ALL LEARNERS NETWORK

Number

Kindergarten HLC

Understanding of number values and sequences to 20 *(counting, cardinality, and stable order)*
1:1 Correspondence   Comparing quantities

September ⟶ **Kindergarten Learning Progressions** ⟶ June

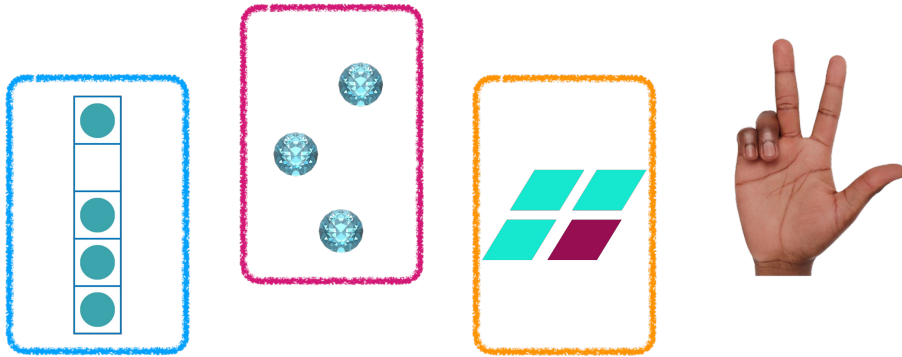Students must use models to build understanding of the HLC and interact with a variety of contexts.

Rote Oral Count Sequence

Counts Forward (FWD) from 1 to 5	Counts FWD from 1 to 10	Counts FWD from 1 to 20	Counts FWD within the range 1-20 starting at any number
one, two, three, four, five	one, two, three, four, five, six, seven, eight, nine, ten	one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, twenty	**Examples only:** three, four, five, six, seven, eight, nine eight, nine, ten, eleven, twelve, thirteen, fourteen, fifteen fifteen, sixteen, seventeen, eighteen, nineteen, twenty

Counts Backward (BWD) from 3	Counts BWD from 5	Counts BWD from 10	Counts BWD from 20	Counts BWD within the range 1-20, starting at any number
three, two, one	five, four, three, two, one	ten, nine, eight, seven, six, five, four, three, two, one	twenty, nineteen, eighteen, seventeen, sixteen, fifteen, fourteen, thirteen, twelve, eleven, ten, nine, eight, seven, six, five, four, three, two, one	**Examples only:** eleven, ten, nine, eight, seven twenty, nineteen, eighteen, seventeen, sixteen seventeen, sixteen, fifteen, fourteen, thirteen

Subitizing *(immediate recognition of quantity - five and ten frames, fingers, regular dot patterns, irregular dot patterns)*
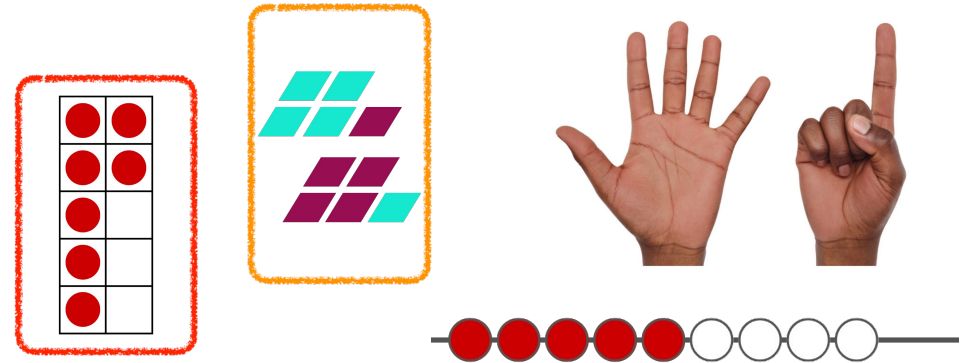
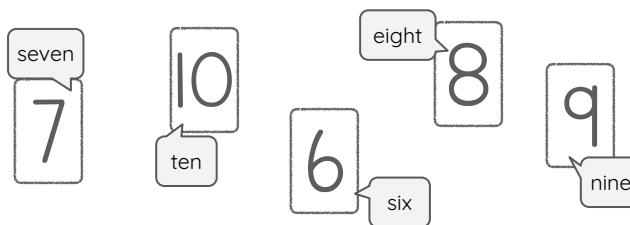| **Perceptually** subitizes within 5 *(Immediate recognition of quantity)*	**Conceptually** subitizes within 10 *(Quickly compose greater quantities by "seeing" and combining smaller parts - part/part/whole and/or decomposing/composing)*
__Examples__ of quick images to support perceptual subitizing	*__Examples__ of quick images to support conceptual subitizing*

Symbolic Notation
Reversals in numeral formation are expected at this developmental stage, but transpositions (eg., 71 for 17) are an indicator of a misconception and may interfere with representing quantities.
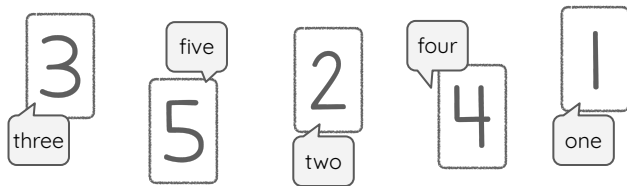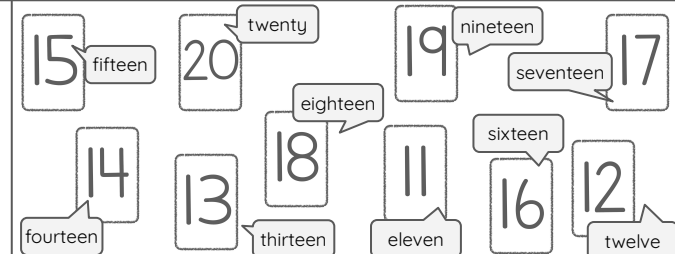
Identifies numerals within 5	Identifies numerals within 10	Identifies numerals within 20

Writes numerals within 5	Writes numerals within 10	Writes numerals within 20

Count Objects to Determine Cardinality *(cardinality demonstrates understanding that the last number in the count is the quantity)*

Students are given amounts of discrete objects to determine the total quantity. All of the skills noted below are observable during a Counting Collection. Each understanding might develop at different times for each number range.

Counts objects within 5	Counts objects within 10	Counts objects within 20

**The following understandings develop at different times for each number range**:

-1:1 correspondence (*each item gets one count*)
-Organizing (*keep track of what's been counted and what still needs to be counted without prompting*)
-Tracking methods (*the actual gesture of touching and counting*)
-Stable order (*correct number word sequence*)
-Cardinality (*last number in the count is the quantity*)
-Conservation of number (*quantity is the same regardless of arrangement - ex: objects lined up, then spread out, organized by 10 or not organized*)
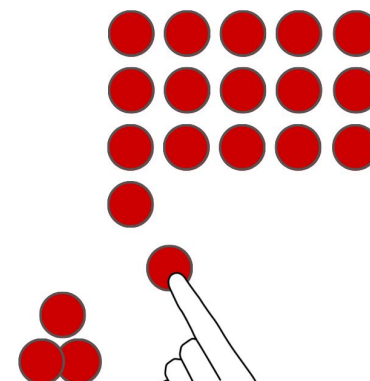
***Examples** of counting collections*

one, two, three, four, **five**

There are **five** dots.
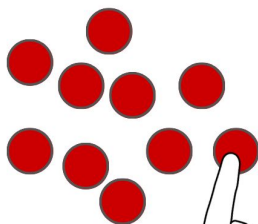
one, two, three, four, five, six, seven, eight, nine, **ten**
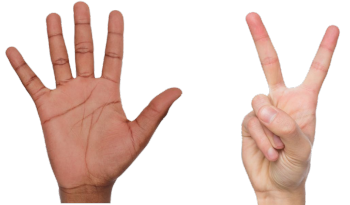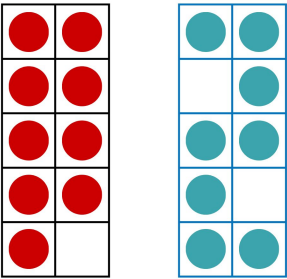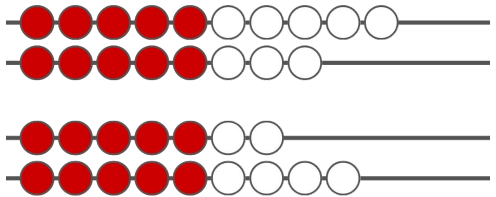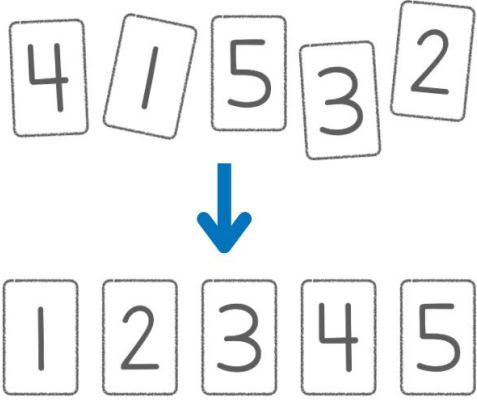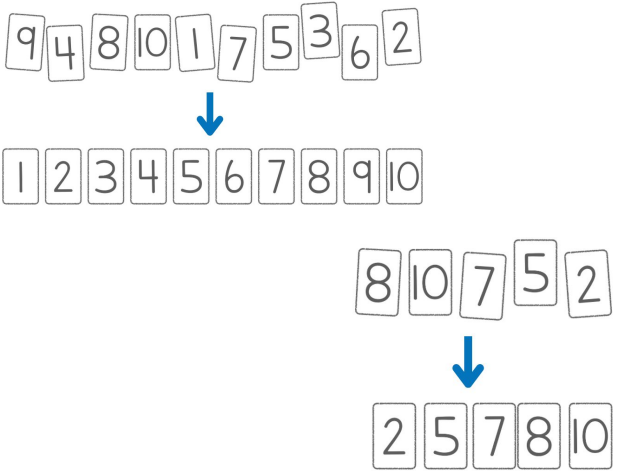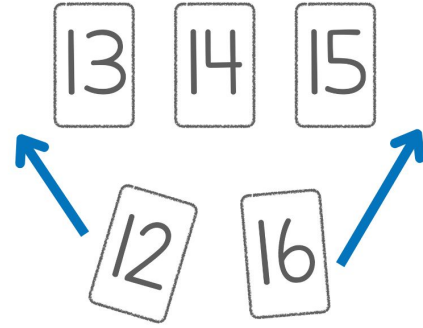
There are **ten** dots.

one, two, three, four, five,
six, seven, eight, nine, ten,
eleven, twelve, thirteen, fourteen, fifteen,
sixteen, seventeen, eighteen, nineteen, **twenty**

There are **twenty** dots.

ALL LEARNERS NETWORK

Ordering & Magnitude

For various quantities, students may compare by subitizing, matching (1:1) lining items up, or counting quantities. This concept is also impacted by conservation of number - consistent count regardless of orientation ("*It is still 4, the cubes are just spread out*").

Compares quantities within 5	Compares quantities within 10	Compares quantities within 20
Five fingers are more than two fingers. 5 is greater than 2. 2 is less than 5. Two fingers are fewer than five fingers.	Nine dots are more than eight dots. 9 is greater than 8. 8 is less than 9. Eight dots are fewer than nine dots.	Eighteen beads are more than sixteen beads. 18 is greater than 16. Sixteen beads are fewer than eighteen beads. 16 is less than 18.

Orders numerals 1-5	Orders numerals 1-10 (sequential or nonsequential)	Orders numerals 1-20 (sequential)
4 1 5 3 2 → 1 2 3 4 5	9 4 8 10 1 7 5 3 6 2 → 1 2 3 4 5 6 7 8 9 10 ; 8 10 7 5 2 → 2 5 7 8 10	13 14 15 12 16