

Multiplication with Ozobots

Do Now: What are the four basic operations in math?

Addition

+

Subtraction

-

Multiplication

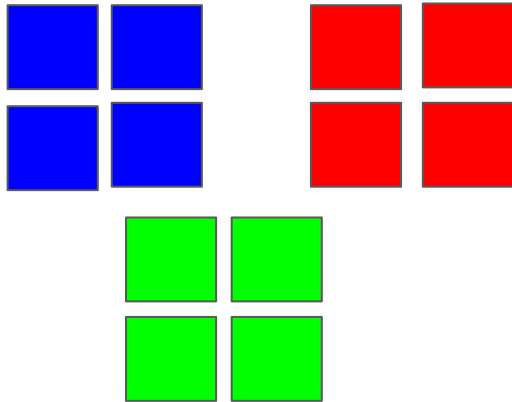
X

Division

÷

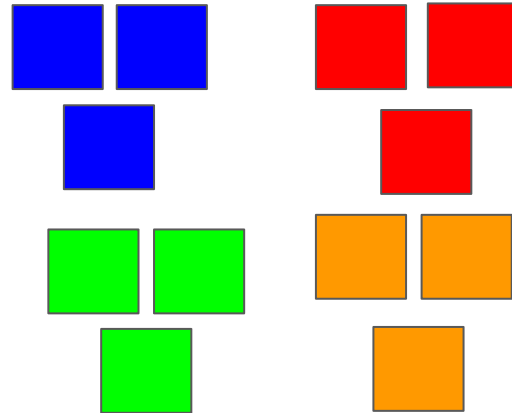
Multiplication

Multiplication is used to combine groups of equal sizes. Sometimes this is also known as repeated addition.



There are 3 groups of 4. Count up the squares. How many do you have?

The order of the numbers does not matter for multiplication. This is known as the commutative property.

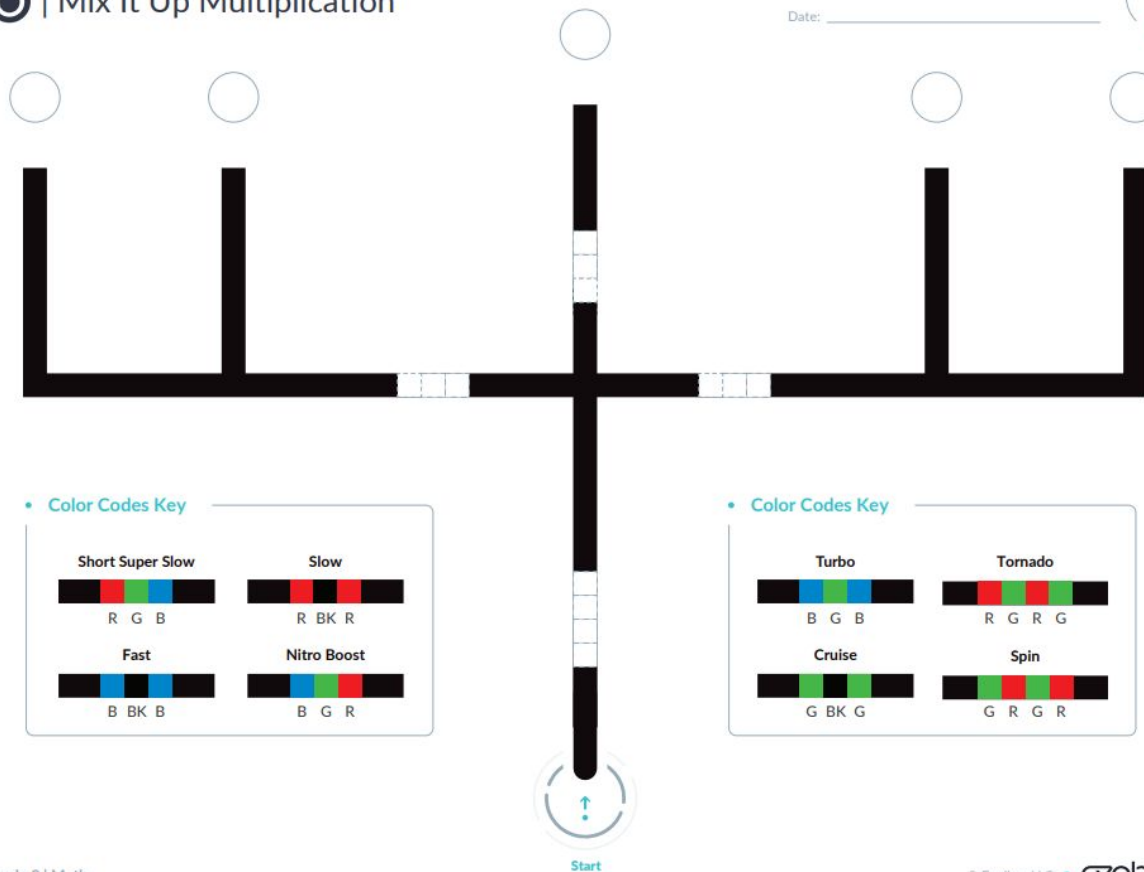


Now we have 4 groups of 3. Has the total number of squares changed?

Multiplication Tables with Ozobots

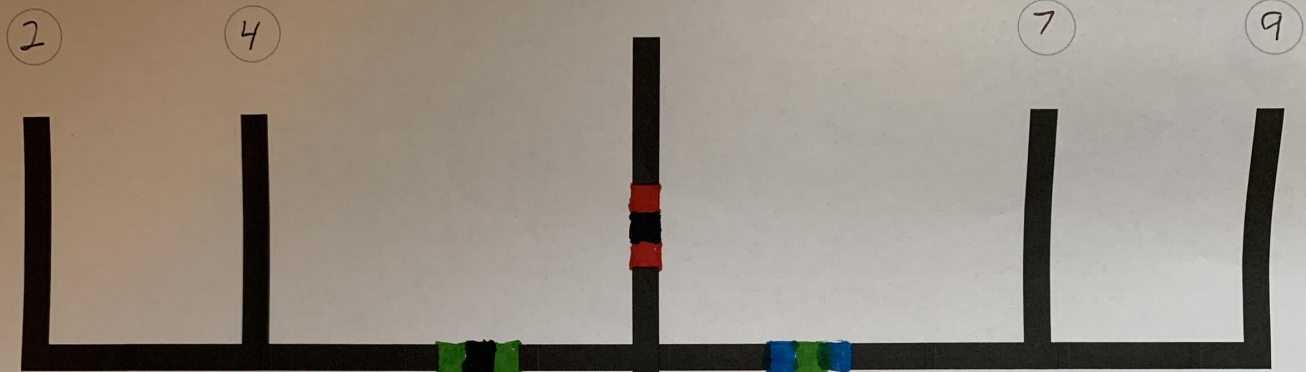
Instructions:

1. Print out the Ozobot chart, as well as the multiplication table and the student work table on the next slides. (Students can make their own tables if they wish)
2. Fill in the circles at the top of each line with a number from 0-9.
3. Using the Ozobot color code guide, fill in the blank spaces throughout the chart. Make sure to pay attention to how many squares need to be colored in at each spot! Be creative, there are no wrong or right codes to put in.
4. Place the Ozobot at the “Start” area, and let it choose a path at random. Write that number down in the student table. Then have the Ozobot do the same thing again and write that number down. Multiply the two numbers and write the answer in the Product column.
5. Fill in the multiplication chart in the appropriate area. Remember the commutative property! If you figure out what 5×3 is, then you also know 3×5 !
6. Continue this until you have filled out most of the multiplication table.



MULTIPLICATION CHART

x	0	1	2	3	4	5	6	7	8	9	10	11	12
0													
1													
2													
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													



Color Codes Key

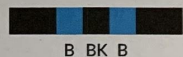
Short Super Slow



Slow



Fast



Nitro Boost



Color Codes Key

Turbo



Tornado



Cruise



Spin



Student Work Table

1st Number	Times	2nd Number	Product
9	X	4	36
4	X	2	8
5	X	5	25
9	X	5	45
9	X	9	81
4	X	4	16
7	X	2	14

MULTIPLICATION CHART

x	0	1	2	3	4	5	6	7	8	9	10	11	12
0													
1													
2					8			14					
3													
4			8		16					36			
5						25				45			
6													
7			14										
8													
9					36	45				81			
10													
11													
12													