CCC:	K.NO.1a2	Rote count up to 31
Strand: Number Operations (Real Numbers)	**Family:** Counting and Representing Numbers	
Progress Indicator: E.NO.1a showing mastery of the prerequisite core skills of cardinality, constancy, and 1:1 correspondence		
CCSS: K.CC.1 Count to 100 by ones and by tens.		

Essential Understandings	Concrete Understandings:	Representation:
	• Students understand that counting has cardinality in the numbers	• Begin with counting 1 to 5 (or the highest number a student can count to) and increase by adding 2-3 numbers at a time. • Once student has mastered rote counting to 30, teach counting by 10's to 100

Instructional Strategies:

- Model, lead , test
- Teach in small increments, recommend adding 2-3 numbers at a time (no more than 5), starting with the number 1
- If student misses a number, teacher stops student, and models by saying four numbers, starting with two numbers before the missed number, has student try to say this section of numbers, and then has student start again from number 1 (Stein, Kinder, Silbert, & Carnine, 2006)
- Teach using a song or tune
- Response shaping (e.g., Teach "1,2,3,go!"; then "1,2,3,4 out the door!"; then "1,2,3,4,5, let's slide!"; Sadler, 2009)

Supports and Scaffolds:

- Assistive technology (voice output)
- Auditory cues (snap, clap…)
- Response cards

CCC:	K.NO.1b2	Identify the set that has more

Strand: Number Operations (Real Numbers)	**Family:** Relationships among Numbers

Progress Indicator: E.NO.1b developing an understanding of number and principles of quantity (e.g., hold up 5 fingers at once to show 5, locate things in 2s without counting; using number words to indicate small exact numbers or relative change in quantity - more, small)

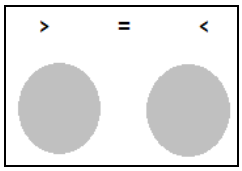
CCSS: K.CC.4 Understand the relationship between numbers and quantities; connect counting to cardinality.
c) Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted.

Essential Understandings	Concrete Understandings:	Representation:
	• Understanding the meaning of more, less or equal (the same) • Understand that as counting increases, the number represented increases	• Students can distinguish which numbers represent more than others.

Instructional Strategies:

- Example, non-example training (e.g., this is greater, this is greater, this is greater, this is not greater)
- Task analysis
  - Count each set
  - Compare the number of items in each set using a number line
  - State/record the higher number

Supports and Scaffolds:



- Manipulatives to place in sets to compare numbers
- SMARTBoard technology
- Assistive technology
- Template or jig to place manipulatives in
- Number line with numbers written in increasing size (gradually fade this support away so students eventually use regular number line)
- Regular number line
- Hundreds Chart

CCC:	1.NO.1a7	Count forward beginning from any given number below 10
Strand: Number Operations (Real Numbers)	**Family:** Counting and Representing Numbers	
Progress Indicator: E.NO.1a showing mastery of the prerequisite core skills of cardinality, constancy, and 1:1 correspondence		
CCSS: K.CC.2 Count forward beginning from a given number within the known sequence (instead of having to begin at 1).		

Essential Understandings	Concrete Understandings:	Representation:
	• Can rote count • Understand Cardinality	• Counting from _ to _ , not always starting with 1.

Instructional Strategies:

- Model counting forward
- Teach using a song or tune
- Teach in frequent and short drills
- If student misses a number, teacher stops student, and models by saying four numbers, starting with two numbers before the missed number, has student try to say this section of numbers, and then has student start again from number 1 (Stein, Kinder, Silbert, & Carnine, 2006)
- Use counters. Give student 10 counters, line up counters. Have students count 3 counters and cover them with their left hand. Ask how many are under the hand, if needed teacher can say "three". Teacher says "Count like this: three (pointing to the student's hand), four, five… Repeat with other numbers under the hand."
- Teach nonverbal students to "count in their head" and make a movement with each number

Supports and Scaffolds:

- When initially teaching, begin with numbers in the middle of the 'decade' of numbers, so the student doesn't have to start all the way at 1, and doesn't have only 1-2 numbers left in the decade (e.g., when asking a student to count to 33, start with 25, 26, or 27 rather than 21 or 28,29; Stein, Kinder, Silbert, & Carnine, 2006)
- Assistive technology (voice output)
- Number line
- Manipulatives for counting

CCC:	1.NO.1h2	**Identify the value of the numbers in the tens and ones place within a given number up to 31.**

Strand: Number Operations (Real Numbers)	**Family: Understanding the Base Ten Number System**

Progress Indicator: E.NO.1h applying place value understanding to compare and order numbers, express number relationships (<, >, =), and express numbers in expanded form

CCSS: 1.NBT.2 Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases:

a) 10 can be thought of as a bundle of ten ones – called a "ten".

b) The numbers from 11 to 19 are composed of a ten and one, two, three four, five, six seven, eight, or nine ones.

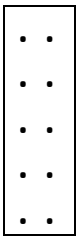
Essential Understandings	**Concrete Understandings:**	**Representation:**
	• Able to count past 10 • Able to create a set of 10 from a quantity larger than 10	• Able to recognize a set of 10 as 10 without counting

Instructional Strategies:

- Visual representation, such as a straw activity. Use a pocket chart with 10's and 1's pockets. Put a specified number of straws in the 1's pocket (e.g., 22). Have students count out 10 straws and then bundle with a rubberband and place in the 10's. For 22, students should bundle two sets of 10 and place in 10's pocket and have 2 straws left in 1's pocket.
- Task analysis
  - Place number on graphic organizer so that the numbers are in the correct columns
  - Match the number in the ones column to the representations
  - Match the number in the tens column to the representation

Supports and Scaffolds:

- Computer software
- Cuisenaire® Rods
- Place value mat or pocket chart with a column for tens and a column for ones
- Provide cards with sets of tens and sets of ones that can be used to represent the values of tens and ones



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CCC:	1.NO.1c1	Use a number line to count up to 31 objects by matching 1 object per number

Strand: Number Operations (Real Numbers)	**Family:** Relationships among Numbers

Progress Indicator: E.NO.1c developing number line skills (linear representations) using 0 to 20, and later 0 to 100

CCSS: 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.

Essential Understandings	Concrete Understandings:	Representation:
	• One to one correspondence	• Ability to physically count objects

Instructional Strategies:

- Teach using model, lead, test if student will be touching numbers and counting
- Teach using a system of least prompts if student will count objects

Supports and Scaffolds:

- SMARTBoard technology
- A number line with a picture representation for each object to be counted, will only require the student to match
- A number line with a raised dots paired with each number
- Provide a number line composed of raised cells

1	2	3	4	5	6	7	8	9	10	11	12

CCC:	2.NO.1e3	Write or select the numerals 0-100
Strand: Number Operations (Real Numbers)	**Family:** Counting and Representing Numbers	
Progress Indicator: E.NO.1e reading and writing numbers; counting and estimating (e.g., how many?; skip counting by 2s, 5s, 10s; even/odd)		
CCSS: 2.NBT.3 Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.		

Essential Understandings	Concrete Understandings:	Representation:
	• Reading numbers not based on sequence	• Student can write or select a given number without counting to it.

Instructional Strategies:

- Teach students to read numbers using time delay. It is recommended that you not teach numbers 1-10 in sequential order in order to separate similar looking (6,9 and 0,1,10) and similar-sounding (4,5) numbers. One suggested order is 4,2,6,1,7,3,0,8,5,9,10 (Stein, Kinder, Silbert, & Carnine, 2006).
- Teach students to write numerals graduated guidance
- Provide opportunities to become independent through the use of worksheets

Supports and Scaffolds:

- Students should be taught to read and write numbers in increments (1-10 first, the teens second: 11-20, and then 20-99). Also, students should be able to read numbers fluently before learning to write them (Stein et al., 2006).
- Use blocks or Cuisenaire® rods and place value chart to reinforce concept of place value
- SMARTBoard technology
- Computer software
- Strip of Velcroed numbers
- Worksheet with traceable numbers
- Stencils

CCC:	2.NO.1h9	**Write or select expanded form for any 3 digit number**
Strand: Number Operations (Real Numbers)	**Family:** Perform Operations	

Progress Indicator: E.NO.1h applying place value understanding to compare and order numbers, express number relationships (<, >, =), and express numbers in expanded form

CCSS: 2.NBT.3 Read and write numbers to 1000 using base-ten numerals, number names, and expanded form

Essential Understandings	**Concrete Understandings:**	**Representation:**
	• Numbers are read from left to right • Place value • Expanded notation	• 357= 300 + 50 + 7

Instructional Strategies:

- Model writing expanded form
- Provide worksheets for increased independence
- Provide multiple examples of 3 digit numbers paired with their expanded form

Supports and Scaffolds:

- Computer software
- Place value mat with a column for hundreds, tens and ones

Hundreds	Tens	Ones

- Graphic organizer that provides the correct number of "0s"

549 = _00 +_0 + _

- Computer software

CCC:	**2.NO.1h7**	**Compare 3 digit numbers using representations and numbers (e.g., identify more hundreds, less hundreds, more tens, less tens, more ones, less ones, larger number, smaller number)**

Strand: Number Operations (Real Numbers)	**Family: Relationships among Numbers**

Progress Indicator: E.NO.1h applying place value understanding to compare and order numbers, express number relationships (<, >, =), and express numbers in expanded form

CCSS: 2.NBT.4 Compare two three-digit numbers based on meanings if the hundreds, tens, and ones digits, using >, =, and < symbols to record the results of comparisons.

Essential Understandings	**Concrete Understandings:** • Identify sets as "more/less" when compared to other sets • Comparing based on place value	**Representation:** • Identify and use symbols for <, >, =

Instructional Strategies:

- Task analysis
  - Place numbers on graphic organizer so that the numbers are in the correct columns
  - Identify number in specified column for first 3 digit number (e.g., tens column for 1st number)
  - Mark on number line
  - Identify number in specified column for second 3 digit number (e.g., tens column for 2nd number)
  - Mark on number line
  - Use number line to determine which is more or less
  - Choose symbol
  - Record answer
- Model comparing 3 digit numbers

Supports and Scaffolds:

- Be sure to avoid using numbers that have a "0" in the tens place first. This is more difficult because the student says nothing for the "0" (e.g., 405 is read "four hundred five" [do not use the word "and" when reading hundreds], so students must learn that a "0" goes in the tens column).
- Number line
- A number line with a raised dots paired with each number
- SMARTBoard technology
- Computer software