

Representing Multiplication in Multiple Ways

Math Take Home Project

Background: Students are currently learning about multiplication and the many ways that we can represent it. These include: using a number line, drawing an array, repeated addition, showing equal groups, and the commutative property.

Project Assignment: Students will be given a piece of construction paper. Using their notes and what he/ she has learned, they will use every day items to represent a multiplication problem of their choosing. **Students are encouraged to be as creative as possible!**

Construction Paper should be set up like this:

Skip Counting on a Numberline	An Array
Equal Groups of	Repeated Addition

Cummutative Property

$$\underline{\quad} \times \underline{\quad} = \underline{\quad}$$
$$\underline{\quad} \times \underline{\quad} = \underline{\quad}$$

Project Example:

The project board is divided into several sections:

- Skip Counting on a Numberline:** A number line from 0 to 18 with jumps of 6. The jumps are labeled 0, 6, 12, and 18.
- An Array:** A 3x6 grid of colorful pom-poms. The number 6 is written above the grid and 3 is written to the left and right.
- Commutative Property:** A box containing two equations:
$$\begin{array}{r} 3 \\ \times 6 \\ \hline 18 \end{array}$$
$$\begin{array}{r} 6 \\ \times 3 \\ \hline 18 \end{array}$$
- Equal Groups of 6:** Three vertical columns of stars (red, green, blue) with 6 stars in each column. A box next to them says "I made 6 equal groups of stars".
- Repeated Addition:** A row of 18 small blue pom-poms with the equation $6 + 6 + 6 = 18$. Below it, three groups of 6 larger blue pom-poms are shown with the equation $6 + 6 + 6 = 18$.

Parent Reflection:

After your child has completed this project, please use the index card to reflect on your experience working on this project with your child.

Due Date:

Math Take Home Project Rubric

- 1. Student choice a multiplication problem ----/2
- 2. Student represented this problem with:
 - a. Skip Counting on a Number line ----/2
 - b. An Array ----/2
 - c. Repeated Addition ----/2
 - d. Equal Groups ----/2
 - e. The Commutative Property ----/2
- 3. Student showed creativity with their representations ----/7
- 4. Parent reflected on experience working with student ----/1

----/ 20 possible points

Commentary:

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- 2. Student represented this problem with:
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 - b. An Array ----/2
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Commentary: