

Math News

3rd Grade Unit 2 & Unit 5: Surveys and Graphs & Equal Groups

Issue # 2 of 5 – 2nd 9 Weeks

Our Learning Goals:

- Solve problems involving line plots, pictographs, bar graphs and frequency tables
- Represent multiplication using a variety of approaches including equal groups, arrays, skip counting and known multiplication facts
- Use a variety of strategies to solve multiplication problems including the commutative and distributive properties and mental math

Graphs

Students will extend their learning from previous grades about creating and solving problems about graphs.



Sample Questions:

How many more students chose red than yellow?

How many students chose a color other than blue?

How Will My Child be Assessed?

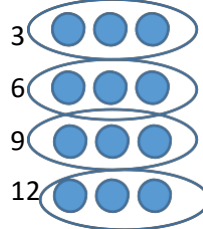
Students will be assessed informally and formally throughout the unit with opportunities to learn from their peers and their own mistakes. An assessment will be given at the end of the unit with both open ended and multiple choice questions.

Multiplication

In our first multiplication unit, students will develop an understanding of when and how to use multiplication. Multiplication is used when we need to combine many equal groups. There are a variety of strategies students will be learning about to help them combine these groups until they have memorized all of their multiplication facts.

Examples for Solving 4x3

Skip Counting



Repeated Addition

$$3 + 3 + 3 + 3 = 12$$

Arrays

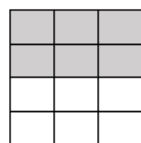


Commutative Property

4x3 has the same product as 3x4. If I have 3x4 already memorized, then I also know 4x3.

Distributive Property

Decompose one of the factors in a multiplication problem into easier parts then multiply and combine the parts.



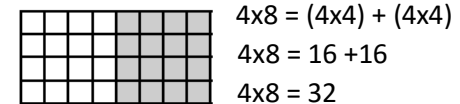
$$3 \times 4 = (3 \times 2) + (3 \times 2)$$

$$3 \times 4 = 6 + 6$$

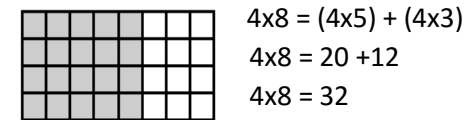
$$3 \times 4 = 12$$

Fact Fluency

By the end of 3rd grade, students will be expected to have memorized the basic facts up to 10x10. Until we can get those facts memorized, students will be encouraged to use mental math and the distributive property to solve facts they are still working on. Here are a few examples:



Sara used the distributive property by breaking 4x8 down into two easier facts to solve. She already knew 4x4 was 16. By cutting this fact in half, all she had to do was use a little mental math to double 16 to get the answer of 32.



Andy used the distributive property in a different way. He decided to break the 8 into a 5 and a 3 because 4x5 is a fact he already has memorized. Next, he used mental math to add 20 and 12 to get the product for 4x8.

How Can I Support My Child's Learning?

To help your child learn their facts, ask your child questions such as the following:

- Which factor could you break down into easier parts?
- Which two or three facts can we focus on this week?