Second Nine Weeks		
TN Standards **The Major Work of the Grade for TN Assessments are bolded and in italics.**	**Learning Outcomes** **The Major Work of the Grade for TN Assessments are bolded and in italics.**	**Content** Ensure that instruction meets the rigor called for by the standard. To help with this, use the Instructional Focus Documents (Use the dropdown to choose what grade-level) and the Go Math Guidance Documents
Week 1: 4.NBT.B.6 Division: "Investigating and Interpreting Remainders"		
4.NBT.B.6 **Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.** **4.OA.A.3** **Solve multi-step contextual problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quality. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.**	**Learning Targets:** • I can explain the strategy I used to find the quotient. • I can interpret the remainder in a division problem. • I can explain the relationship between multiplication and division. • I can demonstrate division of a multi-digit number by a one-digit number using place value, rectangular arrays, and area model. • I can solve division of a multi-digit number by a one-digit number, using properties of operations and equations. • I can check my answer for reasonableness. • I can explain my chosen strategy. **Essential Questions:** 1. How can you use multiples to estimate quotients? 2. How can you use models to divide whole numbers that do not divide evenly? 3. How can you use remainders in division problems? 4. How can you divide numbers through thousands by whole numbers to 10? 5. How can you use compatible numbers to estimate quotients?	**Go Math! Chapter 4: Divide by 1-Digit Numbers** Lesson 4.1 Estimate Quotients Using Multiples (Optional) Lesson 4.2 Remainders Lesson 4.3 Interpret the Remainder Lesson 4.4 Divide Tens, Hundreds, and Thousands Lesson 4.5 Estimate Quotiens Using Compatible Numbers (Optional) **Vocabulary:** compatible numbers, Distributive Property, dividend, divisor, multiple, partial quitient, quotient, remainder **Mathematical Practices Focus** MP1 Make sense of problems and persevere in solving them. MP2 Reason abstractly and quantitatively. MP4 Model with mathematics. MP5 Use appropriate tools strategically. MP7 Look for and make use of structure. MP8 Look for and express regularity in repeated reasoning. **Instructional Tasks: Engage NY** Module 3 Topic E, Topic G **https://www.engageny.org/resource/grade-4-mathematics** **Mathematical Practice Posters** http://www.ride.ri.gov/Portals/0/Uploads/Documents/Instruction-and-Assessment-World-Class-Standards/Transition/EIA-CCSS/ScarpelliD-MP_ICanStatements.pdf **Fourth Grade Math Teachers in TN Blog of Resources** https://fourthgrademathteachersintn.blogspot.com/

Second Nine Weeks		
TN Standards	**Learning Outcomes**	**Content**
Week 2: 4.NBT.B.6 Division: "Distributive Property/Repeated Subtraction/Partial Quotient"		
4.NBT.B.6 **Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.**	**Learning Targets:** • I can explain the strategy I used to find the quotient. • I can interpret the remainder in a division problem. • I can explain the relationship between multiplication and division. • I can demonstrate division of a multi-digit number by a one-digit number using place value, rectangular arrays, and area model. • I can solve division of a multi-digit number by a one-digit number, using properties of operations and equations. • I can check my answer for reasonableness. • I can explain my chosen strategy. **Essential Questions:** 1. How can you use the Distributive Property to find quotients? 2. How can you use repeated subtraction and multiples to find quotients? 3. How can you use partial quotients to divide by 1-digit divisors?	**Go Math! Chapter 4: Divide by 1-Digit Numbers** Lesson 4.6 Division and the Distributive Property Lesson 4.7 Divide using Repeated Subtraction Lesson 4.8 Divide Using Partial Quotients **Vocabulary:** compatible numbers, Distributive Property, dividend, divisor, multiple, partial quitient, quotient, remainder **Mathematical Practices Focus** MP1 Make sense of problems and persevere in solving them. MP2 Reason abstractly and quantitatively. MP3 Construct viable arguments and critique the reasoning of others. MP5 Use appropriate tools strategically. MP6 Attend to precision. MP7 Look for and make use of structure. MP8 Look for and express regularity in repeated reasoning. **Instructional Tasks: Engage NY** Module 3 Topic E, Topic G **https://www.engageny.org/resource/grade-4-mathematics** ****Math Instructional Focus Document**** https://www.tn.gov/content/dam/tn/education/standards/math/Standards_Support_grade_4_Mathematics.pdf **Fourth Grade Math Teachers in TN Blog of Resources** https://fourthgrademathteachersintn.blogspot.com/

Second Nine Weeks		
TN Standards	**Learning Outcomes**	**Content**
Week 3: 4.NBT.B.6 Division: "Place Value/Divide by 1 Digit"		
4.NBT.B.6 **Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.** **4.OA.A.2** **Multiply or divide to solve contextual problems involving multiplicative comparison, and distinguish multiplicative comparison from additive comparison. For example, school A has 300 students and school B has 600 students: to say that school B has two times as many students is an example of multiplicative comparison; to say that school B has 300 more students is an example of additive comparison.**	**Learning Targets:** I can explain the strategy I used to find the quotient. I can interpret the remainder in a division problem. I can explain the relationship between multiplication and division. I can demonstrate division of a multi-digit number by a one-digit number using place value, rectangular arrays, and area model. I can solve division of a multi-digit number by a one-digit number, using properties of operations and equations. I can check my answer for reasonableness. I can explain my chosen strategy. **Essential Questions:** 1. How can you use base-ten blocks to model division with regrouping? 2. How can you use place value to know where to place the first digit in the quotient? 3. How can you divide multi-digit numbers and check your answers? 4. How can you use the strategy draw a diagram to solve multistep division problems?	**Go Math! Chapter 4: Divide by 1-Digit Numbers** Lesson 4.9 Model Division with Regrouping Lesson 4.10 Place the First Digit Lesson 4.11 Divide by 1-Digit Numbers Lesson 4.12 Multistep Division Problems **Vocabulary:** compatible numbers, Distributive Property, dividend, divisor, multiple, partial quitient, quotient, remainder **Mathematical Practices Focus** MP1 Make sense of problems and persevere in solving them. MP2 Reason abstractly and quantitatively. MP4 Model with mathematics. MP6 Attend to precision. MP7 Look for and make use of structure. MP8 Look for and express regularity in repeated reasoning. **Instructional Tasks: Engage NY** Module 3 Topic E, Topic G **https://www.engageny.org/resource/grade-4-mathematics** ****Math Instructional Focus Document**** https://www.tn.gov/content/dam/tn/education/standards/math/ Standards_Support_grade_4_Mathematics.pdf **Fourth Grade Math Teachers in TN Blog of Resources** https://fourthgrademathteachersintn.blogspot.com/

Second Nine Weeks		
TN Standards	**Learning Outcomes**	**Content**
Weeks 4 and 5: 4.OA.4/4.OA.5 "Factors/Multiples/Patterns"		
4.OA.B.4 Find all factor pairs for a whole number in the range 1-100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1-100 is a multiple of a given one-digit number. Determine whether a given whole number in the range 1-100 is prime or composite. 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.*	**Learning Targets:** • I can find factor pairs for whole numbers from 1-100. • I can determine whether a whole number is a multiple of a given 1-digit number. • I can determine if a number is prime or composite. • I can use a letter or symbol to replace an unknown number in an expression. • I can write a simple mathematical expression using numbers and letters or symbols for word statements. • I can find patterns in word statements of expressions. • I can generate a pattern that follows a given rule. • I can identify and explain additional patterns or special behaviors in a pattern that go beyond the given rule. **Essential Questions:** 1. How can you use models to find factors? 2. How can you tell whether one number is a factor of another number? 3. How can you use the make a list strategy to solve problems with common factors? 4. How are factors and multiples related? 5. How can you tell whether a number is prime or composite? 6. How can you make and describe patterns?	**Go Math! Chapter 5: Factors, Multiples, and Patterns** Lesson 5.1 Model Factors (OA4) Lesson 5.2 Factors and Divisibilty (OA4) Lesson 5.3 Common Factors (OA4) Lesson 5.4 Factors and Multiples (OA4) Lesson 5.5 Prime and Composite Numbers (OA4) Lesson 5.6 Number Patterns (OA5) **Vocabulary:** common factor, common multiple, composite number, divisible, factor, pattern, prime number, term **Mathematical Practice Focus** MP1 Make sense of problems and persevere in solving them. MP2 Reason abstractly and quantitatively. MP4 Model with mathematics. MP5 Use appropriate tools strategically. MP6 Attend to precision. MP7 Look for and make use of structure. **Instructional Tasks: Engage NY** Module 3 Topic F Module 5 Topic H **https://www.engageny.org/resource/grade-4-mathematics** ****Math Instructional Focus Document**** https://www.tn.gov/content/dam/tn/education/standards/math/Standards_Support_grade_4_Mathematics.pdf **Fourth Grade Math Teachers in TN Blog of Resources** https://fourthgrademathteachersintn.blogspot.com/

Second Nine Weeks		
TN Standards	**Learning Outcomes**	**Content**
Week 6: 4.NF.A.1 Fractions: "Equivalent Fractions"		

4.NF.A.1
Explain why a fraction a/b is equivalent to a fraction a x n/ b x n or a ÷ n / b ÷ n 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. For example, 3/4 = 3 x 2/4 x 2 = 6/8.
	Learning Targets:
	• I can explain why fractions are equivalent using models.
	• I can generate equivalent fractions by multiplying or dividing the numerator and denominator by the same number.
	• I can use a visual model to demonstrate that two fractions are equivalent when the denominators are the same.
	• I can use a visual model to demonstrate that two fractions are equivalent when the denominators are different.
	
	Essential Questions:
	1. How can you use models to show equivalent fractions?
	2. How can you use multiplication to find equivalent fractions?
	3. How can you write a fraction as an equivalent fraction in simplest form?
	4. How can you write a pair of fractions as fractions with a common denominator?
	5. How can you use the strategy make a table to solve problems using equivalent fractions?
		Go Math! Chapter 6: Fraction Equivalence and Comparison
		  Lesson 6.1 Equivalent Fractions
		  Lesson 6.2 Generate Equivalent Fractions
		  Lesson 6.3 Simplest Form
		  Lesson 6.4 Common Denominators
		  Lesson 6.5 Find Equivalent Fractions
		
		Vocabulary: benchmark, common denominator, denominator, equivalent fractions, fraction, multiple, numerator, simplest form
		
		Mathematical Practice Focus
		MP1 Make sense of problems and persevere in solving them.
		MP4 Model with mathematics.
		MP5 Use appropriate tools strategically.
		MP6 Attend to precision.
		MP7 Look for and make use of structure.
		MP8 Look for and express regularity in repeated reasoning.
		
		Instructional Tasks: Engage NY
		Module 5 Topic B
		https://www.engageny.org/resource/grade-4-mathematics
		
		Math Instructional Focus Document
		https://www.tn.gov/content/dam/tn/education/standards/math/Standards_Support_grade_4_Mathematics.pdf
		
		Fourth Grade Math Teachers in TN Blog of Resources
		https://fourthgrademathteachersintn.blogspot.com/

Second Nine Weeks		
TN Standards	**Learning Outcomes**	**Content**
Week 7: 4.NF.A.2 Fractions: "Comparing Fractions"		
4.NF.A.2 **Compare two fractions with different numerators and different denominators by creating common denominators or common numerators or by comparing to a benchmark fraction such as 1/2. Recognize that comparisons are valid only when the two fractions refer to the same whole. Use the symbols >, =, < to show the relationship and justify the conclusions.**	**Learning Targets** • I can compare two given fractions by generating equivalent fractions with common denominators. • I can compare two fractions by comparing them to benchmark fractions. • I can recognize that comparisons are valid only when the two fractions refer to the same whole. • I can use symbols to compare fractions and justify my answer. **Essential Questions:** 1. How can you use benchmarks to compare fractions? 2. How can you compare fractions? 3. How can you order fractions?	**Go Math! Chapter 6: Fraction Equivalence and Comparison** Lesson 6.6 Compare Fractions Using Benchmarks Lesson 6.7 Compare Fractions Lesson 6.8 Compare and Order Fractions **Vocabulary:** benchmark, common denominator, denominator, equivalent fractions, fraction, multiple, numerator, simplest form **Mathematical Practice Focus** MP2 Reason abstractly and quantitatively. MP3 Construct viable arguments and critique the reasoning of others. MP4 Model with mathematics. MP6 Attend to precision. MP7 Look for and make use of structure. **Instructional Tasks: Engage NY** Module 5 Topic C **https://www.engageny.org/resource/grade-4-mathematics** ****Math Instructional Focus Document**** https://www.tn.gov/content/dam/tn/education/standards/math/Standards_Support_grade_4_Mathematics.pdf **Fourth Grade Math Teachers in TN Blog of Resources** https://fourthgrademathteachersintn.blogspot.com/

Second Nine Weeks		
TN Standards	**Learning Outcomes**	**Content**
Week 8: 4.NF.B.3a-d Fractions: "Add and Subtract Fractions"		
4.NF.B.3 **Understand a fraction a/b with a>1 as a sum of fractions 1/b. For example, 4/5 = 1/5 + 1/5 + 1/5 + 1/5.** **a. Understand addition and subtraction of fractions as joining and separating parts referring to the same whole.** **b. Decompose a fraction into a sum of fractions with the same denominator in more than one way (e.g., 3/8 = 1/8 + 1/8 + 1/8; 3/8 = 1/8 + 2/8; 2 1/8 = 1 + 1 + 1/8 = 8/8 + 8/8 + 1/8), recording each decomposition by an equation. Justify decompositions by using a visual fraction model.** **c. Add and subtract mixed numbers with like denominators by replacing each mixed number with an equivalent fraction and/or by using properties of operations and the relationship between addition and subtraction.** **d. Solve contextual problems involving addition and subtraction of fractions referring to the same whole and having like denominators.**	**Learning Targets:** • I can understand that adding fractions means to join parts relating to the same whole. • I can understand that subtraction means to separate parts relating to the same whole. • I can decompose a fraction in more than one way, using addition. • I can use a visual model to decompose a fraction in more than one way. **Essential Questions:** 1. When can you add or subtract parts of a whole? 2. How can you write a fraction as a sum of fractions with the same denominators? 3. How can you add fractions with like denominators using models? 4. How can you subtract fractions with like denominators using models? 5. How can you add and subtract fractions with like denominators? 6. How can you rename mixed numbers as fractions greater than 1 and rename fractions greater than 1 as mixed numbers?	**Go Math! Chapter 7: Add and Subtract Fraction** Lesson 7.1 Add and Subtract Parts of a Whole (NF3a) Lesson 7.2 Write Fractions as Sums (NF3b) Lesson 7.3 Add Fractions Using Models (NF3d) Lesson 7.4 Subtract Fractions Using Models (NF3d) Lesson 7.5 Add and Subtract Fractions(NF3d) **Vocabulary:** Associative Property of Addition, Commutative Property of Addition, denominator, fractions, mixed number, numerator, simplest form, unit fraction **Mathematical Practice Focus** MP1 Make sense of problems and persevere in solving them. MP2 Reason abstractly and quantitatively. MP3 Construct viable arguments and critique the reasoning of others. MP4 Model with mathematics. MP6 Attend to precision. MP7 Look for and make use of structure. MP8 Look for and express regularity in repeated reasoning. **Instructional Tasks: Engage NY** Module 5 Topic A, Module 5 Topic D, Module 5 Topic E, Topic F **https://www.engageny.org/resource/grade-4-mathematics** ****Math Instructional Focus Document**** https://www.tn.gov/content/dam/tn/education/standards/math/Standards_Support_grade_4_Mathematics.pdf **Fourth Grade Math Teachers in TN Blog of Resources** https://fourthgrademathteachersintn.blogspot.com/

Please NOTE:
1. Each chapter of Go Math has a Chapter Resource Book that contains reteach, enrich, and chapter tests as well as Performance Tasks available to print out for use in your classrooms.
2. Student Go Math Editions contain Mid-Chapter Checkpoints, as well as Chapter Review/Test pages, which may be used at your discretion.
3. Each lesson contains a Journal Writing Prompt that can be used as an exit ticket or formative assessment piece of work.
4. Online resources are available for each chapter.
5. Engage New York modules and topics have been provided as extra resources to reach each standard.
6. A blog has been created for 4th Grade Math Teachers in TN to share resources and ideas:
   Fourth Grade Math Teachers in TN Blog of Resources: https://fourthgrademathteachersintn.blogspot.com/
7. iBooks have been created and shared for all of the NBT standards to use for reteach and review in your classroom.
   The link to the shared OneDrive folder is:
   https://bartlettcityschool-my.sharepoint.com/:f:/g/personal/hsamuelson_bartlettschools_org/EozK_6pMu9xHonanqjnSwfkBNel2hOQmRO4sF-xcVu-LOw?e=VW82ZV

To access the Ed Toolbox website including the instructional tasks go to the **Tennessee Tools** link at:
http://www.edutoolbox.org/tntools

More Resources:
Textbook Online Resource: Go Math "Think Central": **https://www-k6.thinkcentral.com/ePC/start.do**

Math Instructional Focus Document: https://www.tn.gov/content/dam/tn/education/standards/math/Standards_Support_grade_4_Mathematics.pdf

Assessment Tasks: **http://www.edutoolbox.org/tntools/list/grade/819/961/4**

Intructional Resources and Task Arcs: **http://www.edutoolbox.org/tntools/list/grade/819/955/4 - 958**

Worksheets for each standard sorted by grade level: http://www.commoncoresheets.com/SortedByGrade.php

Illustrative Math Tasks Website: https://www.illustrativemathematics.org/content-standards/4

Study Jams Website: http://studyjams.scholastic.com/studyjams/jams/math/index.htm

Math Antics Website: https://www.mathantics.com/

Fourth Grade Math Suggestions in Children's Literature
Grandfather Tang's Story by Ann Tompert
The Greedy Triangle by Marilyn Burns
The Patchwork Quilt by Valerie Flournoy
Sweet Clara and the Freedom Quilt by Deborah Hopkinson
Anno's Magic Seeds by Mitsumasa Anno