*Operations and Algebraic Thinking – Multiplication and Division Fluency (3.0A.7)*

GRADE

3rd

Action Based Learning/MATH



I will use *Math & Movement* Skip Counting Mats and Kinesthetic Learning to fluently multiply and divide within 100.



MATERIALS

* *Math & Movement* Hopping Mats and *Multiplication and Division Word Problems?* Worksheet
* Pencils
* Smart Board lessons
* Note Cards with multiplication and division problems on them
* Math and Movement Multiplication and Division Fluency sheet

Vocabulary

* Product: the answer to a multiplication problem
* Factors: the numbers being multiplied in a multiplication problem
* Quotient: the answer to a division problem
* Dividend: the amount that you want to divide up
* Divisor: the number to divide by
* Have the *Math & Movement* Hop by 3’s, 4’s, 6’s, 7’s, 8’s and 9’s spread around the room in one large rectangular formation.
* Let’s look at this multiplication problem

4 x 3

* To solve this problem we need to look at the factors and determine that we are trying to find out what the number 4 three times equals.
* To figure this out we can use the Math & Movement Skip Counting by 4’s Mat because it has all of the different multiples of four from 0 to 40.
* One student stand on the 0 at the beginning of the mat
* See all the large and small numbers on the mat. Every number between 0 and 40 are on this mat but every four numbers the block is large and number is big highlighted.
* To figure out 4 x 3 you can jump on the large numbers on the Hop by 4’s mat three times.
* Start on 0 and jump to the 4 and say “one” 4 x 1 = 4.
* Now jump on the 8 and say “two”. 4 x 2 = 8.
* Now jump on the 12 and say “three” 4 x 3 = 12.
* Repeat 6 x 5 and 7 x 4 – which mat should you jump on and how many times would you jump.
* Let’s look at this division problem

32 ÷ 8

* To solve the division problem we can use fact families to turn the division problem into a multiplication problem that can be solved jumping on the skip counting mat.
* The dividend in the division problem is the same as that product of the corresponding multiplication problem and the divisor is one of the factor of the corresponding multiplication problem.

8 x \_\_\_\_ = 32

* To find the quotient of the division problem you need to figure out the missing factor in the multiplication problem “8 times what number equals 32?”
* Use the Math and Movement Skip Counting 8 mat to solve this problem. We will use this mat because 8 is the other factor in the multiplication problem.
* Have a student stand on 32 and another student stand on 0. Have the student hop to 8 and say “one” and then to 16 and say “two” and then to 24 and say “three” and then to 32 and say “four”
* So if 8 x 4 = 32, then 32 ÷ 8 = \_\_\_\_

STUDENT WORK TIME

* Your job is to work in pairs to solve the division problems on the note cards
* Use your Math & Movement Mats to help you solve the division problems.
* You will have 8 minutes to complete your note cards