Unit B - *Five and Ten, Do It Again!*

Overview

Students continue to develop the concepts addressed in the first unit related to counting, instant recognition of numbers, number sequence, one-to-one correspondence, and cardinality. The question of "how many?" begins to shift to "which is more and which is less?" Student activities focus on promoting flexible ways of representing and recognizing quantities, not memorizing combinations.

In this unit, students visually represent numbers by using five frames, ten frames, number racks, standard finger patterns, and tallies. They find and recognize combinations of numbers that make 5, recognize and compare quantities within 10, and begin simple addition and subtraction.

21st Century Capacities: Synthesizing

Stage 1 - Desired Results

ESTABLISHED GOALS/ STANDARDS

MP 4 Model with Mathematics.
MP 7 Look for and make use of structure.

Know number names and the count sequence.
CCSS.MATH.CONTENT.K.CC.A.1 Count to 100 by ones and by tens.
CCSS.MATH.CONTENT.K.CC.A.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).
CCSS.MATH.CONTENT.K.CC.B.4 Understand the relationship between numbers and quantities; connect counting to cardinality.
CCSS.MATH.CONTENT.K.CC.B.4.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

Transfer:

Students will be able to independently use their learning in new situations to...

1. Build models in order to visualize, compose or decompose quantities. (Synthesizing)

Meaning:

UNDERSTANDINGS: *Students will understand that…*	ESSENTIAL QUESTIONS: *Students will explore & address these recurring questions:*
1. there's a specific order and structure to our number system; 2. there are flexible ways of representing and recognizing quantities; 3. a single quantity can be composed or decomposed.	A. How can I show my thinking using numbers/objects? B. What is the pattern here? (e.g., repeating digits, place value, counting) C. How can this number be broken into smaller parts? How can these numbers be put together?

and only one object. CCSS.MATH.CONTENT.K.CC.B.4.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. CCSS.MATH.CONTENT.K.CC.B.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. CCSS.MATH.CONTENT.K.CC.C.6 Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies.[1] CCSS.MATH.CONTENT.K.OA.A.1 Represent addition and subtraction with objects, fingers, mental images, drawings[1], sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations. CCSS.MATH.CONTENT.K.OA.A.3 Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation (e.g., $5 = 2 + 3$ and $5 = 4 + 1$). CCSS.MATH.CONTENT.K.OA.A.4 For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation. CCSS.MATH.CONTENT.K.MD.B.3 Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.[1]	*Acquisition:*	
	Students will know…	*Students will be skilled at…*
	1. the order of the counting sequence; 2. quantities can be compared; 3. the equal sign means is the same or has the same value as; 4. how to combine quantities to make 5 or 10; 5. Vocabulary: different, five/ten-frame, in all, same, different, tally, problem, backward, forward, strategies	1. finding combinations of 5 or 10; 2. comparing quantities less than 10 to determine which has more or less; 3. seeing numbers in groups and subitizing; 4. matching quantities with numerals; 5. counting to 20 by 1s; 6. counting backward from any number in the range 10-1; 7. counting a set of up to ten objects showing cardinality; 8. adding and subtracting 1 to a given quantity.