### ABOUT THIS RESOURCE

#### Details:

This 25 day unit covers multiplication and division of whole numbers as well as the distributive property and the order of operations. If the skills don't completely align to your state standards, that's OK because this resource is 100% editable! All content can be modified to make this unit perfect for your classroom!

# Multiplying & Dividing Whole Numbers Marking to Mark Tip Sold Tip

#### Included Resources:

- > Weekly warm up recording sheets
- > Weekly exit ticket sheets
- Blank lesson plans
- > Unit tracking pages
- > Unit vocabulary sheet
- > Unit pre-assessment
- > Warm ups

- > Traditional notes
- Fold and Flip Notes
- ➤ Practice assignments (HW or CW)
- > End of Unit Performance Task
- > A complete PDF of the unit
- > An editable PPT version of the unit.
- > A binder cover and spine labels

#### Lessons:

- Lesson I : Place Value to the Billions
- Lesson 2 : Place Value to the Thousandths
- Lesson 3 : Rounding Decimals
- Lesson 4 : Base Ten and Expanded Form
- Lesson 5 : Properties of Operations

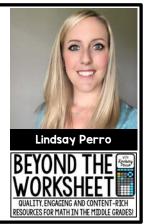
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#### Meet the Author:

My name is Lindsay Perro and I
have been an educational writer and
content developer since 2009.
After spending 8 years as a Middle
School Math Teacher and
Interventionist, I am now following
my passion and focusing on creating
quality educational resources to
make your job easier and keep
students engaged and excited about
math!



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LESSON	RESOURCES
Unit Prep (pgs. 7 – 13)	<ul> <li>Weekly Warm Up Sheet</li> <li>Exit Tickets</li> <li>Lesson Plan Template</li> <li>Vocabulary</li> <li>Pre-Assessment</li> </ul>
1) Multiplying and Dividing by Powers of Ten (pgs. 14 – 18)	<ul><li>One Warm Up</li><li>Powers of Ten Notes (2 pages)</li><li>Powers of Ten Worksheet</li></ul>
2) Multiplying by 1-Digit Numbers (pgs. 19 – 31)	<ul> <li>Three Warm Ups</li> <li>Distributive Property Notes</li> <li>Multiplying by 1-Digit Notes (2 pages)</li> <li>Multiplying by 1-Digit Fold and Flip Notes</li> <li>Distributive Property Worksheet</li> <li>Multiplying by 1-Digit Worksheet</li> </ul>
3) Multiply by Multi- Digit Numbers (pgs. 32 – 50)	<ul> <li>Four Warm Ups</li> <li>Estimating Products Notes</li> <li>Multiplying Two-Digit Numbers Notes</li> <li>Multiplying Multi-Digit Numbers Notes</li> <li>Multiplying Two-Digit Fold and Flip Notes</li> <li>Estimating Products Worksheet</li> <li>Multiplying Two-Digit Numbers Worksheet</li> <li>Multiplying Multi-Digit Numbers Worksheet (3 by 3 digit max)</li> <li>Patterns in Multiplication Worksheet</li> <li>Multiplication Quiz</li> </ul>
4) Divide by 1-Digit Numbers (pgs. 51 – 75)	<ul> <li>Three Warm Ups</li> <li>Multiplication and Division Exploration</li> <li>Dividing By 1-Digit Notes (2 pages)</li> <li>Dividing By 1-Digit Numbers Fold and Flip Notes</li> <li>Divisibility Rules Printable</li> <li>Divisibility Rules Fold and Flip Notes</li> <li>Relating Multiplication and Division Worksheet</li> <li>Dividing By 1-Digit Numbers Grid Practice Worksheet</li> <li>Dividing By 1-Digit Numbers Practice Worksheet</li> </ul>

## Multiply & Divide Whole Numbers

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LESSON	RESOURCES
5) Divide by 1-Digit Numbers with Remainders (pgs. 76 – 82)	<ul> <li>Two Warm Ups</li> <li>Dividing By 1-Digit with Remainders Note</li> <li>Dividing By 1-Digit with Remainders Grid</li> <li>Dividing By 1-Digit with Remainders Worksh</li> </ul>
6) Divide by 2-Digit Numbers (pgs. 83 – 94)	<ul> <li>Four Warm Ups</li> <li>Estimating Quotients Notes</li> <li>Dividing By 2-Digits Notes</li> <li>Estimating Quotients Worksheet</li> <li>Dividing By 2-Digits Worksheet</li> <li>Patterns in Multiplication Worksheet</li> <li>Division Quiz</li> </ul>
7) Multiplication and Division Problem Solving (pgs. 95 – 106)	<ul> <li>Three Warm Ups</li> <li>Problem Solving Notes</li> <li>Measurement Conversion Reference Sheet</li> <li>Measurement Conversion Notes</li> <li>Measurement Conversion Practice Worksheet</li> <li>Math At The Movies (1-Digit Multiplication Applications)</li> <li>Math At The Candy Shop (2-Digit Multiplication Applications)</li> <li>Math At The Zoo (Dividing by 1-Digit Numbers Applications)</li> <li>Math At The Grocery Store (Dividing by 2-Digit Numbers Applications)</li> </ul>
8) Order of Operations (pgs. 107 – 112)	<ul> <li>Two Warm Ups</li> <li>Order of Operations Notes</li> <li>Order of Operations Worksheet</li> <li>Order of Operations and Problem Solving Quiz</li> </ul>
End of Unit (pgs. 113 – 119)	<ul> <li>End of Unit Task</li> <li>Study Guide/Reference Sheet</li> <li>Unit Exam</li> </ul>

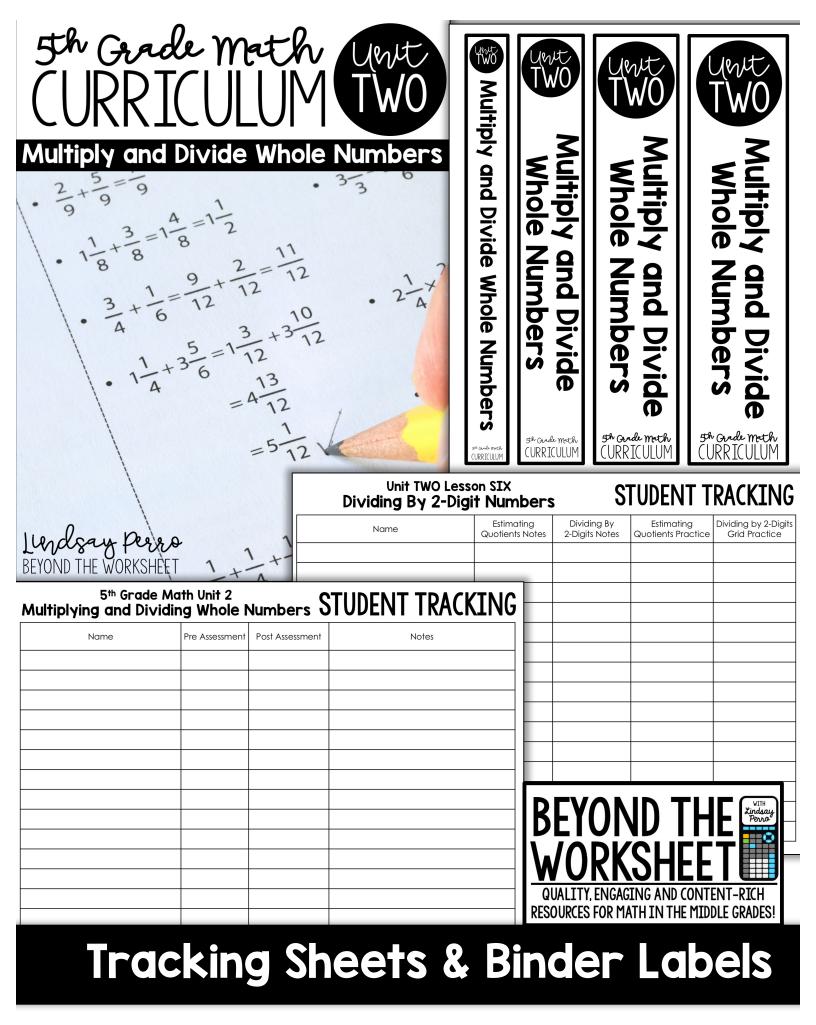
ame		Date	one
Relating  Directions : Complete	Multiplicatio Skill: Base ten and expanse the table.		completely
Standard Form	Expanded Form	Base Ten Form	Name
87.5			Skill: The distributive prop Directions: Rewrite each number using the distributive property dis-
	4,000 + 300 + 9		1) 3 x 12 2) 16 x 2 3 x ( +) 2 x ( +)
	7 + 0.4 + 0.008		(3 x) + (3 x) (2 x) + (2 x)
		(5 x 1) + (9 x 0.0	
1,403,000,000			3) 54 x 10 4) 8 x 19
			10 × ( + )
			three +
1) 62 x 34	2) 34 x	82	Dividing by I-Digit Numbers
			Skill : Divisibility rules
3) 352 x 29	4) 195	× 73	Directions: Without dividing, tell which numbers each given number is divisible by.  1) 396 is divisible by  2) 1,425 is divisible by
,			
			3) 3,519 is divisible by  BEYOND THE Lindsau Penns
			WODK CHEET
			QUALITY, ENGAGING AND CONTENT-RICH RESOURCES FOR MATH IN THE MIDDLE GRADES!
			Warm Ups

**Notes** Multiplying by I-Digit Numb€ Multiplying by Multi- COMPLETELY Multiplication is repeated addition. It is a factor way of combining equal groups together product **EDITABLE** You can multiply now easily by one and two-digit n multiply by three-digit numbers, you follow the s Mary Ella is a school volunteer. This morning she is working on making copie: different teachers. She makes 28 copies for each teacher. How many copie Methods with Three-Digit Numbers: she make altogether? Example: 724 x 135 What is it? · Brainstorm with a partner how you would solve this problem. Record your answer below A visual way of I. Break apart the factors multiplying. Break the 2. Multiply number apart by place 100 value. Fill in the inside 3. Add each row, then add boxes as if you were using a multiplication chart. the sums of each row 30 Add the numbers in the em above can be solved using a variety of strategies. Divisible by Divisible by ldition Distributive Property Example: 724 x 135 What is it? A method of multiplying I. Break apart the factors. x 135 based on the distributive 2. Multiply. property. Each digit of one factor is multiplied by Divisible by 3. Add the partial products. 28  $(4 \times 20) + (4 \times 8)$ each digit in another 80 + 32112 Divisible by Multiplying By Multi-Digit Numbers Place Value (Standard Algor **Notes** Dividing by I-Digit Numbers Box Partial Products Method Standard Key Words: Division is breaking apart a number into dividend · quotient Algorithm equal groups divisor Explore : Multiplying and Dividing Whole Numbers Isabella and her sister Maria made 36 cookies for a bake sale. They plan to sell them in b two. How many bags of brownies will they have for the bake sale? **NONE PROPERTY OF THE PROPERTY** Isabella and Maria used different methods to determine how many bags they would need Isabella Maria Distributive Property Multiplying by I-Digit Numbers Break apart the larger factor into two Repeated Addition Distributive Property addends. The first factor is then 30 6 15 2 36 15 x 4 15 x 4 "distributed" to each addend through 30 + 2 6+2 +3 15 + 15 + 15 + 15 $(4 \times 10) + (4 \times 5)$ multiplication. The sum of the products 3 30 + 3040 + 20 18 will be equal to the product of the 60 ★ 60 ★ original two factors. Rounding First Standard Algorithm 8 x <u>17</u> 18 bags (8 x <u>10</u>) + (8 x <u>7</u>)  $20 \times 4 = 80$ 15 Explain how each girl found the answer. 80 + 565 x 4= 20 <u>x 4</u> 80 - 20 = 60 ★ 60 🛨 136 Isabella found her answer by... Maria found he Order of Multiplying by Multi-Digit Numbers Operations Distributive **Parentheses** Aultiply or Divide Property Repeated Add or Subtract Addition  $3 + 15 \times 2 - 4 \div 2$  $3 + 30 - 4 \div 2$ 3 + 30 - 233 - 2QUALITY, ENGAGING AND CONTENT-RICH 31 Place RESOURCES FOR MATH IN THE MIDDLE GRADES! Rounding value

2) 30×9 <b>EGCITIT 7 ITS</b>	_  
Directions : Solve each problem using the method of your choice. Show your work. Underline the interest of your choice. Show your work have. In the products.    Directions: Show each products.   Directions: Show your work.   Directions: Show each problem. Find your onswer and the problem number to color in the color associated with your onswer and the problem number to color in the color associated with your onswer and the problem number to color in the color. In the color of the poles. In the your choice will have the problem. Underline the your choice will have the products. In the your choice will	TABLE
1) 50 x 8	TABLE
1) 1 x 5 =	
10 x 5 =	_  
3) 72 x 6	_  
3) 10 x 20 =	_  
100 x 20 =	
1,000 x 20 = 20 x 600 = 20 x 6,000 = 10,000 x 20 = 20 x 6,000 = 20 x 6	_
5) 29 x 8  6) 36 x 7  10,000 x 20 =	
Show your work here:   Show your work   Show your answer in one of the three answer of the plain candy, how many pieces will she get?   Show your work   Show your work   Show your work   Show your answer in one of the three answer of the plain candy, how many pieces will she get?   Show your work   Show your answer and the problem number to color in the bottom of the page.   Show your work   Show your answer and the problem number to color in the bottom of the page.   Show your work   Show your answer and the problem number to color in the bottom of the page.   Show your work   Show your answer in one of the three answer of the plain candy, how many pieces will she get?   Show your work here:   Show your work   Show your work   Show your answer and the problem number to color in the bottom of the page.   Show your work   Show	
Name	_
Name	I
Math At The Candy Shop Multi-Digit Multiplication Applications  The Task: Use the information in the table to answer the questions. Show your work.  1. Deb owns Sweet's Candy Shop. She is placing an order for more candy. If she orders 45 boxes of the plain candy, how many pieces will she get?  Show your work here:    A,000 =	_
Math At The Candy Shop Multi-Digit Multiplication Applications  The Task: Use the information in the table to answer the questions. Show your work.  1. Deb owns Sweet's Candy Shop. She is placing an order for more candy. If she orders 45 boxes of the plain candy, how many pieces will she get?  Show your work here:  Show your work here:  An ain how the number of zeros in the factors affect the productions.  THE AQUARIUM ~ End  Directions: Solve each problem. Find your answer in one of the three answer of the color associated with your answer and the problem number to color in the bottom of the page.  Problem Choice #1 Choice #2  1) 23 x 120  276  2.760	_
Multi-Digit Multiplication Applications  The Task: Use the information in the table to answer the questions. Show your work.  1. Deb owns Sweet's Candy Shop. She is placing an order for more candy. If she orders 45 boxes of the plain candy, how many pieces will she get?  Show your work here:    Directions: Solve each problem. Find your answer in one of the three answer of the color associated with your answer and the problem number to color in the bottom of the page.    Plain   Problem   Choice #1   Choice #2	
Plain   Problem   Choice #1   Choice #2	choice columns. Use
Poka Pot 2,760	Choice #3
	27,600 GREEN
pieces of candy	1,300 PURPLE
2. Deb then needs to order some of the polka dot and stripe candy. She orders 9 boxes of candy and 15 boxes of the polka dot candy. How many pieces of candy did she order altogether?  3) 276 ÷ 12  2.3  RED  BLUE	23 YELLOW
Show your work here:  4) 15 x 342	5,130 ORANGE
3. A month later Deb receives 12 more boxes of both plain candy and the polka dot cand week later Deb has sold 205 pieces from her most recent shipment. How many pieces of does Deb have left from that order after those 205 were sold?  Show your work here:  BEYOND T  WORKSHE  QUALITY, ENGAGING AND CORES FOR MATH IN THE	HE sindsay Perns

Name	Date	Score:	Name	Date	
Multiply and	d Divide Who	ole Numbe	Multipli	ication	
	De Unit Pre A		Factors and Products : Find	d the missing factor.	OMPLETELY
1) Write four related facts using 8, 3 and 24.	2) Write four related facts using 5, 9 and 45.	3) Complete the pattern: 72 ÷ 9 =	1) 8 x = 56		
		720 ÷ 90 =	The Distributive Property	: Simplify using the distributive	<b>EDITABLE</b>
		7,200 ÷ 900 = 72,000 ÷ 9,000 =	4) 4 × 17	5) 13 x 9	
4) Evaluate :	5) Evaluate :	6) Re-write and solve using			
34 x 10 <sup>4</sup>	4,500 ÷ 10 <sup>2</sup>	distributive property. 8 x 15	Patterns in Multiplication :	Complete the pattern.	
			4) 4 × 9 =		
			40 × 9 =	12 x 50 =	
Name	Date	Score :	) x 90 =	12 x 500 =	:
DIVIS	sion Quiz	Z	) x 900 =	12 x 5,000	) =
Relating Multiplication and D	ivision: Find the missing number		Name	Date & Order of Operat	Score:
1) 56 ÷ = 7	2)÷ 6 = 20	3) 12 =÷ 3		olify each expression using the order	
Divisibility Rules : Tell which no	umbers each given number is divis	iible by. Don't divide.	1) 3 + 4 × 6 ÷ 2 + 15	2) (28 ÷ 4) × 2 + 3 × 4	3) (30 ÷ 3) – 4 + (2 x 7)
4) 328	5) 1,452	6) 18,450			
Patterns in Division : Comple	te the pattern.				
-116					
IHE	AQUARI	UM	Name	Date	_
Objective :		End of Unit To		<b>nit Assessm</b> ag and Dividing Who	
Use what you know about m		numbers to solve probler		e three additional related multiplication	
reference to running an aque	arium.		1) 8 x 3 =	2) x 4 = 36	3) 35 ÷ = 5
The Fish:	Clownfish Angelfish	Seahorses			
870	347 82	125			
Betta	Tetra Pufferfish	A 200 A 200 A	Select each expression that simplify 5 x 18 using the distr		h expression that could be used to a susing the distributive property.
	640 34	582	a) (5 x 8) + (5 x 10) b) (5 x 9) + (5 x 9)	a) (12 x 8	3) + (12 x 8) D) + (8 x 2)
/2	51	362	c) (5 + 7) x (5 + 11)	c) (8 + 7	) + (8 + 5)
<b>The Task:</b> Aqua Aquarium har receive a large shipment of ne	ew fish. The chart above show	vs the 8 different types of	d) (5 + 10) x (5 + 8) e) (5 x 12) + (5 x 6)	e) (8 x 9)	3) + (10 × 2) + (8 × 3)
they will be receiving, and how carefully and show your work.	w many of each type they wi	ll have. Read each probl	f) (5 x 18) + (5 x 1)  Multiply.	DEVANI	TIIC
1. The guppies will be split an	nong 15 tanks. How many gu	ppies will go in each tank		IRFIGIAL	Zindsay Perro
			8) 115 x3 9)	ALANDKO	LIFFT
				MOKVO	ПЕЕІ
The aquarium spends \$2 a	week on food for the tetra r	ainbowfish and beta. Ho			AND CONTENT-RICH
	gether for food for one week		12) A theme park has a specie	KESOOKCES FOR LIVIH	IN THE MIDDLE GRADES
			Asse		

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AAultinky 8 T	Divide Whole Numb		
	>>>>> 5th Grade Mainb	Name	eekly Warm Up Sheet
VOCABULARY	OBJECTIVES	Date:	eekiy wai iii op slieei
> compatible	Fluently multiply multi-digit num     Understand and use the distribution		
numbers > distribute	property  • Fluently divide whole numbers (		
<ul><li>distributive property</li></ul>	of four digits by two digits).  • Identify and explain patterns of		<b>COMPLETELY</b>
<ul><li>dividend</li><li>divisor</li></ul>	zeroes when multiplying by pow of ten.		
> estimate > factor	<ul> <li>Estimate products and quotient</li> </ul>		EDITABLE
order of	Simplify expressions using the or of operations		
operations > product	Convert among standard measurement units.	Date:	
<ul><li>quotient</li><li>remainder</li></ul>	Solve multi-step, real world problems.		
	Use parentheses, brackets, or b in numerical expressions, and		
	evaluate expressions with these symbols.	Date:	
	• 5.OA.1		
Multiply	and Divide Whole	e	
Numb	ers Lesson Plan	Mult	iply and Divide
Standard(s):	Date(s):		
Student Materials	S: Scissors	Wh	nole Numbers
□ Colored pencils □ G			Lesson 3:
Lesson Progressi		Multiply	ying Multi-Digit Numbers
		Sug	ggested Time Frame : 4 Days
		Resources Ind	cluded:
		Estimating Product     Multiplying Two-D	
		students to co	·
			Digit Numbers Notes graphic organizer from the Two-Digit notes with three-digit
		examples.	
		examples. • Includes two v students to co	·
		examples. Includes two v students to co Multiplying Two-D Estimating Produc	omplete. Digit Fold and Flip Notes ats Worksheet
		examples. Includes two v students to co Multiplying Two-D Estimating Product Can be used to Multiplying Two-D Can be used to C	omplete. Digit Fold and Flip Notes cts Worksheet for classw
		examples. Includes two v students to co Multiplying Two-D Estimating Product Can be used to Multiplying Two-D Can be used to Multiplying M	Digit Fold and Flip Notes cts Worksheet for classw Digit Nun for classw Digit Nu for classw Digit Nu for classw
		examples. Includes two v students to co Multiplying Two-D Can be used the Multiplying Two-D Can be used the Multiplying Two-D Can be used the Multiplying Multi-I	Digit Fold and Flip Notes cts Worksheet for classy Digit Nun for classy
		examples. Includes two v students to co Multiplying Two-D Estimating Product Can be used f Multiplying Two-D Can be used f Multiplying Multi-I Can be used f Patterns in Multipl Can be used f	Digit Fold and Flip Notes cts Worksheet for classy Digit Nun for classy
		examples. Includes two v students to co Multiplying Two-D Estimating Product Can be used f Multiplying Two-D Can be used f Multiplying Multi-I Can be used f Patterns in Multipl Can be used f	BEYOND THE  WITH  WITH  Gr classy  Digit Num  for classy  Digit Num

Planning Pages