Core Content

Cluster Title: Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.
Standard 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.
MASTERY Patterns of Reasoning:

Conceptual:
        Students will understand how to use drawings to make 10 when given a smaller number.
        Students will understand how to use equations to make 10 when given a smaller number.
 	
Procedural:
        Students can add on to make 10 starting from a given number by using objects.
        Students can add on to make 10 starting from a given number by using drawings.
        Students can add on to make 10 starting from a given number by using equations.
 	
Representational:
        Students can model adding on to make 10 by drawing or writing an equation.

Supports for Teachers

Critical Background Knowledge

Conceptual:
        Students will understand how to count forward beginning from a given number within the known sequence (K. CC2).
        When counting objects, students will understand that each successive number name refers to a quantity one larger (K. CC4).
        Students will understand how to decompose numbers less than 10 into number pairs (K. OA3).
 	
Procedural:
        Students can count forward from a given number instead of beginning at 1.

Code: K.OA.4

Domain: Operations and Algebraic Thinking   Grade: K

> Students can decompose numbers less than 10 into number pairs using objects, drawings, and or equations.
> Students can rote count up to 10 starting at a number other than 1.

Representational:
> Students can represent the decomposition of numbers less than 10 into number pairs using objects, drawings, and or equations.

Academic Vocabulary and Notation

in, add, addend, addition, equal to, equation, expression, subtract, sum, difference, plus, minus, separate, combine, put together, total, take away, compare, take apart

Instructional Strategies Used	Resources Used
Teacher distributes ten frames and two-sided counters to students. Teacher will model how to find the missing addend using the ten-frame. For example: Teacher will ask students to place six counters of one color on the ten frame. Then students will count to find how many are missing to get to the number 10. Students will be given a ten unit and ten unit blocks from a base 10 unit (subtraction bar model). Using the 10 unit as a base, students will build a given number adjacent to the 10 unit. Students will use the comparison model to determine the partner addend. Using ten-frame cards, student will play "Go Fish" (e.g., "I have an eight, I need a two. Do you have a two?").	Crews, Donald. *Ten Black Dots.* Greenwillow Books, 2010. Duke, Kate. *One Guinea Pig Is Not Enough.* Puffin, 2001. Sturges, Philemon. *Ten Flashing Fireflies.* North-South/Night Sky Books, 1997. <u>Music:</u> (Do an Internet search for these composers if you are interested in music for this standard.) Dr. Jean Shari Sloane Jack Hartman Raffi

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Assessment Tasks Used	
Skill-Based Task: Students have ten beans, with the sides of the beans colored different colors. Students will shake and spill the beans. They will count how many beans they have of one color and record their answers on using a worksheet with ten circles. Then they will count how many beans they have of another color and then record their answers on the worksheet. Examples for assessment: 1. Students draw the number of colored circles they have using an equation. For example: ***** **+** ***** **=** ********** 2. Students write the equation using numerals. $5 + 5 = 10$	**Problem Task:** Students choose a number from 0-9 and then, using a ten frame, draw circles or write how many more they need to get to 10. Repeat the activity for a total of four work samples.

Code: K.OA.4