

Fourth Grade Mathematics First Nine Weeks

Dear Parents:

These objectives listed below will be covered in the 1st Nine Weeks Unit of study.

Place value

- Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form (2,473, two thousand four hundred seventy three, $2,000 + 400 + 70 + 3$).
- Compare two multi-digit numbers, using $>$, $=$, and $<$ symbols to record the results of comparisons ($5,647 > 5,437$).
- Use place value understanding to round multi-digit whole numbers to any place.

Addition and Subtraction

- Add and subtract multi-digit whole numbers.

Multiplication and division

- Find all factor pairs for a whole number in the range 1–100 (e.g. 3 and 7 is a factor pair of 21).
- Multiply or divide to solve word problems by using drawings and equations.
- Multiply a whole number of up to four digits by a one-digit whole number, using strategies based on place value and the properties of operations.
- Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division.
- Solve multistep word problems with multiplication, division, addition and subtraction.

Area and perimeter

- Apply the area and perimeter formulas for rectangles in real world and mathematical problems.

Here are some suggestions as to what you can do at home to help your child:

Partial Product Multiplication: Students learning 2-digit multiplication can get mixed up about the process, especially with the place value of the numbers as they work the problem. When you use the strategy of partial product in multiplication, each *partial product* is computed and recorded separately as in the example. Notice the absence of splitting the digits in the product, “carrying” and “indenting”. It is the straightforward way in which this process of multiplication is carried out that appeals to many students.

$$\begin{array}{r} 43 \\ \times 27 \\ \hline 21 \\ 280 \\ 60 \\ +800 \\ \hline 1161 \end{array}$$

$21 = (7 \times 3)$
 $280 = (7 \times 40)$
 $60 = (20 \times 3)$
 $+800 = (20 \times 40)$

Shopping Math

On shopping trips, have your child help you compare prices. For example, if one pair of shoes costs \$49 and another costs \$35, ask him or her to figure out how much would be saved by buying the less expensive pair. ($\$49 - \35 . Think $40 - 30 = 10$ plus $9 - 5 = 4$; the difference is 14; \$14 would be saved.)

Turn It Around

Your child is reviewing multiplication and division and exploring the ways they are related. This relationship can be shown with fact families made up of multiplication and division facts that include all the same numbers ($4 \times 7 = 28$, $28 \div 7 = 4$ etc.).

Here is an activity you can try:

Step 1 Player 1 says a division problem, for example: $54 \div 6$

Step 2 Player 2 repeats the problem and adds the quotient: $54 \div 6 = 9$ and then says a related multiplication problem, for example: $9 \times 6 = 54$

Step 3 Player 2 then starts by saying a division problem that Player 1 solves and turns around into a related multiplication problem.

Target 300

Materials: 1 die per pair of players (or some other way of generating 1 – 6, such as a spinner or small pieces of paper numbered 1-6 and placed in a bag).

Step 1 Each player draws a two column chart on a recording sheet, one column for each player.

Step 2 Player 1 rolls the die and decides whether to multiply the number rolled by 10, 20, 30, 40 or 50. Keep in mind that each player will have six turns and the target amount is 300.

Step 3 Both players write the multiplication sentence representing the first player's choice and product. For example, Player 1 rolls a 2 and multiplies it by 20, and both players write the multiplication sentence $2 \times 20 = 40$.

Step 4 Player 2 follows the same steps as Player 1.

Step 5 At the end of each turn, the player adds his or her new amount to the previous score to keep a running total.

At the end of six turns, players compare scores to see whose score is closest to 300.