



Curriculum and Instruction – Mathematics

Quarter: 3

Grade: 4

Mathematics Grade 4- Year at a Glance 2019-2020

Q1		Q2		Q3		Q4	
Module 1 Aug 19- Sept 10	Module 2 Sept 11- Sept 19	Module 3 Sept 23-Nov 18	Module 4 Nov 19- Dec 19	Module 5 Jan 6- Mar 9	Module 6 Mar 10-April 9	Module 7 Apr 13-April 16 (Lessons 1-8 only)	Module 7 April 27-May 22
Place Value, Rounding and Algorithms for Addition and Subtraction	Unit Conversion and Problem Solving with Metric Measurements	Multi-Digit Multiplication and Division	Angle Measure and Plane Figures	Fraction Equivalence, Order and Operations	Decimal Fractions	Exploring Measurement and Multiplication	Material covered after April 12th is an extension of 4 th grade standards or review of previously taught skills
4.OA.A.3	4.MD.A.1	4.OA.A.1	4.MD.C.5	4.NF.A.1	4.NF.C.5	4.OA.A.1	4.OA.A.1
4.NBT.A.1	4.MD.A.2	4.OA.A.2	4.MD.C.6	4.NF.A.2	4.NF.C.6	4.OA.A.2	4.OA.A.2
4.NBT.A.2		4.OA.A.3	4.MD.C.7	4.NF.B.3	4.NF.C.7	4.OA.A.3	4.OA.A.3
4.NBT.A.3		4.OA.B.4	4.G.A.1	4.NF.B.4	4.MD.A.2	4.MD.A.1	
4.NBT.B.4		4.NBT.B.5	4.G.A.2	4.OA.C.5		4.MD.A.2	
		4.NBT.B.6	4.G.A.3	4.MD.B.4			
		4.MD.A.3					

TN READY April 13- May 8

Key:

Major Content	Supporting Content
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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 Digital Suite resources as you prepare to teach a module for additional guidance in planning, pacing, and suggestions for omissions
[Pacing and Preparation Guide \(Omissions\)](#)

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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**.

Instructional Shifts for Mathematics



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.



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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 4 Quarter 3 Overview

Module 3: Multi-digit Multiplication and Division
 Module 4: Angle Measures and Plane Figures

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	Explicit Components of Rigor	Foundational Standards
4.NF.A.1	Conceptual Understanding and Procedural Skill and Fluency	3.NF.A.3, 4.OA.A.2, 3.NF.A.1, 3.NF.A.2, 3.OA.A.3
 4.NF.A.2	Conceptual Understanding	4.NF.A.1, 3.NF.A.3, 4.OA.A.2
4.NF.B.3	Conceptual Understanding, Procedural Skill and Fluency	3.NF.A.1, 3.NF.A.2, 4.NF.A.1, 1.OA.B.3., 2.OA.A.1
4.NF.B.4	Procedural Skill and Fluency	3.NF.A.1, 3.OA.A.1, 4.OA.A.2, 3.OA.A.3, 3.OA.A.4
 4.OA.C.5	Conceptual Understanding	3.OA.D.9, 3.OA.B.5, 2.OA.C.3
4.MD.B.4	Procedural and Application	3.MD.B.4
 Indicates Power Standard (2017-2018)		
Instructional Focus Documents- Grade 4		

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Module 5: Fraction Equivalence, Order and Operations			
<p>Domain: Number and Operations- Fractions Cluster: Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.</p> <p>4.NF.B.3b Understand a fraction a/b with $a > 1$ as a sum of fractions $1/b$.</p> <p>b. Decompose a fraction into a sum of fractions with the same denominator in more than one way, recording each decomposition by an equation. Justify decompositions, e.g., by using a visual fraction model. Examples: $3/8 = 1/8 + 1/8 + 1/8$; $3/8 = 1/8 + 2/8$; $2 \frac{1}{8} = 1 + 1 + 1/8 = 8/8 + 8/8 + 1/8$.</p> <p>4.NF.B.4a Apply and extend previous understandings of multiplication to multiply a fraction by a whole number.</p> <p>a. Understand a fraction a/b as a multiple of $1/b$. For example, use a visual fraction model to represent $5/4$ as the product $5 \times (1/4)$, recording the conclusion by the equation $5/4 = 5 \times (1/4)$.</p>	<p>Module 5: Fraction Equivalence, Ordering and Operations</p> <p>Essential Questions</p> <ol style="list-style-type: none"> How can you show parts of a region? How can you estimate parts? How can you find 2 fractions that name the same part of a whole? How do you write a fraction in simplest form? How can you use benchmark fractions to compare fractions? How do you write a good mathematical explanation? How can you add and subtract fractions with like denominators? What operation is needed to solve a problem with fractions? <p>Topic A: Decomposition and Fraction Equivalence</p> <p>Lesson Objectives/Learning Targets:</p> <p>1-2: <i>I can</i> decompose fractions as a sum of unit fractions using tape diagrams. (4.NF.B.3b)</p> <p>Lesson 3: <i>I can</i> decompose non-unit fractions and represent them as a whole number times a unit fraction using tape diagrams. (4.NF.B.4a)</p> <p>Lesson 4: <i>I can</i> decompose fractions into sums of smaller unit fractions using tape diagrams. (4.NF.B.3b 4.NF.B.4a) (can be omitted)</p>	<p>Eureka Parent Newsletter- Topic A Optional Quiz-Topic A</p> <p>Pacing considerations: Combine lessons 1 and 2. Omit lesson 4.</p> <p>Suggestions for combining: Lesson 1 and 2</p> <p>Fluency: Teacher choice</p> <p>Application Problem: Lesson 1</p> <p>Concept Development</p> <ul style="list-style-type: none"> Teach Lesson 1 with Lesson 2- Problems 1,2 and 3 In Lesson 2, Problem 3 there is a fraction greater than one which extends the lesson Teach Lesson 1, Problems 3 and 4 The Exit ticket focuses on fractions less than one <p>Problem Set Select Must Do problems that have fractions less than 1 for Lesson 1 and 2</p> <p>Debrief/Exit Ticket Complete Lesson 1 and 2</p>	<p>Vocabulary =, <, or, >, compose, decompose, equivalent Fractions, fraction, fractional unit, multiple, Non-unit fractions, unit fractions, unit interval, Whole</p> <p>Terminology Benchmark, common denominator, Fraction Greater than 1, line plot, mixed number, Numerator</p> <p>Additional instructional resources for enrichment/remediation:</p> <p>Remediation Guide</p> <p>Ready teacher-toolbox aligned lessons</p> <ul style="list-style-type: none"> Understand Fraction Addition and Subtraction <p>Ready teacher-toolbox aligned lessons</p> <ul style="list-style-type: none"> Understand Fraction Addition and Subtraction <p>Zearn Lessons</p> <p>Lesson 1: Decompose. Compose. Repeat. Lesson 2: Decompose and Group Lesson 3: Decompose and Multiply Lesson 4: Different Decomposition Lesson 5: Same Share Lesson 6: Area Model- Breakdown!</p>

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	<p>Lesson 5: <i>I can</i> decompose unit fractions using area models to show equivalence. (4.NF.A.1, 4.NF.B.3, 4.NF.B.4a)</p> <p>Lesson 6: <i>I can</i> decompose fractions using area models to show equivalence. (4.NF.A.1, 4.NF.B.3, 4.NF.B.4a)</p>		<p>embarc.online- Module 5</p> <p>Videos:</p> <ul style="list-style-type: none"> • Multiply fractions by fractions: finding a part of a part • Write a fraction to describe a set • Decompose a fraction into a sum of fractions <p>I-Ready Lessons:</p> <ul style="list-style-type: none"> • Fractions as Division • Multiplying a Whole Number and a Fraction • Multiply Fractions to Find Area <p>Task Bank: Making 22 Seventeenths in Different Ways</p>
<p>Domain: Number and Operations - Fractions Cluster: Extend understanding of fraction equivalence and ordering.</p> <p>■ 4.NF.A.1 Explain why a fraction a/b is equivalent to a fraction $(n \times a)/(n \times b)$ by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions.</p>	<p>Topic B: Fraction Equivalence Using Multiplication and Division</p> <p>Objectives/Learning Targets:</p> <p>Lesson 7-8: <i>I can</i> use the area model and multiplication to show the equivalence of two fractions. (4.NF.A.1)</p> <p>Lesson 9-10: <i>I can</i> use the area model and division to show the equivalence of two fractions. (4.NF.A.1)</p> <p>Lesson 11: <i>I can</i> explain fraction equivalence using a tape diagram and the number line, and</p>	<p>Eureka Parent Newsletter- Topic B Optional Quiz- Topic B</p> <p>Pacing Considerations: Combine lessons 7 and 8.</p> <p>Suggestions for combining: Lessons 7 and 8</p> <p>Fluency: Count by Equivalent Fractions Draw Equivalent Fractions</p> <p>Application Problem Lesson 7</p>	<p>Additional instructional resources for enrichment/remediation:</p> <p>Remediation Guide</p> <p>Ready teacher-toolbox aligned lessons</p> <ul style="list-style-type: none"> • Understand Equivalent Fractions <p>Zearn lessons- Mission 5 Lesson 7: Same Area Lesson 8: Multiply for Equality Lesson 9: Same Fraction, Fewer Parts Lesson 10: Same Fraction, Fewer Parts Lesson 11: Fraction Line Up</p> <p>embarc.online- Module 5</p>

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	relate that to the use of multiplication and division. (4.NF.A.1)	<p>Concept Development</p> <ul style="list-style-type: none"> Teach Lesson 7, Problem 1 with Lesson 8, Problem 1 Teach Lesson 7, Problem 2 with Lesson 8, Problem 3 Teach Lesson 7, Problem 3 with Lesson 8, Problem 2 <p>Problem Set Lesson 7, Problem 3 Lesson 8, Problems 4 and 5</p> <p>Debrief/Exit Ticket Lesson 7 and 8</p>	<p>Videos:</p> <ul style="list-style-type: none"> Making equivalent fractions using multiplication Recognize equivalent fractions using area models <p>I-Ready Lessons</p> <ul style="list-style-type: none"> Equivalent Fractions <p>Task Bank: Explaining Fraction Equivalence with Pictures Fractions and Rectangles</p>
<p>Domain: Number and Operations - Fractions Cluster: Extend understanding of fraction equivalence and ordering.</p> <p>■ 4.NF.A.2 Compare two fractions with different numerators e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction such as $\frac{1}{2}$. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols $>$, $=$, or $<$, and justify the conclusions, e.g., by using a visual fraction model.</p>	<p>Topic C: Fraction Comparison</p> <p>Objectives/Learning Targets: Lesson 12-13: <i>I can</i> reason using benchmarks to compare two fractions on the number line. (4.NF.A.2) Lesson 14-15: <i>I can</i> find common units or number of units to compare two fractions. (4.NF.A.2)</p>	<p>Eureka Parent Newsletter- Topic C Optional Quiz- Topic C</p> <p>Pacing Considerations: No pacing considerations at this time.</p>	<p>Additional instructional resources for enrichment/remediation:</p> <p>Remediation Guide</p> <p>Ready teacher-toolbox aligned lessons</p> <ul style="list-style-type: none"> Compare Fractions <p>Zearn Lessons -Mission 5 Lesson 12: benchmark Bonanza Lesson 13: Benchmark to Compare Lesson 14: Make the Same to Compare Lesson 15: United Units</p> <p>embarc.online- Module 5</p> <p>Videos:</p>

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			<ul style="list-style-type: none"> Compare fractions to a benchmark of one half using number lines <p>Task Bank: Listing fractions in increasing size Using Benchmarks to Compare Fractions</p>
<p>Domain: Number and Operations- Fractions Cluster: Build fractions from unit fractions by applying and extending previous understandings of whole numbers.</p> <p>Domain: Number and Operations - Fractions Cluster (4.NF.B): Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.</p> <p>■ 4.NF.B.3: Understand a fraction a/b with $a > 1$ as a sum of fractions $1/b$.</p> <p>■ 4.NF.B.3a: Understand addition and subtraction of fractions as joining and separating parts referring to the same whole.</p> <p>■ 4.NF.B.3.d: Solve contextual word problems involving addition and subtraction of fractions referring to the same whole and having like denominators, e.g., by using visual fraction models and equations to represent the problem</p>	<p>Topic D: Fraction Addition and Subtraction</p> <p>Objectives/Learning Targets:</p> <p>Lesson 16: <i>I can</i> use visual models to add and subtract two fractions with the same units. (4.NF.B.3a)</p> <p>Lesson 17: I can use visual models to add and subtract two fractions with the same units, including subtracting from one whole. (4.NF.B.3a)</p> <p>Lesson 18: <i>I can</i> add and subtract two fractions with the same units. (4.NF.B.3a)</p> <p>Lesson 19: <i>I can</i> solve word problems involving addition and subtraction of fractions. (4.NF.B.3d)</p> <p>Lesson 20-21: <i>I can</i> use visual models to add two fractions with related units using the denominators 2,3,4,5,6,8,10, and 12. (4.NF.A.1, 4.NF.B.3a, 5.NF.A.1) (can be omitted)</p>	<p>Eureka Parent Newsletter- Topic D Optional Quiz- Topic D</p> <p>Pacing Considerations: Omit lessons 20 and 21</p>	<p>Additional instructional resources for enrichment/remediation:</p> <p>Remediation Guide</p> <p>Ready teacher-toolbox aligned lessons</p> <ul style="list-style-type: none"> Lesson 17 - Add and Subtract Mixed Numbers <p>Zearn Lessons -Mission 5 Lesson 16: Like Units Make It Work Lesson 17: Whole Use Lesson 18: Three's Company Lesson 19: Word Play Lesson 20: Like Units, Like Sum Lesson 21: Sum it Up embarc.online- Module 5</p> <p>I-Ready Lessons</p> <ul style="list-style-type: none"> Add and Subtract Fractions Understand Fraction Multiplication <p>Videos:</p> <ul style="list-style-type: none"> Add fractions by joining parts Decompose mixed numbers into a sum of fractions using tape diagrams Add and subtract fractions and mixed

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			<p>numbers with like denominators using number lines</p> <p>Task Bank:</p> <ul style="list-style-type: none"> • Plastic Building Blocks • Extending Multiplication From Whole Numbers to Fractions • Comparing Sums of Unit Fractions
<p>Domain: Number and Operations - Fractions Cluster: Extend understanding of fraction equivalence and ordering</p> <p>■ 4.NF.A.2 Compare two fractions with different numerators e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction such as $\frac{1}{2}$. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols $>$, $=$, or $<$, and justify the conclusions, e.g., by using a visual fraction model.</p> <p>Domain: Number and Operations - Fractions Cluster (4.NF.B): Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.</p> <p>■ 4.NF.B.3: Understand a fraction $\frac{a}{b}$ with $a > 1$ as a sum of fractions $\frac{1}{b}$.</p> <p>■ 4.NF.B.3a: Understand addition and subtraction of fractions as joining and separating parts referring to the same whole.</p> <p>■ 4.NF.B.3b: Decompose a fraction into a sum of fractions with the same denominator in more</p>	<p>Topic E: Extending Fraction Equivalence to Fractions Greater Than 1</p> <p>Objectives/Learning Targets:</p> <p>Lesson 22: <i>I can</i> add a fraction less than 1 to, or subtract a fraction less than 1 from, a whole number using decomposition and visual models. (4.NF.B.3a)</p> <p>Lesson 23: <i>I can</i> add and multiply unit fractions to build fractions greater than 1 using visual models. (4.NF.B.4b)</p> <p>Lesson 24-25: <i>I can</i> decompose and compose fractions greater than 1 to express them in various forms. (4.NF.B.3bc)</p> <p>Lesson 26: <i>I can</i> compare fractions greater than 1 by reasoning using benchmark fractions. (4.NF.A.2)</p> <p>Lesson 27: <i>I can</i> compare fractions greater than 1 by creating common numerators or denominators. (4.NF.A.2)</p> <p>Lesson 28: <i>I can</i> solve word problems with line plots. (4.MD.B.4, 4.NF.A.2, 4.NF.B.3d)</p>	<p>Eureka Parent Newsletter- Topic E Optional Quiz- Topic E</p> <p>Pacing Considerations: Combine Lessons 24 and 25</p> <p>Suggestions for combining: Lessons 24 and 25</p> <p>Fluency: Add and Subtract Fractions Count by Equivalent Fractions</p> <p>Application Problem Lesson 24</p> <p>Concept Development</p> <ul style="list-style-type: none"> • Teach Lesson 24, Problem 1 with Lesson 25, Problem 1 • Teach Lesson 24, Problem 2 with Lesson 25, Problem 2 <p>Problem Set Lesson 24 #2, #3 Lesson 25 #3 Additional problems can be completed if time allows</p>	<p>Additional instructional resources for enrichment/remediation:</p> <p>Remediation Guide</p> <p>Ready teacher-toolbox aligned lessons</p> <ul style="list-style-type: none"> • Lesson17 - Add and Subtract Mixed Numbers <p>Zearn Lessons -Mission 5 Lesson 22: Fraction To/Fraction From Lesson 23: Fraction Build Up Lesson 24: Beyond the Whole Lesson 25 Form Follows Function Lesson 26: Benchmark Boogie Lesson 27: We Like Units</p> <p>embarc.online- Module 5</p> <p>Videos:</p> <ul style="list-style-type: none"> • Compare fractions to a benchmark of one half using number lines • Add mixed numbers using an area model (Lesson 1 of 2) • Add and subtract fractions and mixed numbers with like denominators using

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<p>than one way, recording each decomposition by an equation. Justify decompositions, e.g., by using a visual fraction model. Examples: $\frac{3}{8} = \frac{1}{8} + \frac{1}{8} + \frac{1}{8}$; $\frac{3}{8} = \frac{1}{8} + \frac{2}{8}$; $2 \frac{1}{8} = 1 + 1 + \frac{1}{8} = \frac{8}{8} + \frac{8}{8} + \frac{1}{8}$. Justify decompositions by using a visual fraction model.</p> <p>■ 4.NF.B.3c Add and subtract mixed numbers with like denominators, e.g., by replacing each mixed number with an equivalent fraction, and/or by using properties of operations and the relationship between addition and subtraction</p> <p>■ 4.NF.B.3.d: Solve contextual word problems involving addition and subtraction of fractions referring to the same whole and having like denominators, e.g., by using visual fraction models and equations to represent the problem</p> <p>Domain: Measurement and Data Cluster 4.MD.B Represent and interpret data.</p> <p>➤ 4.MD.B.4 Make a line plot to display a data set of measurements in fractions of a unit ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$). Solve problems involving addition and subtraction of fractions by using information presented in line plots.</p>		<p>Exit Ticket Lessons 24 and 25</p>	<p>number lines</p> <p>I-Ready Lessons</p> <ul style="list-style-type: none"> Add and Subtract Fractions Understand Adding and Subtracting Fractions <p>Task Bank</p> <ul style="list-style-type: none"> Cynthia's Perfect Punch Comparing two different pizzas
<p>Domain: Number and Operations - Fractions Cluster (4.NF.B): Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.</p> <p>■ 4.NF.B.3c Add and subtract mixed numbers</p>	<p>Topic F: Addition and Subtraction of Fractions by Decomposition</p> <p>Objectives/Learning Targets:</p> <p>Lesson 29: I can estimate sums and differences using benchmark numbers. (4.NF.B.3c. 5.NF.A.2) (can be omitted)</p>	<p>Eureka Parent Newsletter-Topic F</p> <p>Optional Quiz- Topic F</p> <p>Pacing Considerations: Omit lesson 29</p>	<p>Additional instructional resources for enrichment/remediation:</p> <p>Remediation Guide</p> <p>Ready teacher-toolbox aligned lessons</p> <ul style="list-style-type: none"> Lesson 17 - Add and Subtract Mixed Numbers

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<p>with like denominators, e.g., by replacing each mixed number with an equivalent fraction, and/or by using properties of operations and the relationship between addition and subtraction</p>	<p>Lesson 30: I can add a mixed number and a fraction. (4.NF.B.3c)</p> <p>Lesson 31: I can add mixed numbers. (4.NF.B.3c)</p> <p>Lesson 32: I can subtract a fraction from a mixed number. (4.NF.B.3c)</p> <p>Lesson 33: I can subtract a mixed number from a mixed number. (4.NF.B.3c)</p> <p>Lesson 34: I can subtract mixed numbers. (4.NF.B.3c)</p>		<p>Zearn Lessons -Mission 5 Lesson 29: Estimation Station Lesson 30: Sum Mixed, Sum Not Lesson 31: Mixed Sums Lesson 32: Count Back to Subtract Lesson 33: Break Down to Subtract</p> <p>embarc.online- Module 5</p> <p>Videos:</p> <ul style="list-style-type: none"> Add mixed numbers using an area model (Lesson 1 of 2) <p>I-Ready Lessons:</p> <ul style="list-style-type: none"> Understanding Adding and Subtracting Fractions <p>Task Bank:</p> <ul style="list-style-type: none"> Peaches Plastic Building Blocks
<p>Domain: Number and Operations - Fractions Cluster (4.NF.B): Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.</p> <p>■ 4.NF.B.4.a Understand a fraction a/b as a multiple of $1/b$. For example, use a visual fraction model to represent $5/4$ as the product $5 \times (1/4)$, recording the conclusion by the equation $5/4 = 5 \times (1/4)$.</p> <p>■ 4.NF.B.4.b Understand a multiple of a/b as a multiple of $1/b$, and use this understanding to multiply a fraction by a whole number. For</p>	<p>Topic G: Repeated Addition of Fractions as Multiplication</p> <p>Objectives/Learning Targets:</p> <p>Lesson 35-36: I can represent the multiplication of n times a/b as $(n \times a)/b$ using the associative property and visual models. (4.NF.B.4bc)</p> <p>Lesson 37-38: I can find the product of a whole number and a mixed number using the distributive property. (4.NF.B.4bc)</p> <p>Lesson 39: I can solve multiplicative comparison word problems involving fractions.</p>	<p>Eureka Parent Newsletter- Topic G Optional Quiz: Topic G</p> <p>Pacing Considerations: Omit lesson 41</p>	<p>Additional instructional resources for enrichment/remediation:</p> <p>Remediation Guide</p> <p>Ready teacher-toolbox aligned lessons</p> <ul style="list-style-type: none"> Lesson 18 - Understand Fraction Multiplication Lesson 19 - Multiply Fractions Lesson 27 - Line Plots <p>Zearn Lessons -Mission 5 Lesson 35: Associate How You Like Lesson 36: Fast Times Lesson 37: Multiply Mix</p>

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<p>example, use a visual fraction model to express $3 \times (2/5)$ as $6 \times (1/5)$, recognizing this product as $6/5$. (In general, $n \times (a/b) = (n \times a)/b$.)</p> <p>■ 4.NF.B.4.c Solve word problems involving multiplication of a fraction by a whole number, e.g., by using visual fraction models and equations to represent the problem. For example, if each person at a party will eat $3/8$ of a pound of roast beef, and there will be 5 people at the party, how many pounds of roast beef will be needed? Between what two whole numbers does your answer lie?</p>	<p>(4.NF.B.4c)</p> <p>Lesson 40: I can solve word problems involving the multiplication of a whole number and a fraction including those involving line plots. (4.NF.B.4c, 4.MD.A.2, 4.MD.B.4,)</p>		<p>Lesson 39: Prepare to Compare Lesson 40: Plotting Along</p> <p>embarc.online- Module 5</p> <p>Videos:</p> <ul style="list-style-type: none"> • Represent fractions as the sum of unit fractions using pictures • Multiply fractions by whole numbers: using models • Represent fractions as the sum of unit fractions using pictures <p>Task Bank: Sugar in six cans of soda</p>
<p>Domain: Order and Operations Cluster: Generate and Analyze Patterns</p> <p>■ 4.OA.C.5: Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself. For example, given the rule "Add 3" and the starting number 1, generate terms in the resulting sequence and observe that the terms appear to alternate between odd and even numbers. Explain informally why the numbers will continue to alternate in this way.</p>	<p>Topic H: Exploring a Fraction Pattern</p> <p>Objectives/Learning Targets:</p> <p>Lesson 41: I can find and use a pattern to calculate the sum of all fractional parts between 0 and 1. Share and critique peer strategies. (4.OA.C.5)</p> <p style="text-align: center;">End of Module Assessment</p>	<p>Eureka Parent Newsletter- Topic H No optional quiz available</p> <p>Pacing Considerations: No pacing considerations at this time</p>	<p>Additional instructional resources for enrichment/remediation:</p> <p>Remediation Guide</p> <p>Ready teacher-toolbox aligned lessons</p> <ul style="list-style-type: none"> • Lesson 8 - Number and Shape Patterns <p>embarc.online- Module 5</p> <p>Videos:</p> <ul style="list-style-type: none"> • Find the rule for a function machine using a vertical table <p>I-Ready Lessons</p> <ul style="list-style-type: none"> • Using a Function Table • Number and Shape Patterns • Applying a Function Rule to Complete a Table <p>Task Bank:</p>



Curriculum and Instruction – Mathematics

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TN STATE STANDARDS	CONTENT	INSTRUCTIONAL SUPPORT & RESOURCES	
		Double Plus One	
Module 6: Decimal Fractions			
<p>Domain: Number and Operations - Fractions Cluster: Understand decimal notation for fractions, and compare decimal fractions.</p> <p>■ 4.NF.C.6 Use decimal notation for fractions with denominators 10 or 100. <i>For example, rewrite 0.62 as 62/100; describe a length as 0.62 meters; locate 0.62 on a number line diagram.</i></p>	<p>Topic A: Exploration of Tenths and Hundredths</p> <p>Essential Questions</p> <ol style="list-style-type: none"> 1. What is a decimal and how would you use it? 2. Why would you need to compare decimals? 3. What are some ways to represent decimals? <p>Objectives/Learning Targets</p> <p>Lesson 1: <i>I can</i> use metric measurement to model the decomposition of one whole into tenths. (4. NF.C.6)</p> <p>Lesson 2: <i>I can</i> use metric measurement and area models to represent tenths as fractions greater than 1 and decimal numbers. (4. NF.C.6)</p> <p>Lesson 3: <i>I can</i> represent mixed numbers with units of tens, ones, and tenths with number disks, on the number line, and in expanded form. (4. NF.C.6)</p>	<p>Eureka Parent Newsletter Topic A Optional Quiz Topic A</p> <p>Pacing Considerations: No pacing considerations at this time.</p>	<p>Additional instructional resources for enrichment/remediation:</p> <p>Remediation Guide</p> <p>Ready teacher-toolbox aligned lessons</p> <ul style="list-style-type: none"> • Lesson 21: Relate Fractions and Decimals <p>Zearn Lessons -Mission 6</p> <ul style="list-style-type: none"> • Lesson 1: On Point • Lesson 2: Shaded Fractions, Shaded Decimals • Lesson 3: Equivalence Extravaganza <p>embarc.online- Module 6</p> <p>Videos: Convert decimals to fractions to the hundredths place using visual aids</p> <p>I-Ready Lessons: Renaming Fractions and Decimals</p>

■ Major Work

➤ Supporting Standards



Curriculum and Instruction – Mathematics

Quarter: 3

Grade: 4

TN STATE STANDARDS	CONTENT	INSTRUCTIONAL SUPPORT & RESOURCES	

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■ Major Work

➤ Supporting Standards



SHELBY COUNTY SCHOOLS 2018-2019 MATHEMATICS INSTRUCTIONAL CALENDAR – GRADE 4



RESOURCE TOOLKIT

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.

<p>Textbook Resources</p> <p>Great Minds' Eureka Math</p>	<p>TN State Standards/CCSS</p> <p>TN Math Standards Achieve the Core</p>	<p>Videos</p> <p>Scholastic Math Study Jams LearnZillion Khan Academy</p>
<p>Interactive Manipulatives</p> <p>http://www.eduplace.com/ Illuminations Resources for Teaching Math Interactive Sites for Educators Math Playground: Common Core Standards PARCC Games Virtual Manipulatives IXL MATH Thinking Blocks: Computer and Ipad based programs</p>	<p>Additional Sites</p> <p>http://www.k-5mathteachingresources.com/5th-grade-number-activities.html Edutoolbox Resources Illustrated Mathematics Dictionary for Kids Parent Roadmap: Supporting Your Child in Grade 5 Mathematics</p> <p>Other:</p> <p>Use this guide as you prepare to teach a module for additional guidance in planning, pacing, and suggestions for omissions.</p> <p>Pacing and Preparation Guide (Omissions)</p>	

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 4



January 2020						
Module	Monday	Tuesday	Wednesday	Thursday	Friday	Notes:
			1	2	3	Flex Day Options Include: Standard- Suggested standard(s) to review for the day (*-denotes a Power Standard) Pacing – Use this time to adjust instruction to stay on pace. Other- This includes assessments, review, re-teaching, etc.
			Winter Break			
Module 5	6 <i>Quarter 3 begins</i> Topic A <u>Combine lessons 1 and 2</u>	7 Topic A Lesson 3	8 Topic A Lesson 5	9 Topic A Lesson 6	10 Flex Day Options 4.NF.B.4a 4.NF.B3b Pacing Other	Optional Quizzes- Module 5 Topic A Topic B Topic C Topic D (Optional quizzes should take no longer than 15 minutes)
	13 Topic B <u>Combine lessons 7 and 8</u>	14 Topic B Lesson 9	15 Topic B Lesson 10	16 Topic B Lesson 11	17 <i>½ day students</i> Flex Day Options *4.NF.A.1 4.NF.B.4a Pacing Other	
	20 <i>Martin Luther King Jr. Day (Out)</i>	21 Topic C Lesson 12	22 Topic C Lesson 13	23 Topic C Lesson 14	24 Topic C Lesson 15	
	27 Topic D Lesson 16	28 Topic D Lesson 17	29 Topic D Lesson 18	30 Flex Day (Choice)	31 Flex Day Options 4.NF.3ad Pacing Other	

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 4



February 2020						
Module	Monday	Tuesday	Wednesday	Thursday	Friday	Notes:
Module 5 Omit lessons 20 and 21	3 Topic D Lesson 19	4 Mid Module Assessment	5 Topic E Lesson 22	6 Topic E Lesson 23	7 Flex Day Options 4.NF.3ad Pacing Other	Flex Day Options Include: Standard- Suggested standard(s) to review for the day (*-denotes a Power Standard) Pacing – Use this time to adjust instruction to stay on pace. Other- This includes assessments, review, re-teaching, etc. Optional Quizzes- Module 5 Topic E Topic F (Optional quizzes should take no longer than 15 minutes)
	10 Topic E <u>Combine lessons 24 and 25</u>	11 Topic E Lesson 26	12 Topic E Lesson 27	13 Topic E Lesson 28 Parent Teacher Conferences	14 1/2 day students Flex Day Options 4.NF.B.3 *4.NF.A.2 Pacing Other	
Omit Lesson 29	17 <div style="border: 1px solid black; padding: 2px; width: fit-content; margin: 0 auto;"> PD FLEX DAY </div> President's Day	18 Topic F Lesson 30	19 Topic F Lesson 31	20 Topic F Lesson 32	21 Topic F Lesson 33	
	24 Topic F Lesson 34	25 Topic F Lesson 35	26 Topic F Lesson 36	27 Topic F Lesson 37	28 Flex Day Options 4.NF.B.3c Pacing Other	

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 4



March 2020						
Module	Monday	Tuesday	Wednesday	Thursday	Friday	Notes:
	2 Topic G Lesson 38	3 Topic G Lesson 39	4 Topic G Lesson 40	5 Topic H Lesson 41	6 Flex Day Options 4.NF.B.4 *4.OA.C.5 Pacing Other	Flex Day Options Include: Standard- Suggested standard(s) to review for the day (*-denotes a Power Standard) Pacing – Use this time to adjust instruction to stay on pace. Other- This includes assessments, review, re-teaching, etc. Optional Quizzes- Module 5 Topic G Optional Quizzes- Module 6 Topic A (Optional quizzes should take no longer than 15 minutes)
Module 6	9 End of Module Assessment	10 Topic A Lesson 1	11 Topic A Lesson 2	12 Topic A Lesson 3	13 End of Quarter 3 Flex Day Options 4.NF.C.6 Pacing Other	
	16	17	18	19	20	
Spring Break						
	23 Quarter 4 begins	24	25	26	27	
	30	31	1	2	3	

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.



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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.