Grade 4 – Unit 6

Our class is beginning Unit 6: Whole Number Concepts, Estimation, and Computation with Multiplication and Division. The focus of this unit is primarily division with multi-digit whole numbers. Students will use a variety of strategies, including standard algorithms to solve problems. In this unit students will examine the relationship between quotative and partitive division. They will use partial products and open arrays to solve division problems. Students will also spend time investigating and interpreting remainders.

Some examples of the work your child will be doing are:

* Students will understand the two kinds of division, quotative (grouping) and partitive (sharing).
* Example: 20 ÷ 4 can be thought of as 20 students will work in groups of 4. How many groups will there be? (quotative division). 20 ÷ 4 can also be 20 students will work in four groups. How many students will be in each group? (partitive division).
* Students will see that factors and products show the relationship between multiplication and division.
* Example: 5 x 7 = 35 and 35 ÷ 5 = 7
* Students will use the distributive property of multiplication to make partial products and solve division problems using open arrays.
* Example: When dividing 328 ÷ 8, students can use 8 x 40 and 8 x 1

 40 1

8

 320

 8

* Students will use their understanding of place value patterns when multiplying by ten to solve division problems.
* Example: 72 ÷ 6 Rather than skip counting by six to find the number of groups in 72, the student will use what they already know. I know that 10 x 6 = 60 so two more groups of 6 is 72.
* Students will begin to solve division problems with partial products or partial quotients.
* Example: 156 ÷ 6 can be solved by calculating (6 x 20) + (6 x 6) = 6 x 26

 OR (120 ÷ 6) + (36 ÷ 6) = 156 ÷ 6

* Students will divide multi-digit numbers. Students may choose to use a partial product method to solve these problems.
* Example:

|  |  |  |
| --- | --- | --- |
|  |  |  |
|  |  |  |
| 6 | 144 |  |
|  | 60 | 10 |
|  | 84 |  |
|  | 60 | 10 |
|  | 24 |  |
|  | 24 | 4 |
|  | 0 | 24 |

Here is how you can help your child while our class is working on this unit:

* Practice multiplication and division facts for automaticity and fluency.
* Reinforce strategies that help your child think flexibly about numbers. Encourage them to think about how to compose, decompose, and group numbers to find efficient ways to solve problems.
* Encourage your child to explain her/his thinking as he/she solves problems.
* Play Multiplication War, Salute the General, and other multiplication games with your child to. (See Fun Fact Fluency on the Fairfield district website http://fairfieldschools.org/downloads/curriculum/K-6-Math-Fluency-Packet.pdf)

If you have any questions, please contact your child’s teacher or the Math Science Teacher.

For additional information, take a look at the Fairfield Public School Parent Guide at <http://fairfieldpublicschoolsk5math.wikispaces.com/home>