In an effort to keep parents and guardians informed of the expectations and content being covered in math class this year, this informational handout will be provided for each chapter. Its intent is to assist in guiding you in ways to support your child in deepening their mathematical understanding.

Scan the QR code to check out teaching strategies for this chapter.

In each chapter we will spend time reviewing material taught in prior grades as it relates to the standards being taught in fifth grade. Our goal is to keep a balance of skill based learning along with enhancing our student's ability to problem solve and think conceptually.

Review Material from Prior Grades
1) Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors. (4.NBT.6)
New Material for 5th Grade
1) I can explore division with two-digit divisors using models, rounding, and partial quotients. (5.NBT.6)   2) I can divide with up to four-digit dividends and two-digit divisors with and without remainders. (5.NBT.6)
End of Chapter Expectations
1) Chapter Assessment

*Please note the list above highlights the main skills to be assessed. Teachers may include additional content to meet the needs of their students.

Division Strategies

Base Ten Models

dividend   divisor   quotient

105   ÷   10   =   _____
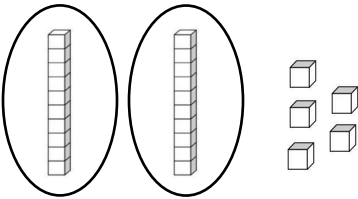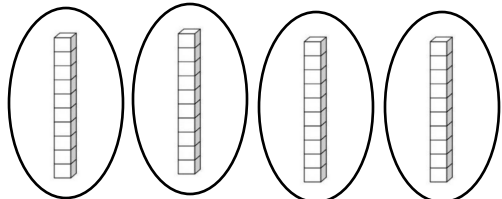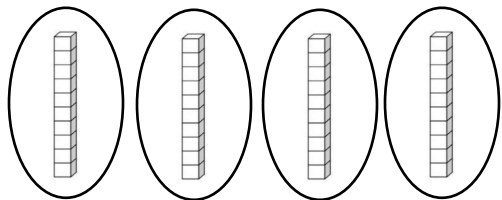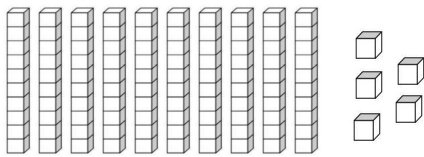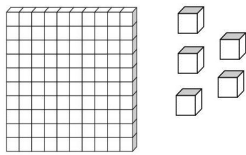
☺ Family Practice ☺

Check out some of these free, math websites to practice multiplication and division skills.

1) http://gregtangmath.com/

2) http://www.thinkingblocks.com/ThinkingBlocks_AS/TB_AS_Main.html

Divide with Base Ten Models:

Step 1: Create the model for the dividend and the equal groups.

Step 2: Trade the hundred flat for ten rods.

Step 3: Share the ten rods equally over the three groups. One rod will go into each group with five ones left over.

Step 4: Count the amount of blocks in one group to find the quotient. So, 105 blocks ÷ 10 groups= 10 blocks in each group with a 5 blocks left over. The 5 remaining blocks become the remainder.

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Division Strategies, Continued

Partial Quotients:

Step 1: Draw what looks like a hangman pole and place the dividend in the middle and the divisor on the outside.

Step 2: Next, pull out groups of 12. For example, you can pull out 10 groups of 12 for a total of 120. Place the number of groups on the outside and the total that was pulled out on the inside below the dividend.

Step 3: Subtract the total number of groups you just pulled out from the dividend.

Step 4: Pull out 7 groups of 12 for a total of 84 and subtract again.

Step 5: You can't pull out any more groups of 12, so add the numbers on the right to get the dividend of 17.

$$
\begin{array}{r|r}
12\,| \overline{\,204} & \\
-120 & 10 \\
\hline
84 & \\
-\underline{84} & +\ \underline{\ 7\ } \\
0 & 17 \\
\end{array}
$$

Interpret the Remainder:

Round it
Rounding the remainder means that you round it up and include it in the answer. In other words, you are adding one more to the quotient so that everyone or everything will be included.

Example:

Seventeen people are attending a dinner party. Each table at the party can seat five people. How many tables will be needed?

17 people ÷ 5 (seats) = 3 (tables) R 2 (extra people)

Since the 2 extra people cannot sit on the floor, you will need to round the remainder and add 1 extra table, giving you an answer of 4 tables.

Tip:
Use Round it whenever you can't leave people, animals, or things out.

Drop it
Dropping the remainder (sometimes called ignoring the remainder) means that you are not using it in the answer at all.

Example:

There are seventeen marbles and five girls. How many marbles will each girl get if the marbles are divided equally?

17 (marbles) ÷ (5 (girls) = 3 (marbles per girl) R 2 (extra marbles)

Since it is not possible to split the 2 extra marbles among the 5 girls, the 2 extra marbles are dropped or ignored. They are not part of the answer at all.

Tip:
Use Drop it when you cannot easily divide the remainder and when rounding up does not make sense.

Share it
Sharing the remainder means that you are including the remainder in the answer and reporting it as a fraction or a decimal.

Example:

Kip and Henry have made five cups of lemonade. How much lemonade will each boy drink if they both drink the same amount?

5 (cups) ÷ 2 (boys) = 2 (cups each) R 1 (extra cup)

Since 1 cup can easily be divided between the 2 boys, each boy can have an extra half cup, making the answer 2½ cups. The remainder is shown as a fraction.

Tip:
Share it is often used with money, food, and measurement. Use Share it when you can easily and equally split the remainder and it makes sense to do so.

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