



# Curriculum and Instruction - Mathematics

Quarter: 2

Grade: 3



## Mathematics Grade 3 – Year at a Glance 2018 - 2019



Q1		Q2		Q3		Q4	
Module 1 Aug. 6 – Sept. 7	Module 2 Sept. 11 - Oct. 5	Module 3 Oct. 16 – Nov. 16	Module 4 Nov. 26-Dec.19	Module 5 Jan. 7 – Feb. 20	Module 7 Feb. 22-Apr. 3	Module 6 Apr. 4 – Apr. 18	Additional Tasks and Lessons Apr. 22 - May23
Properties of Multiplication & Division and Solving Problems with Units 2-5 and 10	Place Value and Problem Solving with Units of Measure	Multiplication and Division with Units of 0, 1, 6-9, and Multiples of 10	Multiplication and Area	Fractions as Numbers on the Number Line	Word Problems with Geometry and Measurement	Collecting and Displaying Data	Please see curriculum maps for specific tasks and lessons
					Note the change in sequence of Module 6 and 7		
3.OA.A.1	3.NBT.A.1	3.OA.A.3	3.MD.C.5	3.NF.A.1	3.OA.D.8	3.MD.B.3	Please see curriculum maps for guidance.
3.OA.A.2	3.NBT.A.2	3.OA.A.4	3.MD.C.6	3.NF.A.2	3.MD.B.4	3.MD.B.4	
3.OA.A.3	3.MD.A.1	3.OA.B.5	3.MD.C.7	3.NF.A.3	3.MD.D.8		
3.OA.A.4	3.MD.A.2	3.OA.C.7		3.G.A.2	3.G.A.1		
3.OA.B.5		3.OA.D.8					
3.OA.B.6		3.OA.D.9					
3.OA.C.7		3.NBT.A.3					
3.OA.D.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 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**.

## Instructional Shifts for Mathematics





# Curriculum and Instruction - Mathematics

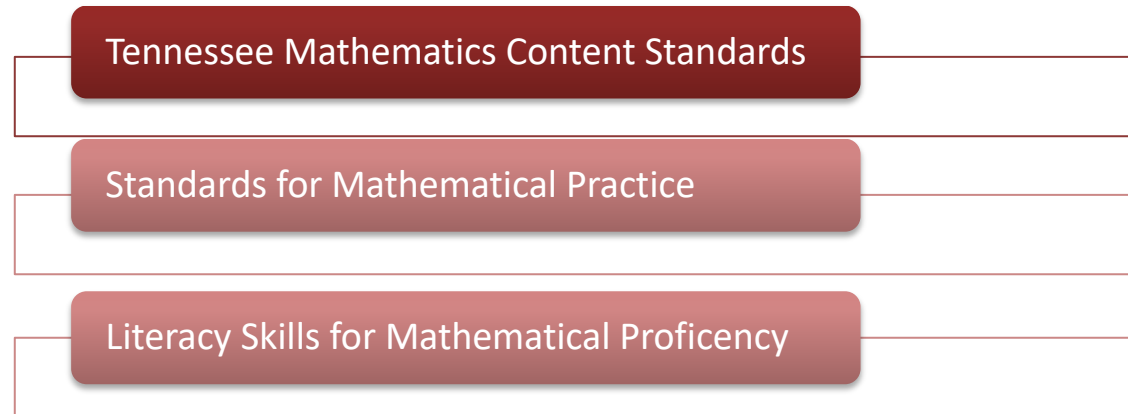
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The **Standards for Mathematical Practice** describe varieties of expertise, habits of minds and productive dispositions that mathematics educators at all levels should seek to develop in their students. These practices rest on important National Council 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.





### 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.



# Curriculum and Instruction - Mathematics

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**Module 3:** Multiplication and Division with Units of 0, 1, 6-9, and Multiples of 10

**Module 4:** Multiplication and Area

*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
3.OA.A.3	Application	3.OA.A1, 3.OA.A2
3.OA.A.4	Procedural Skill and Fluency	Introductory
3.OA.B.5	Conceptual Understanding	3.OA.A.1, 3.OA.A.2
3.OA.C.7	Procedural Skill and Fluency	3.OA.B.5, 3.OA.B.6
3.OA.D.8	Application, Conceptual Understanding	2.OA.A.1, 3.OA.A.3
3.OA.D.9	Conceptual Understanding	2.OA.C.3, 3.OA.A.5
3.NBT.A.3	Conceptual Understanding	2.NBT.A.1, 3.OA.B.5
3.MD.A.1	Procedural Skill and Fluency	Introductory
3.MD.C.5	Conceptual Understanding	1.G.A.2, 2. MD.A.1,
3.MD.C.6	Conceptual Understanding	2.G.A.2, 3.MD.C.5,
3.MD.C.7	Conceptual Understanding	3.MD.C.5, 3. MD.C.6
3.MD. C. 7a	Conceptual Understanding and Procedural Skill and Fluency	3.MD.C.5, 3. MD.C.6
3.MD.C.7b	Conceptual Understanding, Procedural Skill and Fluency, Application	3.MD.C.5, 3. MD.C.6
3.MD.C.7c	Conceptual Understanding	3.MD.C.5, 3. MD.C.6
3.MD.C.7d	Conceptual Understanding, Application	3.MD.C.5, 3. MD.C.6

Shelby County Schools 2018/2019  
Revised 7/18/2018

■ Major Work

➤ Supporting Standards



TN STATE STANDARDS	CONTENT	INSTRUCTIONAL SUPPORT	VOCABULARY & FLUENCY
<b>Module 3: Multiplication and Division with Units of 0, 1, 6-9, and Multiples of 10</b>			
<p><b>Domain:</b> Operations and Algebraic Thinking  <b>Cluster:</b> Represent and solve Problems involving multiplication and division.</p> <p>■ <b>3.OA.A.4</b> Determine the unknown whole number in a multiplication or division equation relating three whole numbers within 100. For example, determine the unknown number that makes the equation true in each of the equations: <math>8 \times ? = 48</math>, <math>5 = ? \div 3</math>, <math>6 \times 6 = ?</math></p> <p><b>Domain:</b> Operations and Algebraic Thinking  <b>Cluster:</b> Understand properties of multiplication and the relationship between multiplication and division.</p> <p>■ <b>3.OA.B.5</b> Apply properties of operations as strategies to multiply and divide. (Students need not use formal terms for these properties.) Examples: If <math>6 \times 4 = 24</math> is known, then <math>4 \times 6 = 24</math> is also known (Commutative property of multiplication). <math>3 \times 5 \times 2</math> can be solved by <math>(3 \times 5) \times 2</math> or <math>3 \times (5 \times 2)</math> (Associative property of multiplication). One way to find <math>8 \times 7</math> is by using <math>8 \times (5 + 2) = (8 \times 5) + (8 \times 2)</math>. By knowing that <math>8 \times 5 = 40</math> and <math>8 \times 2 = 16</math>, then <math>8 \times 7 = 40 + 16 = 56</math> (Distributive property of multiplication over addition).</p>	<p><b>Essential Questions</b></p> <ol style="list-style-type: none"> <li>How are multiplication and division facts related?</li> <li>How can you use multiplication to help you divide?</li> </ol> <p><b>Objectives/Learning Targets:</b>  <b>Topic A: The Properties of Multiplication and Division</b></p> <p><b>Lesson 1:</b> I can study commutativity to find known facts of 6, 7, 8, and 9. (3.OA.A.4, 3.OA.B.5, 3.OA.C.7, 3.OA.D.9)</p> <p><b>Lesson 2:</b> I can apply the distributive and commutative properties to relate multiplication facts <math>5 \times n + n</math> to <math>6 \times n</math> and <math>n \times 6</math> where <math>n</math> is the size of the unit. (3.OA.A.4, 3.OA.B.5, 3.OA.C.7, 3.OA.D.9)</p> <p><b>Lesson 3:</b> I can multiply and divide with familiar facts using a letter to represent the unknown. (3.OA.A.4, 3.OA.B.5, 3.OA.C.7, 3.OA.D.9)</p>	<p><a href="#">Eureka Parent Newsletter- Topic A</a>  <a href="#">Optional Quiz- Topic A</a></p> <p><b>Pacing Considerations:</b>            No pacing adjustments recommended</p> <p><b>Additional resources for enrichment/remediation:</b>  <a href="#">Remediation Guide</a></p> <p><a href="#">Ready teacher-toolbox aligned lessons</a></p> <ul style="list-style-type: none"> <li>Lesson 6- Multiplication and Division Facts</li> </ul> <p><a href="#">Zearn Lessons- Mission 1</a>            Lesson 1: Multiplication Madness            Lesson 2: Super Five to the Rescue            Lesson 3: Math A through Z</p> <p><a href="#">embarc.online- Module 3</a></p> <p><b>Videos:</b></p> <ul style="list-style-type: none"> <li><a href="#">Find the missing quotient in a division problem</a></li> <li><a href="#">Solve multiplication problems: using distributive property</a></li> <li><a href="#">Solve multiplication problems: using associative property</a></li> <li><a href="#">Use the distributive property of multiplication to solve unfamiliar facts</a></li> </ul>	<p><b>Vocabulary</b>            Multiple, Product            Familiar Terms and Symbols            Array, Commutative Property, Equal groups, Distribute, Divide/Division, Factors, Multiplication/Multiply, Number of Groups, Parentheses, Quotient, Row/Column, Unit, Unknown, Equation, Number Sentence, Even Number, Odd Number, Factors, Expression, Number bond, Units of one, two, or three, Tape Diagram, Value</p> <p><b>Fluency Practice:</b>  <b>Lesson 1-</b> Sprint: Mixed Multiplication Group Counting            Commutative Property of Multiplication</p> <p><b>Lesson 2-</b> Sprint: Commutative Property of Multiplication Group Counting            Make Tens</p> <p><b>Lesson 3-</b> Familiar Facts            Multiply Using the Distributive Property Make Tens</p>





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TN STATE STANDARDS	CONTENT	INSTRUCTIONAL SUPPORT	VOCABULARY & FLUENCY
<p><b>Domain:</b> Operations and Algebraic Thinking <b>Cluster:</b> Multiply and divide within 100.</p> <p>■ <b>3.OA.C.7</b> Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that <math>8 \times 5 = 40</math>, one knows <math>40 \div 5 = 8</math>) or properties of operations. By the end of 3rd grade, know from memory all products of two one-digit numbers and related division facts.</p> <p><b>Domain:</b> Operations and Algebraic Thinking <b>Cluster:</b> Solve problems involving the four operations, and identify and explain patterns in arithmetic.</p> <p>■ <b>3.OA.D.9</b> Identify arithmetic patterns (including patterns in the addition and multiplication tables) and explain them using properties of operations. For example, analyze patterns in the multiplication table and observe that 4 times a number is always even (because <math>4 \times 6 = (2 \times 2) \times 6 = 2 \times (2 \times 6)</math>, which uses the associative property of multiplication)</p>		<p><b>I-Ready Lessons</b></p> <ul style="list-style-type: none"> <li>Equations and Numerical Relationships</li> <li>Break Apart a Number to Multiply</li> <li>Using Area for Multiplication: Facts for 6, 7 and 8</li> <li>Using Fact Families to Solve Division Problems</li> <li>Understand Patterns</li> </ul> <p><b>Task Bank</b>  <a href="#">Finding the unknown in a division equation</a>  <a href="#">The Stamp Collection</a>  <a href="#">Patterns in the Multiplication Table</a>  <a href="#">Valid Equalities (Part 2)</a></p>	
<p><b>Domain:</b> Operations and Algebraic Thinking <b>Cluster:</b> Represent and solve Problems involving multiplication and division.</p> <p>■ <b>3.OA.A.3</b> Multiply and divide within 100 to solve contextual problems, with unknowns in all positions, in situations involving equal groups, arrays, and measurement quantities using strategies based on place value, the properties of operations, and the relationship between multiplication and division (e.g., contexts including computations such as <math>3 \times ? = 24</math>, <math>6 \times 16 = ?</math>, <math>? \div 8 = 3</math>, or <math>96 \div 6 = ?</math>)</p>	<p><b>Objectives/Learning Targets</b>  <b>Topic B: Multiplication and Division Using Units of 6 and 7</b></p> <p><b>Lesson 4:</b> I can count by units of 6 to multiply and divide using number bonds to decompose. (3.OA.A.3, 3.OA.A.4, 3.OA.B.5, 3.OA.C.7)</p> <p><b>Lesson 5:</b> I can count by units of 7 to multiply and divide using number bonds to decompose. (3.OA.A.3, 3.OA.A.4, 3.OA.B.5, 3.OA.C.7)</p> <p><b>Lesson 6:</b> I can use the distributive property</p>	<p><a href="#">Eureka Parent Newsletter- Topic B</a>  <a href="#">Optional Quiz- Topic B</a></p> <p><b>Pacing Considerations:</b>            Omit Lessons 6. This lesson involves using the distributive property with multiplication and division, a recurring objective in Module 3. Within later distributive property lessons, incorporate units of 6 and 7.</p> <p><b>Additional instructional resources for enrichment/ remediation:</b></p>	<p><b>Fluency Practice:</b></p> <p><b>Lesson 4-</b> Group Counting            Familiar Facts            Multiply Using the Distributive Property            Make Ten Game</p> <p><b>Lesson 5-</b> Multiply by 6            Make Seven Game</p> <p><b>Lesson 6-</b> Multiply by 6            Group Counting</p>





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<p>■ <b>3.OA.A.4</b> Determine the unknown whole number in a multiplication or division equation relating three whole numbers within 100. For example, determine the unknown number that makes the equation true in each of the equations: <math>8 \times ? = 48</math>, <math>5 = ? \div 3</math>, <math>6 \times 6 = ?</math></p> <p><b>Domain:</b> Operations and Algebraic Thinking <b>Cluster:</b> Understand properties of multiplication and the relationship between multiplication and division.</p> <p>■ <b>3.OA.B.5</b> Apply properties of operations as strategies to multiply and divide. (Students need not use formal terms for these properties.) Examples: If <math>6 \times 4 = 24</math> is known, then <math>4 \times 6 = 24</math> is also known (Commutative property of multiplication). <math>3 \times 5 \times 2</math> can be solved by <math>(3 \times 5) \times 2</math> or <math>3 \times (5 \times 2)</math> (Associative property of multiplication). One way to find <math>8 \times 7</math> is by using <math>8 \times (5 + 2) = (8 \times 5) + (8 \times 2)</math>. By knowing that <math>8 \times 5 = 40</math> and <math>8 \times 2 = 16</math>, then <math>8 \times 7 = 40 + 16 = 56</math> (Distributive property of multiplication over addition).</p> <p><b>Domain:</b> Operations and Algebraic Thinking <b>Cluster:</b> Multiply and divide within 100.</p> <p>■ <b>3.OA.C.7</b> Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that <math>8 \times 5 = 40</math>, one knows <math>40 \div 5 = 8</math>) or properties of operations. By the end of 3rd grade, know from memory all products of two one-digit numbers and related division facts.</p>	<p>as a strategy to multiply and divide using units of 6 and 7. (<b>3.OA.A.3, 3.OA.A.4, 3.OA.B.5, 3.OA.C.7</b>)</p> <p><b>Lesson 7:</b> I can interpret the unknown in multiplication and division to model and solve problems using units of 6 and 7. (<b>3.OA.A.3, 3.OA.A.4, 3.OA.B.5, 3.OA.C.7</b>)</p>	<p><a href="#">Remediation Guide</a></p> <p><a href="#">Ready teacher-toolbox aligned lessons:</a></p> <ul style="list-style-type: none"> <li>Lesson 3: Split Numbers to Multiply</li> </ul> <p><a href="#">Zearn Lessons- Module 3</a> Lesson 4: Hop from 6 to 10 Lesson 5: Skip from 7 to 10 Lesson 6: Super Five Returns Lesson 7: Savvy Sixes and Sevens</p> <p><a href="#">embarc.online- Module 3</a></p> <p><b>Videos:</b></p> <ul style="list-style-type: none"> <li><a href="#">Solve multiplication problems using the distributive property</a></li> <li><a href="#">Use the distributive property of multiplication to solve unfamiliar facts</a></li> </ul> <p><b>I-Ready Lessons:</b></p> <ul style="list-style-type: none"> <li>Multiplication and Division Fact Families</li> <li>Equations and Numerical Relationships</li> <li>Division Concepts: Are and Facts for 3,4 and 5</li> <li>Division Concepts: Area and Facts for 6,7 and 8</li> </ul> <p><b>Task Bank:</b> <a href="#">Analyzing Word Problems Involving Multiplication</a> <a href="#">Two Interpretations of Division</a></p>	<p>Decompose the Multiplication Sentence</p> <p><b>Lesson 7-</b> Multiply by 7 Group Counting Decompose the Multiplication Sentence</p>



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<p><b>Domain:</b> Operations and Algebraic Thinking <b>Cluster:</b> Represent and solve Problems involving multiplication and division.</p> <p>■ <b>3.OA.A.3</b> Multiply and divide within 100 to solve contextual problems, with unknowns in all positions, in situations involving equal groups, arrays, and measurement quantities using strategies based on place value, the properties of operations, and the relationship between multiplication and division (e.g., contexts including computations such as <math>3 \times ? = 24</math>, <math>6 \times 16 = ?</math>, <math>? \div 8 = 3</math>, or <math>96 \div 6 = ?</math>)</p> <p>■ <b>3.OA.A.4</b> Determine the unknown whole number in a multiplication or division equation relating three whole numbers within 100. For example, determine the unknown number that makes the equation true in each of the equations: <math>8 \times ? = 48</math>, <math>5 = ? \div 3</math>, <math>6 \times 6 = ?</math></p> <p><b>Domain:</b> Operations and Algebraic Thinking <b>Cluster:</b> Understand properties of multiplication and the relationship between multiplication and division.</p> <p>■ <b>3.OA.B.5</b> Apply properties of operations as strategies to multiply and divide. (Students need not use formal terms for these properties.) Examples: If <math>6 \times 4 = 24</math> is known, then <math>4 \times 6 = 24</math> is also known (Commutative property of multiplication). <math>3 \times 5 \times 2</math> can be solved by <math>(3 \times 5) \times 2</math> or <math>3 \times (5 \times 2)</math> (Associative property of multiplication). One way to find <math>8 \times 7</math> is by using <math>8 \times (5 + 2) = (8 \times 5) + (8 \times 2)</math>. By knowing that <math>8 \times 5 = 40</math> and <math>8 \times 2 = 16</math>, then 8</p>	<p><b>Objectives/Learning Targets:</b> <b>Topic C: Multiplication and Division Using Units up to 8</b></p> <p><b>Lesson 8:</b> I can understand the function of parentheses and apply to solving problems. <b>3.OA.A.3, 3.OA.A.4, 3.OA.B.5, 3.OA.C.7)</b></p> <p><b>Lesson 9:</b> I can model the associative property as a strategy to multiply. <b>3.OA.3, 3.OA.A.4, 3.OA.B.5, 3.OA.C.7)</b></p> <p><b>Lesson 10:</b> I can use the distributive property as a strategy to multiply and divide. <b>3.OA.A.3, 3.OA.A.4, 3.OA.B.5, 3.OA.C.7)</b></p> <p><b>Lesson 11:</b> I can interpret the unknown in multiplication and division to model and solve problems. <b>3.OA.A.3, 3.OA.A.4, 3.OA.B.5, 3.OA.C.7)</b></p>	<p><a href="#">Eureka Parent Newsletter- Topic C</a></p> <p><a href="#">Optional Quiz: Topic C</a></p> <p><b>Pacing Considerations:</b> Omit lesson 10. This lessons involves using the distributive property with multiplication and division, a recurring objective in Module 3. Within later distributive property lessons, incorporate units of 6 and 7. Omit Lesson 11, a problem-solving lesson involving multiplication and division. Lesson 11 shares an objective with Lesson 15 and is also similar to Lesson 7.</p> <p><b>Additional instructional resources for enrichment/ remediation:</b> <a href="#">Remediation Guide</a></p> <p><a href="#">Ready teacher-toolbox aligned lessons</a></p> <ul style="list-style-type: none"> <li>Lesson 2- Use Order and Grouping to Multiply</li> </ul> <p><a href="#">Zearn Lessons- Mission 3</a></p> <p>Lesson 8: Do this First Lesson 9: Make it Easy Peasy Lesson 10: Super Five Strikes Again Lesson 11: Figure Out Eights</p> <p><a href="#">embarc.online -Module 3</a></p> <p><b>Videos:</b></p> <ul style="list-style-type: none"> <li><a href="#">Solve multiplication problems using</a></li> </ul>	<p><b>Fluency Practice:</b></p> <p><b>Lesson 8</b> Multiply by 7 Group Counting Add 6 and 7 mentally</p> <p><b>Lesson 9</b> Multiply by 7 Group Counting Write in the Parentheses</p> <p><b>Lesson 10</b> Group Counting Decompose Multiples of 8</p> <p><b>Lesson 11</b> Multiply by 8 Decompose the Multiplication Sentence Group Counting</p>



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TN STATE STANDARDS	CONTENT	INSTRUCTIONAL SUPPORT	VOCABULARY & FLUENCY
<p><math>x \ 7 = 40 + 16 = 56</math> (Distributive property of multiplication over addition).</p> <p><b>Domain:</b> Operations and Algebraic Thinking <b>Cluster:</b> Multiply and divide within 100.</p> <p>■ <b>3.OA.C.7</b> Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that <math>8 \times 5 = 40</math>, one knows <math>40 \div 5 = 8</math>) or properties of operations. By the end of 3rd grade, know from memory all products of two one-digit numbers and related division facts.</p>		<p><a href="#">the distributive property</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Use the distributive property of multiplication to solve unfamiliar facts</a></li> <li>• <a href="#">Find the missing quotient in a division problem</a></li> </ul> <p><b>I-Ready Lessons:</b></p> <ul style="list-style-type: none"> <li>• Multiplication and Division Fact Families</li> <li>• Solving One-Step Word Problems Using Multiplication and Division</li> </ul> <p><b>Task Bank:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Finding the unknown in a division equation</a></li> <li>• <a href="#">The Stamp Collection</a></li> <li>• <a href="#">Analyzing Word Problems involving Multiplication</a></li> </ul>	
<p><b>Domain:</b> Operations and Algebraic Thinking <b>Cluster:</b> Represent and solve Problems involving multiplication and division.</p> <p>■ <b>3.OA.A.3</b> Multiply and divide within 100 to solve contextual problems, with unknowns in all positions, in situations involving equal groups, arrays, and measurement quantities using strategies based on place value, the properties of operations, and the relationship between multiplication and division (e.g., contexts including computations such as <math>3 \times ? = 24</math>, <math>6 \times 16 = ?</math>, <math>? \div 8 = 3</math>, or <math>96 \div 6 = ?</math>)</p> <p>■ <b>3.OA.A.4</b> Determine the unknown whole number in a multiplication or division equation relating three whole numbers within 100. For example, determine the unknown number that makes the equation true in</p>	<p><b>Objectives/Learning Targets:</b></p> <p><b>Topic D: Multiplication and Division Using Units of 9</b></p> <p><b>Lesson 12:</b> I can apply the distributive property and the fact <math>9 = 10 - 1</math> as a strategy to multiply. (3.OA.A.3, 3.OA.A.4, 3.OA.B.5, 3.OA.C.7, 3.OA.D.9)</p> <p><b>Lesson 13-14:</b> I can identify and /use arithmetic patterns to multiply. 3.OA.A.3, 3.OA.A.4, 3.OA.B.5, 3.OA.C.7, 3.OA.D.9)</p> <p><b>Lesson 15:</b> I can interpret the unknown in multiplication and division to model and solve problems. (3.OA.A.3, 3.OA.A.4, 3.OA.B.5, 3.OA.C.7)</p>	<p><a href="#">Eureka Parent Newsletter- Topic D</a></p> <p><a href="#">Optional Quiz- Topic D</a></p> <p><b>Pacing Considerations:</b> Lesson 11 shares an objective with Lesson 15 and is also similar to Lesson 7. Omit Lesson 13. Study its essential Understandings and embed them into the delivery of Lesson 14's Concept Development. Modify Lesson 14 by omitting Part 1 of the Concept Development, a part which relies on the foundation of Lesson 13.</p> <p><b>Additional instructional resources for enrichment/remediation:</b></p>	



TN STATE STANDARDS	CONTENT	INSTRUCTIONAL SUPPORT	VOCABULARY & FLUENCY
<p>each of the equations: <math>8 \times ? = 48</math>,  <math>5 = ? \div 3</math>, <math>6 \times 6 = ?</math></p> <p><b>Domain:</b> Operations and Algebraic Thinking  <b>Cluster:</b> Understand properties of multiplication and the relationship between multiplication and division.</p> <p>■ <b>3.OA.B.5</b> Apply properties of operations as strategies to multiply and divide.            (Students need not use formal terms for these properties.) Examples: If <math>6 \times 4 = 24</math> is known, then <math>4 \times 6 = 24</math> is also known (Commutative property of multiplication). <math>3 \times 5 \times 2</math> can be solved by <math>(3 \times 5) \times 2</math> or <math>3 \times (5 \times 2)</math> (Associative property of multiplication). One way to find <math>8 \times 7</math> is by using <math>8 \times (5 + 2) = (8 \times 5) + (8 \times 2)</math>. By knowing that <math>8 \times 5 = 40</math> and <math>8 \times 2 = 16</math>, then <math>8 \times 7 = 40 + 16 = 56</math> (Distributive property of multiplication over addition).</p> <p><b>Domain:</b> Operations and Algebraic Thinking  <b>Cluster:</b> Multiply and divide within 100.</p> <p>■ <b>3.OA.C.7</b> Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that <math>8 \times 5 = 40</math>, one knows <math>40 \div 5 = 8</math>) or properties of operations. By the end of 3rd grade, know from memory all products of two one-digit numbers and related division facts.</p> <p><b>Domain:</b> Operations and Algebraic Thinking  <b>Cluster:</b> Solve problems involving the four operations, and identify and explain patterns in arithmetic.</p>		<p><a href="#">Remediation Guide</a></p> <p><a href="#">Ready teacher-toolbox aligned lessons</a></p> <ul style="list-style-type: none"> <li>Lesson 3- Split Numbers to Multiply</li> <li>Lesson 12- Model Two-Step Word Problems Using the Four Operations</li> </ul> <p><a href="#">Zearn Lessons- Mission 3</a></p> <p>Lesson 12: Teamwork 10            Lesson 13: Neat-o Nines            Lesson 14: Nines Made Handy            Lesson 15: Riddle Me Nines</p> <p><a href="#">embarc.online- Module 3</a></p> <p><b>Videos:</b></p> <ul style="list-style-type: none"> <li><a href="#">Understand multiplication problems: using equal groups</a></li> <li><a href="#">Identify patterns on multiplication chart</a></li> <li><a href="#">Understand the commutative property of multiplication in word problems</a></li> <li><a href="#">Solve multiplication problems: using associative property</a></li> </ul> <p><b>I-Ready Lessons:</b></p> <ul style="list-style-type: none"> <li>Multiplication and Division Fact Families</li> <li>Solve One-Step Word Problems Using Multiplication and Division</li> <li>Understand Patterns</li> </ul>	



# Curriculum and Instruction - Mathematics

Quarter: 2

Grade: 3

TN STATE STANDARDS	CONTENT	INSTRUCTIONAL SUPPORT	VOCABULARY & FLUENCY
<p>■ <b>3.OA.D.9</b> Identify arithmetic patterns (including patterns in the addition and multiplication tables) and explain them using properties of operations. For example, analyze patterns in the multiplication table and observe that 4 times a number is always even (because <math>4 \times 6 = (2 \times 2) \times 6 = 2 \times (2 \times 6)</math>, which uses the associative property of multiplication)</p>		<p><b>Task Bank:</b>  <a href="#">Gifts from Grandma, Variation 1</a>  <a href="#">Two Interpretations of Division</a>  <a href="#">Finding an Unknown in a Division Problem</a></p>	
<p><b>Domain:</b> Operations and Algebraic Thinking  <b>Cluster:</b> Represent and solve Problems involving multiplication and division.</p> <p>■ <b>3.OA.A.3</b> Multiply and divide within 100 to solve contextual problems, with unknowns in all positions, in situations involving equal groups, arrays, and measurement quantities using strategies based on place value, the properties of operations, and the relationship between multiplication and division (e.g., contexts including computations such as <math>3 \times ? = 24</math>, <math>6 \times 16 = ?</math>, <math>? \div 8 = 3</math>, or <math>96 \div 6 = ?</math>)</p> <p><b>Domain:</b> Operations and Algebraic Thinking  <b>Cluster:</b> Multiply and divide within 100.</p> <p>■ <b>3.OA.C.7</b> Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that <math>8 \times 5 = 40</math>, one knows <math>40 \div 5 = 8</math>) or properties of operations. By the end of 3rd grade, know from memory all products of two one-digit numbers and related division facts.</p> <p><b>Domain:</b> Operations and Algebraic Thinking  <b>Cluster:</b> Solve problems involving the four operations, and identify and explain patterns in arithmetic.</p> <p>■ <b>3.OA.D.8</b> Solve two-step contextual problems</p>	<p><b>Objectives/Learning Targets:</b>  <b>Topic E: Analysis of Patterns and Problem Solving Including Units of 0 and 1</b></p> <p><b>Lesson 16:</b> I can reason about and explain arithmetic patterns using units of 0 and 1 as they relate to multiplication and division. (3.OA.A.3, 3.OA.C.7, 3.OA.D.8, 3.OA.D.9)</p> <p><b>Lesson 17:</b> I can identify patterns in multiplication and division facts using the multiplication table. (3.OA.A.3, 3.OA.C.7, 3.OA.D.8, 3.OA.D.9)</p> <p><b>Lesson 18:</b> I can solve two-step word problems involving all four operations and assess the reasonableness of solutions. (3.OA.A.3, 3.OA.C.7, 3.OA.D.8, 3.OA.D.9)</p>	<p><a href="#">Eureka Parent Newsletter- Topic E</a>  <a href="#">Optional Quiz: Topics E and F</a></p> <p><b>Pacing Considerations:</b>            No pacing adjustments recommended</p> <p><b>Additional instructional resources for enrichment/ remediation:</b></p> <p><a href="#">Remediation Guide</a></p> <p><b>Ready teacher-toolbox aligned lessons:</b></p> <ul style="list-style-type: none"> <li>Lesson 13: Solve Two-Step Word Problems Using the Four Operations</li> </ul> <p><a href="#">Zearn Lessons-Mission 3</a>            Lesson 16: Big and Small            Lesson 17: Even and Odds            Lesson 18: Sensible Solutions</p> <p><a href="#">embarc.online- Module 3</a></p> <p><b>Videos</b></p> <ul style="list-style-type: none"> <li><a href="#">Solve two step problems multiplying one- digit numbers by</a></li> </ul>	



# Curriculum and Instruction - Mathematics

Quarter: 2

Grade: 3

TN STATE STANDARDS	CONTENT	INSTRUCTIONAL SUPPORT	VOCABULARY & FLUENCY
<p>using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.</p> <p><b>Domain:</b> Operations and Algebraic Thinking  <b>Cluster:</b> Solve problems involving the four operations, and identify and explain patterns in arithmetic</p> <p>■ <b>3.OA.D.9</b> Identify arithmetic patterns (including patterns in the addition and multiplication tables) and explain them using properties of operations. For example, analyze patterns in the multiplication table and observe that 4 times a number is always even (because <math>4 \times 6 = (2 \times 2) \times 6 = 2 \times (2 \times 6)</math>, which uses the associative property of multiplication)</p>		<p><a href="#">multiples of 10</a></p> <ul style="list-style-type: none"> <li>• <a href="#">Solving two -step word problems using a model</a></li> <li>• <a href="#">Solve multiplication problems: using associative property</a></li> </ul> <p>Task Bank  <a href="#">Gifts from Grandma, Variation 1</a>  <a href="#">Two Interpretations of Division</a>  <a href="#">The Class Trip</a></p>	
<p><b>Domain:</b> Number and Operation in Base Ten  <b>Cluster:</b> Use place value understanding and properties of operations to perform multi-digit arithmetic</p> <p>➤ <b>3.NBT.A.3</b> Multiply one-digit whole numbers by multiples of 10 in the range 10–90 (e.g., <math>9 \times 80</math>, <math>5 \times 60</math>) using strategies based on place value and properties of operations.</p> <p><b>Domain:</b> Operations and Algebraic Thinking  <b>Cluster:</b> Understand properties of multiplication and the relationship between multiplication and division</p> <p>■ <b>3.OA.B.5</b> Apply properties of operations as</p>	<p><b>Topic F: Multiplication of Single-Digit Factors and Multiples of 10</b></p> <p><b>Objectives/Learning Targets:</b>  <b>Lesson 19:</b> I can multiply by multiples of 10 using the place value chart. (3.OA.B.5, 3.OA.D.8, 3.OA.D.9, 3.NBT.A.3)</p> <p><b>Lesson 20:</b> I can use place value strategies and the associative property <math>n \times (m \times 10) = (n \times m) \times 10</math> (where <math>n</math> and <math>m</math> are less than 10) to multiply by multiples of 10. 3.OA.B.5, 3.OA.D.8, 3.OA.D.9, 3.NBT.A.3)</p> <p><b>Lesson 21:</b> I can solve two-step word problems involving multiplying single-digit</p>	<p><a href="#">Eureka Parent Newsletter- Topic F</a></p> <p><a href="#">Optional Quiz: Topics E and F</a></p> <p><b>Pacing Considerations:</b>            No pacing adjustments recommended</p> <p><b>Additional instructional resources for enrichment/remediation:</b></p> <p><a href="#">Remediation Guide</a></p>	





# Curriculum and Instruction - Mathematics

Quarter: 2

Grade: 3

TN STATE STANDARDS	CONTENT	INSTRUCTIONAL SUPPORT	VOCABULARY & FLUENCY
<p>strategies to multiply and divide. (Students need not use formal terms for these properties.) Examples: If <math>6 \times 4 = 24</math> is known, then <math>4 \times 6 = 24</math> is also known (Commutative property of multiplication). <math>3 \times 5 \times 2</math> can be solved by <math>(3 \times 5) \times 2</math> or <math>3 \times (5 \times 2)</math> (Associative property of multiplication). One way to find <math>8 \times 7</math> is by using <math>8 \times (5 + 2) = (8 \times 5) + (8 \times 2)</math>. By knowing that <math>8 \times 5 = 40</math> and <math>8 \times 2 = 16</math>, then <math>8 \times 7 = 40 + 16 = 56</math> (Distributive property of multiplication over addition).</p> <p><b>Domain:</b> Operations and Algebraic Thinking  <b>Cluster:</b> Solve problems involving the four operations, and identify and explain patterns in arithmetic.</p> <p>■ <b>3.OA.D.8</b> Solve two-step contextual problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.</p> <p><b>Domain:</b> Operations and Algebraic Thinking  <b>Cluster:</b> Solve problems involving the four operations, and identify and explain patterns in arithmetic</p> <p>■ <b>3.OA.D.9</b> Identify arithmetic patterns (including patterns in the addition and multiplication tables) and explain them using properties of operations. For example, analyze patterns in the multiplication table and observe that 4 times a number is always even (because <math>4 \times 6 = (2 \times 2) \times 6 = 2 \times (2 \times 6)</math>, which uses the associative property of multiplication)</p>	<p>factors and multiples of 10. <b>3.OA.B.5, 3.OA.D.8, 3.OA.D.9, 3.NBTA..3)</b></p>	<p><a href="#">Ready teacher-toolbox aligned lessons</a></p> <ul style="list-style-type: none"> <li>Lesson 2: Use Order and Grouping to Multiply</li> <li>Lesson 7: Understand Patterns</li> <li>Lesson10: Use Place Value to Multiply</li> </ul> <p><a href="#">Zearn Lessons- Mission 3</a></p> <p>Lesson 19: Know your Place            Lesson 20: Do What You Want to Do            Lesson 21: Tackle the Tens</p> <p><a href="#">embarc.online- Module 3</a></p> <p><b>Videos:</b></p> <ul style="list-style-type: none"> <li><a href="#">Solve two step problems multiplying one-digit numbers by multiples of 10</a></li> <li><a href="#">Solving two -step word problems using a model</a></li> <li><a href="#">Solve multiplication problems: using associative property</a></li> </ul> <p><b>I-Ready Lessons:</b></p> <ul style="list-style-type: none"> <li>Use Order and Grouping to Multiply</li> <li>Solve Two-Step Word Problems Using the Four Operations</li> <li>Understand Patterns</li> </ul> <p><b>Task Bank</b></p> <p><a href="#">How Many Colored Pencils?</a>  <a href="#">Valid Equalities (Part 2)</a>  <a href="#">The Stamp Collection</a></p>	





# Curriculum and Instruction - Mathematics

Quarter: 2

Grade: 3

TN STATE STANDARDS	CONTENT	INSTRUCTIONAL SUPPORT	VOCABULARY & FLUENCY
Module 4			
<p><b>Domain:</b> Measurement and Data <b>Cluster:</b> Geometric measurement: understand and apply concepts of area and relate area to multiplication and to addition.</p> <p>■ <b>3.MD.C.5</b> Recognize that plane figures have an area and understand concepts of area measurement.</p> <p>a. Understand that a square with side length 1 unit, called "a unit square," is said to have "one square unit" of area and can be used to measure area.</p> <p>b. Understand that a plane figure which can be covered without gaps or overlaps by <math>n</math> unit squares is said to have an area of <math>n</math> square units.</p>	<p><b>Essential Questions</b></p> <ul style="list-style-type: none"> <li>How do you find area?</li> <li>How can you use the distributive property to find the area of a rectangle?</li> <li>How do you estimate to find the area of an irregular shape?</li> </ul> <p><b>Topic A: Foundations for Understanding Area</b></p> <p><b>Objectives/Learning Targets:</b></p> <p><b>Lesson 1:</b> I can understand area as an attribute of plane figures. (3. MD.C.5)</p> <p><b>Lesson 2:</b> I can decompose and recompose shapes to compare areas. (3. MD.C.5)</p> <p><b>Lesson 3:</b> I can model tiling with centimeter and inch unit squares as a strategy to measure area. (3.MD.C.5)</p> <p><b>Lesson 4:</b> I can relate side lengths with the number of tiles on a side. 3.MD.C.5)</p>	<p><a href="#">Eureka Parent Newsletter Topic A</a></p> <p><a href="#">Optional Quiz: Topic A</a></p> <p><b>Pacing Considerations:</b> Consolidate Lessons 2 and 3, both of which involve measuring and comparing area. From Lesson 3, omit the use of square centimeter tiles and the Application Problem. Have students establish square inches as units, and then tile with them as a strategy to measure area.</p> <p><b>Additional instructional resources for enrichment/ remediation:</b> <a href="#">Remediation Guide</a></p> <p><b>Ready teacher-toolbox aligned lessons:</b></p> <ul style="list-style-type: none"> <li><a href="#">Lesson 27: Understand Area</a></li> </ul> <p><b>Zearn Lesson- Mission 4</b> Lesson 1: Unit, Square Unit Lesson 2: Shape Shifter Lesson 3: Range of Rectangles Lesson 4: Opposites are Equal</p> <p><a href="#">embarc.online- Module 4</a></p> <p><b>I-Ready Lessons</b></p> <ul style="list-style-type: none"> <li>Understand Area</li> </ul>	



TN STATE STANDARDS	CONTENT	INSTRUCTIONAL SUPPORT	VOCABULARY & FLUENCY
<p><b>Domain:</b> Measurement and Data  <b>Cluster:</b> Geometric measurement: understand and apply concepts of area and relate area to multiplication and to addition.</p> <p>■ <b>3.MD.C.5</b> Recognize that plane figures have an area and understand concepts of area measurement</p> <p>a. Understand that a square with side length 1 unit, called "a unit square," is said to have "one square unit" of area and can be used to measure area.</p> <p>b. Understand that a plane figure which can be covered without gaps or overlaps by <math>n</math> unit squares is said to have an area of <math>n</math> square units.</p> <p>■ <b>3.MD.6</b> Measure areas by counting unit squares (square centimeters, square meters, square inches, square feet, and improvised units).</p> <p>■ <b>3.MD.C.7</b> Relate area of rectangles to the operations of multiplication and addition.</p> <p>a. Find the area of a rectangle with whole-number side lengths by tiling it and show that the area is the same as would be found by multiplying the side lengths.</p> <p>b. Multiply side lengths to find areas of rectangles with whole number side lengths in the context of solving real-world and mathematical problems and represent whole-number products as rectangular areas in mathematical reasoning.</p> <p>c. Use tiling to show in a concrete case that the</p>	<p><b>Topic B: Concepts of Area Measurement</b></p> <p><b>Objectives/Learning Targets:</b>  <b>Lesson 5:</b> I can form rectangles by tiling with unit squares to make arrays. (3.MD.C.5a,3.MD.C.5b, 3.MD.C.6)  <b>Lesson 6:</b> I can draw rows and columns to determine the area of a rectangle given an incomplete array (3. MD.C.5, 3. MD.C.6, 3. MD.C.7a,3. MD.C.7b, 3. MD.C.7d)  <b>Lesson 7:</b> I can interpret area models to form rectangular arrays. (3.MD.C.7a,3.MD.C.7b)  <b>Lesson 8:</b> I can find the area of a rectangle through multiplication of the side lengths. (3.MD.C.5, 3.MD.C.6, 3.MD.C.7a,3.MD.C.7b, 3.MD.C.7d)</p> <p style="text-align: center;"><b>Mid-Module Assessment</b></p>	<p><a href="#">Eureka Parent Newsletter -Topic B</a></p> <p><a href="#">Optional Quiz-Topic B</a></p> <p><b>Pacing Considerations:</b>            No pacing adjustments at this time.</p> <p><b>Additional instructional resources for enrichment/remediation:</b></p> <p><a href="#">Remediation Guide</a></p> <p><a href="#">Ready toolbox- aligned lessons</a></p> <ul style="list-style-type: none"> <li><a href="#">Lesson 28: Multiply to Find Area</a></li> </ul> <p><a href="#">Zearn Lessons- Mission 4</a>  <b>Lesson 5:</b> Tile It  <b>Lesson 6:</b> Clever Calculations  <b>Lesson 7:</b> Off the Grid  <b>Lesson 8:</b> All You Need Are Side Length</p> <p><a href="#">embarc.online- Module 4</a></p> <p><b>Videos:</b></p> <ul style="list-style-type: none"> <li><a href="#">Finding the Area of a square of rectangle by counting unit squares</a></li> <li><a href="#">Relate area to arrays</a></li> </ul> <p><b>Task Bank</b>  <a href="#">Introducing the Distributive Property</a>  <a href="#">Finding Area of Polygons</a></p>	<p><b>Fluency Practice:</b>  <b>Lesson 5-</b> Group Counting, Products in an Array, Find the Common Products</p> <p><b>Lesson 6-</b> Group Counting, Write the Multiplication Fact, Products in an Array</p> <p><b>Lesson 7-</b> Group Counting, Draw Rectangles, Draw Rectangular Arrays</p> <p><b>Lesson 8-</b> Multiply by 6, Group Counting</p>



# Curriculum and Instruction - Mathematics

Quarter: 2

Grade: 3

TN STATE STANDARDS	CONTENT	INSTRUCTIONAL SUPPORT	VOCABULARY & FLUENCY
<p>area of a rectangle with whole-number side lengths <math>a</math> and <math>b + c</math> is the sum of <math>a \times b</math> and <math>a \times c</math>. Use area models to represent the distributive property in mathematical reasoning. For example, in a rectangle with dimensions 4 by 6, students can decompose the rectangle into <math>4 \times 3</math> and <math>4 \times 3</math> to find the total area of <math>4 \times 6</math>. (See Table 3 - Properties of Operations)</p> <p>d. Recognize area as additive. Find areas of rectilinear figures by decomposing them into non-overlapping</p>			



# Curriculum and Instruction - Mathematics

Quarter: 2

Grade: 3

TN STATE STANDARDS	CONTENT	INSTRUCTIONAL SUPPORT	VOCABULARY & FLUENCY
<p><b>Domain:</b> Measurement and Data  <b>Cluster:</b> Geometric measurement: understand and apply concepts of area and relate area to multiplication and to addition.</p> <p>■ <b>3.MD.C.5</b> Recognize that plane figures have an area and understand concepts of area measurement</p> <p>a. Understand that a square with side length 1 unit, called "a unit square," is said to have "one square unit" of area and can be used to measure area.</p> <p>b. Understand that a plane figure which can be covered without gaps or overlaps by <math>n</math> unit squares is said to have an area of <math>n</math> square units.</p> <p>■ <b>3.MD.C.7</b> Relate area of rectangles to the operations of multiplication and addition.</p> <p>a. Find the area of a rectangle with whole-number side lengths by tiling it and show that the area is the same as would be found by multiplying the side lengths.</p> <p>b. Multiply side lengths to find areas of rectangles with whole number side lengths in the context of solving real-world and mathematical problems and represent whole-number products as rectangular areas in mathematical reasoning.</p> <p>c. Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths <math>a</math> and <math>b + c</math> is the sum of <math>a \times b</math> and <math>a \times c</math>. Use area models to represent the distributive</p>	<p><b>Topic C: Arithmetic Properties Using Area Models</b></p> <p><b>Objectives/Learning Targets:</b></p> <p><b>Lesson 9:</b> Analyze different rectangles and reason about their area. (3.MD.C.5), (3.MD.C.7b)</p> <p><b>Lesson 10:</b> Apply the distributive property as a strategy to find the total area of a large rectangle by adding two products. (3.MD.C.5, 3.MD.C.7a, 3.MD.C.7b, 3.MD.C.7c, 3.MD.C.7d)</p> <p><b>Lesson 11:</b> Demonstrate the possible whole number side lengths of rectangles with areas of 24, 36, 48, or 72 square units using the associative property. (3.MD.C.5, 3.MD.C.7a, 3.MD.C.7b, 3.MD.C.7c, 3.MD.C.7d)</p>	<p><a href="#">Eureka Parent Newsletter- Topic C</a></p> <p><a href="#">Optional Quiz- Topic C</a></p> <p><b>Pacing Considerations:</b>            Consider omitting Lesson 9, which reviews previously learned skills. If omitting, be sure that students are ready to transition toward more complex practice.</p> <p><b>Additional instructional resources for enrichment/remediation:</b></p> <p><a href="#">Remediation Guide</a></p> <p><a href="#">Ready teacher-toolbox aligned lessons</a></p> <ul style="list-style-type: none"> <li><a href="#">Lesson 28: Multiply to Find Area</a></li> </ul> <p><a href="#">Zearn Lessons- Mission 4</a>            Lesson 9: Area Awareness            Lesson 10: Piece It Together            Lesson 11: All the Possibilities</p> <p><a href="#">Embarc.online- Module 4</a></p> <p><b>Videos:</b></p> <ul style="list-style-type: none"> <li><a href="#">Relate Area to Arrays</a></li> <li><a href="#">Given the area, find missing side lengths of a rectangle</a></li> </ul> <p><b>Task Bank</b>  <a href="#">India's Bathroom Tiles</a>  <a href="#">Three Hidden Rectangles</a></p>	<p><b>Fluency Practice:</b></p> <p><b>Lesson 9</b>            Group Counting            Find the Area            Decompose the Multiplication Equation</p> <p><b>Lesson 10</b>            Group Counting            Find the Unknown Factor</p> <p><b>Lesson 11</b>            Group Counting            Find the Unknown Factor            Find the Area</p>



# Curriculum and Instruction - Mathematics

Quarter: 2

Grade: 3

TN STATE STANDARDS	CONTENT	INSTRUCTIONAL SUPPORT	VOCABULARY & FLUENCY
<p>property in mathematical reasoning. For example, in a rectangle with dimensions 4 by 6, students can decompose the rectangle into 4 x 3 and 4 x 3 to find the total area of 4x 6. (See Table 3 - Properties of Operations)</p> <p>d. Recognize area as additive. Find areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts, applying this technique to solve real-world problems.</p>			
<p><b>Domain:</b> Measurement and Data <b>Cluster:</b> Geometric measurement: understand and apply concepts of area and relate area to multiplication and to addition.</p> <p>■ <b>3.MD.6</b> Measure areas by counting unit squares (square centimeters, square meters, square inches, square feet, and improvised units).</p> <p>■ <b>3.MD.C.7</b> Relate area of rectangles to the operations of multiplication and addition.</p> <p>a. Find the area of a rectangle with whole-number side lengths by tiling it and show that the area is the same as would be found by multiplying the side lengths.</p> <p>b. Multiply side lengths to find areas of rectangles with whole number side lengths in the context of solving real-world and mathematical problems and represent whole-number products as rectangular areas in mathematical reasoning.</p> <p>c. Use tiling to show in a concrete case that the</p>	<p><b>Topic D: Applications of Area Using Sides Lengths of Figures</b></p> <p><b>Objectives/Learning Targets</b> <b>Lesson 12:</b> Solve word problems involving area. <b>(3.MD.C.6)</b></p> <p><b>Lessons 13-14:</b> Find areas by decomposing into rectangles or completing composite figures to form rectangles. <b>(3.MD.C.6, 3.MD.C.7c)</b></p> <p><b>Lessons 15-16:</b> Apply knowledge of area to determine areas of rooms in a given floor plan. <b>(3.MD.C.6, 3.MD.C.7, 3.MD.7b, 3.MD.C.7c, 3.MD.7d)</b></p>	<p><a href="#">Eureka Parent Newsletter- Topic D</a></p> <p><a href="#">Optional Quiz: Topic D</a></p> <p><b>Pacing Considerations:</b> Omit Lessons 15 and 16. These lessons guide students through a project involving floor plans. Skip the application of area that these lessons provide.</p> <p><b>Additional instructional resources for enrichment/remediation:</b></p> <p><a href="#">Remediation Guide</a></p> <p><a href="#">Ready teacher- toolbox aligned lessons</a></p> <ul style="list-style-type: none"> <li><a href="#">Lesson 29: Add Areas</a></li> </ul> <p><a href="#">Zearn Lessons- Mission 4</a> Lesson 12: A Space Odyssey Lesson 13: Cut It Out Lesson 14: Cut and Compose Lesson 15: Ara Architect Lesson 16: Area Remix</p> <p><a href="#">embarc.online- Module 4</a></p>	<p><b>Fluency Practice</b></p> <p><b>Lesson 12</b> Group Counting Multiply by 7 Find the Side Length</p> <p><b>Lesson 13</b> Group Counting Find the Common Products</p> <p><b>Lesson 14</b> Group Counting Multiply by 8 Find the Area</p> <p><b>Lesson 15</b> Group Counting Multiply by 9 Find the Area</p> <p><b>Lesson 16</b> Group Counting Multiply by 9 Find the Area</p>

Shelby County Schools 2018/2019  
Revised 7/18/2018



# Curriculum and Instruction - Mathematics

Quarter: 2

Grade: 3

TN STATE STANDARDS	CONTENT	INSTRUCTIONAL SUPPORT	VOCABULARY & FLUENCY
<p>area of a rectangle with whole-number side lengths <math>a</math> and <math>b</math> + <math>c</math> is the sum of <math>a \times b</math> and <math>a \times c</math>. Use area models to represent the distributive property in mathematical reasoning. For example, in a rectangle with dimensions 4 by 6, students can decompose the rectangle into <math>4 \times 3</math> and <math>4 \times 3</math> to find the total area of <math>4 \times 6</math>. (See Table 3 - Properties of Operations)</p> <p>d. Recognize area as additive. Find areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts, applying this technique to solve real-world problems.</p>		<p><b>Videos:</b>  <a href="#">Relate Area to Arrays</a>  <a href="#">Given the area, find missing side lengths of a rectangle</a></p> <p><b>I-Ready Lessons</b></p> <ul style="list-style-type: none"> <li>• Add and Multiply to Find Area</li> <li>• Multiplication Fact Review</li> <li>• Using Area for Multiplication: Facts for 6,7, and 8</li> </ul> <p><b>Task Bank</b>  <a href="#">India's Bathroom Tiles</a>  <a href="#">Three Hidden Rectangles</a></p>	



# Curriculum and Instruction - Mathematics

Quarter: 2

Grade: 3

## 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](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.

<p><b>Textbook Resources</b>  <a href="#">Great Minds' Eureka Math</a></p>	<p><b>CCSS</b>  <a href="#">Tennessee Math Standards</a>  <a href="#">Achieve the Core - Tasks</a></p>	<p><b>Videos</b>  <a href="#">NCTM Common Core Videos</a>  <a href="#">TN Tools – Edutoolbox</a>  <a href="#">Grade 3- LearnZillion</a>  <a href="#">CCSS Video Series</a></p>
	<p><b>Interactive Manipulatives</b>  <a href="#">Multiplying by Repeated Addition</a>  <a href="#">Related Repeated Addition to Multiplication</a>  <a href="#">Multiplication Games</a>  <a href="#">Multiplication Fluency</a></p>	<p><b>Additional Sites</b>  <a href="http://www.k-5mathteachingresources.com/3rd-grade-number-activities.html">http://www.k-5mathteachingresources.com/3rd-grade-number-activities.html</a>   <a href="https://www.illustrativemathematics.org/content-standards/3">https://www.illustrativemathematics.org/content-standards/3</a>   <a href="http://www.edutoolbox.org/tntools/list/grade/819/955/3#960">http://www.edutoolbox.org/tntools/list/grade/819/955/3#960</a></p>

**Other**  
[Parent Roadmap: Supporting Your Child in Grade Three Mathematics](#)  
[Illustrated Mathematics Dictionary for Kids](#)

\*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 3



October 2018						
Lessons for the Week	Monday	Tuesday	Wednesday	Thursday	Friday	Notes:
Topic D: Lesson 17 Topic E: Lessons 18-21 (Combine Lesson 18/19) (Omit Lesson 20) 1-day Review End of Module Assessment	1	2	3	4	5	Combine lesson 18 and 19  Omit Lesson 20  Optional Quizzes: Module 2 Topic D Topic E (Quizzes should not take more than 15 minutes to administer)
	8	9	10	11	12	Note: <i>Flex days</i> 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)
	<div style="text-align: center; font-size: 2em; font-weight: bold; margin-bottom: 10px;">Fall Break</div> Columbus Day					
Flex (Task) Day Module 3 Topic A: Lessons 1-3 Topic B: Lesson 4	15	16	17	18	19	Optional Quizzes: Module 3 <a href="#">Topic A</a> <a href="#">Topic B</a> <a href="#">Topic C</a> (Quizzes should not take more than 15 minutes to administer)
Module 3 Topic B: Lessons 5-7 Topic C: Lessons 8-9	22	23	24	25	26	
Module 3 Topic C: Lessons 10-11 Topic D: Lesson 12-15 (Omit Lesson 13)	29	30	31	1	2	
			Halloween			

**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 3



November 2018						
Lessons for the Week	Monday	Tuesday	Wednesday	Thursday	Friday	Notes:
Module 3 Topic C: Lessons 10-11 Topic D: Lesson 12-15 (Omit Lesson 13)				1	2	Omit Lesson 13  Optional Quizzes: Module 3 <a href="#">Topic C</a> <a href="#">Topic D</a> <a href="#">Topic E and F</a> (Quizzes should not take more than 15 minutes to administer)
Module 3 Topic E: Lessons 16-18 Topic F: Lesson 19-20	5	6	7	8	9	Note: <b>Flex days</b> 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)
Module 3 Topic F: Lesson 21 1-day Review <b>End of Module Assessment</b> Flex (Task) Day	12 <b>Veteran's Day (Out)</b>	13	14	15 <b>M3: End of Module Assessment Complete</b>	16	
2-days Flex (Task) Day	19	20	21	22	23	Optional Quizzes: Module 4 <a href="#">Topic A</a>  (Quizzes should not take more than 15 minutes to administer)
			Thanksgiving Break			
Module 4 Topic A: Lessons 1-4 (Combine Lesson 2 and 3) Topic B: Lessons 5-6	26	27	28	29	30	Combine Lesson 2 and 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.**



# SHELBY COUNTY SCHOOLS 2018-2019 MATHEMATICS INSTRUCTIONAL CALENDAR – GRADE 3



December 2018							
Lessons for the Week	Monday	Tuesday	Wednesday	Thursday	Friday	Notes:	
Module 4 Topic B: Lessons 7-8 1-day Review <b>Mid Module Assessment</b> Flex (NWEA) Day	3	4	5	6 <b>M4: Mid Module Assessment Complete</b>	7	Note: <i>Flex days</i> 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)  Omit Lesson 9  Optional Quizzes: Module 4 <a href="#">Topic B</a> <a href="#">Topic C</a> <a href="#">Topic D</a> (Quizzes should not take more than 15 minutes to administer)  <b>Complete combined lesson 15/16 AFTER End of Module Assessment – can be omitted if needed for pacing.</b>	
Module 4 Topic C: 10-11 (Omit Lesson 9) Topic D: Lessons 12-14	10	11	12	13	14		
Module 4 1-day Review <b>End of Module Assessment</b> Topic D: Lessons 15/16 (Combine 15 and 16)	17	18 <b>M4: End of Module Assessment Complete</b>	19 <i>2<sup>nd</sup> Nine Week ends</i>	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;">Winter Break</div>			
<div style="border: 1px solid black; padding: 5px; width: 80%; margin: auto;">Winter Break</div>							
<div style="border: 1px solid black; padding: 5px; width: 80%; margin: auto;">Winter Break</div>							
<div style="border: 1px solid black; padding: 5px; width: 60%; margin: auto;">Winter Break</div>							
	24	25	26	27	28		
	31	1	2	3	4		

*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 3



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