PRACTICE TASK: A DAY AT THE BEACH

Approximately 1-2 Days

STANDARDS FOR MATHEMATICAL CONTENT

MCCK.OA.1 Represent addition and subtraction with objects, fingers, mental images, drawings[1], sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.

MCCK.OA.2 Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.

MCCK.OA.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).

MCCK.OA.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.

MCCK.OA.5 Fluently add and subtract within 5

STANDARDS FOR MATHEMATICAL PRACTICE

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

BACKGROUND KNOWLEDGE

Reading and writing the combinations serve as a means of encouraging reflective thought focused on part-whole relationships. Writing can be done in the form of drawings, numbers written in the blanks (____ and ____), or addition equations. There is a clear connection between part-part-whole concepts and addition and subtraction ideas.

ESSENTIAL QUESTIONS

- Can patterns be found in numbers?
- Can you describe the patterns you find?

- Are some patterns the same?
- How are the number patterns different?
- How can I prove that groups are equal?
- What is a number relationship? How can number relationships help me?
- What is a pattern and where can you find patterns?
- What is a strategy?
- Why do we use mathematical symbols?
- Why is it important that I can build the number combinations for the number 5? 10?

MATERIALS

- *One Is a Snail, Ten Is a Crab,* by April Pulley Sayre and Jeff Sayre, or similar book
- Recording sheet
- Accessible manipulatives

GROUPING

Whole group/Individual

TASK DESCRIPTION, DEVELOPMENT AND DISCUSSION

Part I
Gather the students together to read *One is a Snail, Ten is a Crab,* by April Pulley Sayre and Jeff Sayre. As you read the story, chart the different quantities of feet on each creature.

Part II
Using the chart created in Part I, allow students to explore the different combinations of creatures to find numbers to ten. Have the students record their findings on the recording sheet. Gather students together to chart all of their combinations to ten, finding all of the different combinations to ten.

Part III
Group the students in pairs to play the *A Day At The Beach* riddle game. Have player one describe a number by only naming the creatures. Player two then finds the total number of legs possible by listening to the names of the different types of creatures.

FORMATIVE ASSESSMENT QUESTIONS

- Are there any more was to decompose the number 10? How do you know?
- Why did you decide to do it this way?
- Are you sure that you have found them all? Why do you think so? How do you know?
- Did you develop a shortcut to find your answers?
- Did you identify any patterns or rules? Explain!

- What is the most/fewest amount of creatures that could be on the beach?

DIFFERENTIATION

Extension

- Have students create several different combinations of creatures to represent a specific number.

Intervention

- Print out pictures for the students to use and manipulate to find the correct combination of creatures.

A Day at the Beach

There were 10 feet at the beach. What creatures could have been at the beach? Show your thinking using numerals, pictures, and words.