

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 fourth 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
<ol style="list-style-type: none"> <li>1) Round whole numbers to the nearest 10 or 100. (3.NBT.1)</li> <li>2) Fluently add and subtract within 1,000. (3.NBT.2)</li> <li>3) Multiply a single-digit number by a multiple of 10. (3.NBT.3)</li> <li>4) Apply the properties of multiplication to multiply and divide. (3.OA.5)</li> <li>5) Fluently multiply and divide within 100. (3.OA.7)</li> </ol>
New Material for 4 <sup>th</sup> Grade
<ol style="list-style-type: none"> <li>1) I can round multi-digit whole numbers to any place using place value. (4.NBT.3)</li> <li>2) I can multiply two two-digit numbers. (4.NBT.5)</li> <li>3) I can solve multi-step word problems using addition, subtraction, and multiplication. (4.OA.3)</li> </ol>
End of Chapter Expectations
<ol style="list-style-type: none"> <li>1) Chapter Assessment</li> </ol>

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

## Multiplication Strategies

Multiples of 10, 100, and 1,000

**Example:**  $25 \times 400$

When you multiply  $25 \times 400$ , it becomes:  
 $25 \times 4$  hundreds.

Multiply the whole numbers:  
 $25 \times 4 = 100$  hundreds

100 hundreds = 10,000

## ☺ Family Practice ☺

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

- 1) <http://gregtangmath.com/>
- 2) [http://www.thinkingblocks.com/ThinkingBlocks\\_AS/TB\\_AS\\_Main.html](http://www.thinkingblocks.com/ThinkingBlocks_AS/TB_AS_Main.html)

Estimating Products

**Example:**  $25 \times 34$

1) Round to the greatest place value: 25- greatest place is tens

**2** 5 : The 2 is in the tens place and a 5 is to the right. It tells you to add a 10 or round up.  
So the 2 tens becomes 3 tens the right. It tells you to add a 10 or round up.

**3** 4 : The 3 is in the tens place and a 4 is to the right. It tells you to stay the same.  
So 3 tens stays 3 tens.

2) Multiply the rounded amounts:  $30 \times 30$

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Multiplication Strategies, Continued

**Multiply Using Area Models**

**Example:**  $36 \times 28 =$

	<b>30</b>	<b>6</b>
<b>20</b>	$20 \times 30 = 600$	$20 \times 6 = 120$
<b>8</b>	$8 \times 30 = 240$	$8 \times 6 = 48$

Steps for Multiplying Using Area Models:

- 1) Draw a rectangle and divide it into parts based on the place (e.g., tens x tens means divided into 2 rows and 2 columns since there are 2 places x 2 places)
- 2) Separate both factors into expanded form. (e.g.,  $36 = 30 + 6$  and  $28 = 20 + 8$ )
- 3) Label the parts (ex. put the values in each section. Tens then ones)
- 4) Write the equation when you multiply the factors. (e.g., tens by tens, tens by ones, and then ones by ones.)
- 5) Solve each equation.
- 6) Add the products for each section together to get a total product.

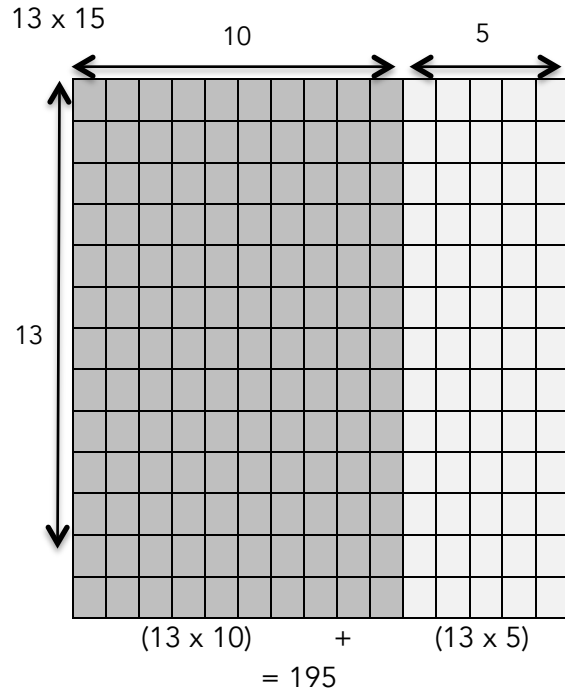
Distributive Property Equation:

$$13 \times 15 = 13 \times (10 + 5)$$

$$(13 \times 10) + (13 \times 5)$$

$$130 + 65 = 195$$

**Distributive Property**



Steps for Using the Distributive Property with an Array Model:

$13 \times 15$

- 1) Create an array using the factors to make rows and columns. (e.g., 13 rows and 15 columns.)
- 2) Separate the array using expanded form. (e.g.,  $15 = 10 + 5$  so it will become 10 columns and 5 columns)
- 3) Multiply the factor (13) by each section. (e.g.,  $13 \times 10$  and  $13 \times 5$ )  
Add the partial products. (e.g.,  $130 + 65 = 195$ )

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