Mathematics
Grade 5 – Year at a Glance
2018 - 2019

Q1		Q2	Q3		Q4	
Module 1 Aug. 6 – Sept. 7	Module 2 Sept. 11- Nov. 5	Module 3 Nov.6 – Dec. 11	Module 4 Jan. 7-Feb. 19	Module 5 Feb. 21 – Mar. 29	Module 6 Apr. 1 – April 16 (Through Mid Module)	Module 6 (con't) Apr. 22 - May23
Place Value and Decimal Fractions	Multi-Digit Whole Number and Decimal Fraction Operations	Additions and Subtraction of Fractions	Multiplication and Division of Fractions and Decimal Fractions	Addition and Multiplication with Volume and Area	Problem Solving with the Coordinate Plane	TN Ready Testing Window: Material covered after Mid Module Assessment are extensions of 5th grade standards or review of previously taught skills
5.NBT.A.1	5.OA.A.1	5.NF.A.1	5.OA.A.1	5.NF.B.4b	5.OA.A.2	5.OA.B.3
5.NBT.A.2	5.OA.A.2	5.NF.A.2	5.OA.A.2	5.NF.B.6	5.OA.B.3	5.G.A.1
5.NBT.A.3	5.NBT.A.1		5.NBT.B.7	5.MD.C.3	5.G.A.1	5.G.A.2
5.NBT.A.4	5.NBT.A.2		5.NF.B.3	5.MD.C.4	5.G.A.2	
5.NBT.B.7	5.NBT.B.5		5.NF.B.4a	5.MD.C.5		
5.MD.A.1	5.NBT.B.6		5.NF.B.6	5.G.B.3		
	5.NBT.B.7		5.NF.B.7			
	5.MD.A.1		5.MD.A.1			
			5.MD.B.2			

Key:

Major Content	Supporting Content

Note: Please use this suggested pacing as a guide. It is understood that teachers may be up to 1 week ahead or 1 week behind depending on the needs of their students.

Use the instructional map and the following guide as you prepare to teach a module for additional guidance in planning, pacing, and suggestions for omissions.

Pacing and Preparation Guide (Omissions)

Introduction

Destination 2025, Shelby County Schools' 10-year strategic plan, is designed not only to improve the quality of public education, but also to create a more knowledgeable, productive workforce and ultimately benefit our entire community.

What will success look like?

In order to achieve these ambitious goals, we must collectively work to provide our students with high quality, college and career ready aligned instruction. The Tennessee State Standards provide a common set of expectations for what students will know and be able to do at the end of a grade. The State of Tennessee provides two sets of standards, which include the Standards for Mathematical Content and The Standards for Mathematical Practice. The Content Standards set high expectations for all students to ensure that Tennessee graduates are prepared to meet the rigorous demands of mathematical understanding for college and career. The eight Standards for Mathematical Practice describe the varieties of expertise, habits of mind, and productive dispositions that educators seek to develop in all students. The Tennessee State Standards also represent three fundamental shifts in mathematics instruction: **focus, coherence, and rigor**.

The **Standards for Mathematical Practice** describe varieties of expertise, habits of minds and productive dispositions that mathematics educators at all levels should seek to develop in their students. These practices rest on important National Council of Teachers of Mathematics (NCTM) "processes and proficiencies" with longstanding importance in mathematics education. Throughout the year, students should continue to develop proficiency with the eight Standards for Mathematical Practice. The following are the eight Standards for Mathematical Practice:

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of them.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

This curriculum map is designed to help teachers make effective decisions about what mathematical content to teach so that ultimately our students can reach Destination 2025. Throughout this curriculum map, you will see resources as well as links to tasks that will support you in ensuring that students are able to reach the demands of the standards in your classroom. In addition to the resources embedded in the map, there are some high-leverage resources around the content standards and mathematical practice standards that teachers should consistently access. For a full description of each, click on the links below.

Tennessee Mathematics Content Standards

Standards for Mathematical Practice

Literacy Skills for Mathematical Proficency

Structure of the Standards

Structure of the TN State Standards include:

- **Content Standards** - Statements of what a student should know, understand, and be able to do.
- **Clusters** - Groups of related standards. Cluster headings may be considered as the big idea(s) that the group of standards they represent are addressing. They are therefore useful as a quick summary of the progression of ideas that the standards in a domain are covering and can help teachers to determine the focus of the standards they are teaching.
- **Domains** - A large category of mathematics that the clusters and their respective content standards delineate and address. For example, Number and Operations – Fractions is a domain under which there are a number of clusters (the big ideas that will be addressed) along with their respective content standards, which give the specifics of what the student should know, understand, and be able to do when working with fractions.
- **Conceptual Categories** – The content standards, clusters, and domains in the 9th-12th grades are further organized under conceptual categories. These are very broad categories of mathematical thought and lend themselves to the organization of high school course work. For example, Algebra is a conceptual category in the high school standards under which are domains such as Seeing Structure in Expressions, Creating Equations, Arithmetic with Polynomials and Rational Expressions, etc.

How to Use the Maps

Overview
An overview is provided for each quarter and includes the topics, focus standards, intended rigor of the standards and foundational skills needed for success of those standards.

Your curriculum map contains four columns that each highlight specific instructional components. Use the details below as a guide for information included in each column.

Tennessee State Standards
TN State Standards are located in the left column. Each content standard is identified as Major Content or Supporting Content. A key can be found at the bottom of the map.

Content
This section contains learning objectives based upon the TN State Standards. Best practices tell us that clearly communicating measurable objectives lead to greater student understanding. Additionally, essential questions are provided to guide student exploration and inquiry.

Instructional Support
District and web-based resources have been provided in the Instructional Support column. You will find a variety of instructional resources that align with the content standards. The additional resources provided should be used as needed for content support and scaffolding.

Vocabulary and Fluency
The inclusion of vocabulary serves as a resource for teacher planning and for building a common language across K-12 mathematics. One of the goals for Tennessee State Standards is to create a common language, and the expectation is that teachers will embed this language throughout their daily lessons. In order to aid your planning, we have also included a list of fluency activities for each lesson. It is expected that fluency practice will be a part of your daily instruction. (Note: Fluency practice is not intended to be speed drills, but rather an intentional sequence to support student automaticity. Conceptual understanding must underpin the work of fluency.

Instructional Calendar
As a support to teachers and leaders, an instructional calendar is provided ***as a guide***. Teachers should use this calendar for effective planning and pacing, and leaders should use this calendar to provide *support* for teachers. Due to variances in class schedules and differentiated support that may be needed for students' adjustment to the calendar may be required.

Grade 5 Quarter 1 Overview

Module 1: Place Value and Decimal Fractions
Module 2: Multi- Digit Whole Number and Decimal Fraction Operations

The chart below includes the standards that will be addressed in this quarter, the type of rigor the standards address, and foundational skills needed for mastery of these standards. Consider using these foundational standards to address student gaps during intervention time as appropriate for students.

Focus Grade Level Standard	Type of Rigor	Foundational Standards
5.NBT.A.1	Conceptual Understanding	4.NF.C.5, 4.NF.C.6, 4.NF.C.7, 4.NBT.A.1
5.NBT.A.2	Conceptual Understanding, Procedural Fluency	5.NBT.A.1
5.NBT.A.3	Conceptual Understanding, Procedural Fluency	4.NBT.A.2, 4.NF.C.7, 5.NBT.A.1
5.NBT.A.4	Conceptual Understanding, Procedural Fluency	4.NBT.A.3, 5.NBT.A.1, 5.NBT.A.3
5.NBT.B.5	Procedural Fluency	4.NBT.B.4, 4.NBT.B.5, 5.NBT.A.1, 5.NBT.A.2, 5.NBT.B.7
5.NBT.B.6	Conceptual Understanding, Procedural Fluency	4.NBT.B.4, 4.NBT.B.6, 5.NBT.A.1, 5.NBT.B.5
5.NBT.B.7	Conceptual Understanding, Procedural Fluency	4.NBT.B.4, 5.NBT.A.1, 5.NF.A.1, 5.NF.B.4, 5.NF.B.7, 5.NBT.B.6
5.OA.A.1	Conceptual Understanding, Procedural Fluency	Introductory
5.OA.A,2	Conceptual Understanding	5.OA.A.1

Curriculum and Instruction – Mathematics

Quarter 1 — Grade 5

TN STATE STANDARDS	CONTENT	INSTRUCTIONAL SUPPORT	VOCABULARY/FLUENCY
Module 1: Place Value and Decimal Fractions			
Domain: Numbers and Operations in Base Ten **Cluster:** Understand the Place Value System ■**5.NBT.A.1** Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and 1/10 of what it represents in the place to its left. ■**5.NBT.A.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. **Domain: Measurement and Data** **Cluster: Convert like measurement units within a given measurement system from a larger unit to a smaller unit.** ➢ **5.MD.A.1** Convert customary and metric measurement units within a single system by expressing measurements of a larger unit in terms of a smaller unit. Use these conversions to solve multi-step real-world problems involving distances, intervals of time, liquid volumes, masses of objects, and money (including problems involving simple fractions or decimals). For example, 3.6 liters and 4.1 liters can be combined as 7.7 liters or 7700 milliliters	**Essential Questions** • How can counting, measuring, or labeling help to make sense of the world around us? • How does a digit's position affect its value? **Topic A : Multiplicative Patterns on the Place Value Chart** **Objectives/Learning Targets:** **Lesson 1:** I can reason concretely and pictorially using place value understanding to relate adjacent base ten units from millions to thousandths. **(5.NBT.A.1, 5.NBT.A.2, 5. MD.A.1)** **Lesson 2:** I can reason abstractly using place value understanding to relate adjacent base ten units from millions to thousandths. **(5.NBT.A.1, 5.NBT.A.2, 5. MD.A.1)** **Lesson 3:** I can use exponents to name place value units and explain patterns in the placement of the decimal point. **(5.NBT.A.1, 5.NBT.A.2, 5. MD.A.1)** **Lesson 4:** I can use exponents to denote powers of 10 with application to metric conversions. **(5.NBT.A.1, 5.NBT.A.2, 5. MD.A.1)**	Eureka Parent Newsletter: Topic A Optional Quiz: Topic A **Pacing Considerations:** No pacing adjustments recommended **Additional instructional resources for enrichment/remediation:** Eureka Remediation Guide: Topic A Ready teacher-toolbox aligned lessons: • Lesson 1: Understand Place Value • Lesson 2: Understand Powers of Ten Zearn - Mission 1 Lesson 1: Move the Digits Lesson 2: Digit Dance Lesson 3: Excellence with Exponents Lesson 4: Millimeters, Centimeters, Meters Embarc.online - Module 1 **Videos:** • **Compare the value of the digits in a multi-digit whole number** • **Use place value to explain the pattern when a decimal is divided by a power of 10**	**Vocabulary** Exponents, Millimeter, Thousandths **Familiar Terms and Symbols** >, <, = (greater than, less than, equal to), Base ten units (place value units), Bundling, making, renaming, changing, regrouping, trading, Centimeter, Digit, Expanded, Hundredths (as related to place value), Number line, Number sentence, Place value, Standard form, Tenths, Unbundling, breaking, renaming, changing, regrouping, trading, Unit form, Word form **Fluency Practice:** **Lesson 1-** Sprint: Multiply by 10 Rename the Units Decimal Place Value **Lesson 2** Skip Counting Take Out the Tens Bundle Ten and change Units Multiply and divide by Ten **Lesson 3** Sprint: Multiply by 3 State the Unit as a Decimal Multiply by 10, 100, and 1,000 **Lesson 4**

TN STATE STANDARDS	CONTENT	INSTRUCTIONAL SUPPORT	VOCABULARY/FLUENCY
		• Multiply whole numbers by powers of 10 using knowledge of place value • Recognize place value relationships by multiplying and dividing by ten **I-Ready Lessons** • Understand Place Value • Read and Write Decimals **Task Bank** Kipton's Scale (5.NBT.A.1) Which Number Is It? (5.NBT.A.1) Tenths and Hundredths (5.NBT.A.1) Millions and Billions of People (5.NBT.A.1)	Multiply and Divide Decimals by 10, 100, and 1,000 Write the Unit as a Decimal Write in Exponential Form Convert Units
Domain: Numbers and Operations in Base Ten **Cluster:** Understand the Place Value System **5.NBT.A.3** Read and write decimals to thousandths using standard form, word form, and expanded form (e.g., the expanded form of 347.392 is written as 3 x 100 + 4 x 10 + 7 x 1 + 3 x (1/10) + 9 x (1/100) + 2 x (1/1000)). Compare two decimals to thousandths based on meanings of the digits in each place and use the symbols >, =, and < to show the relationship.	**Topic B: Decimal Fractions and Place Value Patterns** **Objectives/Learning Targets:** **Lesson 5:** I can name decimal fractions in expanded, unit, and word forms by applying place value reasoning. **(5.NBT.A.3)** **Lesson 6:** I can compare decimal fractions to the thousandths using like units, and express comparisons with >, <, =. **(5.NBT.A.3)**	Eureka Parent Newsletter: Topic B Optional Quiz: Topic B **Pacing Considerations:** No pacing adjustments recommended **Additional instructional resources for enrichment/remediation:** Eureka Remediation Guide: Topic B Ready teacher-toolbox aligned lessons: • Lesson 3: Read and Write Decimals Zearn - Mission 1 Lesson 5: Name that Decimal Lesson 6: Classy Comparisons Embarc.online - Module 1	**Fluency Practice:** **Lesson 5** Sprint: Multiply Decimals by 10, 100, and 1,000 Multiply and Divide by Exponents Multiply Metric Units **Lesson 6** Find the Midpoint Rename the Units Multiply by Decimal Fractions

TN STATE STANDARDS	CONTENT	INSTRUCTIONAL SUPPORT	VOCABULARY/FLUENCY
		Videos: • Write decimals in expanded form • Write decimals in expanded notation **I-Ready Lessons** • Understand Place Value • Read and Write Decimals **Task Bank** Drawing Pictures to Illustrate Decimal Comparison (5.NBT.A.2) Comparing Decimals on a Number Line (5.NBT.A.3) Placing Thousandths on a Number Line (5.NBT.A.3)	
Domain: Numbers and Operations in Base Ten **Cluster:** Understand the Place Value System **5.NBT.A.4** Use place value understanding to round decimals to any place.	**Topic C: Place Value and Rounding Decimal Fractions** **Objectives/Learning Targets:** **Lessons 7–8:** I can round a given decimal to any place using place value understanding and the vertical number line. **(5.NBT.A.4)** **Complete Mid-Module Assessment**	Eureka Parent Newsletter: Topic C Optional Quiz: Topic C **Pacing Considerations:** **Lessons 7 and 8** can be combined. When combining lessons, review and choose the problems that align to the depth of knowledge the standard requires and meets the needs of your students in both the concept development, problem set and exit ticket. **Additional instructional resources for enrichment/remediation:** Eureka Remediation Guide: Topic C Ready teacher-toolbox aligned lessons: • Lesson 4: Compare and Round Decimals	**Fluency Practice:** **Lesson 7** Sprint: Find the Midpoint Compare Decimal Fractions Rename the Units **Lesson 8** Rename the Units Round to Different Place Values

TN STATE STANDARDS	CONTENT	INSTRUCTIONAL SUPPORT	VOCABULARY/FLUENCY
		Zearn - Mission 1 Lesson 7: Decimal Round Lesson 8: More Rounding **Embarc.online - Module 1** **Videos:** • **Round Numbers to a specified place on a number line** • **Round decimals to any given place** **I-Ready Lessons** • Round Decimals **Task Bank** **Rounding to Tenths and Hundredths (5.NBT.A.4)**	
Domain: Numbers and Operations in Base Ten **Cluster:** Understand the Place Value System **5.NBT.A.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.A.3** Read and write decimals to thousandths using standard form, word form, and expanded form (e.g., the expanded form of 347.392 is written as 3 x 100 + 4 x 10 + 7 x 1 + 3 x (1/10) + 9 x (1/100) + 2 x (1/1000)). Compare two decimals to thousandths based on meanings of the digits in each place and use the symbols >, =, and < to show the relationship.	**Topic D: Adding and Subtracting Decimals** **Objectives/Learning Targets:** **Lesson 9:** I can add decimals using place value strategies and relate those strategies to a written method. **(5.NBT.A.2, 5.NBT.A.3, 5.NBT.B.7)** **Lesson 10:** I can subtract decimals using place value strategies and relate those strategies to a written method. **(5.NBT.A.2, 5.NBT.A.3, 5.NBT.B.7)**	**Eureka Parent Newsletter: Topic D** **Optional Quiz: Topic D** **Pacing Considerations:** **IF** students are fluent in whole number addition and subtraction, Lessons 9 and 10 can be combined. When combining lessons, review and choose the problems that align to the depth of knowledge the standard requires and meets the needs of your students in both the concept development, problem set and exit ticket. **Additional instructional resources for enrichment/remediation:** **Eureka Remediation Guide: Topic D**	**Fluency Practice:** **Lesson 9** Sprint: Round to the Nearest One Decompose the Unit Round to Different Place Values One More Unit **Fluency Practice:** **Lesson 10** Take Out the Unit Add Decimals One Less Unit

Curriculum and Instruction – Mathematics

Quarter 1 Grade 5

TN STATE STANDARDS	CONTENT	INSTRUCTIONAL SUPPORT	VOCABULARY/FLUENCY
Domain: Numbers and Operations in Base Ten **Cluster:** Perform operations with multi-digit whole numbers and with decimals to hundredths. **5.NBT.B.7** 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 operations; assess the reasonableness of answers using estimation strategies. (Limit division problems so that either the dividend or the divisor is a whole number.)		**Ready teacher-toolbox aligned lessons:** • Lesson 7: Add and Subtract Decimals **Zearn - Mission 1** Lesson 9: Add by Place Lesson 10: Place to Subtract **Embarc.online - Module 1** **Videos:** • **Adding Decimals using a variety of strategies and models** **I-Ready Lessons** • Add and Subtract Decimals	
Domain: Numbers and Operations in Base Ten **Cluster:** Understand the Place Value System **5.NBT.A.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.A.3** Read and write decimals to thousandths using standard form, word form, and expanded form (e.g., the expanded form of 347.392 is written as 3 x 100 + 4 x 10 + 7 x 1 + 3 x (1/10) + 9 x (1/100) + 2 x (1/1000)). Compare two decimals to thousandths based on meanings of the digits in each place and use the symbols >, =, and < to show the relationship.	**Topic E: Multiplying Decimals** **Objectives/Learning Targets:** **Lesson 11:** I can multiply a decimal fraction by single-digit whole numbers, relate to a written method through application of the area model and place value understanding, and explain the reasoning used. **(5.NBT.A.2, 5.NBT.A.3, 5.NBT.B.7)** **Lesson 12:** I can multiply a decimal fraction by single-digit whole numbers, including using estimation to confirm the placement of the decimal point. **(5.NBT.A.2, 5.NBT.A.3, 5.NBT.B.7)**	**Eureka Parent Newsletter Topic E** **Optional Quiz: Topic E** **Pacing Considerations:** **Lesson 12:** Can be omitted if teacher is having trouble with pacing. Re-visit after TN Ready if omitting this lesson. **Additional instructional resources for enrichment/remediation:** **Remediation Guide** **Ready teacher-toolbox aligned lessons:** • Lesson 8: Multiply Decimals **Zearn - Mission 1** Lesson 11: Copying Decimals Lesson 12: What's Reasonable?	**Fluency Practice:** **Lesson 11** Take Out the Unit Add and Subtract Decimals **Lesson 12** Sprint: Add Decimals Find the Product

TN STATE STANDARDS	CONTENT	INSTRUCTIONAL SUPPORT	VOCABULARY/FLUENCY
Domain: Numbers and Operations in Base Ten **Cluster:** Perform operations with multi-digit whole numbers and with decimals to hundredths. **5.NBT.B.7** 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 operations; assess the reasonableness of answers using estimation strategies. (Limit division problems so that either the dividend or the divisor is a whole number.)		Embarc.online - Module 1 **Videos** • Multiplying decimals – shown as repeated addition using base ten models **I-Ready Lessons** Ready teacher-toolbox aligned lessons: **Task Bank** Marta's Multiplication Error (5.NBT.A.2)	
Domain: Numbers and Operations in Base Ten **Cluster:** Understand the Place Value System **5.NBT.A.3** Read and write decimals to thousandths using standard form, word form, and expanded form (e.g., the expanded form of 347.392 is written as 3 x 100 + 4 x 10 + 7 x 1 + 3 x (1/10) + 9 x (1/100) + 2 x (1/1000)). Compare two decimals to thousandths based on meanings of the digits in each place and use the symbols >, =, and < to show the relationship. **Domain:** Numbers and Operations in Base Ten **Cluster:** Perform operations with multi-digit whole numbers and with decimals to hundredths. **5.NBT.B.7** 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 operations; assess the reasonableness	**Topic F: Dividing Decimals** **Objectives/Learning Targets:** **Lesson 13:** I can divide decimals by single-digit whole numbers involving easily identifiable multiples using place value understanding and relate to a written method. **(5.NBT.A.3, 5.NBT.B.7)** **Lesson 14:** I can divide decimals with a remainder using place value understanding and relate to a written method. **(5.NBT.A.3, 5.NBT.B.7)** **Lesson 15:** I can divide decimals using place value understanding including remainders in the smallest unit. **(5.NBT.A.3, 5.NBT.B.7)** **Lesson 16:** I can solve word problems using decimal operations. **(5.NBT.A.3, 5.NBT.B.7)**	Eureka Parent Newsletter: Topic F Optional Quiz: Topic F **Pacing Considerations:** **Lesson 14 and 15** can be combined if the teacher is having issues with pacing. When combining lessons, review and choose the problems that align to the depth of knowledge the standard requires and meets the needs of your students in both the concept development, problem set and exit ticket. **Additional instructional resources for enrichment/remediation:** Remediation Guide Ready teacher-toolbox aligned lessons: • Lesson 9: Divide Decimals Zearn - Mission 1 Lesson 13: Mindful Division Lesson 14: Decimal Division	**Fluency Practice:** **Lesson 13** Sprint: Subtract decimals Find The Product Compare Decimal Fractions **Lesson 14** Multiply and Divide by Exponents Round to Different Place Values Find the quotient **Lesson 15** Sprint: Multiply by Exponents Find the Quotient **Lesson 16** Divide by Exponents Find the Quotient

TN STATE STANDARDS	CONTENT	INSTRUCTIONAL SUPPORT	VOCABULARY/FLUENCY
of answers using estimation strategies. (Limit division problems so that either the dividend or the divisor is a whole number.)	**Complete End-of-Module Assessment**	Lesson 15: Dynamo Division Lesson 16: Decimal Problem Solving Embarc.online - Module 1 **Videos:** Divide Decimals using the knowledge of multiplication **I-Ready Lessons** • Divide Decimals **Task Bank** What is 23 Divided by 5? (5.NBT.B.7) The Value of Education (5.NBT.B.7)	
Module 2 Multi-Digit Whole Number and Decimal Fraction Operations			
Domain: Number and Operations in Base Ten **Cluster:** Understand The Place Value System. **5.NBT.A.1** Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and 1/10 of what it represents in the place to its left. **5.NBT.A.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.	**Essential Questions** • How does multiplication relate to the other operations? • What makes a computational strategy both effective and efficient? • How does the size of the number affect the outcome of the operation? • How can we decide when to use an exact answer and when to use an estimate? **Learning Targets** **Topic A** **Lesson 1:** I can multiply multi-digit whole numbers and multiples of 10 using place value patterns and the distributive and associative properties. **(5.NBT.A.1, 5.NBT.A.2,** 5.OA.A.1)	Eureka Parent Newsletter: Topic A Optional Quiz: Topic A **Pacing Considerations:** **Lesson 2:** can be omitted if the teacher is struggling with pacing. **Additional instructional resources for enrichment/remediation:** Remediation Guide Ready teacher-toolbox aligned lessons: • Lesson 1: Understand Place Value • Lesson 2: Understand Powers of Ten	**Vocabulary** Conversion factor, Decimal fraction, Multiplier, Parentheses **Familiar Terms and Symbols** Decimal, digit, divisor, equation, equivalence, equivalent, estimate, exponent, multiple, pattern, product, quotient, remainder, renaming, rounding, unit form **Fluency Practice:** **Lesson 1** Multiply by 10, 100, and 1,000 Place Value Round to Different Place Values **Lesson 2** Multiply by 10, 100, and 1,000 Round to Different Place Values Multiply by Multiples of 10

TN STATE STANDARDS	CONTENT	INSTRUCTIONAL SUPPORT	VOCABULARY/FLUENCY
	Lesson 2: I can estimate multi-digit products by rounding factors to a basic fact and using place value patterns. **(5.NBT.A.1, 5.NBT.A.2,** 5.OA.1)	Zearn - Zearn Mission 2 Lesson 2: Multiplication Estimation Embarc.online- Module 2 **Videos:** Multiplying by powers of 10 Understand that a digit in one place is 1/10 the value of the digit to the left (using whole numbers) **I-Ready Lessons** • Understand Place Value **Task Bank** Drawing Pictures to Illustrate Decimal Comparison (5.NBT.A.2) Kipton's Scale (5.NBT.A.1) Which Number Is It? (5.NBT.A.1)	
Domain: Operations and Algebraic Thinking **Cluster:** Write and interpret numerical expressions. ➢ **5.OA.A.1** Use parentheses and/or brackets in numerical expressions and evaluate expressions having these symbols using the conventional order (Order of Operations). ➢ **5.OA.A.2** Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them. For example, express the calculation "add 8 and 7, then multiply by2" as 2x(8+7). Recognize that 3x(18932+ 921) is three times as large as 18932 + 921, without having to calculate the indicated sum or product.	**Topic B** **Lesson 3:** I can write and interpret numerical expressions, and compare expressions using a visual model. **(5.OA.A.1, 5.OA.2, 5.NBT.A.5)** **Lesson 4:** I can convert numerical expressions into unit form as a mental strategy for multi-digit multiplication. **(5.OA.A.1, 5.OA.A.2, 5.NBT.B.5)** **Lesson 5:** I can connect visual models and the distributive property to partial products of the standard algorithm without renaming. **(5.OA.A.1, 5.OA.A.2, 5.NBT.B.5)**	Eureka Parent Newsletter: Topic B **Optional Quiz** **Pacing Considerations:** **Lesson 4** can be omitted if the teacher is struggling with pacing. **Additional instructional resources for enrichment/remediation:** Eureka Remediation Guide: Topic B Ready teacher-toolbox aligned lessons: • Lesson 5: Multiply Whole Numbers	**Fluency Practice:** **Lesson 3** Multiply by Multiples of 10 Estimate Products Decompose a Factor: The distributive Property **Lesson 5** Estimate Products by Rounding Multiply Mentally Multiply by Multiples of 100 **Lesson 6-7** Multiply using the Area Model Multiply Mentally Multiply by Multiples of 100

TN STATE STANDARDS	CONTENT	INSTRUCTIONAL SUPPORT	VOCABULARY/FLUENCY
Domain: Number and Operations in Base Ten **Cluster:** Perform operations with multi-digit whole numbers and with decimals to hundredths. ■**5.NBT.B.5** Fluently multiply multi-digit whole numbers (up to three-digit by four-digit factors) using appropriate strategies and algorithms.	**Lessons 6–7:** I can connect area models and the distributive property to partial products of the standard algorithm with renaming. **(5.OA.A.1, 5.OA.A.2, 5.NBT.B.5)** **Lesson 8:** I can fluently multiply multi-digit whole numbers using the standard algorithm and using estimation to check for reasonableness of the product. **(5.OA.A.1, 5.OA.A.2, 5.NBT.B.5)** **Lesson 9:** I can fluently multiply multi-digit whole numbers using the standard algorithm to solve multi-step word problems. **(5.OA.A.1, 5.OA.A.2, 5.NBT.B.5)**	Zearn- Mission 2 Lesson 3: What Does That Say? Lesson 4: Mental Math Multiplication Lesson 5: Area Model Multiplication Lesson 6: Area Model Multiplication Returns Lesson 7: Area Model Multiplication Again Lesson 8: Is it Reasonable? Lesson 9: Multi-Multiply Embarc.online-Module 2 **Videos** • Work with expressions that have parentheses • Multiply multi-digit whole numbers by using the area model strategy • **I-Ready Lessons** • Write and evaluate Expressions • Multiplying by Two-Digit Numbers **Task Bank:** Watch Out for Parenthesis (5.OA.A.1) Bowling for Numbers (5.OA.A.1)	Sprint: Multiply by Multiples of Ten Multiply Using the Area Model **Lesson 8** State in Exponential Form Name Multiply Using the Area Model with a Zero in One Factor **Lesson 9** Multiply and Divide by Exponents Estimate Products by Rounding
Domain: Number and Operations in Base Ten **Cluster:** Perform operations with multi-digit whole numbers and with decimals to hundredths. ■**5.NBT.B.7** 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 operations; assess the reasonableness of answers using estimation strategies. (Limit division problems so that either the dividend or the divisor is a whole number.)	**Topic C** **Lesson 10:** I can multiply decimal fractions with tenths by multi-digit whole numbers using place value understanding to record partial products. **(5.NBT.B.7**, 5.OA.A.1, 5.OA.A.2, 5.NBT.A.1) **Lesson 11:** I can multiply decimal fractions by multi-digit whole numbers through conversion to a whole number problem and reasoning about the placement of the decimal. **(5.NBT.B.7**, 5.OA.A.1, 5.OA.A.2, 5.NBT.A.1)	Eureka Parent Newsletter: Topic C Optional Quiz **Pacing Considerations:** No pacing adjustments recommended **Additional instructional resources for enrichment/remediation:** Remediation Guide Ready teacher-toolbox aligned lessons:	**Fluency Practice:** **Lesson 10** Multiply then Divide by the Same Number Decompose Decimals **Lesson 11** Sprint: Multiply Decimals Multiply then Divide by the Same Number **Lesson 12** Unit conversions State the Decimal

TN STATE STANDARDS	CONTENT	INSTRUCTIONAL SUPPORT	VOCABULARY/FLUENCY
	Lesson 12: I can reason about the product of a whole number and a decimal with hundredths using place value understanding and estimation. **(5.NBT.B.7**, 5.OA.A.1, 5.OA.A.2, 5.NBT.B.1)	• Lesson 8: Multiply Decimals **Zearn - Mission 1** Lesson 10: Times Tenths Lesson 11: Excellent Estimation Lesson 12: Multiplying, It's Magic **Embarc.online- Module 2** **Videos:** • **Multiplying decimals as repeated addition in an area model** **I-Ready Lessons** • Multiply Decimals **Task Bank** **The Value of Education (5.NBT.B.7)**	
Domain: Number and Operations in Base Ten **Cluster:** Perform operations with multi-digit whole numbers and with decimals to hundredths. **5.NBT.B.5** Fluently multiply multi-digit whole numbers (up to three-digit by four-digit factors) using appropriate strategies and algorithms. **5.NBT.B.7** 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 operations; assess the reasonableness of answers using estimation strategies. (Limit division problems so that either the dividend or the divisor is a whole number.) **Domain:** Measurement and Data **Cluster:** Convert like measurement units within	**Topic D** **Lesson 13:** I can use whole number multiplication to express equivalent measurements. **(5.NBT.B.5, 5.NBT.B.7, 5. MD.A.1**, 5.NBT.A.1, 5.NBT.A.2) **Lesson 14:** I can use fraction and decimal multiplication to express equivalent measurements. **(5.NBT.B.5, 5.NBT.B.7, 5. MD.A.1**, 5.NBT.A.1, 5.NBT.A.2) **Lesson 15**: I can solve two-step word problems involving measurement conversions. **(5.NBT.B.5, 5.NBT.B.7, 5. MD.A.1**, 5.NBT.A.1, 5.NBT.A.2) **Complete Mid-Module Assessment**	**Eureka Parent Newsletter: Topic D** **Optional Quiz** **Pacing Considerations:** No pacing adjustments recommended **Additional instructional resources for enrichment/remediation:** **Remediation Guide** **Ready teacher-toolbox aligned lessons:** • Lesson 21: Convert Measurement Units • Lesson 22: Solve Word Problems Involving Conversions	**Fluency Practice:** **Lesson 13** Divide by 10, 100, and 1,000 Multiply Using the Area Model Unit Conversions **Lesson 14** Divide Multiples of Ten Unit Conversions Multiply Unit Fractions **Lesson 15** Sprint: Convert Inches to Feet and Inches Divide by Multiples of 10 and 100

TN STATE STANDARDS	CONTENT	INSTRUCTIONAL SUPPORT	VOCABULARY/FLUENCY
a given measurement system from a larger unit to a smaller unit. ➢ **5.MD.A.1** Convert customary and metric measurement units within a single system by expressing measurements of a larger unit in terms of a smaller unit. Use these conversions to solve multi-step real-world problems involving distances, intervals of time, liquid volumes, masses of objects, and money (including problems involving simple fractions or decimals). For example, 3.6 liters and 4.1 liters can be combined as 7.7 liters or 7700 milliliters.		Zearn - Mission 1 Lesson 13: Multiply to Convert Lesson 14: Cool Conversions Lesson 15: Convert to Solve Embarc.online - Module 2 **Videos:** **I-Ready Lessons** • Solve Word Problems Involving Conversions **Task Bank** Elmer's Multiplication Error (5.NBT.B.5)	

RESOURCE TOOLBOX

The Resource Toolbox provides additional support for comprehension and mastery of grade-level skills and concepts. These resources were chosen as an accompaniment to modules taught within this quarter. Incorporated materials may assist educators with grouping, enrichment, remediation, and differentiation.

NWEA MAP Resources: https://teach.mapnwea.org/assist/help_map/ApplicationHelp.htm#UsingTestResults/MAPReportsFinder.htm - Sign in and Click the Learning Continuum Tab – this resources will help as you plan for intervention, and differentiating small group instruction on the skill you are currently teaching. (Four Ways to Impact Teaching with the Learning Continuum)

https://support.nwea.org/khanrit - These Khan Academy lessons are aligned to RIT scores.

Textbook Resources

Great Minds' Eureka Math

TN State Standards/CCSS

TN Math Standards
Achieve the Core

Videos

Tech Coach Corner PowerPoint and Resources Teaching Channel
Scholastic Math Study
Jams Math TV
LearnZillion
Khan Academy

Interactive Manipulatives

http://www.eduplace.com/
Illuminations Resources for Teaching Math
Interactive Sites for Educators
Math Playground: Common Core Standards
PARCC Games
Virtual Manipulatives
IXL MATH
Thnikning Blocks: Computer and Ipad based programs

Additional Sites

http://www.k-5mathteachingresources.com/5th-grade-number-activities.html
http://embarc.online
Edutoolbox Resources
Illustrated Mathematics Dictionary for Kids
Parent Roadmap: Supporting Your Child in Grade 5 Mathematics

Other:

Use this guide as you prepare to teach a module for additional guidance in planning, pacing, and suggestions for omissions.

Pacing and Preparation Guide (Omissions)

SHELBY COUNTY SCHOOLS 2018-2019 MATHEMATICS INSTRUCTIONAL CALENDAR – GRADE 5

August 2018						
Lessons for the Week	**Monday**	**Tuesday**	**Wednesday**	**Thursday**	**Friday**	**Notes:**
			1	**2**	**3**	Optional Quizzes: Module 1 Topic A Topic B Topic C Topic D Topic E Topic F (Quizzes should not take more than 15 minutes to administer) **Combine Lesson 7 & 8**
2-3 days for routines and procedures **Module 1** **Topic A: Lesson 1-2**	**6** *1st Day of School*	**7**	**8**	**9**	**10**	
Module 1 **Topic A: Lesson 3-4** **Topic B: Lessons 5-6** **Topic C: Lessons 7 - 8** **(Combine lesson 7 & 8)**	**13**	**14**	**15**	**16**	**17**	
Module 1 **1-day Review** **Mid Module Assessment** **Topic D: Lessons 9-10** **Topic E: Lesson 11**	**20**	**21** **M1: Mid Module Assessment Complete**	**22**	**23**	**24**	
Module 1 **Topic E: Lesson 12** **Topic F: Lesson 13-16**	**27**	**28**	**29**	**30**	**31**	

Note: Please use this suggested pacing as a guide. It is understood that teachers may be up to 1 week ahead or 1 week behind depending on their individual class needs.

SHELBY COUNTY SCHOOLS 2018-2019 MATHEMATICS INSTRUCTIONAL CALENDAR – GRADE 5

September 2018						
Suggested Lessons for the Week	**Monday**	**Tuesday**	**Wednesday**	**Thursday**	**Friday**	**Notes:**
Module 1 1-day Review End of Module Assessment Flex (NWEA) Day Flex (Task) Day	**3** ***Labor Day (Out)***	**4**	**5** M1: End Module Assessment Complete	**6**	**7**	Note: ***Flex days*** are included in the instructional calendar to allow opportunities for review, district testing, tasks and other school-based activities. (See curriculum map for Task Bank) Optional Quizzes: Module 2 Topic A Topic B Topic C Topic D (Quizzes should not take more than 15 minutes to administer)
Module 2 Topic A: Lesson 1-2 Topic B: Lessons 3-5	**10**	**11**	**12**	**13** *Parent Conferences*	**14**	
Module 2 Topic B: Lessons 6-9 Topic C: Lesson 10	**17**	**18**	**19**	**20**	**21**	
Module 2 Topic C: Lessons 11-12 Topic D: 13-15	**24**	**25**	**26**	**27**	**28**	

Note: Please use this suggested pacing as a guide. It is understood that teachers may be up to 1 week ahead or 1 week behind depending on their individual class needs.

SHELBY COUNTY SCHOOLS 2018-2019 MATHEMATICS INSTRUCTIONAL CALENDAR –

October 2018

Lessons for the Week	Monday	Tuesday	Wednesday	Thursday	Friday	Notes:
Module 2 1-day Review Mid Module Assessment 3-day Flex (Task) Day	1	2 M2: Mid Module Assessment Complete	3	4	5 *End of 1st Nine Weeks*	Note: ***Flex days*** are included in the instructional calendar to allow opportunities for review, district testing, tasks and other school-based activities. (See curriculum map for Task Bank) Optional Quizzes: Module 2 Topic E Topic F Topic G Topic H (Quizzes should not take more than 15 minutes to administer)
	8 *Columbus Day*	9 *Fall Break*	10	11	12	
Module 2 Topic E: Lessons 16-18 Topic F: Lessons 19-20	15 *Begin 2nd Nine Weeks*	16	17	18	19	
Module 2 Topic F: Lessons 21-23 Topic G: Lessons 24-25	22	23	24	25	26	
Module 2 Topic G: Lessons 26-27 Topic H: 28-29 1 Day Review	29	30	31 *Halloween*	1	2	

Note: Please use this suggested pacing as a guide. It is understood that teachers may be up to 1 week ahead or 1 week behind depending on their individual class needs.