Marietta City Schools
District Topic Planner

Fifth Grade

Topic Title	*Topic 4: Use Models and Strategies to Multiply Decimals*	Unit duration	*5 days*

Big Idea: Numbers Base Ten - Multiplying with Decimals

Georgia Standards of Excellence

■ **5.NBT.2** Explain patterns in the number of zeros of the product when multiplying a number by powers of 10 and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10.

■ **5.NBT.7** (multiply only) Add, subtract, **multiply,** and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.

■ **Major work of the grade**   ☐ **Supporting standard**   ⚪ **Additional standard**

Informational Links

GSE Unit 3 Frameworks: Multiplying and Dividing with Decimals
MCS Math Instructional Framework
MCS Math Instructional Framework with Resource Guidance

About the Math

GaDOE:Grade 5 Standards Overview Document
GaDOE: What Do Standards Look Like in Fifth Grade?

	Topic 4: Learning Resources		
	5.NBT.2, 5.NBT.7		
Lesson Number/Task/Module	**Lesson**	**Lesson Description**	**Standards Addressed**
Savvas 4-1	Multiply Decimals by Powers of 10 Savvas pp. 129-132	Students use knowledge about place value and patterns to find the product of a decimal number and a power of 10.	5.NBT.2
Supplemental 4-1	Understanding the Value of Digits MIP Module 1 pp.14-15	Students review place value to develop an understanding that in a multi-digit number the value of a digit in one place is 10 times greater than the value of the same digit in the place to its right.	5.NBT.2
Savvas 4-2	Estimate the Product of a Decimal and a Whole Number Savvas pp. 133-136	Students use rounding and compatible numbers to estimate the product of a decimal and a whole number.	5.NBT.7
Supplemental 4-2	Rounding Decimals MIP Module 1 pp.41-45	Students use their understanding of place value to round decimals to any place.	5.NBT.7
Savvas 4-3	Use Models to Multiply a Decimal and a Whole Number Savvas pp. 137-140	Students use models to represent multiplying a decimal and a whole number.	5.NBT.7
Supplemental 4-3	Multiplying Decimals MIP Module 6 pp.126-128	Students use models and discussions related to the previous place value understandings to develop an understanding of multiplication with decimals.	5.NBT.7
Savvas 4-4	Multiply a Decimal and a Whole Number Savvas pp. 141-144	Students use place-value understanding and an algorithm for multiplying whole numbers to multiply a decimal and a whole number.	5.NBT.7
Supplemental 4-4	Number Strings to Gain Insight about Decimals MIP Module 6 p.129	Students discuss sets of related expressions (number strings) to gain insight into the placement of the decimal point by applying their knowledge of place value and whole number multiplication.	5.NBT.7

Savvas 4-5	Use Models to Multiply a Decimal and a Decimal Savvas pp. 145-148	Students use grids to model decimals and find the product of a decimal and a decimal.	5.NBT.7
Supplemental 4-5	Flip, Reverse, and Multiply MIP Module 6 p.134	A card game that reinforces decimal by decimal multiplication.	5.NBT.7
Savvas 4-6	Multiply Decimals Using Partial Products Savvas pp. 149-152	Students multiply decimals using partial product models.	5.NBT.7
Supplemental 4-6	Using Place Value Understanding to Multiply Decimals MIP Module 6 pp.129-131	Students apply the area model for multiplication of whole numbers to multiplying decimals and explore the connections to a partial products method.	5.NBT.7
Savvas 4-7	Use Properties to Multiply Decimals Savvas pp. 153-156	Students use properties to multiply decimals.	5.NBT.7
Savvas 4-8	Use Number Sense to Multiply Decimals Savvas pp. 157-160	Students use number sense and reasoning to place the decimal point in a product.	5.NBT.7
Supplemental 4-8	Multiplication Teasers Ga DOE Constructing Task	Students will be challenged to find the missing factor in a multiplication number sentence by first using estimation strategies, then refining their guesses by using a calculator.	5.NBT.7

Additional Resources		
5.NBT.2, 5.NBT.7		
Standards Addressed	**Lesson**	**Lesson Description**
5.NBT.2	GaDOE Scaffold/Constructing Task - Patterns R Us	Students are asked to identify, describe, and explain any patterns they notice when multiplying or dividing numbers by 1000, 100, 10, 0.1, and 0.01.

5.NBT.7	GaDOE Practice Task - Road Trip	Students determine fuel costs for a trip through the Southeast of the United States using a given cost of fuel and the number of miles per gallon the family car gets.

Assessment Resources			
5.NBT.2, 5.NBT.7			
Type	**Location**	**Assessment Description**	**Standards Addressed**
Formative	MCS Mini	Students solve multiple choice questions using the powers of ten.	5.NBT.2
Formative	MCS Mini	Students solve an extended response problem using a self-selected strategy.	5.NBT.7
Formative	MIP Module 6 p. 132	Students predict, solve, and explain how they find products in problems involving decimals.	5.NBT.7
Summative	Savvas Topic Assessment TE pp. 171-172	Students will demonstrate common strategies for finding products involving decimals. Digital or print forms are available through the Savvas platform. Use MDIS to support student needs through data.	5.NBT.2 5.NBT.7
Summative	Savvas Topic Performance Task TE pp. 175-176	Students will use a real-life scenario involving using exchange rates to convert currency.	5.NBT.2 5.NBT.7