Lesson Plan July 16, 2019

Array Models in Multiplication

Third Grade Math 25 minutes Standard: 3.OA.A.1

Key Learning Objectives

Students will be able to understand the basic concept of multiplication and solve multiplication equations using array models. Students will interpret products of whole numbers, e.g. 5x7 as the whole number of objects in 5 groups of 7 objects each.

Materials

* Whiteboard & markers (teacher)
* Blue Blocks for each student
* Array worksheet

Introduction

* “An array is arranging objects in rows and columns, with the same number of objects in each.”
* Give an example of a multiplication word problem that can be solved using array models.
* Garden example: I LOVE to garden, in fact, I’m working on one right now! Who like to plant flowers or vegetables?
* Let’s say that I want to plant four rows of flowers, with three flowers in each row. How could I figure out how many total flower seeds I will need to plant?
* Draw out the array on the board
* “Today you are going to learn about multiplication as well as how to solve multiplication equations using these array models.”

Teacher Modeling

* Draw an array with 2 by 3 cubes and show it to the class.
* Ask students to identify how many rows, along with how many cubes in each row.
* “Any idea how to figure out the total number of cubes in this array?”
* Let students think about it
* Multiplying rows by columns is the quickest way to find the answer. (2x3) = 6.
* “The answer to a multiplication problem is called the **product**.”

Guided Practice

* All together with blocks
* 2 by 4
* Discuss process

1. What multiplication equation can I write for this array?
2. How do you know?
3. What is the **product** of 2x4?
4. Does 4x2 give you the same answer? Show me with blocks 4x2.

* Two more examples:
* 3x3
* 4x4
* 4x3 \*\*Walk around with clipboard checking to see if correct\*\*

Break Into Tiered Groups

* Tier 1- Individual or with group
* Tier 2- With group
* Tier 3- With me
* Each group should use blocks to make array, draw array on worksheet, then solve equation and find the product.

\*\*Extra worksheet if students finish early\*\*

Assessment

* Draw an array of hearts showing 6x3 on the board.
* Students must write and solve the equation.
* Flip the paper over and tell me:

1. Why is it important to know HOW to multiply?
2. When might you use this skill in the real world?

Collect all worksheets and assessments

Review and Closing

* Tell students to turn and talk with their partner about what they wrote on the back of their assessment paper.

Summative Assessment at end of unit- Test