones.”

T: We’ll do one together first. (Demonstrate.)

Have pairs of students count out the given teen number, decomposing it as 10 ones and some more ones. After counting the objects, have pairs trade bags and count the new objects.

T: (Once the students have counted all 10 bags.) Let’s see what you discovered! Count the clothes pins with me.

S: (As you show each one using the egg carton.) 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18.

T: How many clothes pins are there?

S: 18!
T: “10 ones and ___ ones?” Let’s complete this sentence.
S: 18 is 10 ones and 8 ones.
T: Yes!

Have students in pairs count then decompose the other quantities in the other bags using their egg cartons, allowing them to recognize and internalize the structure of teen numbers as 10 ones and some more ones. Continue to encourage statements following the pattern “12 is 10 ones and 2 ones.”

**Activity Worksheet (8 minutes)**

Distribute worksheets to students.

Note: Students use the method of checking off one object each time they count. This is an easier strategy than circling 10 items which will be part of the next lesson.

**Student Debrief (6 minutes)**

The following is a suggested list of questions to invite reflection and active processing of the total lesson experience. Use those that resonate for you as you consider what will best support your students’ ability to articulate the focus of the lesson.

Have the students bring their worksheet to the carpet and work with a partner to check their count of 10 ones and some more ones. Have them say the teen number as 10 ones and some more ones.

S: There are 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13 ducks.
S: 13 is 10 ones and 3 ones.

**NOTES ON SCAFFOLDING ELLS:**

For students with developing language skills, review academic vocabulary. Before beginning student sharing during the Debrief, count to 20 with the Slavonic abacus to practice pronouncing numbers.
Ask students to look at the picture of the ducks.

- Is it easy to see ten ones in this picture? Why?
- How is this picture the same and different from counting using the egg carton?
- Which was easier to count, the ducks or the glasses of juice? Why? Show your friend how you counted the glasses of juice.
- Does your drawing of 10 ones and 2 ones look exactly the same as your friends? How is it the same? How is it different?
- Write the number 17 on the board. Can someone come up and draw 17 squares on the board?
- Can someone come up and circle 10? Fill in this sentence for me: 17 is 10 ones and ____ ones.
- 14 is 10 ones and ____ ones. Fourteen is a teen number. What is another teen number?
- Eleven and twelve don’t have “teen” but most grown-ups call them teen numbers. What have you noticed today about teen numbers?

Exit Ticket

After the Student Debrief, instruct students to complete the Exit Ticket. A quick review of their work will help you assess the students’ understanding of the concepts that were presented in the lesson today. Students have two minutes to complete the Exit Ticket. You may read the questions aloud to the students.
Lesson 2: Count 10 Objects Within Counts of 10 to 20 Objects

Date: 1/31/13

Touch and count 10 things. Put a check over each one as you count 10 things.

I have 10 ones and ____ ones.

I have 10 ones and ____ ones.

I have ____ ones and ____ ones.

I have ____ ones and ____ ones.
Draw pictures to match the words.

I have 10 small circles and 2 small circles:

I have 10 ones and 4 ones:
Lesson 2 Exit Ticket

NYS COMMON CORE MATHEMATICS CURRICULUM

<table>
<thead>
<tr>
<th>Name</th>
<th>Date</th>
</tr>
</thead>
</table>

10 ones and 3 ones

10 ones and 7 ones

10 ones and 8 ones

10 ones and 5 ones

10 ones and 10 ones

10 ones and 8 ones

10 ones and 4 ones

10 ones and 2 ones

**Circle the correct numbers that describe the pictures.**
Lesson 2 Homework

Name ________________________  Date ____________

Draw more to show the number.

10 ones and 3 ones

10 ones and 2 ones

10 ones and 5 ones

10 ones and 7 ones

10 ones and 4 ones
Lesson 3:
Count and Circle 10 Objects Within Images of 10 to 20 Objects; Describe as 10 Ones and ___ Ones

Suggested Lesson Structure

- Fluency Practice (10 minutes)
- Application Problem (7 minutes)
- Concept Development (26 minutes)
- Student Debrief (7 minutes)
- Total Time (50 minutes)

Fluency Practice (10 minutes)

- Hide 1 K.CC.2 (4 minutes)
- How Many Do You See? K.CC.2 (3 minutes)
- Grouping 10 Objects K.NBT.1 (3 minutes)

Hide 1 (4 minutes)

Materials: (T/S) 10-frame cards

T: (Show 5.) Use your imagination to hide 1. How many are left?
S: 4.
T: (Show 10.) Use your imagination to hide 1. How many are left?
S: 9.

Continue with the following possible sequence: 1, 6, 2, 7, 3, 8, 4, 9.
Have students repeat the activity in pairs if there is time.

How Many Do You See? (3 minutes)

Materials: (T) Ten frame cards.

T: (Show dots for several seconds then hide the card). Wait for the signal. How many dots did you see?
S: 7.
T: Who can explain how they see 7?

NOTES ON SCAFFOLDING ELLS:

Make instructions visual as well as oral. When instructing students, “Use your imagination to hide 1,” illustrate this process by covering one dot on the 10-frame. Repeat for the first few numbers.
Lesson 3: Count and Circle 10 Objects Within Images of 10 to 20 Objects; Describe as 10 Ones and ___ Ones

Date: 2/4/13

S: I see a 5 group on top and 2 more on the bottom. (Draw as the student speaks.)

Continue with the following possible sequence: 3, 9, 1, 8, 7, 4.

Grouping 10 Objects (3 minutes)

Materials: (S) Bag with about 20 small objects for each student

T: Put all the things in your bag on your work mat. Count out 10 ones and move them together into a bunch.
T: (Wait while they work.) By counting, prove to your partner there are 10 things in your bunch.
S: (Count for their partner.)
T: Push all your things back together. Mix them up. Count out 10 ones again and move them together into a bunch.

Repeat process two or three more times. Ask students if the same 10 things are in the bunch each time.

Application Problem (7 minutes)

Each gingerbread man got 10 sprinkles as buttons with 2 sprinkles to show the eyes. Draw to show the 12 sprinkles as 10 buttons and 2 eyes.

Concept Development (25 minutes)

Materials: (S) Template with varied images of teen quantities (located at end of lesson materials), cut into strips

T: (Draw two rows of five circles with three more off to the side.)
T: Let’s count all the circles.
S: 1, 2, ..., 13.
T: Talk to your elbow partner. Can you count 10 ones in my picture?
S: (Students talk with their partner. Watch for pointing and counting. Expect students to count one at a time. Do not insist they recognize the 2 fives as 10 automatically.)
T: Who can come to the board and show us how they counted 10 ones?
S: (Student comes to the board and designates his 10.)
T: Let’s count with him while he points.
S: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10.
T: Are there more?
S: Yes!
T: How many more?
S: 3 more.
T: Use your finger to circle the 10 ones from your seat.
S: (Make circles around the 10 ones with their fingers.)
T: Can you see the 3 ones without counting?
S: Yes!
T: Now find 10 triangles inside this group of triangles. (Distribute use the template strip of triangles pictured to the right) Find 10 ones and circle them carefully with your fingers.
S: (After receiving their paper strip, students count and circle 10 ones with their finger.)
T: Show your partner how you found and circled 10 ones with your finger. Prove to him or her that it is 10 by counting and then circling.
S: (Students do so.)
T: Now use your pencil to find and circle your 10 ones. (Students circle 10 ones.) Trade papers with your partner and count to be sure he circled exactly 10 ones. Be nice if you disagree!
T: How many extra ones did you have after you counted the 10 triangles?
S: 1.
T: When you and your partner are ready, raise your hand for a new picture. Find and circle 10 ones with your finger then with your pencil. Prove your count of 10 ones to your partner. Trade papers with your partner and check their count. (Continue, distributing additional strips of teen items from the template).

Activity Worksheet  (8 minutes)

Distribute worksheet to students.

Note: Ask the students to find and circle 10 objects before circling them with their pencil. They are “finding” an embedded number, just as when they were “seeing” seven, they may have seen a 5-group and 2 more. The difference here is that they must count to find 10 ones. Later, in Grade 1, they will recognize certain configurations of 10 ones (such as the 10-frame) as 1 ten.
Student Debrief (7 minutes)

Have students bring their worksheet to the carpet for the Debrief. To begin, they might check their work with a friend, counting to be sure there are 10 ones within each circle.

Suggestions for the Debrief:

- Did your friend circle the exact same ice cream cones? Apples? Peppers? Tacks?
- Were both your answers correct? Why?
- How did your friend represent 10 ones in her picture?
- How do we say 10 ones and 5 ones (and the other numbers represented) as one number? (The students have been counting to higher numbers during fluency since early in the year. Pre-K standards call for counting to 20.)
- Which pictures were the easiest for you to count? Why?
- What do all these examples have in common? Do 10 ones always look the same? What other things in our classroom could we make into a bunch or pile of 10 ones?

Exit Ticket

After the Student Debrief, instruct students to complete the Exit Ticket. A quick review of their work will help you assess the students’ understanding of the concepts that were presented in the lesson today. Students have two minutes to complete the Exit Ticket. You may read the questions aloud to the students.
Count and circle 10 things. Tell how many there are in two parts, 10 ones and some more ones.

I have 10 ones and ____ ones.  I have ____ ones and ____ ones.

I have ____ ones and ____ ones.  I have ____ ones and ____ ones.
Draw your picture to match the words. Circle 10 ones.

I have 10 ones and 3 ones:

I have 10 ones and 8 ones:
Circle 10 ones.

Draw 10 ones and 6 ones.

I have 10 ones and ___ ones

I have 10 ones and 6 ones
Circle 10 things. Tell how many there are in two parts, 10 ones and some more ones.

I have 10 ones and ___ ones.

I have 10 ones and ___ ones.

I have ___ ones and ___ ones.

I have ___ ones and ___ ones.
Lesson 3:

Count and Circle 10 Objects Within Images of 10 to 20 Objects;
Describe as 10 Ones and ___ Ones

Date: 2/4/13
Lesson 4:
Count Straws the Say Ten Way to 19; Make a Pile for Each Ten

Suggested Lesson Structure

- Fluency Practice (12 minutes)
- Application Problem (6 minutes)
- Concept Development (26 minutes)
- Student Debrief (6 minutes)

Total Time (50 minutes)

Fluency Practice (12 minutes)

- Dot Cards of Six K.CC.2 (4 minutes)
- Number Pairs of Six K.CC.2 (4 minutes)
- Circling 10 Objects K.NBT.1 (4 minutes)

Dot Cards of Six (4 minutes)

Materials: (T/S) Varied dot cards of six

T: (Show card.) How many do you see?
S: 6.
T: How did you see them in two parts?
S: (Possible answers) 5 up and 1 down, 2 down and 4 up, 3 up and 3 down.

Continue with other cards of seven. Distribute the cards to the students for partner sharing time. Have them pass on the card at a signal.

Number Pairs of Six (4 minutes)

Materials: (T) Linker cube sticks or dot cards (S) Personal white board for each student

Show a stick of linker cubes or the dot cards with 5 and 1 indicated as parts.

T: Say the biggest part. (Give students time to count.)
S: 5.

NOTES ON SCAFFOLDING DIVERSE LEARNERS:

Provide think time. When students are responding chorally, ask them to “show thumbs up when ready” to ensure ample think time.

For advanced students who are ready while others are still thinking, provide extension. Those students can “add two more” to their answer in their head. Adjust the “add on” to meet individual student needs.
Lesson 4

Count Straws the Say Ten Way to 19; Make a Pile for Each Ten

T: Say the smallest part.
S: 1.
T: What is the total number of dots? (Give them time to re-count.)
S: 6.
T: Show the number bond on your personal white board.

Continue with 4 and 2, 3 and 3, and 6 and 0.

Circle 10 Objects (4 minutes)

Materials: (S) Circle 10 Objects worksheet (pictured to the right)

Distribute Circle 10 Objects worksheet. Please note that this worksheet will be used in the lesson’s debrief.

Application Problem (6 minutes)

At recess, 17 students were playing. 10 students played handball while 7 students played tetherball. Draw to show the 17 students as 10 students playing handball and 7 students playing tetherball.

Note: In this application problem, students are not adding to solve, but rather they are being guided to decompose the 17 as 10 ones and 7 ones. This is not asking “how many,” but rather separating 17 into 10 ones and some ones (K.NBT.1). The problem is not asking them to count the total but is instead telling them the total.

Concept Development (26 minutes)

Materials: (T) 19 linker cubes (S) 19 straws per pair of students, a bag of 19 small counting objects such as pennies or beans per student, worksheet

T: Come sit with me on the carpet. (Choose a student helper to sit next to you on the left.)
T: (Place a linker cube on each of your fingers.) How many cubes do you see?
S: 10!

NOTES ON SCAFFOLDING ELLS:

Support developing academic vocabulary. When students count the Say Ten way, ask them to also tell you the standard number name.

T: How many?
S: Ten one.
T: Right. And the regular way?
S: Eleven.
Lesson 4: Count Straws the Say Ten Way to 19; Make a Pile for Each Ten

T: (Place a cube on your helper’s right pinky finger.) Now how many cubes do you see?
S: Eleven! I see 10 and and 1!
T: You’re all correct! Eleven is 10 and 1! I’m going to teach you to count the Say Ten way!
T: (With a linker cube on each finger, raise your hands again.) How many linker cubes is this?
S: Ten!
T: Every time Lucy adds another cube to her fingers we’ll Say Ten (show your hands) and the number of ones you see on her fingers. Ready?
S: (As helper adds cubes on her fingers from right to left in sequential order up to 19.) Ten one, ten two, ten three, ten four, ten five, ten six, ten seven, ten eight, ten nine.
T: Excellent! Now go back to your seats and we’ll practice counting the Say Ten way using straws.
T: (Pass out 19 straws to each pair of students.) One student, Partner A, will count out 10 straws into a pile. The other student, Partner B, will place one straw next to the pile and we’ll say, “ten one.” Ready?
S: (Showing a pile of 10 straws and 1 more straw.) Ten one.
T: Partner B, place another straw next to the pile of 10. How many straws now?
S: Ten two.
T: (Continue this way up to ten nine.) Put all the straws back into one pile and switch roles. Partner B, count out 10 straws into a pile. Partner A, place 1 straw next to the pile, and let’s practice counting again the Say Ten way.
S: (Students count up to ten nine.)

Activity Worksheet (7 minutes)

Distribute worksheets to students.
Begin by having the students use concrete materials on the 10-frames of the worksheet. Have them count the Say Ten way as they work. Direct students to fill the 10-frame on the left, first with one row of 5 from left to right and then the row below from left to right. Remind them that these are like their egg cartons. After doing some examples with materials, have the students then draw and count the specified amounts while they count the Say Ten way.
Lesson 4:

Count Straws the Say Ten Way to 19; Make a Pile for Each Ten

Lesson 4 Worksheet

NYS COMMON CORE MATHEMATICS CURRICULUM

Student Debrief (6 minutes)

The following is a suggested list of questions to invite reflection and active processing of the total lesson experience. Use those that resonate for you as you consider what will best support your students’ ability to articulate the focus of the lesson.

Have students bring their Circle 10 Objects worksheet to the carpet. This is the worksheet from the fluency.

Suggestions for the Debrief:

- Look at your Circle 10 Objects worksheet. Can you say the numbers the Say Ten way?
- Did your friend circle 10 objects the same way you did?
- Were both of your answers correct? Why?
- How do we say ten nine as one number?
- How do we say 16 the Say Ten way?
- Which pictures were the easiest for you to count? Why?
- What do all the pictures have in common?

Exit Ticket

After the Student Debrief, instruct students to complete the Exit Ticket. A quick review of their work will help you assess the students’ understanding of the concepts that were presented in the lesson today. Students have two minutes to complete the Exit Ticket. You may read the questions aloud to the students.
Circle 10.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

© 2012 Common Core, Inc. All rights reserved. commoncore.org
Lesson 4: Count Straws the Say Ten Way to 19; Make a Pile for Each Ten

Date: 2/3/13

5.A.32

Common Core, Inc. All rights reserved. commoncore.org
Lesson 4:
Count Straws the Say Ten Way to 19; Make a Pile for Each Ten

I can make ten two.

I can make ten nine.

Note: Early finishers can represent their number pictorially on the ten frame.

Date: 2/3/13

© 2012 Common Core, Inc. All rights reserved. commoncore.org

engageNY 5.A.33
Count and write how many the Say Ten way.

10

10

Name ____________________________ Date ____________

Count Straws the Say Ten Way to 19; Make a Pile for Each Ten
Lesson 4 Homework

Draw lines to match pictures to numbers the Say Ten way.

- 00000 XXX
  - 10
  - 3

- 00000 X
  - 10
  - 1

- 00000 XX
  - 10
  - 6

- 00000 XXX
  - 10
  - 10

- 00000 XXXXX
  - 10
  - 2

- 00000 XXXXX
  - 10
  - 3

Name ___________________________  Date ________________
Lesson 5:
Count Straws the Say Ten Way to 20; Make a Pile for Each Ten

Suggested Lesson Structure

- Fluency Practice (12 minutes)
- Application Problem (5 minutes)
- Concept Development (25 minutes)
- Student Debrief (8 minutes)
- Total Time (50 minutes)

Fluency Practice (12 minutes)

- Dot Cards of Seven K.CC.5, K.CC.2 (4 minutes)
- Number Pairs of Seven K.CC.2 (4 minutes)
- Circling 10 Ones K.NBT.1 (4 minutes)

Dot Cards of Seven (4 minutes)

Materials: (T/S) Varied dot flashes with 7 dots

T: (Show 7 dots.) How many do you see (Give students time to count)?
S: 7.
T: How can you see 7 in two parts?
S: (Coming up to the card) “5 here and 2 here.” “I see 3 here and 4 here.”

Continue with other cards of seven. Distribute the cards to the students for partner sharing time. Have them “pass on” the card at a signal.

Number Pairs of Seven (4 minutes)

Materials: (S) Dot cards, personal board for each student. On the dot card, indicate 6 and 1 as two parts.

T: Say the biggest part.
S: 6.
T: Say the smallest part.
S: 1.

NOTES ON SCAFFOLDING DIVERSE LEARNERS:

Students below grade level will need to do more counting. They need more time and may benefit from working with the cards one at a time while you move more rapidly through the cards with the larger majority of the class.

Students above grade level, conversely, will need less time. They will be able to recognize quantities quickly and can get easily bored. Let them work in a small group with more of a flashing approach. Assign one student or classroom helper to be the teacher. Engage them in sharing the different ways they saw the subsets.
Lesson 5: Count Straws the Say Ten Way to 20; Make a Pile for Each Ten

Date: 2/3/13

T: What is the total number of dots? (Give students time to recount.)
T: Write the number bond on your personal board. Continue with 5 and 2, 4 and 3, and 7 and 0.

Circling 10 Ones (4 minutes)

Materials: (S) Circling 10 Ones worksheet (pictured to the right)

Application Problem (5 minutes)

Pat covered 16 holes when playing the flute. She covered 10 holes with her fingers on the first note she played. She covered 6 holes on the next note she played. Draw the 10 holes. Draw the six holes. Use your drawing to count all the holes the Say Ten way.

Note: The focus here is on counting to find the total rather than on addition. They are also seeing the embedded 10 and 6 as they count to 16 the Say Ten way.

Concept Development (25 minutes)

Materials: (S) 20 straws per pair of students

T: Come sit with me on the carpet.
T: I’m going to flash numbers with my hands. Tell me the number, then tell me the number the Say Ten way. Let’s do one as an example.
T: (Hold out both hands, palms out, to show 10, then show your right hand with the pinky extended.)
S: Eleven.
T: The Say Ten way?
S: Ten one!
T: Perfect. (Show 10 again, then show 2 on your right hand with the pinky and ring finger.)

S: Twelve! Ten two!

T: Yes!

T: (Continue this way up to ten nine.) What comes after 19? (Flash 2 tens.)

S: Twenty! Two tens!

T: Very good! Please return to your seats and we’ll practice counting the Say Ten way using straws. Partner A will count 10 straws into a pile. The other student, Partner B, will place one straw next to the pile and say “ten one.” Ready?

S: (Showing a pile of 10 straws and 1 one.) Ten one.

T: Partner B, place another straw. How many straws now?

S: Ten two.

T: (Continue this way up to 2 ten.) How many straws are there?

S: 2 ten!

T: You are all correct! There are 2 piles of 10 straws. We say “two ten.”

T: Put all the straws back into one pile and switch roles. Partner B, count out 10 straws into a pile. Partner A, place one straw next to the pile, and let’s practice counting again the Say Ten way.

S: (Students count up to two ten.)

Activity Worksheet (7 minutes)

Distribute worksheets to students.

Direct the students to circle 10 objects and check the extra ones. Have them count the total the Say Ten way. Watch to see that they count the 10 ones within the circle first from left to right, row by row. They then match the drawing to its numerical representation.

Student Debrief (8 minutes)

The following is a suggested list of questions to invite reflection and active processing of the total lesson experience. Use those that resonate for you as you consider what will best support your students’ ability to articulate the focus of the lesson.

Have students bring their Circling 10 Ones and activity worksheets to the carpet.
Suggestions for the Debrief:

- Look at your Circling 10 Ones worksheet. Can you say the numbers the Say Ten way?
- Did your friend circle 10 ones the same way you did?
- Were both your answers correct? Why?
- How do we say two ten as one number?
- How do we say 17 the Say Ten way?
- Which pictures were the easiest for you to count? Why?
- Look at your activity worksheet. Tell your partner what makes it easy for you to count?
- What is the same about all of the pictures? What is different?

Exit Ticket

After the Student Debrief, instruct students to complete the Exit Ticket. A quick review of their work will help you assess the students’ understanding of the concepts that were presented in the lesson today. Students have two minutes to complete the Exit Ticket. You may read the questions aloud to the students.
Circle sets of 10 and tell how many.

<table>
<thead>
<tr>
<th>[Image]</th>
<th>[Image]</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Image]</td>
<td>[Image]</td>
</tr>
<tr>
<td>[Image]</td>
<td>[Image]</td>
</tr>
<tr>
<td>[Image]</td>
<td>[Image]</td>
</tr>
<tr>
<td>[Image]</td>
<td>[Image]</td>
</tr>
<tr>
<td>[Image]</td>
<td>[Image]</td>
</tr>
<tr>
<td>[Image]</td>
<td>[Image]</td>
</tr>
<tr>
<td>[Image]</td>
<td>[Image]</td>
</tr>
<tr>
<td>[Image]</td>
<td>[Image]</td>
</tr>
<tr>
<td>[Image]</td>
<td>[Image]</td>
</tr>
</tbody>
</table>

Name ___________________________  Date ____________________
Circle 10 things. Touch and count the Say Ten way. Count your 10 ones first. Put a check over the loose ones. Draw a line to match the number.

- Ten two
- Ten one
  10  1
- Ten seven
  10  7
- Ten three
  10  3
- Ten four
  10  4
- Two ten
  10  10
- Ten eight
  10  8
Write and whisper the missing numbers.
Count the Say Ten way from 11 to 20.

<table>
<thead>
<tr>
<th>10 and 1</th>
<th>10 and 2</th>
<th>10 and ___</th>
<th>10 and 4</th>
<th>10 and ___</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 and 6</td>
<td>___ and ___</td>
<td>___ and ___</td>
<td>___ and ___</td>
<td>10 and 10</td>
</tr>
</tbody>
</table>
Write the numbers that go before and after, counting the Say Ten way.

<table>
<thead>
<tr>
<th>BEFORE</th>
<th>NUMBER</th>
<th>AFTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 and 3</td>
<td>10 and 4</td>
<td>10 and 5</td>
</tr>
<tr>
<td>and</td>
<td>10 and 2</td>
<td>and</td>
</tr>
<tr>
<td>and</td>
<td>10 and 5</td>
<td>and</td>
</tr>
<tr>
<td>and</td>
<td>10 and 6</td>
<td>and</td>
</tr>
<tr>
<td>and</td>
<td>10 and 1</td>
<td>and</td>
</tr>
<tr>
<td>and</td>
<td>10 and 9</td>
<td>and</td>
</tr>
</tbody>
</table>
Topic B:

Compose Numbers 11–20 from 10 Ones and Some Ones; Represent and Write Teen Numbers

K.NBT.1, K.CC.3, K.CC.1, K.CC.2, K.CC.4a, K.CC.4b, K.CC.4c, K.CC.5

Focus Standard:

- 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.
- K.CC.3: Write numbers from 0 to 20. Represent a number of objects with a written numeral 0–20 (with 0 representing a count of no objects).

Instructional Days: 4

Coherence - Links from: GPK–M5 Write Numerals to 5, Addition and Subtraction Stories, Count to 20
- Links to: G1–M2 Place Value, Comparison, Addition and Subtraction of Numbers to 20

In Topic B, students advance to a more abstract level, representing the decomposition of teen numbers first with Hide Zero cards (Place Value cards) and in Lesson 2 with number bonds. They then work from the abstract to the concrete and pictorial in Lessons 8 and 9 as they are directed to “show (and in Lesson 9 draw) me this many cubes (as teacher displays 13).”

Application problems in Topic B are experiences with decomposition and composition of teen numbers (K.NBT.1) rather than word problems (1.OA.2). For example, in Lesson 6 the problem reads, “Gregory drew 10 smiley faces and 5 smiley faces. He put them together and had 15 smiley faces. Draw his 15 smiley faces as 10 smiley faces and 5 smiley faces.” In this instance, there is no unknown. We do not ask, “How many in all?” or “How many?” within a word problem setting. The students represent 15 with their Hide Zero cards both when the zero is hiding and when it is not hiding as they apply all their experiences from Topic A to deeply understand the meaning of the digit 1 in the tens place in teen numbers.
<table>
<thead>
<tr>
<th>Concept Chart</th>
<th>A Teaching Sequence Towards Mastery of Composing Numbers 11-20 from 10 Ones and Some Ones and Representing and Writing Teen Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concept 1:</td>
<td>Model with Objects and Represent Numbers 10 to 20 with Place Value or Hide Zero Cards (Lesson 6)</td>
</tr>
<tr>
<td>Concept 2:</td>
<td>Model and Write Numbers 10 to 20 as Number Bonds (Lesson 7)</td>
</tr>
<tr>
<td>Concept 3:</td>
<td>Model Teen Numbers with Materials from Abstract to Concrete E.g., “Look at my number (show the numeral 16). Show me this many cubes.” (Lesson 8)</td>
</tr>
<tr>
<td>Concept 4:</td>
<td>Draw Teen Numbers from Abstract to Pictorial E.g., “Look at my number (show the numeral 16). Make a drawing showing that many circles.” (Lesson 9)</td>
</tr>
</tbody>
</table>
Lesson 6:
Model with Objects and Represent Numbers 10 to 20 with Place Value or Hide Zero Cards

Suggested Lesson Structure

- Fluency Practice (12 minutes)
- Application Problem (6 minutes)
- Concept Development (24 minutes)
- Student Debrief (8 minutes)
- Total Time (50 minutes)

Fluency Practice (12 minutes)

- How Many More to Make 10? K.CC.2 (4 minutes)
- Dot Cards of Eight K.CC.5, K.CC.2 (4 minutes)
- Counting Straws the Say Ten Way K.CC.2 (4 minutes)

How Many More to Make 10? (4 minutes)

Materials: (T/S) 10-frame cards

T: (Show 5.) How many dots?
S: 5.

T: How many more does 5 need to make 10?
S: (full sentence) 5 needs 5 more to make 10.

Continue with the following possible sequence: 9, 8, 7, 6, 1, 4, 3, 9, 2, 5. Allow students to play with a partner briefly.

Dot Cards of Eight (4 minutes)

Materials: (T/S) Varied dot cards of Eight (examples to the right)

T: (Show a card with 8 dots.) How many dots do you count? Wait for the signal to tell me.
S: 8.
Lesson 6:  Model with Objects and Represent Numbers 10 to 20 with Place Value or Hide Zero Cards

Date: 2/4/13

T:  How can you see them in 2 parts?
S:  (Students come up to the card.)  “I saw 4 here and 4 here.”  “I saw 5 here and and 3 here.”  “I saw 6 here and 2 here.”

Repeat with other cards. Pass out the cards for students to work independently.

Counting Straws the Say Ten Way  (4 minutes)

Materials:  (T) One full 10-frame and cards for numbers 1-10  (S) One full 10-frame and cards for numbers 1-10 for each pair of students

T:  (Show 10 and 3.)  Say the number the Say Ten way.
S:  Ten three.

Repeat process with other teen numbers. Give the students time to practice this exercise with a partner briefly.

Application Problem  (6 minutes)

There are 18 students, 10 girls and 8 boys. Show the 18 students as 10 girls and 8 boys.

Note: Remember that the focus is on counting all to find the total rather than counting on or addition.

Concept Development  (24 minutes)

Materials:  (T) Hide Zero Cards: one 10 card and numerals 1– 9
(S) Hide Zero Cards: one 10 card and numerals 1– 9 for each pair of students, two sets of 10 linker cubes for each student (10 in one color and 10 in another color), personal 10-frame boards for each pair of students

T:  Have one color of your cubes represent the boys and one the girls from our story. Show me the boys and girls that were in school. When you are done, check your partner’s work to be sure you agree.

T:  (Once complete).  Everyone hold up the stick that represents the girls.  (Students do so.)  Hold up the stick that represents the boys.  (Students do so.)

T:  How many girls?
S:  10 girls.
T:  Show the girls.  (Students show again.)  Here is the number 10.  (Show the 10 card.)

NOTES ON SCAFFOLDING ELLS:

Before giving verbal directions, match the linker cubes to the quantity and picture of the girls or boys from the application solution. Establish the referent of the linker cubes before then stating that the linker cubes represent the girls or boys in the story. “What color is represented by the girls?” The students will already know the answer.
Lesson 6: Model with Objects and Represent Numbers 10 to 20 with Place Value or Hide Zero Cards

Date: 2/4/13

T: How many boys?
S: 8 boys.

T: Show the boys. (Students show again.) Here is the number 8. (Show the 8 card.)

T: Put the boys together with the girls. Count with your partner the Say Ten way how many students you have.

S: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, ten one, ten two, ten three, ten four, ten five, ten six, ten seven, ten eight. (Have early finishers count down to 1 from 18.)

T: How do we say the number of students the Say Ten way?
S: Ten eight!

T: Watch this magic. Here is my 10. Here is my 8. I push them together and I have ten eight! This is how we write ten eight. (Pull the cards apart and push them together a few times.)

T: Talk to your partner. What happened to the 0 of the 10 ones?
S: “It went under the 8.” “It disappeared.” “It isn’t there anymore.” “It is hiding.”

T: Yes! It is hiding. I’m going to write the number without the cards. (Write ‘18’). It is like there is a 0 hiding under this 8.

T: I want each student to write this number on their personal board. When I say to show me your board, show me.

T: Here is a bag with a set of these cards for you. Partner A, open the bag and put all the numbers on your work mat. With your partner, put them in order from 1 to 10. (Wait.)

T: Partner B, show me ten eight with your cards. Be sure to hide the zero!

T: Partner A, on this first turn you will use the blocks. Partner B, you will use the cards and write the number on your personal board.

T: Partners, show me ten one.
T: Partner B use the blocks and Partner A use the cards. Show me ten five.

Continue the activity using other numbers. Different groups might work at varying speeds.

After about four different numbers, change the mode of representation from linker cubes to 10-frame cards, the same ones used during fluency practice. Have them place the cards in order from 10 to 1 for variety and repeat the process with about four more numbers.
Activity Worksheet (7 minutes)

Have students use their Hide Zero cards while doing the worksheet, drawing the number represented and then writing the teen number.

Early finishers can be given another number to represent both pictorially and with cards on the back.

Student Debrief (8 minutes)

The following is a suggested list of questions to invite reflection and active processing of the total lesson experience. Use those that resonate for you as you consider what will best support your students’ ability to articulate the focus of the lesson.

Have students always check their work with a partner once they bring it to the carpet.

Introduce the cards as Hide Zero cards. Then possibly discuss:

- Why do you think we call these cards Hide Zero cards?
- How is the number made by the Hide Zero cards different from and the same as the number written with pencil?
- How do the cards help you to understand the number 13? 18?
- If you didn’t know the 0 was hiding, you might think the ‘1’ in 13 was equal to 1 instead of 10. Then the total value would be 4 because 1 + 3 is 4!

Exit Ticket

After the Student Debrief, instruct students to complete the Exit Ticket. A quick review of their work will help you assess the students’ understanding of the concepts that were presented in the lesson today. Students have two minutes to complete the Exit Ticket. You may read the questions aloud to the students.

NOTES ON SCAFFOLDING DIVERSE LEARNERS:

Students below grade level will benefit from additional hands-on time with the Rekenrek. Look for opportunities to give them control of the movement of the beads. They may move the beads slowly and erratically. This is actually good for kindergarteners’ counting ability. It causes them to hold a number in their minds and wait for the movement of the bead rather than to simply rote count.

Students above grade level can be challenged to count or write every other number when counting to 20 or from 20.
Write and draw the number. Use your Hide Zero cards to help you.

10 3
1 3
10 5
10 8
10 6
Name ____________________________ Date ____________

Match the number shown on the Hide Zero cards with a drawing in the 10-frame. Write the number below after the 0 is hidden.

Show the number again on the right with a count of 10 ones and 4 ones. Circle the 10 ones.

1 0 4
Write and draw the number. Use your Hide Zero cards to help you.

10 2
10 7
10 9
10 4
Lesson 7: Model and Write Numbers 10 to 20 as Number Bonds

Suggested Lesson Structure

- Fluency Practice (10 minutes)
- Application Problem (5 minutes)
- Concept Development (28 minutes)
- Student Debrief (7 minutes)
- Total Time (50 minutes)

Fluency Practice (10 minutes)

- Dot Cards of Eight K.CC.5, K.CC.2 (4 minutes)
- Counting K.CC.2 (3 minutes)
- Breaking Apart Teen Numbers K.NBT.1 (3 minutes)

Dot Cards of Eight (4 minutes)

Materials: (T) Varied dot cards of Eight (examples to the right)

T: (Show a card with 8 dots.) How many dots do you count? Wait for the signal to tell me.
S: 8.
T: How can you see them in 2 parts?
S: (Students come up to the card.) “I saw 4 here and 4 here.” “I saw 5 here and 3 here.” “I saw 6 here and 2 here.”

Repeat with other cards. Pass out the cards for students to work independently.
Lesson 7: Model and Write Numbers 10 to 20 as Number Bonds

Date: 2/3/13

Counting (3 minutes)

Partners hover their hands as if playing the piano. Student on the right begins by “playing” the pinky of the left hand and continuing from left to right. Once a finger is counted it remains down on the keyboard.

Students count their own and their partner’s fingers first the Say Ten way, ten one, ten two, etc. and then in standard form. Have them count down from 20 to 0 if they finish early.

Decompose Teen Numbers (3 minutes)

Materials: (T) Hide Zero cards. Emphasize the breaking apart of numbers by separating the cards as the students say number the Say Ten way and the regular way.

T: (Showing 12.) Say the number the regular way.
S: 12.
T: Say 12 the Say Ten way.
S: Ten two.

Continue with the following possible sequence: 13, 14, 19, 11, 10, 15, 17, 16, 18.

Application Problem (5 minutes)

Gregory drew 10 smiley faces and 5 smiley faces. He put them together and had 15 smiley faces. Draw the 15 smiley faces as 10 smiley faces and 5 smiley faces. Then draw 15 with Hide Zero cards when the zero is hiding and when the zero is not hiding.

Note: Word problems involving quantities above 10 begin in Grade 1. Many of the application problems in Module 5 are simply decomposition and composition experiences (K.NBT.1). Note that the problems do not ask, “How many in all?” or “How many?” Also note that there is no unknown in problems of this type.
Concept Development (28 minutes)

Materials: (T/S) Place Value Cards: one 10 and numerals 1–9 both for the teacher and for each pair of students, at least 20 two-sided counters for each pair of students in a clear plastic bag (white beans spray painted red on one side, commercial two-sided counters, etc.), number bond template within a personal white board

T: Here is Greg’s number with my Hide Zero Cards.
T: Show Greg’s number with your 2-sided counters in the “total place” of your number bond. Make 10 ones a different color from the other ones.
S: (Students do so.)
T: Our number bond is not complete! We haven’t shown the parts!
T: What number parts are made by the two colors?
S: 10 ones and 5 ones.
T: Show those 2 parts with your own Hide Zero cards.
T: (See the picture at the right.) Is 15 beans the same number as 10 and 5?
S: (Give the students time to recount.) Yes.
T: Now our number bond is correct!
T: Let’s switch it. Slide your counters down to be the two parts, 10 ones in a part and 5 ones in a part.
T: Show fifteen with your Hide Zero cards in the to total place of your number bond.
T: Does 15 tell us the total number of beans in the 2 parts?
S: (Give students time to count.) Yes.
T: Now our number bond is correct again!
T: Let’s replace the Hide Zero cards with a written number. Slide the cards off the total place. What number will you write?
S: 15.
T: Slide off your beans from the parts. What numbers will you write to take their place?
S: 10 and 5.
T: Is 15 the same as 10 and 5?
Lesson 7

NYS COMMON CORE MATHEMATICS CURRICULUM

Lesson 7

Model and Write Numbers 10 to 20 as Number Bonds

Date: 2/3/13

© 2012 Common Core, Inc. All rights reserved. commoncore.org

S: Yes.
T: What is the total?
S: 15 (or ten 5).
T: What are the parts?
S: 10 and 5.
T: They are equal! Our number bond is correct again!

T: Use your beans and Hide Zero cards to make number bonds that are correct.

Repeat the sequence with different numbers of beans. Let the students go to work independently as they are able while guiding a smaller group that still needs guided practice. Do not let the equality be unresolved. For example, their number bond is not correct if they have 10 beans and 5 beans but nothing in the total place. The parts must always be equal to the total. Students may realize they can switch the order of the 10 ones and extra ones. That is good!

Close the session by having students write a number bond without using the template. This is review from Module 4 where they learned about the “total place” and how to draw a number bond.

Activity Sheet (8 minutes)

Be sure that students whisper speak as they work. For example, when saying “ten two,” they write the 1 and then the 2. By saying “ten two” simultaneously, they internalize the meaning of the ‘1’ as standing for 10 ones.
Lesson 7: Model and Write Numbers 10 to 20 as Number Bonds

Student Debrief (7 minutes)

Each student begins the Debrief checking his or her worksheet with a peer.

The following is a suggested list of questions to invite reflection and active processing of the total lesson experience. Use those that resonate for you as you consider what will best support your students’ ability to articulate the focus of the lesson.

- Tell me about the pattern you see on your worksheet.
- How are the number bond Hide Zero cards helping you to understand the numbers from eleven to twenty?
- How does counting the Say Ten way help you understand?
- How is this ‘1’ in thirteen the same as this ‘1’ in 19?
- When you made your number bonds, what stayed the same and what changed?
- When you see the number eleven, how are those two ‘1’s different?

Exit Ticket

After the Student Debrief, instruct students to complete the Exit Ticket. A quick review of their work will help you assess the students’ understanding of the concepts that were presented in the lesson today. Students have two minutes to complete the Exit Ticket. You may read the questions aloud to the students.

NOTES ON SCAFFOLDING ELLS:

To support communication about such questions as “Tell me about the pattern you see on your worksheet,” allow ELLs access to materials with which they can demonstrate understanding of the pattern. When they show a partner, the class or you might say, “You put one more” as you move the materials precisely as they did. This shows you understood. Next, invite them to use “one more,” too.
Lesson 7 Worksheet

Name ___________________________  Date ____________

Look at the Hide Zero cards or the 10-frame cards. Use your cards to show the number. Write the number as a number bond.

1 0

10

10

1 0 1

10 1

10 1

1 0 2

10 2

1 0 8

10 8

13

13

16

16
Circle 10 smiley faces. Draw a number bond to match the total number of faces.
Look at the Hide Zero cards or the 10-frame cards. Use your cards to show the number. Write the number as a number bond.
Look at the Hide Zero cards or the 10-frame cards. Use your cards to show the number. Write the number as a number bond.
Cut along the dotted line and store in a bag.
Lesson 8:
Model Teen Numbers with Materials from Abstract to Concrete

Suggested Lesson Structure

- Fluency Practice  (10 minutes)
- Application Problem  (6 minutes)
- Concept Development  (26 minutes)
- Student Debrief  (8 minutes)
- Total Time  (50 minutes)

Fluency Practice  (10 minutes)

- Number Bonds of Eight  K.CC.2
- Separating Ten Ones Inside Teen Numbers  K.NBT.1
- Teen Number Bonds  K.NBT.1

Number Bonds of Eight  (4 minutes)

Materials:  (T) Dot cards of eight

T:  (Show a dot card and indicate 7 and 1 as parts.) Say the biggest part. (Give students time to count).
S:  7.
T:  Say the smallest part.
S:  1.
T:  What is the total number of dots? (Give time to count.)
S:  8.
T:  Write your number bond.

Continue with 5 and 3, 4 and 4, 6 and 2, 8 and 0.

Separating Ten Ones Inside Teen Numbers  (3 minutes)

Materials:  (S) Bag with about 20 small objects

T:  Put all the things in your bag on your work mat. Count out 10 ones and move them together into a bunch.
T:  (Wait while students complete the task.) How many things are in your bunch?
S:  10.
Lesson 8: Model Teen Numbers with Materials from Abstract to Concrete

Date: 1/31/13

NOTES ON SCAFFOLDING ELLS:

To support ELLs in explaining what they notice, you might let them work with a student who speaks their own language. This is a key problem illustrating the commutative property in a very student-friendly setting. It is always easier to explain using a familiar language.

Teen Number Bonds (3 minutes)

Materials: (T) Number bond cards

T: (Show a number bond with 10 and 5 as parts.) Say the number sentence.
S: 10 and 5 makes 15.
T: Flip it.
S: 5 and 10 makes 15.

Continue with 10 and 1, 10 and 9, 10 and 4, 10 and 8, 10 and 2, 10 and 6, 10 and 3, 10 and 7.

Application Problem (6 minutes)

Peter drew a number bond of 13 as 10 and 3. Bill drew one, too, but he switched around the 10 and 3. Show Bill and Peter’s number bonds. Draw a picture of thirteen things as 10 ones and 3 ones. Explain your thinking to your partner about what you notice about the two number bonds.

Note: The students have noticed that the parts of a number bond can be switched around in Module 4. Make it exciting for them to find out that the same rules, or math truths, apply to bigger numbers, too!

Concept Development (26 minutes)

Materials: (S) Per pair of students: a bag of Hide Zero cards (1 ten and numerals 1–9), 2 sets of 10 linker cubes with 10 in one color and 10 in another color, a bag of 10-frame cards, and a personal white board for each student

T: Partner A, open the bag with the Hide Zero cards and put them on your work mat. With your partner, put them in order from 10 to 1. (Wait.)
T: Partner B, open the bag with the 10-frame cards and put them on your work mat. Work with your partner to put the cards below the matching Hide Zero cards. (Wait.)
Lesson 8: Model Teen Numbers with Materials from Abstract to Concrete

Date: 1/31/13

5.B.

T: (Write 13 on the board.) What number is this?
S: Thirteen!
T: How would you say it the Say Ten way?
S: Ten three.
T: Please write the number 13 on your personal boards. When I ask you to show me your board, show me.
T: Now I want you to work with your partner to show the number. Partner A, show the number with the Hide Zero cards, and remember to hide the zero!
T: Partner B, show the number with the linker cubes. Use one color to show 10 ones, and the other color to show the other ones.
T: Talk with each other and check each other’s work to be sure you’re both showing 13.
T: (Write 11 on the board.) What is the number?
S: 11!
T: And the Say Ten way?
S: Ten one!
T: Please write the number 11 on your personal boards. When I say show me your board, show me.
T: Now Partner B, you show the number with the cubes and Partner A, you show the number with the Hide Zero cards. Check each other’s work. Explain why you’re both showing 11.

After repeating the activity above with several numbers, exchange Hide Zero cards for 10-frame cards.

T: (Write 15 on the board.) What is the number?
S: Fifteen!
T: The Say Ten way?
S: Ten five!
T: Write 15 on your personal board, then show me.
T: This time, Partner A is going to show the number with 10-frame cards and Partner B is going to show the number with cubes. After you check each other’s work, you’ll switch.

Repeat the process above with about four more numbers.
Activity Worksheet

Have students use the bag of 20 small objects from today’s fluency activity as they complete the worksheet.

Student Debrief (8 minutes)

The following is a suggested list of questions to invite reflection and active processing of the total lesson experience. Use those that resonate for you as you consider what will best support your students’ ability to articulate the focus of the lesson.

Always have students check their work with a partner once they bring their activity worksheet to the carpet.

Have a set of 10-frame cards, Hide Zero cards, and 20 linker cubes in two different colors ready to display.

Possible discussion topics:

- What is the same/different about the 10-frame cards and the Hide Zero cards?
- How can you prove 20 is the same as 2 ten?
- When you write the number 18 on your personal board, how is it the same and different from the number 18 when you show it with Hide Zero cards or 10-frame cards?
- Which is your favorite way to show a number—with linker cubes, the Hide Zero cards, the 10-frame cards, or just writing the number? Why?
- Count up to 20 in standard form and count back to 0 the Say Ten way.
- Who can prove that the 1 in 14 is 10 ones, not 1 one?

Exit Ticket

After the Student Debrief, instruct students to complete the Exit Ticket. A quick review of their work will help you assess the students’ understanding of the concepts that were presented in the lesson today. Students have two minutes to complete the Exit Ticket. You may read the questions aloud to the students.
Use your materials to show each number as 10 ones and some more ones. Use your 5-groups way of drawing. Show each number with your Hide Zero cards. Whisper count as you work.

Name ______________________  Date ____________

11  18

15  14
Use your materials to show the number as 10 ones and some more ones.

1 6

Use your cubes to show the number. Then color in the cubes to match the number.

1 2

[Diagram of cubes with spaces for coloring]
Use your materials to show each number as 10 ones and some more ones.

15

Ten seven

13

Ten one
Lesson 8: Model Teen Numbers with Materials from Abstract to Concrete

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>ten</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ten four</td>
</tr>
</tbody>
</table>
Lesson 9:
Draw Teen Numbers from Abstract to Pictorial

Suggested Lesson Structure

- Fluency Practice (10 minutes)
- Application Problem (5 minutes)
- Concept Development (27 minutes)
- Student Debrief (8 minutes)

Total Time (50 minutes)

Fluency Practice (10 minutes)

- Dot Cards of Nine K.CC.5, K.CC.2 (4 minutes)
- How Many is One More? K.CC.2 (2 minutes)
- Grouping Teen Numbers into 10 Ones K.NBT.1 (4 minutes)

Dot Cards of Nine (4 minutes)

Materials: (T) Varied dot cards of 9  (S) Varied dot cards of 9 (examples to the right)

T: (Show a card with 9 dots.) How many dots do you count? Wait for the signal to tell me.
S: 9.
T: How can you see them in two parts?
S: (Students come up to the card.) I saw 5 here and 4 here. I saw 3 here and and 6 here. I saw 2 here and 7 here.

Repeat with other cards. Pass out the cards for students to work independently.

How Many is One More? (2 minutes)

Materials: (T) 10-frame cards

T: (Show 3.) How many dots?
S: 3.
T: What’s one more than 3?
S: 4.

Repeat with all the numbers through 10.
Lesson 9: Draw Teen Numbers from Abstract to Pictorial

Date: 2/3/13

5.B.30

NYS COMMON CORE MATHEMATICS CURRICULUM

Lesson 9

Grouping Teen Numbers into 10 Ones (4 minutes)

Materials: (S) Bag with about 20 small objects and work mat for each student

T: Put all the things in your bag on your work mat. Count out 10 ones and move them together into a bunch.
T: (Wait while they work.) How many ones are in your bunch?
S: 10 ones.
T: How many are not in your bunch?
S: 3 ones.
T: Say the number sentence.
S: 10 ones and 3 ones equals 13 ones.
T: Push all your things back together. Spread them all out over your work mat.

Repeat process 2 or 3 more times. Ask students if the same 10 things are in the bunch each time.

Application Problem (5 minutes)

A Pre-Kindergarten friend named Jenny drew 15 things with 1 chip and 5 more chips. Draw 15 things as 10 ones and 5 ones and explain to your partner why you think Jenny made her mistake.

NOTES ON SCAFFOLDING DIVERSE LEARNERS:

Students below grade level may need to model Jenny’s mistake and count the quantity so that they can compare it to the fifteen chips.
Students above grade level can be invited to extend to such problems as:
- If Jenny made the same mistake representing 18, how might she show it?
- How many more chips does Jenny need to correct her mistake?
Concept Development (27 minutes)

Materials: (S) Personal white boards with a double 10-frame worksheet inside per student

T: I’m going to write a number on the board. I want you to show that number by putting circles or dots inside the 10-Frames.

T: (Write 10 on the board.) Say the number.

S: Ten!

T: Draw circles or dots to show ten. When I say show me, hold up your board.

T: Show me. How many ones did you draw?

S: Ten ones.

T: Very good. Erase your boards. (Write 14.) Say the number.

S: Fourteen!

T: Whisper the number the Say Ten way as you fill in your 10-frames to show it.

T: Talk with a partner to explain your drawing and how you grouped the dots.

T: (Write 18.) Say the number the Say Ten way.

S: Ten eight!

T: Whisper the number the regular way as you fill in your 10-frames.

T: Talk with your partner. Explain why your picture shows ten eight.

Continue this way with 15 and 19.

T: (Show 16. Wait.)

T: Show me.

T: How many ones did you draw?

S: Sixteen ones.

T: How did you group the sixteen ones?

S: Ten ones and 6 ones.

T: Yes! Let’s do another.

Continue this way through the other teen numbers.

Activity Worksheet

Distribute worksheet to students. Direct the students to count as they represent the numbers. Have them whisper count as they work and fill one complete 10-frame before moving on to the next. Have them show their numbers with Hide Zero cards.
Student Debrief (8 minutes)

The following is a suggested list of questions to invite reflection and active processing of the total lesson experience. Use those that resonate for you as you consider what will best support your students’ ability to articulate the focus of the lesson.

Always have students check their work with a partner once they bring their activity worksheet to the carpet.

Possible discussion topics:

- How are your 10-frame drawings and your circle drawings the same and different?
- Look at your 10-frame drawings with your partner. Did you draw the number 17 the same way? If not, explain why both drawings show 17. Do the same for the number 16.
- Compare your 10-frame drawings with your circle drawings. Is one drawing easier to read and understand than the other? Explain your thinking.
- Do a finger flash in mixed order from 10 to 20 and have students say the numbers the Say Ten way.

Exit Ticket

After the Student Debrief, instruct students to complete the Exit Ticket. A quick review of their work will help you assess the students’ understanding of the concepts that were presented in the lesson today. Students have two minutes to complete the Exit Ticket. You may read the questions aloud to the students.

NOTES ON SCAFFOLDING ELLS:

To support ELLS in comparing the 10-Frame drawing and circle drawings, always refer to the image. It is wonderful for Kindergarten students to grow accustomed to seeing common representations on a word wall accompanied by a clear example. As they compare their drawings of 17, provide a short sentence such as, “My drawing of 17 is different (or the same).”
Whisper count as you draw the number. Fill one 10-frame first. Show your numbers with your Hide Zero cards.

12

17

16

13
Draw and circle 10 ones and some more ones to show each number.

![20]

![11]

Make up and draw your own teen numbers.
Lesson 9 Exit Ticket

Show the number by filling in the 10-frames with circles.

15

19

Draw circles to show the number. Circle 10 ones.

18

14
For each number, make a drawing that shows that many objects. Circle 10 ones.

11

16

20
Lesson 9 Homework

19

14

12
Topic C:
Decompose Numbers 11–20 and Count to Answer “How Many?” Questions in Varied Configurations

K.NBT.1, K.CC.5, K.CC.4c, K.CC.3, K.CC.4a

Focus Standard:
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.

K.CC.4c Understand that each successive number name refers to a quantity that is one larger.

K.CC.5 Count to answer “how many?” questions, about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many ten things in a scattered configuration; given a number from 1–20, count out that many objects.

Instructional Days: 5

Coherence -Links from: GPK–M5 Write Numerals to 5, Addition and Subtraction Stories, Count to 20
-Links to: G1–M2 Place Value, Comparison, Addition and Subtraction of Numbers to 20

Topic C opens in Lesson 10 with students building a Rekenrek to 20 which they will use to count and model numbers for the balance of the year. They will deepen their understanding of the composition and decomposition of teen numbers as 10 ones and some more ones (K.NBT.1) by showing, counting, and writing (K.CC.3) the numbers 11 to 20 using a variety of configurations: vertical towers, linear, array, and circular configurations. In each configuration, students count to answer “how many?” questions (K.CC.5) and realize that whatever the configuration, a teen number can be decomposed into 10 ones and some ones.

Lessons 11 and 12 represent each teen number as a part of a set of number stairs to 20. Each vertical tower is set within the ordered continuum. This configuration allows them to see each teen number in relationship...
to the others, as one larger than the number before it \((K.CC.4c)\), in relationship to 10, and in relationship to numbers 1–9 since the lesson’s worksheet has a color change after 10 ones. Next, in Lesson 13, students move teen quantities back and forth between linear and array configurations, practice counting strategies, and recognize that when they answer “how many?” the total has not changed. Finally, the topic culminates with the most challenging configuration, the circle. Students circle 10 and see that yes, the circle is composed of 10 ones and some ones, too. They become proficient at counting in all configurations to answer “how many?” questions \((K.CC.5)\).

### Concept Chart

**A Teaching Sequence Towards Mastery of Showing, Counting, and Writing Teen Numbers in Varied Configurations**

- **Concept 1**: Build a Rekenrek to 20  
  (Lesson 10)
- **Concept 2**: Show, Count, and Write Numbers 11 to 20 in Tower Configurations Increasing by One—A Pattern of “One Larger”  
  (Lesson 11)
- **Concept 3**: Represent Numbers 20 to 11 in Tower Configurations Decreasing by 1—A Pattern of “One Smaller” *(Extension of K.CC.4c)*  
  (Lesson 12)
- **Concept 4**: Show, Count, and Write to Answer “How Many?” Questions in Linear and Array Configurations  
  (Lesson 13)
- **Concept 5**: Show, Count, and Write to Answer “How Many?” Questions with Up to 20 Objects in Circular Configurations  
  (Lesson 14)
Lesson 10:  
Build a Rekenrek to 20

Suggested Lesson Structure

- Fluency Practice (10 minutes)
- Application Problem (7 minutes)
- Concept Development (13 minutes)
- Student Debrief (20 minutes)
- Total Time (50 minutes)

Fluency Practice (10 minutes)

- Writing Teen Numbers  \( K.CC.3 \) (4 minutes)
- Showing Numbers with Hands  \( K.CC.4, K.NBT.1 \) (3 minutes)
- Counting  \( K.CC.2 \) (3 minutes)

Writing Teen Numbers (4 minutes)

Materials: (T) Linker cubes  (S) Personal white boards

T: (Show 3 cubes.)  
S: (Students write the numeral 3.)

T: (Show 10 cubes.)  
S: (Students write the numeral 10.)

T: (Show 13 cubes.)  
S: (Students write 13.)

Repeat for possible sequence: 10, 13, 19, 5, 17, 8, 18, 15, 12, 14, 16.

Showing Numbers with Hands (3 minutes)

Materials: (T) Rekenrek

T: Show 12 on the rekenrek.

T: Show the two parts of the number on your fingers. Say the parts at the same time.

S: 10 (flashing ten fingers) and 2 (showing two fingers).

Continue with the following possible sequence: 13, 14, 19, 16, 18, 15, 11, 17, 20.
Lesson 10: Build a Rekenrek to 20

Date: 1/31/13

Lesson 10
NYS COMMON CORE MATHEMATICS CURRICULUM
K•5

Counting (3 minutes)

Materials: (T) Rekenrek

Count by ones from 11–20, changing directions both the Say Ten way and the regular way.

Application Problem (7 minutes)

Ms. Garcia is painting her fingernails. She has painted all the nails on her left hand except her thumb. How many more nails does she need to paint? How many will she have left to paint after she paints her left thumb? Draw a picture to help you.

Note: This problem is an application of K.OA.4 wherein students learn the number that makes 10 from any number less than 10. As a word problem, this is a “change unknown” which is a first grade problem type. Therefore, the number sentence is not asked for since missing addends will be introduced in the fall of Grade 1.

Concept Development (13 minutes)

Materials: (S) Worksheet, 10 red beads, 10 white beads, a red crayon, a black crayon

T: (Distribute the activity worksheet. Have the students put the red beads in a line under the hands.)

T: Imagine these red beads are Ms. Garcia’s painted fingernails. Show me how many she painted at first. Put them on her fingernails. (Students show.)

T: How many fingernails did she paint and how many does she need to paint? Use these words to help. Listen.

T: “She painted ___ fingernails. She needs to paint ____ fingernails.”

S: She painted 4. She needs to paint 6.

T: Paint one more nail on her left hand. (Pause.) Tell me what she’s painted and what she needs to paint.

S: She painted 5. She needs to paint 5.

Continue the pattern of painting one more fingernail and making the statements that describe how many have been and need to be painted. Have the students work independently as soon as they are able. Once they have finished the first pair of hands, have them use the second pair of hands for Ms. Garcia’s unpainted nails (the white beads.) Have them put all the white beads on her fingers, counting and making statements.

NOTES ON SCAFFOLDING STUDENTS ABOVE GRADE LEVEL:

For students above grade level, provide extension work.

- If Ms. Garcia also paints her toenails, how many nails has she painted when she is completely done?
- If Ms. Garcia draws two green polka dots on each finger, how many polka dots does she paint all together?

MP.7
as they go. Engage them in counting all the beads, analyzing how many are red and how many are white, how many are on the left hands, how many on the right hands.

**Activity Worksheet (5 minutes)**

Students color the left-hand fingernails red and color the right-hand fingernails black, counting as they go. Color the corresponding “beads” below to match the hands, counting as they go. They can write their numbers 1 to 10, too.

**Student Debrief (20 minutes)**

Materials: (S) 10 red and 10 white pony beads already used in lesson, two 12-inch lengths of elastic, 1 piece 2.75 inch by 5.5 inch chip board with an indentation (note that each 8 ½ inch by 11-inch chipboard makes 4 Rekenreks.)

T: Let’s make a Rekenrek. Put your red beads on top of your red dots and your white beads on top of your black dots, counting as you go.

T: What do you know about the number of your red and white beads?

S: They both have ten. → They are the same number. → They are an equal number.

T: How do you say the total number of beads the Say Ten way?

S: 2 tens.

T: How many beads is that the regular way?

S: Twenty.

After showing students how to thread the elastic through from left to right, red beads first, give each student a twelve-inch elastic. Once they have finished one row, have them do the other row. Show them how to pinch the elastics at either end in order to pick up the row and place it on their chip board, one row under the other. You can circulate and tie the elastics or have helpers tie the elastics after class for use in following lessons.

**NOTES ON SCAFFOLDING STUDENTS BELOW GRADE LEVEL:**

For students below grade level, offer extra support.

**Show:** Complete the first three fingers on the worksheet.

**Watch:** Check in with students as they work on the next three fingers.

**See:** Students complete the rest of the fingers and the beads independently when ready.
The discussion should establish a correlation between students’ fingernails and the beads of the Rekenrek.

- Talk to your partner about what is the same and what is different about the number of your fingernails and the number of beads.
- How many people do we need to have to have the same number of fingernails as is on your Rekenrek?
- If the beads were purple and green, how many nails and beads would be purple and how many would be green?
- What if you hide two hands? How many beads would you see?

**Exit Ticket**

After the Student Debrief, instruct students to complete the Exit Ticket. A quick review of their work will help you assess the students’ understanding of the concepts that were presented in the lesson today. Students have two minutes to complete the Exit Ticket. You may read the questions aloud to the students.
Lesson 10: Build a Rekenrek to 20

Date: 1/31/13

5.C.7
Lesson 10 Exit Ticket

Name _______________________________ Date _____________

1. Use your red crayon and yellow crayon to draw the beads from your Rekenrek in two lines.

2. How many beads did you draw?

3. Draw your fingernails. How many fingernails do you have on your two hands?
Color the number of fingernails and beads to match the number bond. Show by coloring 10 ones above and extra ones below. Fill in the number bond.

11

13

14

12

16

17
Lesson 11:
Show, Count, and Write Numbers 11 to 20 in Tower Configurations Increasing by One—A Pattern of “One Larger”

Suggested Lesson Structure

- Fluency Practice (9 minutes)
- Application Problem (7 minutes)
- Concept Development (26 minutes)
- Student Debrief (8 minutes)
- Total Time (50 minutes)

Fluency Practice (9 minutes)

- Counting on a Rekenrek K.CC.3 (4 minutes)
- One More K.CC.2 (3 minutes)
- Saying Teen Numbers the Say Ten Way K.NBT.1 (2 minutes)

Counting on a Rekenrek (4 minutes)

Materials: (S) Rekenrek

T: Take out the Rekenrek that you made yesterday. I’m going to call out a number and I want you to show it on your abacus. (Wait while students prepare their abacus.)

Possible sequence: 1, 2, 5, 6, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 19, 18, 17, 16, 15, 10, 5, 4, 3, 2, 1.

One More (3 minutes)

Materials: (T) Rekenrek

T: I want you to say one more than the number that you see on the abacus. (Show 3.)
S: 4.
T: (Show 13.)
S: 14.

Continue with the following possible sequence: 5, 15, 1, 11, 4, 14, 7, 17, 8, 12, 9, 6, 19.
Lesson 11

Lesson 11: Show, Count, and Write Numbers 11 to 20 in Tower Configurations Increasing by One—A Pattern of “One Larger”

Date: 1/31/13

Saying Teen Numbers the Say Ten Way (2 minutes)

T: I’m going to say a number. You say it the Say Ten way. Eleven.
S: Ten one.
T: Twelve.
S: Ten two.

Repeat process for possible sequence: 13, 17, 19, 14, 16, 18, 15, 20.

Application Problem (7 minutes)

Mary has 10 toy trucks. She told her mom she likes to spread them out on the floor. She said she doesn’t like to put them away neatly in the little toy box because then there are fewer toys. Can you draw a picture to prove to Mary that the number of toy trucks is the same when they are all spread out as when they are in the little toy box?

Concept Development (26 minutes)

Materials: (S) two sets of 10 linker cubes for each student (10 in one color and 10 in another color), sentence frame (“___, 1 more is ____.”)

Note: Please notice that we are not saying, “20 is 1 more than 19.” This is very complex linguistically for many kindergarten students who can say “19 is more than 18” without quantifying the difference. They simply are seeing and analyzing that each successive number is one larger. (K.CC.4c).

T: Show me a tower of 10 cubes using one color.
T: (Students show a tower of 10.) How many cubes are you holding?
S: Ten.
T: How many ones is that?
S: 10 ones.
T: How many cubes do you put to make 11?
S: 1 more!
T: Show me 11. (Point to the first sentence frame.) While you do that, say, “Ten. 1 more is 11.”
S: Ten. 1 more is 11.
T: And how do we say 11 the Say Ten way?
S: Ten one.
T: Good! Put one more cube to your tower.
S: (Show 12.)
T: How many cubes do you have now?
S: Twelve.
T: Repeat with me, “Eleven. 1 more is 12.”
S: Eleven. 1 more is 12.

Use the sentence frames to help students express the relationship of each number to the preceding number. Continue adding one more cube for each number up to 20. Release as many students as possible to continue the pattern with a partner following “13. 1 more is 14.” Continue releasing students as they demonstrate skill and understanding.

**Activity Worksheet (7 minutes)**

As students color the squares and write the numbers to complete the pattern, have them continue to say the relationship of each number to its preceding number, e.g., Fourteen. 1 more is 15. Fifteen. 1 more is 16, etc.

**Student Debrief (8 minutes)**

The following is a suggested list of questions to invite reflection and active processing of the total lesson experience. Use those that resonate for you as you consider what will best support your students’ ability to articulate the focus of the lesson.

Have students bring their worksheet to the carpet and check their work with a partner. They can count on or count all, as needed. Then possibly discuss:

- What do you notice when you look at your paper?
- How is your drawing like the towers you made?
- How many cubes did you put on your tower each time?
- Did the number get bigger or smaller when you put one more?
- How is the number tower you made the same as the Rekenrek you made? How is it different?

**NOTES ON SCAFFOLDING DIVERSE LEARNERS:**

For students below grade level, have them regularly work with you when they come to the carpet rather than with a partner. This provides both companionship with peers and extra time with the teacher.

For students above grade level, provide opportunity for extension. Ask them what if questions.

What would happen if they added two more (3 more, 1 less) each time instead of one?
- Fold your paper in half and look just at the green stairs. How are they the same and different than the stairs for the bigger numbers?

**Exit Ticket**

After the Student Debrief, instruct students to complete the Exit Ticket. A quick review of their work will help you assess the students’ understanding of the concepts that were presented in the lesson today. Students have two minutes to complete the Exit Ticket. You may read the questions aloud to the students.
Lesson 11 Worksheet

Name _____________________________________________________________  Date _____________________

Count, color and write.

| 10 | 11 | 14 | 19 |

Lesson 11: Show, Count, and Write Numbers 11 to 20 in Tower Configurations Increasing by One—A Pattern of “One Larger”

Date: 1/31/13
Name _____________________________  Date _______________

Start at the bottom. Draw lines to put the numbers in order on the tower. Then write the numbers in the tower. Say each number the regular way and the Say Ten way as you work.

12 ●

19 ●

16 ●

14 ●

17 ●
Write the missing numbers. Then count and draw X’s and O’s to complete the pattern.

<p>| | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>12</td>
<td>14</td>
<td>16</td>
<td>17</td>
<td>18</td>
<td>20</td>
</tr>
</tbody>
</table>

Name ____________________________  Date _____________
Lesson 12:
Represent Numbers 20 to 11 in Tower Configurations Decreasing by 1—A Pattern of “One Smaller” (Extension of K.CC.4c)

Suggested Lesson Structure

- Fluency Practice (9 minutes)
- Application Problem (7 minutes)
- Concept Development (26 minutes)
- Student Debrief (8 minutes)
- Total Time (50 minutes)

Fluency Practice (9 minutes)

- Write Teen Numbers K.CC.3 (3 minutes)
- Show Teen Numbers K.NBT.1 (3 minutes)
- Count the Say Ten Way K.NBT.1 (3 minutes)

Write Teen Numbers (3 minutes)

Materials: (S) One stick of 10 linker cubes that are the same color, 10 loose cubes of a different color, personal white boards

T: Place your stick of ten cubes in front of you on the carpet.
T: Place 3 cubes next to your 10 cubes.
T: On your personal board, write the number of cubes that you placed in front of yourself.
T: (Students write 13.) Say the number.
S: Ten three! Thirteen!

Repeat process for several other teen numbers.

Show Teen Numbers (3 minutes)

Materials: (S) One stick of 10 linker cubes that are the same color, 10 loose cubes of a different color

T: Hold up your stick of 10 cubes.
T: Show me 11 cubes. Say the number the Say Ten way.
S: Ten one.
T: Take off the extra one and put it back in the pile of 10 ones.

Repeat process for several other teen numbers.
Count the Say Ten Way (3 minutes)

T: Let’s count the Say Ten way.

Guide the students to count forward and backward between 10 and 20.

Application Problem (7 minutes)

Peter was sitting at lunch eating his French fries. He counted 8 left on his plate. He ate 1 French fry. He ate another French fry. Then he ate another French fry. How many French fries did Peter have then?

Note: The purpose of this application problem is to simply prepare students for thinking about 1 less. Eight. 1 less is 7. Seven. 1 less is 6.

Concept Development (26 minutes)

Materials: (S) 2 sets of 10 linker cubes for each student (10 in one color and 10 in another color), sentence frame (____. 1 less is _____.)

Note: Please notice that we are not saying “19 is one less than 20.” This is very complex linguistically for many kindergarten students who can say “19 is less than 20” without quantifying the difference. We simply are extending the “one more” lesson to “one less” as an opportunity for the students to do counting of teen numbers in a linear configuration, the tower (K.CC.5).

T: Build a tower with all the cubes of one color.
T: How many cubes are in your tower?
S: Ten!
T: How many ones is that?
S: 10 ones!
T: Now build a tower using the other cubes.
T: How many cubes are in this tower?
S: Ten!
T: Join the two towers. What is 10 ones and 10 ones?
S: Twenty! 2 tens!
T: How can we show 19?
Lesson 12: Represent Numbers 20 to 11 in Tower Configurations Decreasing by 1 — A Pattern of “One Smaller”

Date: 2/3/13

S: Take off 1 cube. (Students remove one cube.)

T: Say this with me: “20. 1 less is 19.” (Use sentence frame for support.)

S: 20. 1 less is 19.

T: Take off one cube. Be sure to take the same color cube as before. Talk to your partner. How many cubes are in your tower now?

S: (After they figure it out.) 18!

Students continue in this manner, taking off one cube each time, down to 10. As they remove each cube have them express the relationship of each number to the preceding number, e.g., Eighteen. 1 less is 17. As in the preceding lesson, release the students to work independently as soon as possible.

Activity Worksheet (7 minutes)

As students color the squares and write the numbers to complete the pattern, have them continue to say the relationship of each number to its preceding number, e.g., 13. 1 less is 12. 12. 1 less is 11.

Student Debrief (8 minutes)

The following is a suggested list of questions to invite reflection and active processing of the total lesson experience. Use those that resonate for you as you consider what will best support your students’ ability to articulate the focus of the lesson.

Have students bring their worksheet to the carpet and check their work with a partner, taking turns reading the numbers forward and back. Then possibly discuss:

- What do you notice when you look at your work?
- How is your drawing like the towers you made?
- How many cubes did you remove from your tower each time?
- When you take one off, does the number get bigger or smaller?
- How is this work similar to the story problem of the French fries?
- How is what we did today alike and different from what we did yesterday?

Exit Ticket

After the Student Debrief, instruct students to complete the Exit Ticket. A quick review of their work will help you assess the students’ understanding of the concepts that were presented in the lesson today. Students have two minutes to complete the Exit Ticket. You may read the questions aloud to the students.
Lesson 12:

Represent Numbers 20 to 11 in Tower Configurations Decreasing by 1—A Pattern of "One Smaller"

Date: 2/3/13

© 2012 Common Core, Inc. All rights reserved. commoncore.org
Write the missing numbers, counting down.

<table>
<thead>
<tr>
<th>14, 13, 12, 11, ______</th>
</tr>
</thead>
<tbody>
<tr>
<td>15, 14, ______, 12 ______, ______, ______,</td>
</tr>
<tr>
<td>13, 12, ______, ______, ______, ______,</td>
</tr>
</tbody>
</table>
Write the missing numbers. Then draw X’s and O’s to complete the pattern.

<p>| | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>20</td>
<td>18</td>
<td>16</td>
<td>14</td>
<td>13</td>
<td>12</td>
<td>10</td>
</tr>
</tbody>
</table>
Lesson 13:
Show, Count, and Write to Answer “How Many?” Questions in
Linear and Array Configurations

Suggested Lesson Structure

- Fluency Practice (9 minutes)
- Application Problem (5 minutes)
- Concept Development (28 minutes)
- Student Debrief (8 minutes)
- Total Time (50 minutes)

Fluency Practice (9 minutes)

- Count the Say Ten Way \( K.NBT.1 \) (3 minutes)
- Show Teen Numbers \( K.NBT.1 \) (3 minutes)
- Write Teen Numbers with Tower Configurations \( K.CC.3 \) (3 minutes)

Count the Say Ten Way (3 minutes)

T: Let’s count the Say Ten way.
Guide the students to count forward and backward between 10 and 20.

Show Teen Numbers (3 minutes)

Materials: (S) Two sticks of 10 linker cubes that are different colors

T: There are 10 cubes on each of your sticks. Connect your 2 cube sticks.
S: (Students connect cube sticks.)
T: Say the number the Say Ten way.
S: 2 tens.
T: Take away 1 cube and put it on the carpet space in front of you.

Students take away one cube and put it on the carpet space in front of them.
Lesson 13: Show, Count, and Write to Answer “How Many?” Questions in Linear and in Array Configurations

Date: 2/3/13

5.C.24

NOTES ON SCAFFOLDING STUDENTS BELOW GRADE LEVEL:
For students below grade level, model writing and saying numbers.

- Tell them, “What I write, you write.” After showing cubes, write the first few numbers so students can see.
- As you say each number, point to the parts (when saying “10,” point to the digit in the tens, when saying “2” point to the digit in the ones.)

T: Say how many you have now the Say Ten way.
S: Ten nine.
T: Say how many you have the regular way.
S: Nineteen.

Repeat process for three or four other teen numbers.

Write Teen Numbers with Tower Configurations (3 minutes)

Materials: (T) One stick of 10 linker cubes that are the same color, 10 loose cubes of a different color, personal white boards

T: (Hold a tower of 12 connected linker cubes with the bottom 10 different color than the top 2.) Write the number on your personal board.
S: (Students write 12.)
T: Say the number the Say Ten way.
S: Ten two.
T: Say the number the regular way.
S: Twelve.

Repeat process for several other teen numbers.

Application Problem (5 minutes)

Vincent’s father made 15 tacos for the family. Show the 15 tacos as 10 tacos and 5 tacos. Draw a number bond to match.

Note: This application problem is a simple experience of decomposition (K.NBT.1). We can ask students to draw the decomposition in 5-groups, another name for a 10-frame configuration, but which has the advantage of emphasizing the five.

Concept Development (28 minutes)

Materials: (S) 2 sticks of 10 linker cubes with a color change at the five per student, Rekenrek, set of Hide Zero cards per pair of students

T: Count in order from 1 to 20.
S: 1, 2, 3, ... 20.
T: Count from 10 to 20 the Say Ten way.
S: Ten one, ten two, ten three, ten four, ten five, ten six, ten seven, ten eight, ten nine, 2 tens.
T: Partner A, show the number that is one more than 13 on the Rekenrek.
T: Partner B, show the number that is one more than 13 with the Hide Zero cards.
T: Check that you are each showing the same number. What is the number?
S: 14.
T: Count from 14 up to 20.
S: 14, 15, 16, 17, 18, 19, 20.
T: Partner B, show the number that is one more than 7 on the Rekenrek.
T: Partner A, show the number that is one more than 7 with the Hide Zero cards.
T: What is the number?
S: 8.
T: Count from 8 up to 20.
Repeat with two more numbers so that each partner uses both representation tools twice more.
T: (Pass out the linker cubes.)
Have students connect the linker cubes to create a continuous number train to 20. Have them count to see they have 2 sticks of 10 ones.
T: Show me ten seven cubes.
T: (Once they have finished.) How many cubes is that?
S: Ten seven, seventeen!
T: Make your long number train of 2 sticks of 10 again. Break it and put 1 stick below the other. How many cubes do you have now?
S: (Let them count again if they need to.) 10 here and 10 here, 2 ten, twenty!!
Have students break the linker cube sticks at the color change. Have them place the shorter sticks one below the other. Guide students to place the sticks in four rows and re-count the cubes from left to right starting from the top with number 1, and continuing this way to the fourth row of 16 to 20. Have them re-count to get better at it. They will enjoy the chance to re-count.
T: (Once they have finished.) How many cubes did you count?
S: 20.
T: (Revisit the process.) Put the sticks back into one train from 1 to 20. Count. Break the stick into two sticks of 10 cubes. Count. Break the sticks to make 4 sticks of 5. Count.
T: (Once they have finished.) How many cubes do you have now? Count to check.
S: 20.
Before doing the worksheet, give the students a personal white board or blank paper and have them use their 10-sticks to draw what they just did in the lesson.
Activity Worksheet (7 minutes)

Distribute worksheets to students.

Student Debrief (8 minutes)

The following is a suggested list of questions to invite reflection and active processing of the total lesson experience. Use those that resonate for you as you consider what will best support your students’ ability to articulate the focus of the lesson.

Have students always check their work with a partner once they bring it to the carpet. Encourage them to notice, if they don’t, that the number of ducks is the same. Ask, “How do they look different?” “Is there another way we can put the 16 ducks?” Be sure they compare how they showed 15 and 12 in rows in the last two problems. Then possibly discuss:

T: Count the cubes as I lay them down. (Place 10 ones in a horizontal line.)
S: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10.
T: What is one more than 10? (Add a cube.)
S: 11.
T: One more than 11? (Add a cube.)
S: 12.
T: How many cubes do you see?
S: 12.
T: (Slide the cubes into a vertical line.) Do I still have 12 cubes? How do you know?
T: (Slide the cubes into different rectangular array configurations, asking after each change, “How many do I have now?”)

Guide students to see that the number of objects is the same regardless of how they are arranged. Let them close the lesson by showing 12 cubes in different rows to a partner. (Rows do not have to be complete.)

Exit Ticket

After the Student Debrief, instruct students to complete the Exit Ticket. A quick review of their work will help you assess the students’ understanding of the concepts that were presented in the lesson today. Students have two minutes to complete the Exit Ticket. You may read the questions aloud to the students.
Lesson 13:
Show, Count, and Write to Answer "How Many?" Questions in Linear and in Array Configurations

Date: 2/3/13

© 2012 Common Core, Inc. All rights reserved. commoncore.org

NYS COMMON CORE MATHEMATICS CURRICULUM Lesson 13 Worksheet K-5

Name ___________________________ Date ____________

The duckies found some tasty fish to eat in the boxes!
Count up on the number path.

1. Write the missing numbers that have duckies on them.

   11 13 15 17 19

   ______  ______  ______  ______  ______

2. Write the missing numbers that have duckies on them.

   12 13 14 17 18

   ______  ______  ______  ______  ______
Lesson 13:
Show, Count, and Write to Answer “How Many?” Questions in Linear and in Array Configurations

Date: 2/3/13

5.C.28

How many duckies do you count?

3. ______  

4. ______  

5. In the space below, draw 15 circles in rows.

6. In the space below, draw 12 squares in rows.
Lesson 13 Exit Ticket

NYS COMMON CORE MATHEMATICS CURRICULUM

Count and write how many.

Look at the 3 sets of blocks below. Count the shaded blocks in each set. Circle the set that has the same number of shaded blocks as stars.

Early finishers: Which was easier to count? Why?
Count the objects. Draw dots to show the same number on the double ten frames.

\[
\begin{array}{c}
\bullet\bullet\bullet\bullet\bullet\bullet\bullet\bullet\bullet\bullet\bullet\Rightarrow\\
\end{array}
\]

\[
\begin{array}{c}
\vdots\vdots\vdots\vdots\vdots\vdots\vdots\vdots\vdots\vdots\vdots\vdots\Rightarrow\\
\end{array}
\]

\[
\begin{array}{c}
\star\star\star\star\star\star\star\star\star\star\star\star\Rightarrow\\
\end{array}
\]

\[
\begin{array}{c}
\vdots\vdots\vdots\vdots\vdots\vdots\vdots\vdots\vdots\vdots\vdots\vdots\Rightarrow\\
\end{array}
\]

\[
\begin{array}{c}
\vdots\vdots\vdots\vdots\vdots\vdots\vdots\vdots\vdots\vdots\vdots\vdots\Rightarrow\\
\end{array}
\]

\[
\begin{array}{c}
\vdots\vdots\vdots\vdots\vdots\vdots\vdots\vdots\vdots\vdots\vdots\vdots\Rightarrow\\
\end{array}
\]
Lesson 13: Show, Count, and Write to Answer "How Many?" Questions in Linear and in Array Configurations

Date: 2/3/13

5.C.31
Lesson 14:
Show, Count, and Write to Answer “How Many?” Questions with up to 20 Objects in Circular Configurations

Suggested Lesson Structure

- Fluency Practice (9 minutes)
- Application Problem (7 minutes)
- Concept Development (26 minutes)
- Student Debrief (8 minutes)
- Total Time (50 minutes)

Fluency Practice (9 minutes)

- Write Teen Numbers with Arrays K.CC.3 (3 minutes)
- Hide Zero for Teen Numbers K.NBT.1 (3 minutes)
- Teen Counting Array Worksheet K.CC.5 (3 minutes)

Write Teen Numbers with Arrays (3 minutes)

Materials: (T) Pre-drawn arrays (S) Personal white boards

T: (Project a 5 by 3 array of stars) Write the number of stars that you see on your personal boards.
S: (Students write 15.)
T: Say the number the Say Ten way.
S: Ten five.
T: Say the number the regular way.
S: 15.

Repeat process for three or four other teen numbers.

Hide Zero for Teen Numbers (3 minutes)

Materials: (T) Hide Zero cards

T: (Hold 10 card and 5 card so that it appears as 15.) Say the number.
S: 15.
T: Say the number the Say Ten way.
S: Ten five.

Break apart the cards into 10 and 5. Repeat process for other teen numbers.
Lesson 14: Show, Count, and Write to answer “How Many?” Questions with up to 20 Objects in Circular Configurations

Date: 2/3/13

Teen Counting Array Worksheet (3 minutes)

Materials: (S) Teen Counting Array Worksheet.

Distribute Teen Counting Array Worksheet. Have students count how many are in each array.

Application Problem (7 minutes)

Eva put her 12 cookies on her cookie sheet in 2 rows of 6. Draw Eva’s cookies. Show her 12 cookies as a number bond of 10 ones and 2 ones and with your Hide Zero cards. Then, find and circle the 10 cookies that are inside the 12 cookies.

Have the students explain how the parts of the number bond match the parts of their drawing and the Hide Zero cards with a partner.

Concept Development (26 minutes)

Materials: (S) Per pair of students: Numeral cards from 10–20, paper plate or round mat, bag of 20 counting objects; double 10-frame mat inside a personal white board for each student

T: Let’s see how well you can show, count, and write numbers!
T: Partner A, draw a card and tell your partner the number. You can say the number the regular way or the Say Ten way.
T: Partner B, put that number of objects around the outside edge of your mat. (Guide them to use the edge of the plate to make a circular configuration.)
T: Now take turns counting the objects. How many are there?
T: Partner B, now you get to draw the card and Partner A will show it.
T: Count the objects. How many are there?

Repeat the process two or three times.

T: Let’s try something different. We won’t use the number cards for this.
T: Partner A, put any number of objects you want in a circle around the edge of your plate.
T: Partner B, count the objects and write the number on the personal board.
T: Now Partner B gets to put any number of objects in a circle around the edge of the plate, and Partner A counts them and writes the number on the personal board.
Repeat the process two or three times.

T: This time, Partner A, write any number between 11 and 20 on your personal board. Partner B, count out that many objects as you place them in a circle around the edge of the plate. How many objects are there?

T: Partner A, count each object as you move it from the circle to the 10-frame to check that the count is correct. How many objects are there?

T: Now Partner B, you get to write any number between 11 and 20 on your personal board. Partner A, count out that many objects as you place them in a circle around the edge of the plate. How many objects are there?

T: Partner B, count each object as you move it from the circle to the 10-frame to check that the count is correct. How many objects are there?

Repeat the process two or three times.

Before using the worksheet, have students use the plate to draw dots in a circular shape and count each other’s dots. Have them circle 10 dots to prove they counted right (as pictured to the right).

**Activity Worksheet (7 minutes)**

Distribute worksheets to students.
Student Debrief (8 minutes)

The following is a suggested list of questions to invite reflection and active processing of the total lesson experience. Use those that resonate for you as you consider what will best support your students’ ability to articulate the focus of the lesson.

Have students always check their work with a partner once they bring it to the carpet. Then possibly discuss:

- What do you notice about all of the pictures?
- Is it easier or harder for you to count objects when they are in circles like these pictures? Why?
- Which way is easiest for you to count, when we show the number in a circle or when we show it as a tower? Why?
- Did the number change when you moved the objects from the circle to the 10-frame? Why?
- (Show objects in a circle configuration and have students count how many. Then slide the objects to change the circle into a line.) How can you prove that the number is still the same? Tell your partner. Did he prove it to you? What are some ways you proved it? Which ways were the most convincing?

Exit Ticket

After the Student Debrief, instruct students to complete the Exit Ticket. A quick review of their work will help you assess the students’ understanding of the concepts that were presented in the lesson today. Students have two minutes to complete the Exit Ticket. You may read the questions aloud to the students.
Lesson 14: Show, Count, and Write to answer "How Many?" Questions with up to 20 Objects in Circular Configurations

Count the objects in each group and write the number.

Name __________________________ Date __________

1. Cats: ______
2. Scissors: ______
3. Bananas: ______
4. Ice cream cones: ______
Name __________________________ Date ____________

Whisper count how many objects there are. Write the number.

Heart configuration: __________

Sun configuration: __________

Moon configuration: __________

Lightning configuration: __________
Lesson 14: Show, Count, and Write to answer "How Many?" Questions with up to 20 Objects in Circular Configurations

Date: 2/3/13

© 2012 Common Core, Inc. All rights reserved. commoncore.org

NYS COMMON CORE MATHEMATICS CURRICULUM Lesson 14 Worksheet

Whisper count and draw in more shapes to match the number.

13

20

Early finishers, write your own teen number in the box. Draw a picture to match your number.


Count the stars. Write the number in the box.

Whisper count and draw in more dots to match the number.

15
Count the objects in each group. Write the number in the boxes below the pictures.

Count and draw in more shapes to match the number.
Count the dots. Draw each dot in the 10-frame. Write the number in the box below the 10-frames.

Write a teen number in the box below. Draw a picture to match your number.
Topic D:
Extend the Say Ten and Regular Count Sequence to 100

K.CC.1, K.CC.2, K.NBT.1, K.CC.3, K.CC.4a, K.CC.4b, K.CC.4c, K.CC.5, 1.NBT.1

Focus Standard:  
K.CC.1  Count to 100 by ones and by tens.  
K.CC.2  Count forward beginning from a given number within the known sequence (instead of having to begin at 1).

Instructional Days:  5

Coherence -Links from:  
GPK–M5  Write Numerals to 5, Addition and Subtraction Stories, Count to 20

-Links to:  
G1–M2  Place Value, Comparison, Addition and Subtraction of Numbers to 20

Topic D leads students beyond teen numbers up to 100 (K.CC.1). They begin by counting up and down to 100 both the regular way (ten, twenty, thirty...) and the Say Ten way (ten, 2 tens, 3 tens...). In Lessons 16–18, their work from 11–19 sets the foundation for success as they realize the number sequence of 1–9 is repeated over and over again within each decade as they count to 100. To begin, students count within and then cross decades, e.g., 28, 29, 30, 31, 32 (K.CC.2). Students are also writing the numbers 21 to 100 in lessons 15–17, which goes beyond the Kindergarten standard to the Grade 1 standard 1.NBT.1. Writing numerals 21–100 is included here because of the much wider range of activities they make possible; students readily accept this challenge, which will not be assessed. The final lesson is an optional exploration of decomposing numbers to 100 on the Rekenrek.
<table>
<thead>
<tr>
<th>Concept 1:</th>
<th>Count Up and Down by Tens to 100 with Say Ten and Regular Counting</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Includes 1.NBT.1, Writing Numbers 21-100</td>
</tr>
<tr>
<td></td>
<td>(Lesson 15)</td>
</tr>
<tr>
<td>Concept 2:</td>
<td>Count Within Tens by Ones</td>
</tr>
<tr>
<td></td>
<td><em>E.g.</em>, 30, 31, 32, 33... 39 or 43, 44, 45, 44, 43, or 67, 68, 69</td>
</tr>
<tr>
<td></td>
<td>Includes 1.NBT.1, Writing Numbers 21-100</td>
</tr>
<tr>
<td></td>
<td>(Lesson 16)</td>
</tr>
<tr>
<td>Concept 3:</td>
<td>Count Across Tens When Counting by Ones Through 40</td>
</tr>
<tr>
<td></td>
<td><em>E.g.</em>, 28, 29, 30, 31 first with and then without objects placed on the 10-frames</td>
</tr>
<tr>
<td></td>
<td>Includes 1.NBT.1, Writing Numbers 21-100</td>
</tr>
<tr>
<td></td>
<td>(Lesson 17)</td>
</tr>
<tr>
<td>Concept 4:</td>
<td>Count Across Tens by Ones to 100 with and without Objects</td>
</tr>
<tr>
<td></td>
<td>(Lesson 18)</td>
</tr>
<tr>
<td>Concept 5:</td>
<td>(Optional) Explore Numbers on the Rekenrek</td>
</tr>
<tr>
<td></td>
<td>(Lesson 19)</td>
</tr>
</tbody>
</table>
Lesson 15:
Count Up and Down by Tens to 100 with Say Ten and Regular Counting

Suggested Lesson Structure

- Fluency Practice (11 minutes)
- Application Problem (7 minutes)
- Concept Development (24 minutes)
- Student Debrief (8 minutes)
- Total Time (50 minutes)

A NOTE ON STANDARDS ALIGNMENT:
In this lesson, students write multiples of 10 through 100 which bridges Kindergarten content of writing numbers to 20 (K.CC.3) to Grade 1 content of writing numbers to 120 (1.NBT.1).

Fluency Practice (11 minutes)

- Write Teen Numbers with Circular Configurations K.CC.3 (3 minutes)
- Teen Circular-Counting: Fluency Worksheet K.CC.5 (5 minutes)
- Hide Zero for Teen Numbers K.NBT.1 (3 minutes)

Write Teen Numbers with Circular Configurations (3 minutes)

Materials: (T) Pre-drawn circular configurations (S) Personal white boards

T: (Project a circular array of 13 stars.) Write the number of stars that you see on your personal boards.
S: (Students write 13.)
T: Say the number the Say Ten way.
S: Ten three.
T: Say the number the regular way.
S: 13.

Repeat process for 3 or 4 other teen numbers.

Teen Circular-Counting Worksheet (5 minutes)

Materials: (S) Teen circular-counting fluency worksheet
Lesson 15

Lesson 15: Count Up and Down by Tens to 100 with Say Ten and Regular Counting

Date: 1/31/13

© 2012 Common Core, Inc. All rights reserved. commoncore.org

NOTES ON SCAFFOLDING ELLS:
For ELL students, provide opportunity and support for full sentences.
- Give students sentence structures to copy. Example: “I put ____ dots of chocolate on the donut.”

Hide Zero for Teen Numbers (3 minutes)

Materials: (T) Hide Zero cards

T: (Hold 10 card and 7 card so that it appears as 17.) Say the number.
S: 17.
T: Say the number the Say Ten way.
S: Ten seven.

Break apart the cards into 10 and 7.
Repeat this process for additional teen numbers.

Application Problem (7 minutes)

Materials: (S) Donut template, cubes, pencil

Mr. Perry is decorating donuts. He puts 14 little dots of chocolate in a circle. Show him an idea about how to put the 14 dots in a circle on his donut. Use your cubes first and then draw the chocolate dots on. Show the total number of dots of chocolate with a number bond and your Hide Zero cards.

Concept Development (24 minutes)

Materials: (T) 100-bead Rekenrek (S) Set of 10 small 10-frame cards per student

T: (Invite students to the carpet and display the Rekenrek.) Count the beads as I move them. (Slide each bead from right to left.)
S: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10.
T: How many beads are in this row?
Lesson 15: Count Up and Down by Tens to 100 with Say Ten and Regular Counting

Date: 1/31/13

NOTES ON SCAFFOLDING STUDENTS FOR DIVERSE LEARNERS:

For students at diverse levels, provide separate work.

- Students above grade level: When they finish, place the ten card and two ones on the table. Have them count by tens starting with twelve (12, 22, 32, 43, 52, and so on).
- Students below grade level: Have them work in a small group with the Rekenrek with you. Count the Say Ten way and move the row of beads.

S: 10.
T: (Point to the beads in the second row.) How many beads are in this row?
S: 10.
T: How can you tell there are ten beads?
S: I see 5 red beads and 5 white beads, and 5 and 5 is 10. → It looks just like the first row.
T: So each row has how many beads?
S: 10.
T: Let’s count all the beads. Should we count by ones or by tens? Which way is faster?
S: By tens!
T: Let’s count by tens. (Slide each row from right to left as they count.)
S: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100!
T: Now let’s count back. (From the bottom, sliding each row from left to right.)
S: 100, 90, 80, 70, 60, 50, 40, 30, 20, 10.

Have students return to their seats and pass out ten 10-frame cards to each child.

T: Lay your 10-frame cards out at the top of your table.
T: Let’s count them the Say Ten way.
S: Ten, 2 tens, 3 tens, 4 tens, 5 tens, 6 tens, 7 tens, 8 tens, 9 tens, 10 tens.
T: And now count them the regular way.
S: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100.
T: I will say a number the Say Ten way. Pull down that many cards in front of you.
T: 3 tens.
S: (Show three cards.)
T: Count up by tens and tell me how many.
S: 10, 20, 30.
T: Use your finger and write 30 on your table.
T: Now slide each card back to the top of your table, and count down by ten as you do so.
S: 30, 20, 10.
T: Here’s a new number. 8 tens.
S: (Show eight cards.)
T: Count up by tens and tell me how many.
S: 10, 20, 30, 40, 50, 60, 70, 80.
T: Use your finger and write 80 on your table.
T: Slide each card back and count down by ten as you go.
S: 80, 70, 60, 50, 40, 30, 20, 10.

Repeat with the other tens.
Activity Worksheet (6 minutes)

Distribute Activity Worksheet to students.

Note: This worksheet asks students to write numbers greater than 20 which is a Grade 1 standard (1.NBT.1). If your students are not ready for this step, you might instead have them use numeral cards or simply tell the amount pictured.

After completing the worksheet, have the students fold after 50 to see and analyze the same “stairs” from Lesson 11 as one more ten is placed on each row as pictured to the right below. While they work, encourage them to count both in the regular way and the Say Ten way.

Student Debrief (8 minutes)

The following is a suggested list of questions to invite reflection and active processing of the total lesson experience. Use those that resonate for you as you consider what will best support your students’ ability to articulate the focus of the lesson.

Have students always check their work with a partner once they bring it to the carpet. Then possibly discuss:

- How would the picture of the stairs be different if you were counting by ones?
- What kinds of things could we count by tens?
- Why is it helpful to count by tens?
- Practice more counting on the Rekenrek.
Exit Ticket

After the Student Debrief, instruct students to complete the Exit Ticket. A quick review of their work will help you assess the students’ understanding of the concepts that were presented in the lesson today. Students have two minutes to complete the Exit Ticket. You may read the questions aloud to the students.
Whisper count and draw in more shapes to match the number.

14

12

15

17
Whisper count and draw in more shapes to match the number.

16

19

13

20
Lesson 15:
Count Up and Down by Tens to 100 with Say Ten and Regular Counting

Date: 1/31/13
Lesson 15:
Count up by tens and write the numbers.

<table>
<thead>
<tr>
<th>Count up by tens</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td></td>
</tr>
<tr>
<td>40</td>
<td></td>
</tr>
<tr>
<td>50</td>
<td></td>
</tr>
<tr>
<td>60</td>
<td></td>
</tr>
<tr>
<td>70</td>
<td></td>
</tr>
<tr>
<td>80</td>
<td></td>
</tr>
<tr>
<td>90</td>
<td></td>
</tr>
<tr>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>
Help the puppy down the stairs! Count down by tens. Write the numbers.

Count up by tens the Say Ten way.

\[
\begin{align*}
ten & \quad ____ \ tens & \quad 3 \ tens & \quad ____ \ tens \\
\_ \_ \_ \_ \_ \_ & \quad ____ \ tens & \quad ____ & \quad ____
\end{align*}
\]
Lesson 15: Count Up and Down by Tens to 100 with Say Ten and Regular Counting

Name ____________________________ Date ______________

Count up and down by 10. Write the numbers.

```
  10
  40
  70
  10

  50
  30
  20
  10
```

Count down and up by 10 the Say Ten way.

```
| 100 | 10 tens |
| 90  | tens    |
| 80  | tens    |
| 70  | 7 tens  |
| 60  | tens    |
| 50  | tens    |
| 40  | 4 tens  |
| 30  | tens    |
| 20  | tens    |
| 10  | 1 ten   |
```
Count down by 10 and write the number on top of each stair.
**Count down the Say Ten way. Write the missing numbers.**

<table>
<thead>
<tr>
<th></th>
<th>100</th>
<th>9 tens</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>80</td>
<td>______ tens</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>70</td>
<td>______ tens</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>60</td>
<td>6 tens</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>______ tens</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>40</td>
<td>4 tens</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>______ tens</td>
<td></td>
</tr>
</tbody>
</table>

Date: 1/31/13

© 2012 Common Core, Inc. All rights reserved. commoncore.org
Lesson 15: Count Up and Down by Tens to 100 with Say Ten and Regular Counting

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>[Image]</td>
<td></td>
<td>[Image]</td>
<td></td>
</tr>
</tbody>
</table>

______ tens

______ ten
Lesson 16:
Count Within Tens by Ones

Suggested Lesson Structure

- Fluency Practice (12 minutes)
- Application Problem (5 minutes)
- Concept Development (25 minutes)
- Student Debrief (8 minutes)
- Total Time (50 minutes)

Fluency Practice (12 minutes)

- Hide Zero for Teen Numbers  **K.NBT.1** (7 minutes)
- Count by Tens the Say Ten Way  **K.CC.1** (2 minutes)
- Count with 10-Frame Cards  **K.CC.1** (3 minutes)

Hide Zero for Teen Numbers  (7 minutes)

Materials: (S) Hide Zero cards and a variety of interesting counters

Give each pair of students a set of Hide Zero cards. After placing the ten card between the players, one partner gets 4 cards and the other partner gets 5 cards. The player with 5 places one card down on the ten. The other partner counts out that many interesting counters (shells, rocks, pennies). They then reverse roles.

Count by Tens the Say Ten Way  (2 minutes)

Materials: (T) Rekenrek

  T:  (Show 10 on the Rekenrek.) Say the number you see.
  S:  Ten.
  T:  (Show 2 tens on the Rekenrek.) Say the number the Say Ten way.
  S:  2 tens.

Work towards 100 and back to 0, occasionally changing direction.
Count with 10-Frame Cards (3 minutes)

Materials: (S) 10-frame cards

T: Place a 10-frame card in front of you.
S: (Students place 10-frame cards in front of them.)
T: Say the number.
S: Ten.
T: Place another 10-frame card in front of you.
S: (Students place a second 10-frame card in front of them.)
T: Say the number the Say Ten way.
S: 2 tens.

Continue with possible sequence: 3 tens, 4 tens, 5 tens, 6 tens, 7 tens, 8 tens, 9 tens, and 10 tens.

Application Problem (5 minutes)

Materials: (S) Handprint cards

The students in Pre-Kindergarten are making handprints. 7 students are putting their handprints on a poster board. How many fingers will show in the poster? Use your handprint cards to help you find out.

Concept Development (25 minutes)

Materials: (T) 10 pieces of tagboard (S) 10-frames and 9 counters

Demonstrate the following before having students do it with a partner:

Students count up from 0 to 9. When done, have them raise their hand to receive a ten frame. They remove the nine counters the moment you give them the 10-frame. They then count from 10 to 19. Then hand them a new 10-frame as they remove the 9 counters and have them count from 20 to 29. Do not mention trading or regrouping. For now, just tell them that when they have counted to 29, or 39 or 49 or 59, etc … to clear off all the ones and you will give them a new card of 10 ones. Show them how what they know about counting to 9 will help them count much bigger numbers! The Say Ten way really shows them that correlation.
Lesson 16: Count Within Tens by Ones

Date: 2/3/13

Group Activity:

T: (Create a path by laying the pieces of tagboard across the floor like stepping stones. Have fun creating a story with the students about what’s at the end of the path.) There’s a magic pot at the end of this path, and if you can reach it you can wish for anything you want! But to get there you have to count in order from 30 to 39 or 40 to 49 or 50 to?

S: 59!

T: From 60 to?

S: 69!

T: Who would like to try to reach the magic pot? We’ll help you count so you can get there.

T: (Choose a student, and then write 30 on the board.) Let’s help Miles count, starting at 30.

S: (As student steps on each “stone.”) 30, 31, 32, 33, 34, 35, 36, 37, 38, 39.

T: He made it! What did you wish for? (Allow a quick response.)

T: Who would like to go next?

T: (Choose another student, then write 50 on the board.)

T: Let’s help Victoria get to the magic pot!

S: 50, 51, 52, 53, 54, 55, 56, 57, 58, 59.

T: Victoria made it to the pot! What did you wish for?

Give several students a chance to walk the path to the magic pot, changing the start number each time to a larger number. Students count chorally and get excited by counting to bigger numbers.

Afterwards, remove 5 stepping stones. Start counting to the magic pot from 35 to 39, 45 to 49, and 75 to 79. Next, put 2 more stepping stones back and start counting to the pot from 23, 53, 83, and 93. Again, only count up to the number with nines in the ones place. Students will be blurting out and wanting to say the multiple of ten but if they do, it means they can’t get to the magic pot! This will create suspense and enhance students’ desire to know those numbers, which will be reached in Lesson 18.

NOTES ON SCAFFOLDING ELLS:

Alternate between Say Ten counting and regular counting. This is because the language pattern is so strong in Say Ten counting. When the students are using their 10-frames and counters, have them whisper count.

Puppets can help diffuse performance anxiety, too. One partner puts the counters while the other partner controls the puppet which counts.
Activity Worksheet (5 minutes)

Now that the students have worked with the numbers orally and with concrete materials, the worksheet provides an opportunity to model with mathematics with the abstract number.

Note: This worksheet asks students to write numbers greater than 20, which is a Grade 1 standard (1.NBT.1). If your students are not ready for this step, you might instead have them use numeral cards or simply tell the amount pictured.

Student Debrief (8 minutes)

The following is a suggested list of questions to invite reflection and active processing of the total lesson experience. Use those that resonate for you as you consider what will best support your students’ ability to articulate the focus of the lesson.

Have students always check their work with a partner once they bring it to the carpet. Then possibly discuss:

- Look at the numbers in the first row on your worksheet. What is the same about the numbers? What is different?
- Use the Rekenrek to practice more counting within a sequence. Possibly count from: 63 to 69, 72 to 79, 84 to 89.

Exit Ticket

After the Student Debrief, instruct students to complete the Exit Ticket. A quick review of their work will help you assess the students’ understanding of the concepts that were presented in the lesson today. Students have two minutes to complete the Exit Ticket. You may read the questions aloud to the students.
Lesson 16: Count Within Tens by Ones

Date: 2/3/13

Lesson 16 Hands Cards

© 2012 Common Core, Inc. All rights reserved. commoncore.org
Count up or down by ones. Help the animals and the girl get what they want!

Count up.

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>63</td>
<td>64</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Stop!

Count down.

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>66</td>
<td></td>
</tr>
</tbody>
</table>
Name ______________________ Date ____________

1. Help the cow get to the barn by counting by 1s.

   52  53  

2. Help the boy get to his present. Count up by 1s. When you get to the top, count down by 1s.

   31  32  

© 2012 Common Core, Inc. All rights reserved. commoncore.org

Lesson 16: Count Within Tens by Ones
2/3/13
Name ____________________________  Date ____________

1. Help the rabbit get his carrot. Count by 1s.

   ![Rabbit and Carrot Image]

   89  84

2. Count up by 1s then down by 1s.

   ![Grid Image]

   84  89  75  71

35  30
3. Help the boy mail his letter. Count up by 1s. When you get to the top, count down by 1s.
Lesson 17: Count Across Tens When Counting by Ones Through 40

Suggested Lesson Structure

- Application Problem (7 minutes)
- Fluency Practice (10 minutes)
- Concept Development (25 minutes)
- Student Debrief (8 minutes)
- Total Time (50 minutes)

Application Problem (7 minutes)

Sammy’s mom has 10 apples in a bag. Some are red and some are green. What might be the number of each color apple in her bag? There is more than one possible answer. Show your answers with number bonds. Label the parts as R and G.

Fluency Practice (10 minutes)

- Addition within Five K.OA.5 (4 minutes)
- Count Out Teen Numbers K.CC.1 (4 minutes)
- Count within Tens K.CC.1 (2 minutes)

A NOTE ON STANDARDS ALIGNMENT:

In this lesson, students write numbers through 100, which bridges Kindergarten content of writing numbers to 20 (K.CC.3) to Grade 1 content of writing numbers to 120 (1.NBT.1).

NOTES ON SCAFFOLDING STUDENTS ABOVE GRADE LEVEL:

Encourage students above grade level to model all nine possible solutions for the Application Problem.

Note: In this lesson, the Application Problem precedes the Fluency Practice because the fluency work leads directly into the counting of the lesson.
Lesson 17

**Count Across Tens When Counting by Ones Through 40**

Date: 2/4/13

---

### 5-Frame Flashes (3 minutes)

**Materials:** (T) Large 5-Frame cards

| T: (Show 4 dots.) How many dots do you see? |
| S: 4. |
| T: How many more to make 5? |
| S: 1. |
| T: Say the addition sentence. |
| S: 4 + 1 = 5. |

Continue with the following possible sequence: 1, 3, 2, 5, 0, 4, 2.

---

### Count Out Teen Numbers (4 minutes)

**Materials:** (s) 1 bag of about 20 objects per pair of students, personal white boards

| T: Count 13 items out of your bag. |
| T: Separate them into two parts—one part with 10 and another part. Write the number on your personal board. |

Repeat this process for four or five other amounts.

---

### Count within Tens (3 minutes)

| T: Let’s count starting at 20. |

Guide the students, counting from 20 to 29, occasionally changing directions. Repeat for 50–59 and 80–89.

---

### Concept Development (25 minutes)

**Materials:** (S) 1 personal Rekenrek and 10 ten-frames per student

| T: Put your Rekenrek together with your partner’s. |
| T: Move all your beads to the right hand side. |
| T: Count your beads by ones. Partner A move the first row. Both of you whisper each number as you move your beads from right to left. |
| S: (Moving beads with partner.) 1, 2, 3, 4, 5, 6, 7, 8, 9, 10. |
| T: Say the number. |
| S: 10. |
Lesson 17: Count Across Tens When Counting by Ones Through 40

Date: 2/4/13

T: Partner B move the beads of the second row one at a time. What is the first number we will say?
S: Ten one.

T: How do we say the number the regular way?
S: 11.

T: Count the second row starting with eleven. Move your beads one at a time and whisper the numbers.
S: (Moving the beads.) 11, 12, 13, 14, 15, 16, 17, 18, 19, 20.

T: What is the number the Say Ten way?
S: 2 tens.

T: Now it’s Partner A’s turn. Move one bead on the next row. What is the number the Say Ten way?
S: 2 tens one.

T: Say it the regular way.
S: 21.

T: Keep counting the regular way.
S: (Placing counters up to 30.) 22, 23, 24, 25, 26, 27, 28, 29, 30.

T: What is the number the Say Ten way?
S: 3 tens.

Continue to 40 in this manner. Then ask students to count to 40 on their own with their partner. To add excitement to this exercise, they can speak the last bead of each row loudly.

Activity Worksheet (7 minutes)

Distribute worksheets to students.

Note: In this worksheet, students write numbers to 100 which bridges to the Grade 1 standard, (1.NBT.1). The Kindergarten standard requires students to write numbers only to 20.
Lesson 17: Count Across Tens When Counting by Ones Through 40

Date: 2/4/13

**Student Debrief (8 minutes)**

The following is a suggested list of questions to invite reflection and active processing of the total lesson experience. Use those that resonate for you as you consider what will best support your students’ ability to articulate the focus of the lesson.

Always have students check their work with a partner once they bring it to the carpet. Then possibly have the students:

- Touch and count each series of numbers, pointing out that they read from left to right as they do when reading.
- Read each series of numbers in a different voice, e.g., like an elf, like a giant, like a witch, as a crescendo, etc. Adding drama makes the learning memorable and fun!
- Count across ten from various starting points using the Rekenrek.

**Exit Ticket**

After the Student Debrief, instruct students to complete the Exit Ticket. A quick review of their work will help you assess the students’ understanding of the concepts that were presented in the lesson today. Students have two minutes to complete the Exit Ticket. You may read the questions aloud to the students.
Name _____________________________  Date _____________

Touch and count the dots from left to right starting at the arrow. Count to the puppy, and then keep counting to his bones and twin brother!

Count again and color the last dot of each row green. When you have finished, go back and see if you can remember your green numbers!

What number did you say when you touched the first puppy?

- The first bone?
- The second bone?
- His twin brother?
Count each number by 1s. Write the number below when there is a box.

Touch and count the rocks from the cow to the grass!

Count up by 1s. Help the kitty play with her yarn!

Count down by 1s.
Name __________________________ Date ____________

Touch and count carefully. Cross out the mistake, and write the correct number.

Example: 1, 2, 9, 4, 5

20 21 22 23 24 25 29

30 31 32 33 43 35 36

25 26 27 28 29 29 31

34 35 36 37 38 39 44
Lesson 17: Count Across Tens When Counting by Ones Through 40

Name ___________________________ Date ____________

Draw more to show the number.

Example:

23

27

34

© 2012 Common Core, Inc. All rights reserved. commoncore.org
Lesson 17: Count Across Tens When Counting by Ones Through 40

Date: 2/4/13

38

40
Lesson 18:
Count Across Tens by Ones to 100 with and without Objects

Suggested Lesson Structure

<table>
<thead>
<tr>
<th>Activity</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application Problems</td>
<td>7 minutes</td>
</tr>
<tr>
<td>Fluency Practice</td>
<td>11 minutes</td>
</tr>
<tr>
<td>Concept Development</td>
<td>24 minutes</td>
</tr>
<tr>
<td>Student Debrief</td>
<td>8 minutes</td>
</tr>
<tr>
<td>Total Time</td>
<td>50 minutes</td>
</tr>
</tbody>
</table>

A NOTE ON STANDARDS ALIGNMENT:
In this lesson, students write numbers through 100 which bridges Kindergarten content of writing numbers to 20 (K.CC.3) to Grade 1 content of writing numbers to 120 (1.NBT.1).

Application Problem (7 minutes)

Susan is putting 9 flowers in 2 vases. Draw a picture to show a way she might do that. Make a number bond and a number sentence to match your idea. (Bonus: See if you can think of another way to put the flowers in the vases.)

When students have finished, have them compare their work with another student. Is their way of showing the flowers the same? Why or why not? How is the flower problem similar to the apple problem from yesterday?

Note: In this lesson, the application problem precedes the fluency because the fluency work leads directly into the counting of the lesson.

Fluency Practice (11 minutes)

- 10-Frame Flashes K.CC.2 (3 minutes)
- Teen Number Bonds K.CC.1 (4 minutes)
- Count on the Rekenrek K.CC.4 (4 minutes)
10-Frame Flashes (3 minutes)

Materials: (T) 10-Frame cards

T: (Show 9 dots.) How many dots do you see?
S: 9.
T: How many more does 9 need to be 10?
S: 1.

Continue with the following possible sequence: 1, 5, 8, 2, 3, 7 6, 1, 4, 3, 5, 2, 9.

Teen Number Bonds (4 minutes)

Materials: (S) Image of blank number bond

T: (Project number bond with parts of 10 objects and 6 objects.) Count the biggest part.
S: 10.
T: Say the smaller part.
S: 6.
T: Count the whole or total with me.
S: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16.

Continue with the following possible sequence: 10 and 7, 10 and 3, 10 and 1, 10 and 8, 10 and 4.

Count on the Rekenrek (4 minutes)

Materials: (S) Personal Rekenrek

T: Whisper count with your partner up to 40 on your Rekenrek. Buzz before you say the first number of each row.

Concept Development (24 minutes)

Materials: (S) Set of 9 full 10-frame cards, 2 empty 10-frame cards, 20 counters per student, and Rekenrek

T: (Count by ten to 40 by sliding four rows on the Rekenrek.) Count with me.
S: 10, 20, 30, 40.
T: Now count by ones. (Slide one bead at a time as they count.)
S: 41, 42, 43, 44, 45, 46, 47, 48, 49, 50.
Lesson 18

Count Across Tens by Ones to 100 with and without Objects

T: What is the number the Say Ten way?
S: 5 tens.

T: (Slide one bead.) Tell me the number the Say Ten way.
S: 5 tens one.

T: Tell me the number the regular way.
S: 51.

T: (Slide the bead back so that only 50 beads are showing.) How many now?
S: 50.

T: (Slide one bead back so that 49 are showing.) How many, the Say Ten way?
S: 4 tens nine.

T: How many, the regular way?
S: 49.

Repeat this process from different starting points within 100, going back and forth across the ten.

T: Now let’s show and count numbers a different way. Lay out 10-frame cards as we count the Say Ten way.
S: (Slowly counting as students lay out the cards.) Ten, 2 tens, 3 tens, 4 tens, 5 tens.

T: Now let’s count the regular way by tens. Touch each card as we count it.
S: 10, 20, 30, 40, 50.

T: Place the two empty 10-frames down after 50.
T: Count on from 50, placing one counter at a time as we say each number. Let’s start the Say Ten way.
S: (Placing a counter each time they count.) 5 tens one, 5 tens two, 5 tens three … 6 tens.

T: Now let’s count that the regular way, starting at 50. Touch each counter as you count.
S: 50, 51, 52, 53, … 60.

T: Place one more counter on the next 10-frame. Say the number the Say Ten way.
S: 6 tens 1.

T: What is the number the regular way?
S: 61.

T: What is one more than 60?
S: 61.

T: Take one counter off. What is the number the Say Ten way?
S: 6 tens.
T: What is the number the regular way?
S: 60.
T: Take away one more counter. What is the number the Say Ten way?
S: 5 tens nine.
T: Say the number the regular way.
S: 59.

Repeat this process starting from different numbers within 100, focusing on crossing over to the next ten and then back (e.g., 69, 70, 71, 70, 69).

**Activity Worksheet (7 minutes)**

Note: Do not show the students the directions paper included in the materials for the lesson and pictured above to the right. It would give away the “answers.” This page is for use by the teacher during the worksheet facilitation and possibly for use in the debrief.

Have the students continue the patterns to the larger numbers, identifying the number for each triangle, box, and green circle.

**Student Debrief (8 minutes)**

The following is a suggested list of questions to invite reflection and active processing of the total lesson experience. Use those that resonate for you as you consider what will best support your students’ ability to articulate the focus of the lesson.

Always have students check their work with a partner once they bring it to the carpet. Then possibly ask the students:

- What is one more than 19? What is one more than 29?
- Count from 79 to 90. From 61 to 71.
- Who can come up and show one more than 30 on the Rekenrek? One more than 80?
- What did you get better at (learn, understand, do better) today?

**Exit Ticket**

After the Student Debrief, instruct students to complete the Exit Ticket. A quick review of their work will help you assess the students’ understanding of the concepts that were presented in the lesson today. Students have two minutes to complete the Exit Ticket. You may read the questions aloud to the students.
Teachers’ Directions for the Rekenrek Activity Worksheet.

Have students show 50 dots by using their hiding paper to cover the other rows.

Then have students whisper count all the dots. Say the last number in each row loudly and color the circle green.

Have students show 60 dots using their hiding paper to cover 4 rows.

Then have students whisper count all the dots. Have them box the first dot in each row with blue and say its number loudly.

Have students show 70 dots by hiding 30 dots.

Then have students whisper count all the dots. Have them put a triangle around the fifth dot in each row with red and say those numbers loudly.
Name ____________________          Date ____________

Touch and whisper count the circles by 1s to 100. Say the last number in each row loudly and color it purple. Do your best. Your teacher may call time before you are finished.
Name _________________________________ Date ____________

Use your Rekenrek (attached), hiding paper (an extra paper to hide some of the dots), and crayons to complete each step listed below. Read and complete the problems with the help of an adult.

1. Hide to show just 40 on your abacus paper. Touch and count the circles until you say 28. Color 28 green.
   - Touch and count each circle from 28 to 34.
   - Color 34 (the 34th circle) with a red crayon

2. Hide to show just 60 on your abacus paper. Touch and count the circles until you say 45. Color 45 yellow.
   - Touch and count each circle from 45 to 52.
   - Color 52 with a blue crayon.

3. Hide to show just 90 on your abacus paper. Touch and count the circles until you say 83. Color 83 purple.
   - Touch and count down from 83 to 77.
   - Color 77 with a red crayon.

4. Show 100
   - Touch and count starting at 1.
   - Say the last number in each row loudly and make it black.
A NOTE ON STANDARDS ALIGNMENT:
In this lesson, students explore decomposing numbers to 100. To begin, they simply decompose numbers to 10 and see the relevance of that to teen numbers. Next, they sit with a partner and decompose numbers to 40 as tens and ones (1.NBT.2). They then represent numbers on two Rekenreks with a friend and realize that there is a teen number hiding inside this larger number by pulling apart their two Rekenreks! The exploration is meant to be playful, generating excitement about decomposing numbers.

Application Problem (7 minutes)

The light is out, and it’s dark. Peter knows that he left 7 blue and green beads for his crafts on his desk. But he can’t see how many are blue or how many are green in the dark! Draw a picture to show what the colors of his beads might be when he turns on the light.

When students have finished, have them compare their work with another student. Is their way of showing the beads the same? Why or why not? How is this problem like our problems in previous lessons with the flowers and the apples?

Note: In this lesson, the application problem precedes the fluency because the fluency work leads directly into the counting of the lesson.

Fluency Practice (10 minutes)

- Number Bonds of 7 K.OA.3 (3 minutes)
- Count to 100 by Ones K.CC.1 (3 minutes)
- Hide Zero for Numbers to 100 K.CC.1 (4 minutes)
Number Bonds of 7 (3 minutes)

Materials: (S) Personal Rekenreks

T: Show ten beads only (students push a row of ten behind).
T: Hide 3 white beads behind your board.
T: The total number of beads you see is?
S: 7.
T: Push over 1 bead to the right to make 2 parts. Tell your partner the number bond. Part ___, part ___, total 7.
S: Part 6, part 1, total 7

Continue one bead at a time stating the related bond. Keep the Rekenreks at 7 for the main lesson.

Count to 100 by Ones (3 minutes)

Materials: (S) Rekenrek Dot Paper

Students count to 100 (or as high as they can in 3 minutes) by touching the beads on the Rekenrek dot paper. Have them say “buzz” after the last number of each row.

Hide Zero for Numbers to 100 (4 minutes)

Materials: (T) Hide Zero cards

T: (Hold 30 card and 7 card so they show 37.) Say the number.
S: 37.
T: Say the number the Say Ten way.
S: 3 ten seven.
T: (Break apart the cards into 30 and 7.)
Repeat process for four or five other numbers between 20 and 100.

Concept Development (25 minutes)

Materials: (S) Personal Rekenreks

Exploration 1

T: Show me 7 again on your Rekenrek.
T: Take the bottom ten beads of your Rekenrek out of hiding. Push them over to the left under your 7.
T: How many beads are on the left?
Lesson 19

Lesson 19:
Explore Numbers on the Rekenrek

Date: 2/3/13

S: Seventeen.

T: Today, let’s work the Say Ten way.

S: Ten seven.

T: Move 1 bead from your 7 over to the right like we did in our fluency.

T: Total 16. The two parts are?

S: 10 and 6.

T: Move another bead. Total 15, the parts are?

S: 10 and 5.

T: Move another!

S: Total 14, the parts are 10 and 4.

T: Keep going! (Give the students a moment to work through the teen numbers.)

**Exploration 2**

T: Now sit with a partner. Partner B, take all your beads out of hiding and put your Rekenrek under your partners’. Partner A, show ten seven again.

T: How many beads do you have on the left now? Tell me the Say Ten way.

S: 3 ten seven.

T: Move 1 bead from the 7 to the right. How many beads are on the left?

S: 3 ten 6.

T: Move a bead.

S: 3 ten 5.

T: Move a bead.

S: 3 ten 4.

Have the students work with base numbers other than 7 within the twenties and thirties. Then three students can sit together and work with numbers within the forties and sixties. The decomposition of the larger numbers is 1.NBT.2, “Understanding Place Value.” This playful work lets students get a foretaste of these important understandings that the decomposition of the numbers 1–9 and the teens give. Avoid part/whole language in Exploration 2 and in the worksheet. Simply let the students’ natural knowledge see the connection between the “base number,” the teens, and the larger numbers.

**Activity Worksheet (7 minutes)**

Before doing the worksheet, guide the students to see that they can also separate out the teen numbers when working with their partner.

T: Where is our teen number? It is in Partner A’s Rekenrek! While the top row shows 7, the top Rekenrek shows 17. The teen numbers are hiding inside bigger numbers just like 7 was inside 17. Pretend you are breaking the number, pulling hard at the Rekenreks to break that number apart.
This is of course beyond the grade level standard (1.NBT.2), but it illustrates the idea that we can break numbers into parts—the Rekenreks make it so easy to show that! Keep it playful.

**Student Debrief (8 minutes)**

The following is a suggested list of questions to invite reflection and active processing of the total lesson experience. Use those that resonate for you as you consider what will best support your students’ ability to articulate the focus of the lesson.

Always have students check their work 1–9 with a partner once they bring it to the carpet.

Guide students to see that their work with the first row of numbers, 1 to 10, helps them work with bigger numbers, too, just like when they count from 1 to 9 it helps them to count all the way to 100.

- What did your number bonds of numbers to 9 help you to see about your number bonds of teen numbers?
- When you make a teen number in parts, what do you notice? Which is always biggest, the parts or the total, the whole?
- What happens if the top row on your Rekenrek is a part? What is the other part?
- What else could be a part of a bigger number?
- When you circled teen numbers on the worksheet, you were finding a part. What part did you find in the first problem?
- How does finding parts help you to understand big numbers better?

**Exit Ticket**

After the Student Debrief, instruct students to complete the Exit Ticket. A quick review of their work will help you assess the students’ understanding of the concepts that were presented in the lesson today. Students have two minutes to complete the Exit Ticket. You may read the questions aloud to the students.
Find the Hidden Teen Number

Show each number on your Rekenrek with your partner.
Write how many. Circle the teen number inside the big number. Draw a line from the big number to the teen number that hides inside it.

18
15
13
17
11
12
Lesson 19 Exit Ticket

NYS COMMON CORE MATHEMATICS CURRICULUM

Name ________________________________ Date _____________

Show the number on your Rekenrek with your partner. Write the number of objects that matches the number in the box. Circle the teen number you see. Write the teen number in the other box.

[Diagram of Rekenrek with objects circled]
Write the number you see. Now draw one more, then write the new number.

- 0
- 25
- 26

[Diagram of Rekenrek beads]

- [Heart symbols]
- [Star symbols]

[Blank boxes for writing numbers]
Topic E:

Represent and Apply Compositions and Decompositions of Teen Numbers

K.NBT.1, K.CC.5, K.CC.1, K.CC.2, K.CC.3, K.CC.4a-c, K.CC.6, 1.OA.8, 1.NBT.3

Focus Standard: 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.

K.CC.5
Count to answer “how many?” questions, about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many ten things in a scattered configuration; given a number from 1 – 20, count out that many objects.

Instructional Days: 5

Coherence -Links from: GPK–M5
Write Numerals to 5, Addition and Subtraction Stories, Count to 20

-Links to: G1–M2
Place Value, Comparison, Addition and Subtraction of Numbers to 20

Topic E Lesson 1 begins as students represent teen number decompositions and compositions by writing addition sentences. In Lesson 2, students make bonds with materials and hide one of the parts for their partner who must figure out what the hidden part is. The number bond with a hidden part is represented by the teacher as an addition equation with a missing addend, the hidden part (aligns to 1.OA.8). In Lesson 3, students compare teen numbers by counting and comparing the extra ones. For example, students decompose 12 into 10 and 2, and 16 into 10 and 6. They compare 2 ones and 6 ones to see that 16 is more than 12 using the structure of the 10 ones (MP.7). This is an application of the Kindergarten comparison standards (K.CC.6, K.CC.7), which does move into the Grade 1 comparison standard (1.NBT.3).

In Lesson 23, students reason about situations to determine if they are decomposing a teen number as 10 ones and some ones, or composing 10 ones and some ones to find a teen number. They analyze the number sentences that best represent each situation (K.NBT.1). Throughout the lesson, students draw the number of objects presented in the situation (K.CC.5).
The module closes with an exploration in which students count teen quantities and represent them in various ways as the teacher gives the prompt, “Open your mystery bag. Show the number of objects in your bag in different ways using the materials you choose.” This exercise also serves as a culminating assessment, allowing the student to demonstrate skill and understanding in applying all the learning gained throughout the module.

<table>
<thead>
<tr>
<th>CONCEPT CHART</th>
<th>A Teaching Sequence Towards Mastery of Representing and Applying Compositions and Decompositions of Teen Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concept 1:</td>
<td>Represent Teen Number Compositions and Decompositions as Addition Sentences</td>
</tr>
<tr>
<td></td>
<td>E.g., 10 + 3 = 13 or 13 = 10 + 3</td>
</tr>
<tr>
<td></td>
<td>(Lesson 20)</td>
</tr>
<tr>
<td>Concept 2:</td>
<td>Represent Teen Number Decompositions as 10 Ones and Some Ones and Find a Hidden Part</td>
</tr>
<tr>
<td></td>
<td>Aligns to 1.OA.8</td>
</tr>
<tr>
<td></td>
<td>(Lesson 21)</td>
</tr>
<tr>
<td>Concept 3:</td>
<td>Decompose Teen Numbers as 10 Ones and Some Ones; Compare the “Some Ones” to Compare the Teen Numbers</td>
</tr>
<tr>
<td></td>
<td>Aligns to 1.NBT.3</td>
</tr>
<tr>
<td></td>
<td>(Lesson 22)</td>
</tr>
<tr>
<td>Concept 4:</td>
<td>Reason About and Represent Situations: Decompose Teen Numbers into 10 Ones and Some Ones and Compose 10 Ones and Some Ones into a Teen Number</td>
</tr>
<tr>
<td></td>
<td>(Lesson 23)</td>
</tr>
<tr>
<td>Culminating Task—Represent Teen Number Decompositions in Various Ways</td>
<td></td>
</tr>
<tr>
<td></td>
<td>E.g., “Open your mystery bag. Show the number of objects in your bag in different ways using the materials you choose.”</td>
</tr>
<tr>
<td></td>
<td>(Lesson 24)</td>
</tr>
</tbody>
</table>
Lesson 20:
Represent Teen Number Compositions or Decompositions as Addition Sentences

Suggested Lesson Structure

- Fluency Practice (12 minutes)
- Application Problems (7 minutes)
- Concept Development (24 minutes)
- Student Debrief (7 minutes)

Total Time (50 minutes)

Fluency Practice (12 minutes)

- Dot Cards of Seven K.CC.5, K.CC.2 (4 minutes)
- Count Crossing Tens K.CC.1 (4 minutes)
- Group Tens and Ones K.CC4 (4 minutes)

Dot Cards of Seven (4 minutes)

Materials: (T) Varied dot flashes with 7 dots

T: (Show 7 dots.) How many do you see? (Give students time to count)
S: 7.
T: How can you see 7 in two parts?
S: (Coming up to the card) 5 here and 2 here.
T: Say the number sentence.
S: 5 and 2 makes 7.
T: Who sees 7 in two different parts?
S: (Coming up to the card) I see 3 here and 4 here.
T: Say the number sentence.
S: 3 and 4 makes 7.

Continue with other cards of seven.
Count Crossing Tens (4 minutes)

Materials: (T) Personal Rekenreks.

For this activity, you may wish to combine six elastics of beads onto one card if you prefer. However, it may give more number sense to have the students use their three individual cards as described below so that students reference where they left off very clearly when counting to 40.

T: Today we’re going to work in groups of 3. Put your personal Rekenreks together and count your beads. Say ‘buzz’ after you finish a row. Partner A moves the beads of the first Rekenrek, Partner B moves the beads of the second, and Partner C moves beads of the third.

T: If you finish early, count again. This time, after the color changes, say ‘buzz.’

Group Tens and Ones (4 minutes)

Materials: (T) Prepared images of arrays, circular configurations and 10-frames

T: (Project a circular configuration of 12 objects.) Say the number of objects that you see.
S: (Pause while they count.) 12.
T: Say the number the Say Ten way.
S: 1 ten two

Repeat process for four or five other numbers between 10 and 100, mixing arrays, circular configurations, and 10-frame cards.

Application Problems (7 minutes)

Each student got 6 colored pencils and 4 regular pencils. How many pencils did each student get? Draw a picture, a number bond, and write a number sentence, too.
Concept Development (24 minutes)

Materials: (S) bag of twenty 2-color beans per student, personal boards with blank number bond sheet inside

T: Put 10 red beans in one part of the number bond. Put 3 white beans in the other part.

S: 13 ones.

T: What is 10 ones and 3 ones?

T: Say the number the Say Ten way.

T: Now count 13 beans into the place where we show the total or whole amount.

T: So we have 13 in two parts. What are the parts?

S: 10 and 3.

T: Talk to your partner. When we solved our story problem today, we had two parts. What is another way you already know to show a number in two parts?

S: To me, the number bond. It’s so easy to see.

T: We can show a number in two parts by making piles of things, like 10 things and 3 things. → We can show the number with a number bond. → We can make a picture. → We can show it with our Hide Zero cards. → We can show it on the Rekenrek. → We can show it with a plus sign.

T: Lots of good ideas. We can show the same idea in so many ways. When we are thinking about 13, what do you think is the clearest way to show the two parts of 10 and 3? Talk to your partner.

S: To me, the number bond. It’s so easy to see. → Yeah, but I like to see how big the number is so counters are my favorite. → I feel big girls and boys do addition so that’s how I want to show it.

T: Each way we show a number in two parts helps us to understand our number better. Addition is another way to do that.

T: (Write 10 + 3 = ____ on the board.)

T: What is 10 + 3? Give me a complete number sentence.

S: 10 + 3 = 13.

T: (Write 13 on the board to complete the equation.) Look at your number bond. How many beans do you have in the whole amount?

S: 13. (Write 13 = ____ + ____ on the board.)

T: How many beans are in this part? Let’s count.

S: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10.

T: How many beans are in this part?

S: 3!

T: Look at the parts. Complete this number sentence. (Pointing to 13 = ____ + ____.)

S: 13 = 10 + 3.

T: We started with the whole amount with our beans so our number sentence also starts with the whole amount.
T: Clear your boards. Show 10 red beans and 5 white beans in the two parts.
T: Now count to find out many beans will you put to show the total. It needs to match the amount in the parts.
S: (After counting.) 15!
T: Count that many beans into the place where you put your total.
T: (After counting) What is another way to show the two parts and the total?
S: 10 + 5 = 15.
T: (Write 10 + 5 = 15 on the board.)
T: Do you have the same number of beans in the parts as you have in the place for the total?
S: Yes!
T: When 15 is split into two parts, it is the same as 10 and 5? Then your number bond is true!
T: Clear your boards. This time, use your marker to write 19 where we show the whole. Let’s put this number in two parts.
T: Show 10 red beans as one part. (Pause while students place the beans.)
T: Count out the beans you need to put in the other part to get to 19.
S: (After counting.) 9!
T: What is one number sentence that tells about this number bond?
S: 10 + 9 = 19.
T: This time start with the total so we really feel that big number splitting into two parts.
S: 19 = 10 + 9.

Continue in this manner with students creating and talking about other teen number bonds and their matching addition sentences

**Activity Worksheet (7 minutes)**

Have the students complete the bonds and number sentences. Give them access to materials and Hide Zero cards as they do so.
Student Debrief (7 minutes)

The following is a suggested list of questions to invite reflection and active processing of the total lesson experience. Use those that resonate for you as you consider what will best support your students’ ability to articulate the focus of the lesson.

Always have students check their work with a partner once they bring it to the carpet. Then consider the following questions:

- In a number bond, which number is larger, the whole or a part?
- Explain how the teen numbers are 10 ones and some more ones.
- Look at each number bond as I say the whole. You read the number the Say Ten way, e.g., I say 13, you say ten three.
- Show a row of ten on the Rekenrek, and then slide beads to show the teen numbers. Students say the numbers the regular and the Say Ten way.
- What are we doing with the parts when we add? Are we putting them together or taking them apart?

Exit Ticket

After the Student Debrief, instruct students to complete the Exit Ticket. A quick review of their work will help you assess the students’ understanding of the concepts that were presented in the lesson today. Students have two minutes to complete the Exit Ticket. You may read the questions aloud to the students.
Lesson 20 Worksheet

Fill in the number bonds and write a number sentence to match it.

Example:

\[
\begin{align*}
13 &= 10 + 3 \\
15 &= \_\_\_ + \_\_\_ \\
17 &= \_\_\_ + \_\_\_
\end{align*}
\]

\[
\begin{align*}
10 + 8 &= \_\_\_ \\
10 + 6 &= \_\_\_ \\
\_\_\_ &= 10 + 4
\end{align*}
\]

12 = \_\_\_ + \_\_\_ \\
\_\_\_ = \_\_\_ + \_\_\_

Early finishers: Make up your own teen number bonds and sentences on the back!
The first number is the whole. Circle its parts.

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>10</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>11</td>
<td>1</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>14</td>
<td>4</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>18</td>
<td>1</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>10</td>
<td>10</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>20</td>
<td>10</td>
<td>2</td>
<td>10</td>
</tr>
</tbody>
</table>
Draw stars to show the number as a number bond of 10. Show each example as two addition sentences of 10 ones and some ones.

10 + 1 = 11
11 = 10 + 1

15

17
Lesson 20: Represent Teen Number Compositions or Decompositions as Addition Sentences

Date: 1/31/13

© 2012 Common Core, Inc. All rights reserved. commoncore.org

5.E.11
Lesson 21:
Represent Teen Number Decompositions as 10 Ones and Some Ones and Find a Hidden Part

Suggested Lesson Structure

- Fluency Practice (13 minutes)
- Application Problems (7 minutes)
- Concept Development (22 minutes)
- Student Debrief (8 minutes)
- Total Time (50 minutes)

Fluency Practice (13 minutes)

- Number Bonds of Seven K.CC.2 (4 minutes)
- Four Rekenreks K.CC.1 (5 minutes)
- Count Teen Numbers K.CC.5 (4 minutes)

Number Bonds of Seven (4 minutes)

Materials: (T) Dot cards of seven

Show a dot card and indicate 6 and 1 as parts.

T: Say the biggest part. (Give students time to count.)
S: 6.
T: Say the smallest part.
S: 1.
T: What is the total number of dots? (Give time to count.)
S: 7.
T: Say the number sentence.
S: 6 and 1 makes 7.
T: (Turn the card around to get 1 and 6.)

Continue with 5 and 2, 8 and 0, 4 and 3.
Four Rekenreks (5 minutes)

Materials: (S) Personal Rekenrek for each student

T: Sit in groups of 4. Put your Rekenreks together. Partner A moves the beads of the first row. Partner B moves the beads of the second row, etc. After each number that ends a row, say “bop.”

Count Teen Numbers (4 minutes)

T: Count from 11 to 20 the Say Ten way.
S: Ten 1, ten 2, ten 3, ten 4, ten 5, ten 6, ten 7, ten 8, ten 9, 2 tens.
T: Count back from 20 to 11 the Say Ten way.
S: 2 tens, ten 9, ten 8, ten 7, ten 6, ten 5, ten 4, ten 3, ten 2, ten 1.
T: Count from 11 to 20 the regular way.
S: 11, 12, 13, 14, 15, 16, 17, 18, 19, 20.
T: Count back from 20 to 11 the regular way.
S: 20, 19, 18, 17, 16, 15, 14, 13, 12, 11.
T: Now I want you to change the way you count each time. We’ll say the first number the Say Ten way. Then we’ll say the next number the regular way. Listen to my example. Ten one, 12, ten three, 14, ten five, 16. Now it’s your turn.
S: Ten one, 12, ten three, 14, ten five, 16, ten seven, 18, ten nine, 20.
T: Count back from 20 to 11 starting with the Say Ten way.
S: 2 tens, 19, ten eight, 17, ten six, 15, ten four, 13, ten two, 11.

Application Problems (7 minutes)

Peter saw 8 puppies at the pet store in a cozy cage. While he was watching them, 2 hid in a little box. How many puppies could Peter see then? Draw a picture and write a number bond and number sentence to match the story.

NOTES ON SCAFFOLDING DIVERSE LEARNERS:

For diverse learners, deepen understanding of grouping numbers.
- Below Grade Level: Ask students to put the puppies (counters) in a 10-frame.
- Above Grade Level: Ask students to double the number of puppies in the cage using two 10-frames. Can they show you 10 and some more?
Concept Development (23 minutes)

Materials: (S) For each pair of students: 40 centimeter cubes, blank number bond workmat inside a personal board

T: Count out 12 cubes and put them in the place where we show the whole on the number bond.
T: Group 10 ones within that place.
T: What are the parts of 12 you see?
S: 10 and 2.
T: Count out cubes to fill in parts so that the total and the parts are equal.
S: (Students do so.)
T: Fill in this number sentence with me. (On the board, write 12 = ____ + ____.)
S: 12 = 10 + 2.
T: Say the number the Say Ten way.
S: Ten two.
T: Close your eyes. (Remove the 2 cubes.) What part is hiding?
S: 2!
T: Fill in this number sentence with me. (Write 12 = 10 + ____ on the board.)
S: 12 = 10 + 2. (Put the cubes back as they say the statement.)
T: Close your eyes. (Remove the 10 cubes.) What part is hiding?
S: 10 ones!
T: Fill in this number sentence with me. (Write 12 = ____ + 2 on the board.)
S: 12 = 10 + 2

Continue in this manner with other teen numbers. Have students then work in pairs to play “Hide and Say the Hidden Part”

- Partner A builds a teen number in the place for the total or whole.
- Partner B models the number as two parts.
- Partner A closes her eyes while Partner B hides one part.
- Partner A writes the complete number sentence (not with a missing addend, e.g. 14 = 10 + 4). Switch roles.

T: We had a hidden part like in our story problem of the puppies. We didn’t know the part that Peter could still see in the cozy cage after the two puppies hid inside the box!
Activity Worksheet  (7 minutes)

Be sure that students have access to materials such as counters, Hide Zero cards and personal boards for drawing while using the worksheet. Encourage them to think about and demonstrate the many ways they can show teen numbers in two parts.

Note: In this worksheet, students use blocks and decompose teen numbers into two parts and then write corresponding equations. $12 = 10 + \_\_\_$. This bridges to Grade 1 content (1.OA.8).

Student Debrief (8 minutes)

The following is a suggested list of questions to invite reflection and active processing of the total lesson experience. Use those that resonate for you as you consider what will best support your students’ ability to articulate the focus of the lesson.

Always have students check their work with a partner once they bring it to the carpet. Then possibly discuss:

- What did you get better at today?
- What do you notice from the worksheet? (An example follows.)

  T: Look at the first two number bonds. What is the same and different about these two bonds?
  S: Both bonds have 10 ones. → Yeah but they don’t have the same number of extra ones. → One has 9 extra ones and the other has 5 extra ones. → If you count all the ones together, one is nineteen and one is fifteen. → If we count the Say Ten way, one is ten nine and one is ten five. → If you break apart both the numbers, there are 10 ones and some ones inside! → The number sentences show that we can write 19 and 15 in number sentences with 10 plus in them.
What can you explain about the numbers 11, 12, 13, 14, 15, 16, 17, 18, 19? What do they have in common? How are they different?

What do you think I was trying to teach you in this lesson?

Exit Ticket

After the Student Debrief, instruct students to complete the Exit Ticket. A quick review of their work will help you assess the students’ understanding of the concepts that were presented in the lesson today. Students have two minutes to complete the Exit Ticket. You may read the questions aloud to the students.
Lesson 21 Worksheet

Name ___________________________ Date _______________

Model each number with cubes on your number bond mat. Then complete the number sentences and number bonds.

Example:

$11 = 10 + \underline{1}$
$10 + \underline{1} = 11$

$12 = 10 + \underline{2}$
$10 + \underline{2} = 12$

$13 = 10 + \underline{3}$
$10 + \underline{3} = 13$

$\underline{10} + 5 = 15$
$15 = \underline{10} + 5$

$\underline{10} + 7 = 17$
$17 = \underline{10} + 7$

$\underline{10} + 8 = 18$
$18 = \underline{10} + 8$

$16 = 6 + \underline{10}$
$6 + \underline{10} = 16$

$9 + \underline{10} = 19$
$19 = 10 + \underline{9}$

© 2012 Common Core, Inc. All rights reserved. commoncore.org

Lesson 21: Represent Teen Number Decompositions as 10 Ones and Some Ones and Find a Hidden Part

2/4/13
Complete the number sentences and number bonds. Use your materials to help you.

\[
\begin{align*}
____ + 7 &= 17 \\
17 &= ____ + 10 \\
____ + 3 &= ____ \\
13 &= ____ + 1
\end{align*}
\]
Name ______________________________ Date ____________

Complete the number bonds and number sentences. Draw the cubes of the missing part.

\[ 15 = \square + 10 \]

\[ \square + 8 = 18 \]
Lesson 21 Homework

NYS COMMON CORE MATHEMATICS CURRICULUM

K 5

Lesson 21:
Represent Teen Number Decompositions as 10 Ones and Some Ones and Find a Hidden Part

Date: 2/4/13

6 + 10 = _____

1 + _____ = 11
Lesson 22:
Decompose Teen Numbers as 10 Ones and Some Ones;
Compare the “Some Ones” to Compare the Teen Numbers

Suggested Lesson Structure

- Application Problems (7 minutes)
- Fluency Practice (11 minutes)
- Concept Development (25 minutes)
- Student Debrief (7 minutes)

Total Time (50 minutes)

Application Problems (7 minutes)

Lisa has 5 pennies in her hand and 2 in her pocket. Matt has 6 pennies in his hand and 2 in his pocket. Who has fewer pennies, Lisa or Matt? Who has more pennies? How do you know?

Fluency Practice (11 minutes)

- Dot Cards of Eight K.CC.5, K.CC.2 (3 minutes)
- Count Teen Numbers K.NBT.1 (4 minutes)
- Teen Numbers on the Rekenrek K.NBT.1 (4 minutes)

Dot Cards of Eight (3 minutes)

Materials: (T) Varied dot cards of 8

T: (Show a card with 8 dots.) How many dots do you count? Wait for the signal to tell me.
S: 8.
T: How can you see them in two parts?
S: (Student comes up to the card.) I saw 5 here and 3 here.
T: Say the number sentence.
S: 5 and 3 makes 8.
T: Flip it.

A NOTE ON STANDARDS ALIGNMENT:

In this lesson, students compare numbers 1–9 (K.CC.6, K.CC.7) and use their understanding of 10 ones as the structure of the teen numbers (K.NBT.1 and MP.7) to compare teen numbers. This bridges Kindergarten content to Grade 1 comparison of numbers (1.NBT.3).
Lesson 22

Decompose Teen Numbers as 10 Ones and Some Ones

Compare the “Some Ones” to Compare the Teen Numbers

Date: 2/3/13

© 2012 Common Core, Inc. All rights reserved. commoncore.org

S: 3 and 5 makes 8.
T: Who sees 8 in two different parts?
S: (Comes up to the card) I see 6 here and 2 here.
T: Say the number sentence.
S: 6 and 2 makes 8.
T: Flip it.
S: 2 and 6 makes 8.

Continue with other cards and decompositions of 8.

Count Teen Numbers (4 minutes)

T: Count from 11 to 20 and back to 11 the Say Ten way.
S: Ten one, ten two, ten three, ten four, ten five, ten six, ten seven, ten eight, ten nine, 2 tens, ten nine, ten eight, ten seven, ten six, ten five, ten four, ten three, ten two, ten one.
T: Count from 11 to 20 and back to 11 the regular way.
S: 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 19, 18, 17, 16, 15, 14, 13, 12, 11.
T: Now I want you to change the way you count each time. We’ll say the first number the regular way. Then we’ll say the next number the Say Ten way. Listen to my example. 11, ten two, 13, ten four, 15, ten six.
S: 11, ten two, 13, ten four, 15, ten six, 17, ten eight, 19, 2 tens.
T: Count back from 20 to 11 starting with the regular way.
S: 20, ten nine, 18, ten seven, 16, ten five, 14, ten three, 12, ten one.

Teen Numbers on the Rekenrek (4 minutes)

Materials: (S) Personal Rekenrek

T: Show me the number 12 in two parts on your Rekenrek with one part 10 ones on your top row.
S: (Students show 12 on their Rekenrek.)
T: Now show me 12 again but this time with 10 ones that are all red.
T: Now show me 12 again but this time with 10 ones that are all white.

Continue with other teen numbers.
Lesson 22: Decompose Teen Numbers as 10 Ones and Some Ones

Date: 2/3/13

NYS COMMON CORE MATHEMATICS CURRICULUM

Concept Development (25 minutes)

Materials: (S) 20 linker cubes per student, personal white board

T: Use your personal board as a work mat. Partner A, count out 13 cubes on your mat. Partner B, count out 15 cubes on your mat.

T: Now each of you move your cubes to show the number the Say Ten way. Partner A, tell me your number the Say Ten way.

S: (Partner A only.) Ten three.

T: Partner B, tell me your number the Say Ten way.

S: (Partner B only.) Ten five.

T: How can we tell which number is bigger? You both have 10 ones, true?

S: Yes.

T: So let's look at the extra ones. Which number is bigger, 3 ones or 5 ones?

S: 5 ones!

T: So which number is bigger, ten 3 or ten 5?

S: Ten five!

T: Let's all say 15 is more than 13.

S: 15 is more than 13.

T: Let's say that the Say Ten way. Ten five is more than ten three.

S: Ten five is more than ten three.

T: Now, Partner A, show me 14 on your mat as 10 ones and some ones. Partner B, show 11 on your mat as 10 ones and some ones.

T: Do you both have 10 ones?

S: Yes.

T: So let's compare the extra ones. Which part is smaller, 4 ones or 1 one?

S: 1 one!

T: Talk to your partner about which number is smaller and which number is bigger and how you know.

S: (Students talk.)

T: Now I want both Partner A and Partner B to show 17 on your mat. Show it as 10 ones and some ones.

T: Do you both have 10 ones?

S: Yes.

T: How many extra ones do you both have?
Lesson 22: Decompose Teen Numbers as 10 Ones and Some Ones; Compare the “Some Ones” to Compare the Teen Numbers

Date: 2/3/13

**S:** 7!
**T:** Is 7 more than 7?
**S:** No!
**T:** Is 10 more than 10?
**S:** No!
**T:** What should we say about 17 and 17?
**S:** They’re the same! They’re equal!

Continue in this manner but without the cubes and personal boards. Draw two number bonds on the board. Fill one number bond in with 19 decomposed showing 10 ones as one part. Fill the other number bond with 16 decomposed showing 10 ones as one part.

**T:** (Point to 19.) What is the missing part?
**S:** 9. (Fill in 9.)

**T:** (Point to 16.) What is the missing part?
**S:** 6. (Fill in 6.)

**T:** Compare the extra ones. Which number is more?
**S:** 19.

**T:** We are using what we know about comparing the numbers less than 10 to compare numbers that are more than 10!

**T:** Talk to your partner about that.

**S:** I know 5 is more than 4 so I know 10 ones and 5 ones is more than 10 ones and 4 ones. I know that 5 is less than 8 so ten five is less than ten eight. I know that 6 equals 6 so ten six equals ten six. I know that 10 ones is the same, so it’s like both numbers have it so it doesn’t change which one is bigger or smaller.

**Activity Worksheet (7 minutes)**

Distribute worksheets to students.

Note: This work, like many of the lessons in this module, allows students to see the relevance of their numbers to 10 to success with larger numbers. Students “stand” on the shared structure of the ten in two teen numbers and simply compare the ones to see which number is greater. This bridges to Grade 1 content (1.NBT.3).
Student Debrief (7 minutes)

The following is a suggested list of questions to invite reflection and active processing of the total lesson experience. Use those that resonate for you as you consider what will best support your students’ ability to articulate the focus of the lesson.

Always have students check their work with a partner once they bring it to the carpet. Then possibly:

- What was today’s lesson about?
- Ask students to explain why 11 is less than 15.
- Have students read each comparison from the worksheets the Say Ten way and then the regular way. e.g., ten 3 is more than ten 2. 13 is more than 12. Ten 1 is less than ten 4. 11 is less than 14.
- What do you think I wanted you to learn from the lesson?

Exit Ticket

After the Student Debrief, instruct students to complete the Exit Ticket. A quick review of their work will help you assess the students’ understanding of the concepts that were presented in the lesson today. Students have two minutes to complete the Exit Ticket. You may read the questions aloud to the students.
Circle 10 erasers. Circle 10 pencils. Match the extra ones to see which group has more.

Circle 10 sandwiches. Circle 10 milk cartons. Check the group that has less things.

Circle 10 baseballs. Circle 10 gloves. Write how many are in each group. Check the group that has more things.
Lesson 22: Decompose Teen Numbers as 10 Ones and Some Ones; Compare the “Some Ones” to Compare the Teen Numbers

Circle 10 apples. Circle 10 oranges. Write how many in each group. Check the group that has less.

Circle 10 spoons. Circle 10 forks. Write how many are in each group.

more is than less
Count and write the number. **Circle** more or less.

1 is than 4

___ is less than ____

___ is more than ____

___ is less than ____

___ is more than ____
Lesson 22: Decompose Teen Numbers as 10 Ones and Some Ones

Compare the “Some Ones” to Compare the Teen Numbers

Date: 2/3/13

Fill in the number bond. Check the group with more.

16

10 6

17

10 7

13

3 10

11

10 8

10 5

10 2

10 10
Lesson 23:
Reason About and Represent Situations: Decompose Teen Numbers into 10 Ones and Some Ones; Compose 10 Ones and Some Ones into a Teen Number

Suggested Lesson Structure

- Fluency Practice (12 minutes)
- Concept Development (30 minutes)
- Student Debrief (8 minutes)

Total Time (50 minutes)

Fluency Practice (12 minutes)

- Number Bonds of Eight **K.NBT.1** (4 minutes)
- Matching Dot and Number Cards **K.NBT.1** (8 minutes)

Number Bonds of Eight (4 minutes)

Materials: (T) Dot cards of eight

Show a dot card and indicate 7 and 1 as parts.

T: Say the biggest part (Give students time to count).
S: 7.

T: Say the smallest part.
S: 1.

T: What are the total number of dots? (Give time to count.)
S: 8.

T: Say the number sentence.
S: 7 and 1 makes 8.

T: Flip it.
S: 1 and 7 makes 8.

Continue with cards illustrating the number bonds of 5 and 3, 4 and 4, 6 and 2, and 8 and 0.
Matching Dot and Number Cards (8 minutes)

Materials:  (S) Teen number and dot cards for each pair of students (pictured to the right)

T:  Put your number cards in order from smallest to greatest.
T:  Match each number card to a dot card.
T:  Talk to your partner. What do you notice about your dot cards and your number cards?
S:  They all have ten dots. → They all have a one that shows the ten. → They all have an extra dot that tells how many extra ones weren’t part of the ten ones. → All the dot cards have two parts and the numbers have two numbers. → Yeah, one of the numbers is one of the parts of the dots.

Concept Development (30 minutes)

Materials:  (S) Picture problem and word problem for each child (shown below), personal board with number bond template.

Note: The following problems are solved using counting and the students knowledge of decomposing and composing teen numbers. Although addition sentences are included in the students’ solutions, in this instance, they are another record of the decomposition or the composition of the total that the student counted to find rather than a means of solving the problem. Note that the problems do not ask “How many?” or “How many in all?”

T:  (Show 12 pieces of red construction paper in one line, perhaps taped to the board.) Count with me.
S:  1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
T:  Draw and show the 12 papers as 10 ones and some ones.
S:  Should we draw a number bond?
T:  You can draw a picture and make a number bond.
S:  Can we write a number sentence?
T:  That is another good way to show what twelve is made of.
T:  (After working) Share with your partner how you showed 10 red papers and some more papers.
T:  What parts did you break 12 into?
S:  10 and 2.
T:  What number sentence did you use to show that?
S:  12 = 10 + 2.
T:  Yes, 12 is 10 ones and 2 ones.

NOTES ON SCAFFOLDING ELLS:

As they talk about math in English, support ELLs with sentence frames, such as:
I see ____ (number) _____(unit).
I see _____ (number) _____(unit).
I see ____ (number) _____ (unit) in all.
Lesson 23 Dot and Number Cards

Reason About and Represent Situations: Decompose Teen Numbers into 10 Ones and Some Ones; Compose 10 Ones and Some Ones into a Teen Number

T: (Referring back to the red papers on the board.) What can I do to show with my papers on the board that we made two parts?
S: You could put space between the 10 ones and 2 ones to see the parts more easily.
T: Okay, I’ll do that. Yes, now we can see that 12 is 10 and 2.

T: Let’s do a different problem at a farm. (Pass out the picture problem.) Look at the picture with your partner. Talk about what you see.
S: (After talking.) There are 10 geese and 3 pigs.
T: It’s easy to see the parts so let’s put them together to find how many animals there are.
T: Work with your partner to show ways to put those parts together.
T: (Pause while students work.) What are some of the ways you put the two parts together?
S: We showed a number bond → We showed an addition sentence. → We got our Hide Zero cards.
T: When you put the parts together, what was the total of your bond or your number sentence?
S: 13!
T: What number sentence did you use to show that?
S: 10 + 3 = 13.
T: Yes that is how I think of it when I’m putting parts together. When I’m taking them apart I say it this way, 13 = 10 + 3. Talk to your partner about why you think I do that.
S: One way starts with the big number. → When we put the ducks and the pigs together we started with the parts. → Like with the animals we could see the parts really easily so we wrote those first, 10 + 3 = 13. → It’s different with the red papers. → Yeah, like with the red papers, we counted all the papers first and then separated them, 12 = 10 + 2. → Yeah, it was hard to see the groups because they were all the same color and in one line.
T: I showed the papers like this, 12 = 10 + 2 and the animals like this 10 + 3 = 13. Talk to your partner about why.
S: The papers were all one color so we had to find the 10 hiding so we started with counting all the papers. → Yeah, with the animals I counted the pigs first and then the geese.
T: So with the animals you thought about the parts first and the papers you thought about the total first?
S: Yeah.
Activity Worksheet (7 minutes)

Distribute worksheets to students. Read the stories to them as they work. Because this work sheet requires reading it is a good idea to group students by performance level so that you can tell the situations to the students in their small groups.

Student Debrief (8 minutes)

The following is a suggested list of questions to invite reflection and active processing of the total lesson experience. Use those that resonate for you as you consider what will best support your students’ ability to articulate the focus of the lesson.

Always have students check their work with a partner once they bring it to the carpet. Then possibly:

- Ask the students if they started drawing the parts first or the total first in the story of Robin’s apples? the toy trucks? the popcorn bags?
- Ask students to explain how their drawing relates to the number bond they wrote.
- Ask students to explain how the number sentence relates to the number bond and to the situation.
- Ask the students to show how they wrote the number sentence for each situation and whether they started the sentence with the parts or the total. Invite them to share their thinking about why they chose their particular number sentence.

Exit Ticket

After the Student Debrief, instruct students to complete the Exit Ticket. A quick review of their work will help you assess the students’ understanding of the concepts that were presented in the lesson today. Students have two minutes to complete the Exit Ticket. You may read the questions aloud to the students.
Lesson 23: Reason About and Represent Situations: Decompose Teen Numbers into 10 Ones and Some Ones; Compose 10 Ones and Some Ones into a Teen Number

Date: 2/4/13
Lesson 23: Reason About and Represent Situations: Decompose Teen Numbers into 10 Ones and Some Ones; Compose 10 Ones and Some Ones into a Teen Number
Lesson 23: Reason About and Represent Situations: Decompose Teen Numbers into 10 Ones and Some Ones; Compose 10 Ones and Some Ones into a Teen Number
Lesson 23: Reason About and Represent Situations: Decompose Teen Numbers into 10 Ones and Some Ones; Compose 10 Ones and Some Ones into a Teen Number

Date: 2/4/13

© 2012 Common Core, Inc. All rights reserved. commoncore.org
1. Robin saw 5 apples in a bag and 10 apples in a bowl. Draw a picture to show how many apples there are.

2. Write a number bond and an addition sentence to match your picture.

3. Sam has 13 toy trucks. Draw and show the trucks as 10 ones and some ones.

4. Write a number bond and an addition sentence to match your picture.
5. Our class has 16 bags of popcorn. Draw and show the popcorn bags as 10 ones and some ones.

6. Write a number bond and an addition sentence to match your picture.

5 + 11 = 16
Name ___________________________ Date ____________

1. There are 12 balls. Draw and show the balls as 10 ones and some ones.

2. Write a number bond about your picture.

3. Write an addition sentence that tells about your number bond.

_______  _______  _______
1. Bob bought 7 sprinkle donuts and 10 chocolate donuts. Draw and show all Bob's donuts.

2. Write an addition sentence that tells about the donuts.

3. Fill in the number bond that tells about the donuts.
4. Fran has 17 baseball cards. Show Fran’s baseball cards as 10 ones and some ones.

5. Write an addition sentence and a number bond that tell about the baseball cards.

[Diagram showing the number bond]
Lesson 24:
Culminating Task—Represent Teen Number Decompositions in Various Ways

Suggested Lesson Structure

- Fluency Practice (10 minutes)
- Concept Development (35 minutes)
- Student Debrief (5 minutes)
- Total Time (50 minutes)

Fluency Practice (10 minutes)

- Help the Frog Catch the Fly K.CC.4C (4 minutes)
- Number Bond Hopping Card Games K.CC.1 (6 minutes)

Help the Frog Catch the Fly (4 minutes)

T: (Project a pictorial growth chart 10–20 on the board. A fly is on the top step (20). A lilypad is on the bottom step (10). Hold a frog puppet (popsicle stick with a frog picture) on the 10. What number is froggy on now?)

S: 10.

T: Can you help froggy get the fly?

S: Yes.

T: Tell froggy what number is 1 more.

S: 1 more is 11.

T: (Make the frog puppet jump to the next stair.) It’s working! What number is he on now?

S: 11.

T: Tell him 1 more.

S: 11. 1 more is 12.

T: (Frog jumps)

Continue to 20.

Variations: 1 more/2 more. Froggy wants to go back home – 1 less/2 less. Consider adding a kinesthetic component—students crouch down or stand taller to reflect the number.

NOTES ON SCAFFOLDING ELLS:

For ELLs with developing language skills, provide the pictorial growth chart on individual sheets. Students can use their finger to trace the frog’s path to the next step. They can then see and say the number the frog is on.
Number Bond Hopping Card Game  (6 minutes)

Materials:  (S) Teen number and dot cards and record sheet. “Rabbit and Froggy’s Matching Race”

Complete directions for this game are located in the Homework component of this lesson.

Concept Development  (35 minutes)

Materials:  (S) 10 bags each with a different teen number of objects inside. Materials for each station:
- 2 hand cards, Hide Zero cards, personal Rekenrek, 10-frame cards, 20 centimeter cubes, 20 sticks,
- 20 beans, 1 small paper plate, 20 linker cubes, blank paper, number bond template, etc.

Introduction: 3 minutes
Creating exhibits: 32 minutes

Set Up

Unbeknownst to the students, station 1 has a bag with 11 cubes, station 2 has a bag with 12 cubes, up to a bag with 20 cubes at Station 10. Assign students with a partner who is more or less at the same performance level. Put higher level students at the stations with 16–20 cubes. Direct each pair of students to one of the stations.

T:  Open your mystery bag and count how many objects are inside. Show this number in different ways using the materials available to you at your station.
T:  You are going to create an exhibit showing your number in as many ways as you can.
T:  The ways you must show your number are include:
  - A number bond
  - Hide Zero cards
  - Rekenrek
  - Addition sentence
  - Linker cubes
T:  Once you have finished the “have to’s,” you can show other ways, too. You will have 20 minutes. At your table are different materials to help you. You do not have to use them all. You may also use paper and pencil.

This culminating lesson is a part of the kindergarten assessment system. As you circulate, use a recording sheet to document what each student does. What representations does the student choose? What skills are obvious? Which materials does he avoid? Which does he gravitate to immediately? What words is the student using when talking about his teen number.
Lesson 24: Culminating Task—Represent Teen Number Decompositions in Various Ways

Use a camera or your cell phone to take a picture of the students’ work for their portfolio.

T: (After 20 minutes) Now we are going to take a tour to see your friends’ creations. When I give the signal, move to the next station.

T: Think about what you are seeing at each station. Point to the different ways your friends have shown their number. Talk about each one. What makes it special? (Students spend a little less than 1 minute at each station.)

Student Debrief (5 minutes)

The following is a suggested list of questions to invite reflection and active processing of the total lesson experience. Use those that resonate for you as you consider what will best support your students’ ability to articulate the focus of the lesson.

- What are some different ways you saw the teen number represented?

- Which of these different ways do you feel helps you to understand your teen numbers the most? Why?

- How is a number bond different from and the same as an addition sentence?

- How is a pile of 10 sticks and some more sticks different and the same as the number shown with 10-frame cards?

- What did you notice as you went around the room? How did the exhibits vary?

Close the experience by letting the students know that by understanding their teen numbers, they will understand all the numbers better as they move on to Grade 1.

Exit Ticket

Rather than having an exit ticket for this lesson, the teacher is encouraged to record observations as students work with their partner as described at the closing of the concept development lesson.
Lesson 24: Culminating Task—Represent Teen Number Decompositions in Various Ways

Date: 2/4/13
Lesson 24: Culminating Task—Represent Teen Number Decompositions in Various Ways

Date: 2/4/13
Lesson 24: Culminating Task—Represent Teen Number Decompositions in Various Ways

Date: 2/4/13
Rabbit and Froggy’s Matching Race

**Directions:** Play “Rabbit and Froggy’s Matching Race” with a friend, relative or parent to help your animal reach its food first!

- Put your “Teen Number and Dot” cards face down in rows.
- Flip to find 2 cards that match.
- Write a number bond to match.
- Write a number sentence.

![Number Bonds and Dots](image)

```
10 11 12 13 14 15 16 17 18 19 20
```
Lesson 24: Culminating Task — Represent Teen Number Decompositions in Various Ways

Player 1: _______________________

Player 2: ____________________

10 11 12 13 14 15 16 17 18 19 20
Kindergarten Mid-Module 5 Assessment  (Administer after Topic C)

Kindergarten End-of-Module 5 Assessment  (Administer after Topic E)

Assessment time is not an interruption but rather a critically important component of a teacher’s relationship with students. It is especially important in the early grades to establish a positive, collaborative attitude when analyzing progress. Sit next to the student rather than opposite from him or her. Support the student to understand the benefits of sharing and examining their level of mastery.

Please use the specific language of the assessment and, when possible, translate for non-English speakers (this is a math rather than language assessment). If a student is unresponsive, give “wait time” of about 15 seconds for a response. Record the student’s results in two ways: 1) the narrative documentation after each set, and 2) the overall score per set using the “Progression Toward Mastery” Chart. Use a stopwatch to document the elapsed time for each response.

Students show their learning from Topics A, B, and C on the Mid-Module Assessment and show their learning from the final Topics D and E on the End-of-Module Assessment. In addition, the last lesson of the module, Lesson 24, is seen as a performance task wherein students can show the complexity of their learning, not practical in an individualized interview.

Each Topic’s assessment is comprised of 3-4 related questions. What the child did and said is documented in the narrative. Use the rubric for the overall score for each set. Furthermore, in each Kindergarten Module, the final lesson is a culminating task allowing the student to show his or her learning from the entire module. You are encouraged to include a record of the student’s work with the End-of-Module Assessment documentation (observation notes, photographs, work sample, etc.).

If the student is unable to perform any part of the set, his score cannot exceed “Step 3.” However, if the student is unable to use his words to “tell” what he did, do not count that against him quantitatively. If the student asks for or needs a hint or significant support, you may provide either, but the score is automatically lowered. This is in order to make sure that the assessment provides a true picture of what a student can do independently.

If a student scores at Step 1 or 2, repeat that task again at 2 week intervals, noting the date of the reassessment in the space at the top of the student’s record sheet. Document progress on this one form. If the student is very delayed in their response but completes it, you may want to reassess to see if there is a change in the “time elapsed.”

You might want to house the assessments in a three ring binder or student portfolio. You will have 10 assessments by the end of the year for each student. Modules 1, 3, 4, and 5 have two assessments each while Modules 2 and 6 only have one. Use the Class Record Sheet following the rubric for an “At-a-Glance” look at your students’ strengths and weaknesses.

The intention is that these assessments will prove valuable for daily planning, for parent conferences, and for the first grade teacher preparing to receive students.
Student Name _____________________________

**Topic A: Count 10 Ones and Some Ones**

Rubric Score __________ Time Elapsed __________

**Materials:** (S) 19 loose straws (or another set of objects in the classroom)

- T: Count 10 straws into a pile. Whisper while you count so I can hear you.
- T: Count 6 more straws into a different pile.
- T: Count 10 straws and 6 more straws the Say Ten way. (Pause.) How many straws do you have? (If the student says the number the Say Ten way, ask them to also say it the regular way.)

<table>
<thead>
<tr>
<th>What did the student do?</th>
<th>What did the student say?</th>
</tr>
</thead>
</table>

**Topic B: Compose Numbers 11–20 from 10 Ones and Some Ones; Represent and Write Teen Numbers**

Rubric Score __________ Time Elapsed __________

**Materials:** (S) 19 cubes, work mat, marker, Hide Zero cards

- T: (Show the numeral 13.) Move this many cubes onto your work mat.
- T: Use the Hide Zero cards to show the number of cubes on your work mat.
- T: Hand me the cubes that the ‘1’ is telling us about. (Point to the 1 of 13 on the numeral 13.)
- T: (Put 3 more cubes.) This is 16 cubes. Please write the number 16 on your work mat.

<table>
<thead>
<tr>
<th>What did the student do?</th>
<th>What did the student say?</th>
</tr>
</thead>
</table>
**Topic C: Decompose Numbers 11-20 and Count to Answer “How Many?” Questions in Varied Configurations**

Rubric Score ________  Time Elapsed ________

Materials: (S) 19 cubes

T:  (Set out 15 cubes in a scattered configuration.) Count 12 cubes into a straight line. (Pause.) How many cubes are there the counting the regular way? The Say Ten way?

T:  Move the cubes into 2 rows.
   a) How many cubes are there?  (Assessing for conservation.)
   b) Please show me how you count these cubes that are now in rows.

T:  Move the cubes into a circle.
   a) How many cubes are there?  (Assessing for conservation.)
   b) Please show me how to count these cubes that are now in a circle.

T:  Put one more cube in your circle. How many cubes do you have now?

<table>
<thead>
<tr>
<th>What did the student do?</th>
<th>What did the student say?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Mid-Module Assessment Task Standards Addressed

<table>
<thead>
<tr>
<th>Work with numbers 11-19 to gain foundations for place value.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>K.NBT.1</strong> 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...</td>
</tr>
</tbody>
</table>

**Know number names and the count sequence.**

| **K.CC.1** Count to 100 by ones and by tens. |
| **K.CC.2** Count forward beginning from a given number within the known sequence (instead of having to begin at 1). |
| **K.CC.3** Write numbers from 0 to 20. Represent a number of objects with a written numeral 0–20 (with 0 representing a count of no objects). |

**Count to tell the number of objects**

| **K.CC.4** Understand the relationship between numbers and quantities: connect counting to cardinality. |
| a. When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object. |
| b. Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted. |
| c. Understand that each successive number name refers to a quantity that is one larger. |
| **K.CC.5** Count to answer “how many?” questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1–20, count out that many objects. |

### Evaluating Student Learning Outcomes

A Progression Toward Mastery is provided to describe and quantify steps that illuminate the gradually increasing understandings that students develop on their way to proficiency. In this chart, this progress is presented from left (Step 1) to right (Step 4). The learning goal for each student is to achieve Step 4 mastery. These steps are meant to help teachers and students identify and celebrate what the student can do now while pointing the way toward what he or she needs to work on next.
<table>
<thead>
<tr>
<th>Assessment Task Item</th>
<th>STEP 1 Little evidence of reasoning without a correct answer.</th>
<th>STEP 2 Evidence of some reasoning without a correct answer.</th>
<th>STEP 3 Evidence of some reasoning with a correct answer or evidence of solid reasoning with an incorrect answer.</th>
<th>STEP 4 Evidence of solid reasoning with a correct answer.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Topic A</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>K.NBT.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>K.CC.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>K.CC.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>K.CC.4a-c</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>K.CC.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The student shows little evidence of counting ability or understanding. Almost non-responsive.</td>
<td>The student shows evidence of beginning to understand counting beyond 10, but counts the quantity incorrectly (i.e. lacks organization, consistent 1:1 correspondence, etc.).</td>
<td>The student correctly counts 10 straws into a pile, and then 6 straws, but is unable to count to 16.</td>
<td>The student correctly: ▪ Counts 10 straws into a pile, and then 6 straws. ▪ Counts from 1 to 16. ▪ Counts the Say Ten way starting with the group of 10, “...ten one, ten two, ten three, ten four...” all the way up to 16.</td>
<td></td>
</tr>
<tr>
<td><strong>Topic B</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>K.NBT.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>K.CC.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>K.CC.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>K.CC.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>K.CC.4a-c</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>K.CC.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The student shows little evidence of understanding how to represent a teen number and/or use Hide Zero cards. The student writes the number 16 incorrectly.</td>
<td>The student shows a beginning understanding of representing teen numbers, and using Hide Zero cards, but is unable to answer correctly. The student writes the number 16 incorrectly.</td>
<td>The student correctly counts 13 cubes, and accurately uses the Hide Zero cards, but produces an incorrect quantity to represent the “1” in 13. Or, the student identifies a group of 10 as representing the “1” in 13, but cannot use the Hide Zero cards accurately. The student writes the numeral 16 incorrectly.</td>
<td>The student correctly: ▪ Counts 13 cubes and selects both the 10 and 3 Hide Zero cards to accurately make 13. ▪ Identifies a group of 10 as being representative of the “1” in the numeral 13. ▪ Writes the numeral 16.</td>
<td></td>
</tr>
<tr>
<td>Assessment Task Item</td>
<td>STEP 1</td>
<td>STEP 2</td>
<td>STEP 3</td>
<td>STEP 4</td>
</tr>
<tr>
<td>----------------------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
</tr>
<tr>
<td></td>
<td>Little evidence of reasoning without a correct answer.</td>
<td>Evidence of some reasoning without a correct answer.</td>
<td>Evidence of some reasoning with a correct answer or evidence of solid reasoning with an incorrect answer.</td>
<td>Evidence of solid reasoning with a correct answer.</td>
</tr>
<tr>
<td></td>
<td>(1 point)</td>
<td>(2 points)</td>
<td>(3 points)</td>
<td>(4 points)</td>
</tr>
</tbody>
</table>

**Topic C**

- **K.CC.4c**
- **K.CC.5**
- **K.NBT.1**
- **K.CC.3**
- **K.CC.4a**

- The student shows little evidence of understanding how to make or count objects in arrays and circles.
- The student shows evidence of beginning to understand counting arrays and circles, but is unable to do so accurately and consistently.
- The student arranges and counts each array and circle correctly, but cannot add one more and identify the new quantity. The student recounts to know that it is 12. Or, the student adds one more and identifies the new quantity, but struggles with one or more of the counting array tasks.
- The student correctly:
  - Counts 12 cubes
  - Arranges and counts each array and circle correctly, but knows the total is 12 without recounting.
  - Arranges and counts in a circle and knows the total is 12 without recounting.
  - Adds 1 more to the quantity and determines the new quantity with or without recounting.
<table>
<thead>
<tr>
<th>Student Names</th>
<th>Topic A: Count 10 Ones and Some Ones</th>
<th>Topic B: Represent Teen Numbers as 10 Ones and Some Ones</th>
<th>Topic C: Decompose Numbers 11-20 by Showing, Counting, and Writing in Varied Configurations</th>
<th>Next Steps</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Student Name __________________________

Topic D: Extend the Say Ten and Regular Count Sequence to 100

Rubric Score _________ Time Elapsed __________

Materials: (T) Ten 10-frame cards representing 10

Set out the ten 10-frame cards.

T: (Set out two 10-frame cards.) How many dots are on these cards? Touch and count each dot the regular way. Whisper while you count so I can hear you.

T: Please count the dots from 11 to 20 the Say Ten way.

T: Please count by 10s to 100 the Say Ten way.

T: Please count by 10s to 100 the regular way.

T: Start at 28. Count up by 1s and stop at 32 the regular way. (If the student is unable to this, try 8 through 12, then 18 through 22.)

<table>
<thead>
<tr>
<th>Date 1</th>
<th>Date 2</th>
<th>Date 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Topic D</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Topic E</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

What did the student do?  What did the student say?
Topic E: Represent and Apply Compositions and Decompositions of Teen Numbers

Rubric Score ___________ Time Elapsed ___________

Materials: (S) 17 centimeter cubes, 8 ½ x 11” number bond template in personal board, dry erase marker, and eraser

T: (Set out 17 cubes.) How many cubes are there? (Note the arrangement in which the student counted. If the student did not arrange into a straight line or array, do so for the student.)

T: Separate 10 cubes into a group.

T: Write 17 as a number bond on your personal board using 10 ones as one of the parts. (Be sure to have students write the numerals.)

T: (Write 17 = _____ + ______.) Make an addition sentence to match your number bond.

T: How are your number bond and your the addition sentence the same?

<table>
<thead>
<tr>
<th>What did the student do?</th>
<th>What did the student say?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## End-Module Assessment Task

### Standards Addressed

#### Know number names and the count sequence.

**K.CC.1** Count to 100 by ones and by tens.

**K.CC.2** Count forward beginning from a given number within the known sequence (instead of having to begin at 1).

**K.CC.3** Write numbers from 0 to 20. Represent a number of objects with a written numeral 0–20 (with 0 representing a count of no objects).

#### Count to tell the number of objects.

**K.CC.4** Understand the relationship between numbers and quantities: connect counting to cardinality.

a. When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object.

b. Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted.

c. Understand that each successive number name refers to a quantity that is one larger.

**K.CC.5** Count to answer “how many?” questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1–20, count out that many objects.

#### Work with numbers 11-19 to gain foundations for place value.

**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 (such as 18 = 10 +8); understand that these numbers are composed of ten ones, and one, two, three, four, five, six, seven, eight, or nine ones.

## Evaluating Student Learning Outcomes

A Progression Toward Mastery is provided to describe and quantify steps that illuminate the gradually increasing understandings that students develop on their way to proficiency. In this chart, this progress is presented from left (Step 1) to right (Step 4). The learning goal for each student is to achieve Step 4 mastery. These steps are meant to help teachers and students identify and celebrate what the student can do now while pointing the way toward what he or she needs to work on next.
# A Progression Toward Mastery

<table>
<thead>
<tr>
<th>Assessment Task Item</th>
<th>STEP 1</th>
<th>STEP 2</th>
<th>STEP 3</th>
<th>STEP 4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>STEP 1</strong> Little evidence of reasoning without a correct answer. (1 point)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>STEP 2</strong> Evidence of some reasoning without a correct answer. (2 points)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>STEP 3</strong> Evidence of some reasoning with a correct answer or evidence of solid reasoning with an incorrect answer. (3 points)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>STEP 4</strong> Evidence of solid reasoning with a correct answer. (4 points)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Topic D

| **K.CC.1** | The student shows little evidence of counting ability or understanding. |
| **K.CC.2** | |
| **K.NBT.1** | |
| **K.CC.3** | |
| **K.CC.4 a-c** | |
| **K.CC.5** | |

## Topic E

| **K.NBT.1** | The student shows little evidence of understanding of organized counting, teen numbers, number bonds, and/or addition sentences. |
| **K.CC.5** | |
| **K.CC.1** | |
| **K.CC.2** | |
| **K.CC.3** | |
| **K.CC.4a-c** | |

## Topic E

| **K.NBT.1** | The student shows little evidence of understanding of organized counting, teen numbers, number bonds, and/or addition sentences. |
| **K.CC.5** | |
| **K.CC.1** | |
| **K.CC.2** | |
| **K.CC.3** | |
| **K.CC.4a-c** | |

## Topic E

| **K.NBT.1** | The student shows a beginning understanding of counting into an array or line, representing teen numbers as number bonds and/or addition sentences, but answers inaccurately. |
| **K.CC.5** | |
| **K.CC.1** | |
| **K.CC.2** | |
| **K.CC.3** | |
| **K.CC.4a-c** | |

## Topic E

| **K.NBT.1** | The student correctly counts 17 cubes into an array or line, writes the number bond for 17, but cannot write an accurate equation. |
| **K.CC.5** | |
| **K.CC.1** | |
| **K.CC.2** | |
| **K.CC.3** | |
| **K.CC.4a-c** | |

## Topic E

| **K.NBT.1** | The student correctly counts 17 cubes into an array or line. |
| **K.CC.5** | |
| **K.CC.1** | |
| **K.CC.2** | |
| **K.CC.3** | |
| **K.CC.4a-c** | |

## Topic E

| **K.NBT.1** | The student correctly counts 17 cubes into an array or line. |
| **K.CC.5** | |
| **K.CC.1** | |
| **K.CC.2** | |
| **K.CC.3** | |
| **K.CC.4a-c** | |

## Topic E

| **K.NBT.1** | The student correctly counts 17 cubes into an array or line. |
| **K.CC.5** | |
| **K.CC.1** | |
| **K.CC.2** | |
| **K.CC.3** | |
| **K.CC.4a-c** | |

## Topic E

| **K.NBT.1** | The student correctly counts 17 cubes into an array or line. |
| **K.CC.5** | |
| **K.CC.1** | |
| **K.CC.2** | |
| **K.CC.3** | |
| **K.CC.4a-c** | |

## Topic E

| **K.NBT.1** | The student correctly counts 17 cubes into an array or line. |
| **K.CC.5** | |
| **K.CC.1** | |
| **K.CC.2** | |
| **K.CC.3** | |
| **K.CC.4a-c** | |

## Topic E

| **K.NBT.1** | The student correctly counts 17 cubes into an array or line. |
| **K.CC.5** | |
| **K.CC.1** | |
| **K.CC.2** | |
| **K.CC.3** | |
| **K.CC.4a-c** | |

## Topic E

| **K.NBT.1** | The student correctly counts 17 cubes into an array or line. |
| **K.CC.5** | |
| **K.CC.1** | |
| **K.CC.2** | |
| **K.CC.3** | |
| **K.CC.4a-c** | |

## Topic E

| **K.NBT.1** | The student correctly counts 17 cubes into an array or line. |
| **K.CC.5** | |
| **K.CC.1** | |
| **K.CC.2** | |
| **K.CC.3** | |
| **K.CC.4a-c** | |

## Topic E

| **K.NBT.1** | The student correctly counts 17 cubes into an array or line. |
| **K.CC.5** | |
| **K.CC.1** | |
| **K.CC.2** | |
| **K.CC.3** | |
| **K.CC.4a-c** | |

## Topic E

| **K.NBT.1** | The student correctly counts 17 cubes into an array or line. |
| **K.CC.5** | |
| **K.CC.1** | |
| **K.CC.2** | |
| **K.CC.3** | |
| **K.CC.4a-c** | |

## Topic E

| **K.NBT.1** | The student correctly counts 17 cubes into an array or line. |
| **K.CC.5** | |
| **K.CC.1** | |
| **K.CC.2** | |
| **K.CC.3** | |
| **K.CC.4a-c** | |

## Topic E

<p>| <strong>K.NBT.1</strong> | The student correctly counts 17 cubes into an array or line. |
| <strong>K.CC.5</strong> | |
| <strong>K.CC.1</strong> | |
| <strong>K.CC.2</strong> | |
| <strong>K.CC.3</strong> | |
| <strong>K.CC.4a-c</strong> | |</p>
<table>
<thead>
<tr>
<th>Student Names:</th>
<th>Topic D: Count by Tens and Ones up to 100</th>
<th>Topic E: Decompose Teen Numbers and Solve “How Many” Questions</th>
<th>Next Steps:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>