Mathematics
Grade 6: Year at a Glan
2018-2019

Q1 Q2 Q3 Q4

Module 1 Aug. 6-Sept. 14	Module 2 Sept. 17- Oct. 22	Module 3 Oct. 23-Nov. 27	Module 4 Nov. 28-Jan. 30	Module 5 Jan 31- Mar. 1	Module 6 March 16 – May 24	After Testing
Ratios and Unit Rates	Arithmetic Operations Including Division of Fractions	Rational Numbers	Expressions and Equations	Area, Surface Area & Volume	Statistics (Includes TNReady & Semester Exam Days)	Review Module 1, Module 3, & Module 4
6.RP.1	6.NS.1	6.NS.5	6.EE.1	6.G.1	6.SP.1	6.RP.1
6.RP.2	6.NS.2	6.NS.6	6.EE.2	6.G.2	6.SP.2	6.RP.2
6.RP.3	6.NS.3	6.NS.7	6.EE.3	6.G.3	6.SP.3	6.RP.3
	6.NS.4	6.NS.8	6.EE.4	6.G.4	6.SP.4	6.NS.5
			6.EE.5		6.SP.5	6.NS.6
			6.EE.6			6.NS.7
			6.EE.7			6.NS.8
			6.EE.8			6.NS.1
			6.EE.9			6.NS.2
						6.NS.3
						6.NS.4

Key:

Major Content	Supporting Content

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

[Eureka Grade 6 Pacing and Preparation Guide](#)

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?

80%	90%	100%
of seniors will be college-or career-ready	of students will graduate on time	of college-or career-ready graduates enroll in post-secondary opportunities

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**.

Instructional Shifts for Mathematics

| Focus	Coherence	Rigor
		Conceptual Understanding
		Procedural Fluency
		Application

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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 Proficiency
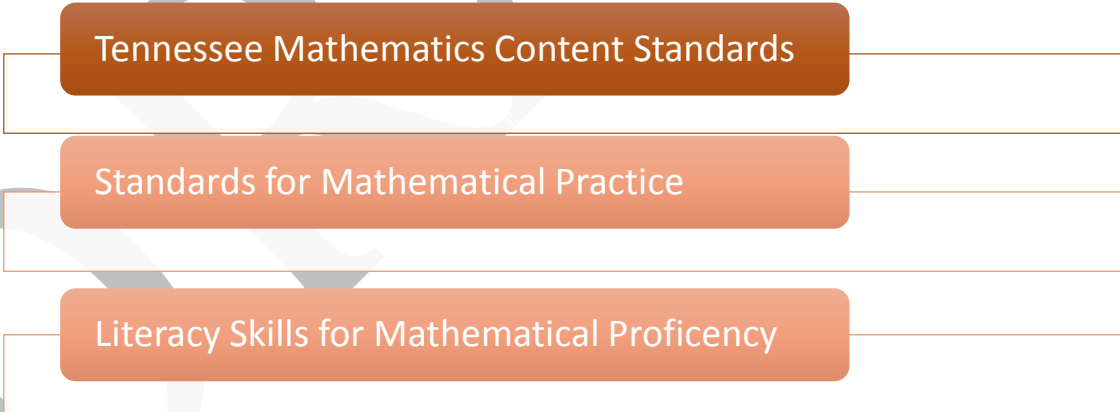
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Structure of the Standards

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.

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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.

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Grade 6 Quarter 1 Overview

Module 1: Ratios & Unit Rates
Module 2: Arithmetic 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.

Grade Level Standard	Type of Rigor	Foundational Standards
6.RP.1	Conceptual Understanding	4.MD.1, 4.OA.2, 5.NF.5, 5.OA.3
6.RP.2	Conceptual Understanding	4.OA.2, 5.NF.3, 5.NF.7, 6.RP.1
6.RP.3	Procedural Fluency & Application	
6.NS.1	Conceptual Understanding	5.NF.7
6.NS.3	Procedural Fluency	5.NBT.5, 5.NBT.6, 5.NBT.7

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TN STATE STANDARDS	CONTENT	INSTRUCTIONAL SUPPORT	VOCABULARY
Module 1 Ratios and Unit Rates **Grade 6 Pacing and Preparation Guide** (Allow approximately 6 weeks for instruction, review and assessment)			

TN STATE STANDARDS	CONTENT	INSTRUCTIONAL SUPPORT	VOCABULARY
Domain: Ratios and Proportional Relationships **Cluster:** Understand ratio concepts and use ratio reasoning to solve problems. ■ **6.RP.A.1**: Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities. ■ **6.RP.A.3a**: Make tables of equivalent ratios relating quantities with whole-number measurements, find missing values in the tables, and plot the pairs of values on the coordinate plane. Use tables to compare ratios.	**Essential Question(s):** • How can ratio and rate reasoning be used to solve real-world mathematical problems? • How is a ratio or rate used to compare two quantities or values? **Topic A Objectives:** **Lesson 1:** • Students understand that a ratio is an ordered pair of numbers which are not both zero. Students understand that a ratio is often used instead of describing the first number as a multiple of the second. • Students use the precise language and notation of ratios (e.g., 3: 2, 3 to 2). Students understand that the order of the pair of numbers in a ratio matters and that the description of the ratio relationship determines the correct order of the numbers. Students conceive of real-world contextual situations to match a given ratio. **Lesson 2:** • Students reinforce their understanding that a ratio is an ordered pair of nonnegative numbers, which are not both zero. Students continue to learn and use the precise language and notation of ratios (e.g., 3: 2, 3 to 2). Students demonstrate their understanding that the order of the pair of numbers in a ratio matters. • Students create multiple ratios from a	**Topic A: Representing and Reasoning About Ratios** **Lessons 1 & 2, Combine** Suggestions for combining • *Lesson 1 – Example 1, Exercise 2* • *Lesson 2- Exploratory Challenge and Problem set; Combine exit tickets* **Lessons 3 & 4, Combine** Suggestions for combining • *Lesson 3- Exercises 2-4* • *Lesson 4- Example 1, Exercises 1-2* • *Combine Exit Tickets* • *Lessons 3 & 4 Problem sets* **Lessons 5 & 6, Combine** Suggestions for combining • *Lesson 5 – Example 1* • *Lesson 6 – Exercise 1* • *Choose exercises from both lessons* • *Combine exit tickets* • *Choose problems from both problem sets* **Lessons 7 & 8, Combine** Suggestions for combining • *Lesson 7- Examples 1 & 2, Exercises 1-2* • *Lesson 8 – Exercise 3, Problem Set* • *Combine Exit Tickets* **For Topic A, you may choose to use the resources from Teacher Toolbox Lesson 1:** *Ratios* **for review, remediation and/or**	**Vocabulary for Module 1:** Equivalent Ratios, Measurement of a Quantity, Percent, Quantity, Rate, Ratio, Ratio Relationship, Type of Quantity, Unit of Measurement, Unit Rate, Value of a Ratio

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TN STATE STANDARDS	CONTENT	INSTRUCTIONAL SUPPORT	VOCABULARY
	context in which more than two quantities are given. Students conceive of real-world contextual situations to match a given ratio. **Lessons 3:** • Students develop an intuitive understanding of equivalent ratios by using tape diagrams to explore possible quantities of each part when given the part-to-part ratio. Students use tape diagrams to solve problems when the part-to-part ratio is given and the value of one of the quantities is given. • Students formalize a definition of equivalent ratios: Two ratios, $A:B$ and $C:D$, are equivalent ratios if there is a nonzero number c such that $C = cA$ and $D = cB$. **Lessons 4:** • Given a ratio, students identify equivalent ratios. Students use tape diagrams and the description of equivalent ratios to determine if two ratios are equivalent. • Students relate the nonzero number cc in the description of equivalent ratios to the tape diagrams they have been using to find equivalent ratios. **Lesson 5:** • Students use tape diagrams to find an equivalent ratio when given the part-to-part ratio and the total of those two quantities. Students use tape diagrams to find an equivalent ratio when given the part-to-part ratio and the difference between those two quantities. • Students make the connection between the constant, cc, in the definition of equivalent ratios and the value of the unit in the tape diagram used to solve ratio problems. **Lesson 6:**	==assessment to meet the needs of your students.== Topic A Assessment **Additional Resources:** *These optional resources may be used for extension, enrichment and/or additional practice, as needed.* **TNCore Task Arc: Reasoning with Ratios and Rates (Edutoolbox.org)** Illustrative Math: Games at Recess 6.RP.A.1 Illustrative Math: Bag of Marbles 6.RP.A.1, 6.RP.A.3a Inside Math: Candies Task 6.RP.A.1	

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TN STATE STANDARDS	CONTENT	INSTRUCTIONAL SUPPORT	VOCABULARY
	• Students use tape diagrams to solve problems when given a ratio between two quantities and a change to those quantities that changes the ratio. **Lesson 7:** • Students understand the relationship between ratios and fractions. Students describe the fraction A/B associated with the ratio $A:B$ as the value of the ratio A to B. • Students understand that when given a ratio $A:B$, different ratios can be formed from the numbers A and B. For example, $B:A$, $A:(A+B)$, and $B:(A+B)$ are associated with the same ratio relationship. **Lesson 8:** • Students understand the value of the ratio $A:B$ is the quotient A/B as long as B is not zero. They understand that if two ratios are equivalent, then their values are the same (when they have values). Students use the value of a ratio to solve ratio problems in a real-world context. • Students use the value of a ratio in determining whether two ratios are equivalent.		
Domain: Ratios and Proportional Relationships **Cluster:** Understand ratio concepts and use ratio reasoning to solve problems. 🟩 **6.RP.A.3a**: Make tables of equivalent ratios relating quantities with whole-number measurements, find missing values in the tables, and plot the pairs of	**Essential Question(s):** • How is a ratio or rate used to compare two quantities or values? **Topic B Objectives** **Lesson 9**: • Students understand that a ratio is often used to describe the relationship between the amount of one quantity and the amount	**Topic B: Collections of Equivalent Ratios** **Lessons 9-11, Combine** Suggestions for combining • *Lesson 9 Examples 1 & 2* • *Lesson 10 Exploratory Challenge* • *Lesson 11 Exercises 1-2 & Problem Set* **Lessons 12-13, Combine**	

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TN STATE STANDARDS	CONTENT	INSTRUCTIONAL SUPPORT	VOCABULARY
values on the coordinate plane. Use tables to compare ratios.	of another quantity as in the cases of mixtures or constant rates. • Students understand that a ratio table is a table of equivalent ratios. Students use ratio tables to solve problems. **Lesson 10:** • Students identify both the additive and multiplicative structure of a ratio table and use the structure to make additional entries in the table. • Students use ratio tables to solve problems. **Lesson 11**: • Students solve problems by comparing different ratios using two or more ratio tables. **Lesson 12:** • Students create equivalent ratios using a ratio table and represent these ratios on a double number line diagram. • Students extend and use a double number line diagram to solve ratio problems related to the real world. **Lesson 13:** • Students restate a ratio in terms of its value; for example, if the ratio of length A to length B is 3: 5 (in the same units), students state that length A is 3/ 5 of length B, length B is 5/3 of length A, length A is 3/8 of the total length, and length B is 5/8 of the total length. • Students use the value of the ratio to problem-solve by writing and solving equations. **Lesson 14:** • Students associate with each ratio A:B the ordered pair (A, B) and plot it in the x–y coordinate plane.	Suggestions for combining • *Lesson 12 Exercises 2-4* • *Lesson 13 Exercises 1-3, Problem Set* **Lessons 14-15, Combine** Suggestions for combining • *Lesson 14 All* • *Assign Lesson 15 Exercises & Problem set for HW* **For Topic B, you may choose to use the resources from Teacher Toolbox Lesson 3:** *Equivalent Ratios* **for review, remediation, and/or assessment to meet the needs of your students.** **Topic B Assessment** **Mid-Module 1 Assessment & Review of Assessment** **(*Complete by 8/28/18*)** **Module 1 Mid Module Alternate Assessment** **Additional Resources:** *These optional resources may be used for extension, enrichment and/or additional practice, as needed.* World Series of Pop Culture Task: 6.RP.A.3a	

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TN STATE STANDARDS	CONTENT	INSTRUCTIONAL SUPPORT	VOCABULARY
	• Students represent ratios in ratio tables, equations, and double number line diagrams and then represent those ratios in the coordinate plane. **Lesson 15**: • Students associate with each ratio $A{:}B$ the ordered pair (A, B) and plot it in the x–y coordinate plane. • Given a ratio table, students plot the ratios in the plane and observe that they lie on a line through the origin. Students conclude that the coordinates in the line satisfy $y = k\mathrm{x}$, where k is the value of an associated ratio.		
Domain: Ratios and Proportional Relationships **Cluster:** Understand ratio concepts and use ratio reasoning to solve problems. 🟩 **6.RP.A.2**: Understand the concept of a unit rate a/b associated with a ratio a:b with b ≠ 0. Use rate language in the context of a ratio relationship. For example, this recipe has a ratio of 3 cups of flour to 4 cups of sugar, so there is 3/4 cup of flour for each cup of sugar. Also, we paid $75 for 15 hamburgers, which is a rate of $5 per hamburger. (Expectations for unit rates in 6th grade are limited to non-complex fractions) 🟩 **6.RP.A.3b**: Solve unit rate problems including those involving unit pricing and constant speed. For example, if a runner ran 10 miles in 90 minutes, running at that speed, how long will it take him to run 6 miles? How fast is he running in miles per hour?	**Essential Questions** • What are the differences between ratio, rate, and unit rate? **Topic C Objectives:** **Lesson 16:** • Students associate a description of a ratio relationship, such as "5 miles for every 2 hours," to a new quantity, "2.5 miles/hour," called a *rate*. • Given a ratio, students precisely identify the associated rate. They identify the unit rate and the rate unit. **Lesson 17:** • Given a rate, students find ratios associated with the rate, including a ratio where the second term is one and a ratio where both terms are whole numbers. • Students recognize that all ratios associated to a given rate are equivalent because they have the same value.	**Topic C: Unit Rates** **Lessons 16-17, Combine** Suggestions for combining • *Lesson 16 Example & Exploratory Challenge b* • *Lesson 17 Examples 1-6 & Problem Set* • *Exit Ticket from both lessons* **Lesson 18 Omit** **Lesson 19** **Lesson 20** **Lessons 21-22, Combine** Suggestions for combining • *Lesson 21 Examples 1-2; Exercises 1-2* • *Lesson 22 Example 2; Exercises 1-2 & Problem Set* **Lesson 23** **Lessons 24-26, Combine** Suggestions for combining • *Lesson 24 Use computer model* • *Lesson 25 Examples 1 & 2;*	

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TN STATE STANDARDS	CONTENT	INSTRUCTIONAL SUPPORT	VOCABULARY
6.RP.A.3d: Use ratio reasoning to convert customary and metric measurement units <mark>(within the same system)</mark>; manipulate and transform units appropriately when multiplying or dividing quantities.	**Lesson 19:** • Students solve problems by analyzing different unit rates given in tables, equations, and graphs. **Lesson 20:** • Students solve problems by analyzing different unit rates given in words, tables, equations, and graphs. **Lesson 21:** • Students use rates between measurements to convert measurement in one unit to measurement in another unit. They manipulate and transform units appropriately when multiplying or dividing quantities. **Lesson 22:** • Students decontextualize a given speed situation, representing symbolically the quantities involved with the formula distance = rate · time. **Lesson 23:** • Students solve constant rate work problems by calculating and comparing unit rates.	*Exercise 1* • *Lesson 26 Examples 1 & 2; Exercises 1 & 2; Problem Set* **Lessons 27-28, Combine** Suggestions for combining • *Lesson 27 Opening exercise; Problem Set #1-2; HW Exercises* • *Lesson 28 Example; Exercises (pick 3 of 6); Exit Ticket #2; HW Problem Set #1; Exit Ticket* **<mark>For Topic C, you may choose to use the resources from Teacher Toolbox Lesson 2: *Understand Unit Rate* and Lesson 4: Solve Problems with Unit Rate for review, remediation, and/or assessment to meet the needs of your students.</mark>** Topic C Assessment **Additional Resources:** *These optional resources may be used for extension, enrichment and/or additional practice, as needed.* Illustrative Math: Equivalent Ratios and Unit Rates 6.RP.A.2 Illustrativew Math: Running at a Constant Speed 6.RP.A.3b Illustrative Math: Dana's House Task 6.RP.A.3d Illustrative Math: Converting Square Units Task 6.RP.A.3d **Reminder:** *It is recommended that teachers begin preparing for Module 2 by 9/4/18.*	

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TN STATE STANDARDS	CONTENT	INSTRUCTIONAL SUPPORT	VOCABULARY
Domain: Ratios and Proportional Relationships **Cluster:** Understand ratio concepts and use ratio reasoning to solve problems. ■ 6.RP.A.3c: Find a percent of a quantity as a rate per 100 (e.g., 30% of a quantity means 30/100 times the quantity); solve problems involving finding the whole, given a part and the percent.	**Essential Question(s):** • How can you express ratios as percent? • How can a visual model help to find the percent of a quantity? • How can a visual model help to find a quantity given the part of the whole? **Topic D Objectives:** **Lesson 24:** • Students understand that percents are related to part-to-whole ratios and rates where the whole is 100. • Students model percents and write a percent as a fraction over 100 or a decimal to the hundredths place. **Lesson 25:** • Students write a fraction and a decimal as a percent of a whole quantity and write a percent of a whole quantity as a fraction or decimal. **Lesson 26:** • Students find the percent of a quantity. Given a part and the percent, students solve problems involving finding the whole. **Lesson 27:** • Students find the percent of a quantity. Given a part and the percent, students solve problems involving finding the whole. **Lessons 28:** • Given a part and the percent, students find the percent of a quantity and solve problems involving finding the whole.	**Topic D: Percent** **Lessons 24-26, Combine** Suggestions for combining • *Lesson 24 Show computer model* • *Lesson 25 Examples 1-2; Exercise 1* • *Lesson 26 Examples 1-2; Exercises 1-2 & Problem Set* **Lessons 27-28, Combine** Suggestions for combining • *Complete Example 1 from Lesson 27, and have students complete 2 of the 5 columns in the Exercise. From there, move into the Example from Lesson 28, and have students complete 3 of the 6 rows in the Exercise. For homework, lesson 27 Problem Set exercises & lesson 28 Problem Set #1 and exit ticket.* **Lesson 29 Omit** <mark>**For Topic D, you may choose to use the resources from Teacher Toolbox Lesson 5:** *Solve Problems with Percent* **for review, remediation, and/or assessment to meet the needs of your students.**</mark> Topic D Assessment **End-of Module 1 Assessment #2-4 & Review of Assessment** *(Complete by 9/14/18)* **Module 1 EOM Alternate Assessment** **Additional Resource(s):** *These optional resources may be used for extension,*	

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TN STATE STANDARDS	CONTENT	INSTRUCTIONAL SUPPORT	VOCABULARY
		enrichment and/or additional practice, as needed. Illustrative Math: Shirt Sale Task: 6.RP.3c Illustrative Math: Overlapping Squares 6.RP.A.3c	

<table>
<tr><td colspan="4" align="center">Module 2 Arithmetic Operations
Grade 6 Pacing and Preparation Guide
(Allow approximately 3 weeks for instruction, review and assessment)</td></tr>
<tr>
<td>Domain: The Number System
Cluster: Apply and extend previous understandings of multiplication and division to divide fractions by fractions.

■ 6.NS.A.1 Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions, e.g., by using visual fraction models and equations to represent the problem.</td>
<td>Essential Question(s):
• How does division of fractions relate to multiplication of fractions?
• How is division of fractions used in the real world?

Topic A Objectives:

Lesson 1:
• Students use visual models, such as fraction bars, number lines, and area models, to show the quotient of whole numbers and fractions and to show the connection between them and the multiplication of fractions.
• Students divide a fraction by a whole number.
Lesson 2:
• Students understand the difference between a whole number being divided by a fraction and a fraction being divided by a whole number.
Lessons 3:
• Students use fraction bars and area models to show the division of fractions by fractions with common denominators.
• Students make connections to the</td>
<td>Topic A: Dividing Fractions by Fractions

Lesson 1
Lesson 2
Lessons 3-4, Combine
Suggestions for combining
   • Lesson 3 Classwork; Examples 2-3; Exercise 5
   • Lesson 4 Examples 3-4
Lesson 5 Omit
Lesson 6 Omit
Lesson 7
Lesson 8

<mark>For Topic A, you may choose to use the resources from Teacher Toolbox Lesson 6: <i>Understand Division with Fractions and Lesson 7: Divide with Fractions</i> for review, remediation, and/or assessment to meet the needs of your students.</mark>

Module 2 Topic A Assessment

Additional Resources: <i>These optional resources may be used for extension, enrichment and/or additional practice, as</i></td>
<td>Vocabulary for Module 2: Greatest Common Factor, Least Common Multiple, Multiplicative Inverses

Familiar Terms and Symbols for Module 2: Algorithm, Composite Number, Distributive Property, Dividend, Divisor, Estimate, Factors, Multiples, Prime Number, Reciprocal</td>
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TN STATE STANDARDS	CONTENT	INSTRUCTIONAL SUPPORT	VOCABULARY
	multiplication of fractions. In addition, students understand that to get the quotient when dividing fractions, they must ask, "How many groups of the divisor are in the dividend?" **Lessons 4:** • Students use fraction bars and area models to divide fractions by fractions with different denominators. • Students make connections between visual models and multiplication of fractions. **Lesson 7:** • Students formally connect models of fraction division to multiplication and the invert-and-multiply rule. **Lesson 8:** • Students divide fractions by mixed numbers by first converting the mixed numbers into a fraction with a value larger than one. • Students use equations to find quotients.	*needed.* TNCore Bike Ride Task Illustrative Math: Cup of Rice Task	
Domain: The Number System **Cluster:** Compute fluently with multi-digit numbers and find common factors and multiples. ➢ **6.NS.B.3**: Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation.	**Essential Question:** • How does division of rational numbers relate to multiplication of rational numbers? • How is division of rational numbers used in the real world? **Topic B Objectives:** **Lesson 9:** • Students relate decimals to mixed numbers and round addends, minuends, and subtrahends to whole numbers in order to	**Topic B: Multi-Digit Decimal Operations - Adding, Subtracting and Multiplying** **Lesson 9** **Lesson 10** **Lesson 11** **For Topic B, you may choose to use the resources from Teacher Toolbox Lesson 9: *Add and Subtract Decimals and Lesson 10: Multiply and Divide Decimals* for review, remediation and/or assessment to meet the needs of your students.**	

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TN STATE STANDARDS	CONTENT	INSTRUCTIONAL SUPPORT	VOCABULARY
	predict reasonable answers. • Students use their knowledge of adding and subtracting multi-digit numbers to find the sums and differences of decimals. • Students understand the importance of place value and solve problems in real-world contexts. **Lesson 10:** • Students use place value and apply the distributive property to find the product of decimals. **Lesson 11:** • Students use estimation and place value to determine the placement of the decimal point in products and to determine that the size of the product is relative to each factor. • Students discover and use connections between fraction multiplication and decimal multiplication. • Students recognize that the sum of the number of decimal digits in the factors yields the decimal digits in the product.	*Module 2 Topic B Assessment* **Mid- Module 2 Assessment & Review of Assessment** ***(Complete by 10/5/18)*** Module 2 Mid Module Alternate Assessment **Reminder:** *It is recommended that teachers begin preparing for Module 3 by 10/5/18.* **Additional Resources:** *These optional resources may be used for extension, enrichment and/or additional practice, as needed.* Illustrative Math: Movie Ticket Task Math Activities: Sections 2-2 to 2-8	

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RESOURCE TOOLBOX

The Resource Toolbox provides additional support for comprehension and mastery of grade-level skills and concepts. While some of these resources are imbedded in the map, the use of these categorized materials can assist educators with maximizing their instructional practices to meet the needs of all students.

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	Standards Support	Videos
www.greatminds.org Eureka Math Grade 6 Remediation Guide	TN Math Standards Instructional Focus Document Achieve the Core Edutoolbox	Learn Zillion Khan Academy
Calculator Activities TI-73 Activities CASIO Activities TI-Inspire for Middle Grades	**Interactive Manipulatives** Glencoe Virtual Manipulatives National Library of Interactive Manipulatives	**Additional Sites** Embarc Online PBS: Grades 6-8 Lesson Plans Grade 6 Flip Book (This book contains valuable resources that help develop the intent, the understanding and the implementation of the state standards.)

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Shelby County Schools – Grade 6 - August 2018

Mon	Tue	Wed	Thu	Fri	
		1	**2**	**3**	
6 Q1 Begins **Prepare to launch Module 1**	**7**	**8**	**9**	**10**	
13	**14**	**15**	**16**	**17**	
20	**21**	**22**	**23**	**24**	
27	**28** Module 1 Mid-Module Assessment & Review of Assessment Window	**29** Module 1 Mid-Module Assessment & Review of Assessment Window	**30**	**31**	

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Shelby County Schools – Grade 6 - September 2018

Mon	Tue	Wed	Thu	Fri	
3 Labor Day	**4**	**5**	**6**	**7**	
10	**11**	**12**	**13** *Parent Conferences* **Module 1 End-of-Module Assessment (items 2-4) & Review of Assessment Window**	**14** **Module 1 End-of-Module Assessment (items 2-4) & Review of Assessment Window**	
17 **Begin Module 2**	**18**	**19**	**20**	**21**	
24	**25**		**27**	**28**	

◻ Major Work   ➤ Supporting Work

Shelby County Schools – Grade 6 - October 2018

Mon	Tue	Wed	Thu	Fri	
1	**2**	**3**	**4** **Module 2 Mid-Module Assessment & Review of Assessment Window**	**5** **Q1 Ends** **Module 2 Mid-Module Assessment & Review of Assessment Window** **Prepare for Module 3**	
8 Columbus Day Fall Break	**9**	**10**	**11**	**12**	
15	**16**	**17**	**18**	**19**	
22	**23**	**24**	**25**	**26**	
29	**30**	**31** Halloween			

🟩 Major Work   ➢ Supporting Work