Curriculum Map
4th Grade
Math

Unit	Essential Questions	Content	Skills	Assessment	Standard
Unit 1: *Use the Four Operations with Whole Numbers to Solve Problems*	-How can you compare numbers using multiplication? (4.OA.1) -How can you model a multiplicative comparison? (4.OA.1)	*Students will understand that . . .* 4.OA.1 -Proficiency with basic facts aids estimation and computation of larger and smaller numbers. -Any given word problems can be represented using an equation. -That a multiplicative comparison is a situation in which one quantity is multiplied by a specific number to get another quantity.	*Students will be able to...* 4.OA.1 -Write multiplication equations from multiplicative comparisons given in words. -Describe multiplication equations in words. -Identify and explain which quantity is being multiplied and which number tells how many times.	-Slate Drills -Teacher Observation -Quiz -Teacher-Made Unit Assessment -State Model Unit Assessment -Performance Assessment - Practice Pages -Games on Eboard -Accelerated Math Program -Reflex Math (Online Program) -Renaissance Learning Star Math	*4.OA.1*: Interpret a multiplication equation as a comparison, e.g., interpret $35 = 5 * 7$ as a statement that 35 is 5 times as many as 7 and 7 times as many as 5. Represent verbal statements of multiplicative comparisons as multiplication equations.

Unit	Essential Questions	Content	Skills	Assessment	Standard
Unit 1: *Use the Four Operations with Whole Numbers to Solve Problems*	-How can multiplication be used to answer questions? (4.OA.2) -How can division be used to answer questions? (4.OA.2) -How can number sentences help you solve word problems? (4.OA.2) -How do you decide which strategy would be the best one to use for solving a given word problem? (4.OA.2) -How do you determine the correct operation(s) needed to solve a problem? (4.OA.2) -What can happen if you choose the wrong operation(s) to solve a problem? (4.OA.2) -How can a model help you solve a comparison problem? (4.OA.2)	*Students will understand that . . .* 4.OA.2 -Comparative situations can be solved by writing equations with an unknown variable. -Basic facts and estimation are used to understand multiplication.	*Students will be able to...* 4.OA.2 -Write an equation to identify the arithmetic operation written in a word problem (without solving) -Distinguish multiplicative comparisons from additive comparisons when reading a word problem. -Add or subtract to solve word problems. -Multiply or divide to solve word problems involving multiplicative comparisons. -Use drawings, equations, and symbols to solve multiplication and division problems. -Solve problems with an unknown product, unknown group size,	-Slate Drills -Teacher Observation -Quiz -Teacher-Made Unit Assessment -State Model Unit Assessment -Performance Assessment - Practice Pages -Games on Eboard -Accelerated Math Program -Reflex Math (Online Program) -Renaissance Learning Star Math	**4.OA.2:** Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison

			and unknown number of groups.		

Unit	Essential Questions	Content	Skills	Assessment	Standard
Unit 1: *Use the Four Operations with Whole Numbers to Solve Problems*	-How does the position of a digit in a number affect its value? (4.NBT.1) -How can you describe the value of a digit? (4.NBT.1) -How does place value help us understand numbers? (4.NBT.1) -How can you rename a whole number? (4.NBT.1) -How are place value patterns repeated in numbers? (4.NBT.1) -What if there was no place value? (4.NBT.1) -What is the difference between a digit and a number? (4.NBT.1)	*Students will understand that . . .* 4.NBT.1 -Understanding the base-ten numeration system improves a sense of the size or magnitude of numbers, and strengthens estimation and computational skills. -Place value is based on groups of ten. -Seven digit numbers are composed of millions, hundred thousands, ten thousands, thousands, hundreds, tens, and ones.	*Students will be able to…* 4.NBT.1 -Explain the quantitative relationship between places of a multi-digit whole number up to one million when moving right to left. -Multiply and divide by multiples of ten to change the value of a digit.	-Slate Drills -Teacher Observation -Quiz -Teacher-Made Unit Assessment -State Model Unit Assessment -Performance Assessment - Practice Pages -Games on Eboard -Accelerated Math Program -Reflex Math (Online Program) -Renaissance Learning Star Math	*4.NBT.1:* Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right.

Curriculum Map
4th Grade
Math

Unit	Essential Questions	Content	Skills	Assessment	Standard
Unit 1: *Use the Four Operations with Whole Numbers to Solve Problems*	-How can you represent the same number in different ways? (4.NBT.2) -How can place value be used to help compare and order numbers? (4.NBT.2) -How can you compare and order numbers? (4.NBT.2)	*Students will understand that . . .* 4.NBT.2 -The placement of a digit dictates its value, how it is read, written, and compared.	*Students will be able to...* 4.NBT.2 -Compare numbers using >, =, or , < for two multi digit numbers up to one million(presented as base-10 numerals, number names, or expanded form) -Read and write numbers using standard form, word form, and expanded notation sing 1-7 digits.	-Slate Drills -Teacher Observation -Quiz -Teacher-Made Unit Assessment -State Model Unit Assessment -Performance Assessment - Practice Pages -Games on Eboard -Accelerated Math Program -Reflex Math (Online Program) -Renaissance Learning Star Math	*4.NBT.2:* Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons.

Unit	Essential Questions	Content	Skills	Assessment	Standard
Unit 1: **Use the Four Operations with Whole Numbers to Solve Problems**	-When is estimation useful? (4.NBT.3) -How can you round numbers? (4.NBT.3)	*Students will understand that . . .* 4.NBT.3 -They must use place value and number sense in order to evaluate their answers when they round or estimate solutions.	*Students will be able to...* 4.NBT.3 -Round multi-digit whole numbers up to one million to any place. -Explain the process and apply to real world situations.	-Slate Drills -Teacher Observation -Quiz -Teacher-Made Unit Assessment -State Model Unit Assessment -Performance Assessment - Practice Pages -Games on Eboard -Accelerated Math Program -Reflex Math (Online Program) -Renaissance Learning Star Math	**4.NBT.3:** Use place value understanding to round multi-digit whole numbers to any place

Unit	Essential Questions	Content	Skills	Assessment	Standard
Unit 1: *Use the Four Operations with Whole Numbers to Solve Problems*	-What are efficient methods for finding sums? (4.NBT.4) -How can you add whole numbers? (4.NBT.4) -What are efficient methods for finding differences? (4.NBT.4) -How can you subtract whole numbers? (4.NBT.4) -How can place value properties aid computation? (4.NBT.4)	*Students will understand that . . .* 4.NTB.4 -Computation involves taking apart and combining numbers using a variety of approaches. -Fluency with basic addition and subtraction facts will aid in estimation and computation of larger numbers. -The standard algorithm for addition is based in the understanding of place value.	*Students will be able to...* 4.NBT.4 -Use standard algorithm to add multi-digit numbers -Use standard algorithm to subtract multi-digit numbers -Explain why algorithm for addition or subtraction works using knowledge of place value.	-Slate Drills -Teacher Observation -Quiz -Teacher-Made Unit Assessment -State Model Unit Assessment -Performance Assessment - Practice Pages -Games on Eboard -Accelerated Math Program -Reflex Math (Online Program) -Renaissance Learning Star Math	*4.NBT.4:* Fluently add and subtract multi-digit whole numbers using the standard algorithm

Unit	Essential Questions	Content	Skills	Assessment	Standard
Unit 2: *Compute with Multi-digit Whole Numbers and Define Equivalent Fractions*	-How can you use a model to help you solve a multistep word problem? (4.OA.3) -How can you represent and solve multistep problems using equations? (4.OA.3) -How can you use remainders in division problems? (4.OA.3) -How do remainders affect your answers? (4.OA.3) -What questions can be answered using addition and subtraction? (4.OA.3) -How can multiplication be used to answer questions? (4.OA.3) -How can division be used to answer questions? (4.OA.3)	*Students will understand that . . .* 4.OA.3 -Addition, subtraction, multiplication, and division can be used to solve multistep word problems. -A remainder needs to be appropriately interpreted within the context of a word problem. -Estimation is a way to get an approximate answer. -That estimating, rounding, compatible numbers should be used to assess the reasonableness of an answer.	*Students will be able to...* 4.OA.3 -To use and discuss various strategies for solving multistep word problems. -Solve multistep word problems using +,- -Solve multistep word problems using x and / by using equations with a letter standing for the unknown quantity -Use mental computation to check the reasonableness of an answer -Use estimation strategies including rounding to check the reasonableness of an answer	-Slate Drills -Teacher Observation -Quiz -Teacher-Made Unit Assessment -State Model Unit Assessment -Performance Assessment - Practice Pages -Games on Eboard -Accelerated Math Program -Reflex Math (Online Program) -Renaissance Learning Star Math	*4.OA.3:* Solve multistep word 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 quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.

Unit	Essential Questions	Content	Skills	Assessment	Standard
Unit 2: **Compute with Multi-digit Whole Numbers and Define Equivalent Fractions**	-How can you use models to find factors? (4.OA.4) -How can you tell whether one number is a factor of another number? (4.OA.4) -How are factors and multiples related? (4.OA.4) -How can you tell whether a number is prime or composite? (4.OA.4)	*Students will understand that . . .* 4.OA.4 -An array can be used to find factor pairs of a given number. -Numbers can be classified according to their factors. -Numbers can be prime or composite.	*Students will be able to...* 4.OA.4 -Find all factor pairs for a whole number up to 100 and determine whether it is a multiple of a given 1 digit whole number. -Explain the difference between multiples and factors. -Name all multiples for a given number 1-100. -Name all factors for a given number 1-100. -Explain the difference between a prime and composite number. -Determine if a number between 1 and 100 is a prime or	-Slate Drills -Teacher Observation -Quiz -Teacher-Made Unit Assessment -State Model Unit Assessment -Performance Assessment - Practice Pages -Games on Eboard -Accelerated Math Program -Reflex Math (Online Program) -Renaissance Learning Star Math	*4.OA.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.

			composite number.		

Unit	Essential Questions	Content	Skills	Assessment	Standard
Unit 2: *Compute with Multi-digit Whole Numbers and Define Equivalent Fractions*	-How can you estimate products by rounding and determine if exact answers are reasonable? (4.NBT.5) -How can you use mental math and properties to help you multiply numbers? (4.NBT.5) -What strategies can you use to multiply by tens? (4.NBT.5) -What strategies can you use to estimate products? (4.NBT.5) -What are efficient methods for finding products? (4.NBT.5)	*Students will understand that . . .* 4.NBT.5 -That multiplication is repeated addition. -There are a variety of methods to solve multi-digit multiplication problems based on the properties of place value and distributive property.	*Students will be able to...* 4.NBT.5 -Use strategies to multiply multi-digit numbers, and explain the answer using equations, rectangular arrays, and area models (up to 4-digits by 1 digit or 2 digits by 2 digits).	-Slate Drills -Teacher Observation -Quiz -Teacher-Made Unit Assessment -State Model Unit Assessment -Performance Assessment - Practice Pages -Games on Eboard -Accelerated Math Program -Reflex Math (Online Program) -Renaissance Learning Star Math	*4.NBT.5:* Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

Unit	Essential Questions	Content	Skills	Assessment	Standard
Unit 2: Compute with Multi-digit Whole Numbers and Define Equivalent Fractions	-Can you use multiples to estimate quotients? (4.NBT.6) -Can you use models to divide whole numbers that do not divide evenly? (4.NBT.6) -What are efficient methods and strategies for finding quotients? (4.NBT.6)	*Students will understand that . . .* 4.NBT.6 -There are a variety of methods to solve division problems based on the properties of place value, operations, and inverse operations. -That multiplication and division are inverse operations.	*Students will be able to…* 4.NBT.6 -Divide using a four digit dividend and a 1 digit divisor. -Explain and justify their solutions and method they used to find the quotient	-Slate Drills -Teacher Observation -Quiz -Teacher-Made Unit Assessment -State Model Unit Assessment -Performance Assessment - Practice Pages -Games on Eboard -Accelerated Math Program -Reflex Math (Online Program) -Renaissance Learning Star Math	*4.NBT.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.

Unit	Essential Questions	Content	Skills	Assessment	Standard
Unit 2: *Compute with Multi-digit Whole Numbers and Define Equivalent Fractions*	-How can a fraction look different but still be the same? (4.NF.1) -How can you use models to show equivalent fractions? (4.NF.1) -How can you use multiplication to find equivalent fractions? (4.NF.1)	*Students will understand that . . .* 4.NF.1 -Two fractions can look different but be equivalent. -Fractions can be explained using visual models -Fractions are representations of parts to a whole. -Fractions are comprised of equal sized pieces.	*Students will be able to...* 4.NF.1 -Recognize equivalent fractions -Generate equivalent fractions -Explain why fractions are equivalent using visual fraction models -Draw models using fractions. -Draw models to show equivalent fractions with unlike denominators.	-Slate Drills -Teacher Observation -Quiz -Teacher-Made Unit Assessment -State Model Unit Assessment -Performance Assessment - Practice Pages -Games on Eboard -Accelerated Math Program -Reflex Math (Online Program) -Renaissance Learning Star Math	*4.NF.1:* Explain why a fraction a/b is equivalent to a fraction (n * a)/(n * 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.

Unit	Essential Questions	Content	Skills	Assessment	Standard
Unit 2: *Compute with Multi-digit Whole Numbers and Define Equivalent Fractions*	-How can you write a pair of fractions as fractions with a common denominator? (4.NF.2) -How can you use benchmarks to compare fractions? (4.NF.2) -How can you compare fractions? (4.NF.2) -How can you order fractions? (4.NF.2) -How can I use models to help compare fractions? (4.NF.2) - What patterns do you notice among numerators and denominators of equivalent fractions? (4.NF.2) -How do fractions represent parts of a whole? (4.NF.2)	*Students will understand that . . .* 4.NF.2 -Fractions can be compared by using the symbols <,>,=.	*Students will be able to...* 4.NF.2 -Compare and order fractions with different numerators -Compare and order fractions with different denominators -Compare 2 fractions with different numerators and denominators -Compare and order fractions by using a visual model -Compare two fractions by creating common denominators -Record fraction comparisons with	-Slate Drills -Teacher Observation -Quiz -Teacher-Made Unit Assessment -State Model Unit Assessment -Performance Assessment - Practice Pages -Games on Eboard -Accelerated Math Program -Reflex Math (Online Program) -Renaissance Learning Star Math	*4.NF.2:* Compare two fractions with different numerators and different denominators, e.g., by creating common denominators or 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. Record the results of comparisons with symbols >, =, or <, and justify the conclusions, e.g., by using a visual fraction model.

	- How do you use fractions in everyday life? (4.NF.2) -How does finding equivalent fractions help you compare fractions? (4.NF.2)		symbols , >,=,< -Use a visual model to justify fraction comparisons -Consider the size of the whole when comparing fractions e.g. ½ and 1/8 of a medium pizza are different than ½ of a medium pizza and 1/8 of a large pizza		

Unit	Essential Questions	Content	Skills	Assessment	Standard
Unit 3: Properties of Operations with Multi-Digit Arithmetic, Fraction Addition, and Subtraction	-How can you use a model to help you solve a multistep word problem? (4.OA.3) -How can you represent and solve multistep problems using equations? (4.OA.3) -How can you use remainders in division problems? (4.OA.3) -How do remainders affect your answers? (4.OA.3) -What questions can be answered using addition and subtraction? (4.OA.3) -How can multiplication be used to answer questions? (4.OA.3) -How can division be used to answer questions? (4.OA.3)	*Students will understand that . . .* 4.OA.3 -Addition, subtraction, multiplication, and division can be used to solve multistep word problems. -A remainder needs to be appropriately interpreted within the context of a word problem. -Estimation is a way to get an approximate answer. -That estimating, rounding, compatible numbers should be used to assess the reasonableness of an answer.	*Students will be able to...* 4.OA.3 -To use and discuss various strategies for solving multistep word problems. -Solve multistep word problems using +,- -Solve multistep word problems using x and / by using equations with a letter standing for the unknown quantity -Use mental computation to check the reasonableness of an answer -Use estimation strategies including rounding to check the reasonableness of an answer	-Slate Drills -Teacher Observation -Quiz -Teacher-Made Unit Assessment -State Model Unit Assessment -Performance Assessment - Practice Pages -Games on Eboard -Accelerated Math Program -Reflex Math (Online Program) -Renaissance Learning Star Math	*4.OA.3:* Solve multistep word 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 quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.

Unit	Essential Questions	Content	Skills	Assessment	Standard
Unit 3: Properties of Operations with Multi-Digit Arithmetic, Fraction Addition, and Subtraction	-What are efficient methods for finding sums? (4.NBT.4) -How can you add whole numbers? (4.NBT.4) -What are efficient methods for finding differences? (4.NBT.4) -How can you subtract whole numbers? (4.NBT.4) -How can place value properties aid computation? (4.NBT.4)	*Students will understand that . . .* 4.NTB.4 -Computation involves taking apart and combining numbers using a variety of approaches. -Fluency with basic addition and subtraction facts will aid in estimation and computation of larger numbers. -The standard algorithm for addition is based in the understanding of place value.	*Students will be able to...* 4.NBT.4 -Use standard algorithm to add multi-digit numbers -Use standard algorithm to subtract multi-digit numbers -Explain why algorithm for addition or subtraction works	-Slate Drills -Teacher Observation -Quiz -Teacher-Made Unit Assessment -State Model Unit Assessment -Performance Assessment - Practice Pages -Games on Eboard -Accelerated Math Program -Reflex Math (Online Program) -Renaissance Learning Star Math	*4.NBT.4:* Fluently add and subtract multi-digit whole numbers using the standard algorithm.

Unit	Essential Questions	Content	Skills	Assessment	Standard
Unit 3: *Properties of Operations with Multi-Digit Arithmetic, Fraction Addition, and Subtraction*	-When can you add or subtract parts of a whole? (4.NF.3) -How can you write a fraction as a sum of fractions with the same denominators? (4.NF.3) -How can you add fractions with like denominators using models? (4.NF.3) -How can you subtract fractions with like denominators using models? (4.NF.3) -How can you add and subtract fractions with like denominators? (4.NF.3) -In what ways can fractions be composed and decomposed? (4.NF.3)	*Students will understand that . . .* 4.NF. 3 -Fractions with different denominators can be added and subtracted.	*Students will be able to...* 4.NF.3 -Know that a fraction with a numerator of 1 is called a unit fraction -Use visual models to explore joining and separating of a fraction (See examples below) -3a Understand a fraction a/b with a>1, as a sum of 1/b e.g. ¾ = ¼ + ¼ + ¼ -+, - fraction by joining and separating parts -3b Decompose fractions with the same denominator into a sum of fractions in a variety of ways e.g. 3/8 = 1/8 + 1/8 + 1/8 ; 3/8 = 2/8 + 1/8 -Write equations to	-Slate Drills -Teacher Observation -Quiz -Teacher-Made Unit Assessment -State Model Unit Assessment -Performance Assessment - Practice Pages -Games on Eboard -Accelerated Math Program -Reflex Math (Online Program) -Renaissance Learning Star Math	**4.NF.3:** Understand a fraction a/b with a > 1 as a sum of fractions 1/b. 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, recording each decomposition by an equation. Justify decompositions, e.g., by using a visual fraction model. c. 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

			record decompositions of fractions -3c +, - mixed numbers with like denominators -Change mixed numbers into improper fractions -Change improper fractions into mixed numbers -+,- mixed numbers with like denominators by using visual models -And/or +, - mixed numbers by using properties of operations and the relationship between addition and subtraction -Solve word problems using addition and subtraction of fractions with like denominators by using visual fraction models and equations.		subtraction. d. Solve 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.

Unit	Essential Questions	Content	Skills	Assessment	Standard
Unit 3: Properties of Operations with Multi-Digit Arithmetic, Fraction Addition, and Subtraction	-How are fractions used in real life? (4.NF.4) -How can you write a fraction as a product of a whole number and a unit fraction? (4.NF.4) -How can you write the product of a whole number and a fraction as the product of a whole number and a unit fraction? (4.NF.4) -How can you use a model to multiply a fraction by a whole number? (4.NF.4) -How can you multiply a fraction by a whole number to solve a problem? (4.NF.4) -How can you use the strategy of drawing a diagram/model to solve comparison problems with	*Students will understand that . . .* 4.NF.4 -Fractions and decimals can be modeled, compared, and ordered.	*Students will be able to...* 4.NF.4 -Identify a fraction a/b with a>1 as a multiple of 1/b e.g. 4/5 = 4 x 1/5 -Multiply a fraction by a whole number using fraction models -Multiply a fraction by a whole number using equations -Solve 1-step word problems involving multiplication of a fraction by a whole number using visual fraction models and equations	-Slate Drills -Teacher Observation -Quiz -Teacher-Made Unit Assessment -State Model Unit Assessment -Performance Assessment - Practice Pages -Games on Eboard -Accelerated Math Program -Reflex Math (Online Program) -Renaissance Learning Star Math	4.NF.4: Apply and extend previous understandings of multiplication to multiply a fraction by a whole number. a. Understand a fraction a/b as a multiple of 1/b. 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. 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.

	fractions? (4.NF.4)				

Unit	Essential Questions	Content	Skills	Assessment	Standard
Unit 3: *Properties of Operations with Multi-Digit Arithmetic, Fraction Addition, and Subtraction*	-How do units within a system relate to each other? (4.MD.1) -How can you use benchmarks to understand the relative sizes of measurement units? (4.MD.1) -How can you use models to compare customary units of length, weight, and liquid volume? (4.MD.1) -How can you use models to compare metric units of measurement? (4.MD.1) -How can you use models to compare units of time? (4.MD.1)	*Students will understand that . . .* 4.MD.1 -Everyday objects have a variety of attributes, each of which can be measured in many ways. -Standard units provide common language for communication and measurements. -The choice of measurement tools depends on the measurable attribute and the degree of precision desired. -Measurement can be used to describe, compare, and make sense of phenomena. -Larger units can be subdivided into	*Students will be able to...* 4.MD.1 -Memorize the relative sizes of measurements within one system --km, m, cm --kg, g --l, ml --lb, oz --hr, min, sec. --mi, yd, ft, in --cup, pint, quart, gallon -Compare measurements within a single system of measurement - Record	-Slate Drills -Teacher Observation -Quiz -Teacher-Made Unit Assessment -State Model Unit Assessment -Performance Assessment - Practice Pages -Games on Eboard -Accelerated Math Program -Reflex Math (Online Program) -Renaissance Learning Star Math	*4.MD.1:* Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two-column table.

		equivalent units.	measurement equivalents in a 2 column table -Convert units within a system from larger to smaller units -Complete or generate a conversion table for feet and inches -Use data in problem solving -Select and use appropriate standard units of measures to solve real-life problems.		

Unit	Essential Questions	Content	Skills	Assessment	Standard
Unit 4: **Extend Understanding of Fractions, Solve Word Problems, and Introduce Decimals**	-How can you use a model to help you solve a multistep word problem? (4.OA.3) -How can you represent and solve multistep problems using equations? (4.OA.3) -How can you use remainders in division problems? (4.OA.3) -How do remainders affect your answers? (4.OA.3) -What questions can be answered using addition and subtraction? (4.OA.3) -How can multiplication be used to answer questions? (4.OA.3) -How can division be used to answer questions? (4.OA.3)	*Students will understand that…* 4.OA.3 -Addition, subtraction, multiplication, and division can be used to solve multistep word problems. -A remainder needs to be appropriately interpreted within the context of a word problem. -Estimation is a way to get an approximate answer. -That estimating, rounding, compatible numbers should be used to assess the reasonableness of an answer.	*Students will be able to…* 4.OA.3 -To use and discuss various strategies for solving multistep word problems. -Solve multistep word problems using +,-,x,/. -Solve multistep word problems in which remainders must be interpreted. -Use equations with a letter standing for the unknown quantity. -Use mental computation to check the reasonableness of an answer. -Use estimation strategies including rounding to check the reasonableness of an answer.	-Slate Drills -Teacher Observation -Quiz -Teacher-Made Unit Assessment -State Model Unit Assessment -Performance Assessment - Practice Pages -Games on Eboard -Accelerated Math Program -Reflex Math (Online Program) -Renaissance Learning Star Math	**4.OA.3:** Solve multistep word 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 quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.

Unit	*Essential Questions*	*Content*	*Skills*	*Assessment*	*Standard*
Unit 4: **Extend Understanding of Fractions, Solve Word Problems, and Introduce Decimals**	-How can you make and describe patterns? (4.OA.5)	*Students will understand that . . .* 4.OA.5 -Patterns can be used in real-life situations. -Patterns can be shapes or numbers -Patterns can be found in many forms. -Patterns can grow and repeat. -Patterns can be generalized.	*Students will be able to...* 4.OA.5 -Recognize number patterns that follow a given rule -Create a number pattern that follows a given rule using: +, -, x, or / -Recognize a shape pattern that follows a given rule -Create a shape pattern that follows a given rule -Identify implicit features of number patterns and explain why numbers will continue to alternate in a given way. -Use input/output tables to analyze, create, and extend patterns	-Slate Drills -Teacher Observation -Quiz -Teacher-Made Unit Assessment -State Model Unit Assessment -Performance Assessment - Practice Pages -Games on Eboard -Accelerated Math Program -Reflex Math (Online Program) -Renaissance Learning Star Math	**4.OA.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.

			-Use T-Charts to analyze, create, and extend patterns -Analyze function tables to determine rules and extend patterns -Identify and use multiplication, addition, subtraction, and division in patterns (Review basic facts)		

Unit	Essential Questions	Content	Skills	Assessment	Standard
Unit 4: *Extend Understanding of Fractions, Solve Word Problems, and Introduce Decimals*	-How can you multiply a fraction by a whole number to solve a problem? (4.NF.4c.) -How can you use the strategy "draw a diagram" to solve comparison problems with fractions? (4.NF.4c)	*Students will understand that . . .* 4.NF.4c. -A fraction can be multiplied by a whole number.	*Students will be able to…* 4.NF.4c. -Solve 1-step word problems involving multiplication of a fraction by a whole number using visual fraction models and equations	-Slate Drills -Teacher Observation -Quiz -Teacher-Made Unit Assessment -State Model Unit Assessment -Performance Assessment - Practice Pages -Games on Eboard -Accelerated Math Program -Reflex Math (Online Program) -Renaissance Learning Star Math	*4.NF.4c.:* Apply and extend previous understandings of multiplication to multiply a fraction by a whole number. 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.

Unit	Essential Questions	Content	Skills	Assessment	Standard
Unit 4: *Extend Understanding of Fractions, Solve Word Problems, and Introduce Decimals*	-How can you record tenths and hundredths as fractions and decimals? (4.NF.5) -How can you add fractions with denominators of 10 and 100? (4.NF.5)	*Students will understand that . . .* 4.NF.5 -Fractions and decimals can be modeled, compared, and ordered. -Fractions and decimals express a relationship between two numbers.	*Students will be able to…* 4.NF.5 -Express a fraction with denominator 10 as an equivalent fraction with denominator 100 -Add two fractions with respective denominators 10 and 100 e.g. 3/10 + 4/100 = 34/100	-Slate Drills -Teacher Observation -Quiz -Teacher-Made Unit Assessment -State Model Unit Assessment -Performance Assessment - Practice Pages -Games on Eboard -Accelerated Math Program -Reflex Math (Online Program) -Renaissance Learning Star Math	*4.NF.5:* Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100.

Unit	Essential Questions	Content	Skills	Assessment	Standard
Unit 4: *Extend Understanding of Fractions, Solve Word Problems, and Introduce Decimals*	-How can you record tenths as fractions and decimals? (4.NF.6) -How can you record hundredths as fractions and decimals? (4.NF.6)	*Students will understand that . . .* 4.NF.6 -Fractions and decimals can be modeled, compared, and ordered. -Fractions and decimals express a relationship between two numbers. -A fraction can be multiplied by a whole number.	*Students will be able to...* 4.NF.6 -Recognize the relationships between fractions and decimals -Read and write fractions and decimals using place value chart -Rename fractions with denominators of 10 and 100 as decimals -Rename decimals (tenths, hundredths) as fractions with denominators of 10 and 100 -Use decimal notation to write fractions with denominators of 10 or 100 by first writing each fraction as a fraction with denominator 100	-Slate Drills -Teacher Observation -Quiz -Teacher-Made Unit Assessment -State Model Unit Assessment -Performance Assessment - Practice Pages -Games on Eboard -Accelerated Math Program -Reflex Math (Online Program) -Renaissance Learning Star Math	*4.NF.6:* Use decimal notation for fractions with denominators 10 or 100.

Unit	Essential Questions	Content	Skills	Assessment	Standard
Unit 4: *Extend Understanding of Fractions, Solve Word Problems, and Introduce Decimals*	-How can you compare decimals? (4.NF.7)	*Students will understand that . . .* 4.NF.7 -Decimals can be modeled, compared, and ordered. -Decimals express a relationship between two numbers.	*Students will be able to...* 4.NF.7 -Compare two decimals to hundredths -Record comparisons of decimals with the symbols >,=,< -Justify the comparisons of decimals with visual model such as area models, decimal grids, decimal circles, number lines, and meter sticks. -Recognize that comparisons of decimals are only valid when the two decimals refer to the same whole -Use pictures, numbers, or words to order, compare, and sequence decimals	-Slate Drills -Teacher Observation -Quiz -Teacher-Made Unit Assessment -State Model Unit Assessment -Performance Assessment - Practice Pages -Games on Eboard -Accelerated Math Program -Reflex Math (Online Program) -Renaissance Learning Star Math	*4.NF.7:* Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions, e.g., by using a visual model.

Unit	Essential Questions	Content	Skills	Assessment	Standard
Unit 4: *Extend Understanding of Fractions, Solve Word Problems, and Introduce Decimals*	-How can you solve a problem involving mixed measures? (4.MD.2) -How are fractions and decimals used in real life? (4.MD.2)	*Students will understand that . . .* 4.MD.2 -Graphs organize data in a concise way. -There are many different ways to gather, record, and display data. -Area and perimeter are used to solve everyday problems.	*Students will be able to...* 4.MD.2 -Use +, -, x, / to solve word problems involving…Distances, intervals of time, capacity, weight, and money -Solve multistep word problems by changing measurements given in larger units to measurements in smaller units -Use number line diagrams to solve word problems	-Slate Drills -Teacher Observation -Quiz -Teacher-Made Unit Assessment -State Model Unit Assessment -Performance Assessment - Practice Pages -Games on Eboard -Accelerated Math Program -Reflex Math (Online Program) -Renaissance Learning Star Math	*4.MD.2:* Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.

Unit	Essential Questions	Content	Skills	Assessment	Standard
Unit 4: *Extend* *Understanding of* *Fractions, Solve* *Word Problems, and* *Introduce Decimals*	-What is the difference between area and perimeter? (4.MD.3) -How can you use a formula to find the perimeter of a rectangle? (4.MD.3) -How can you use a formula to find the area of a rectangle? (4.MD.3) -How can you find the area of combined rectangles? (4.MD.3) -How can you find an unknown measure of a rectangle given its area or perimeter? (4.MD.3) -When would you need to use perimeter and area? (4.MD.3)	*Students will understand that . . .* 4.MD.3 -Graphs organize data in a concise way. -There are many different ways to gather, record, and display data. -Area and perimeter are used to solve everyday problems.	*Students will be able to...* 4.MD.3 -Develop and use formula for finding the perimeter of rectangles -Develop and use formula for finding the area of rectangles -Solve real world word problems by using the formulas for finding perimeter and area	-Slate Drills -Teacher Observation -Quiz -Teacher-Made Unit Assessment -State Model Unit Assessment -Performance Assessment - Practice Pages -Games on Eboard -Accelerated Math Program -Reflex Math (Online Program) -Renaissance Learning Star Math	*4.MD.3:* Apply the area and perimeter formulas for rectangles in real world and mathematical problems.

Unit	Essential Questions	Content	Skills	Assessment	Standard
Unit 4: *Extend Understanding of Fractions, Solve Word Problems, and Introduce Decimals*	-How can you make and interpret line plots with fractional data? (4.MD.4) - What kinds of questions can be answered from a graph (line plot)? (4.MD.4)	*Students will understand that . . .* 4.MD.4 -Graphs organize data in a concise way. -There are many different ways to gather, record, and display data. -Area and perimeter are used to solve everyday problems.	*Students will be able to...* 4.MD.4 -Use a line plot -Make a line plot displaying data in fractions of unit (1/2, ¼, 1/8) -Use information from line plots to solve problems involving addition and subtraction of fractions with like denominators	-Slate Drills -Teacher Observation -Quiz -Teacher-Made Unit Assessment -State Model Unit Assessment -Performance Assessment - Practice Pages -Games on Eboard -Accelerated Math Program -Reflex Math (Online Program) -Renaissance Learning Star Math	*4.MD.4:* Make a line plot to display a data set of measurements in fractions of a unit (1/2, 1/4, 1/8). Solve problems involving addition and subtraction of fractions by using information presented in line plots.

Unit	Essential Questions	Content	Skills	Assessment	Standard
Unit 5: **Compare Decimals and Measure and Classify Geometric Figures**	-What are efficient methods for finding sums? (4.NBT.4)

-How can you add whole numbers? (4.NBT.4)

-What are efficient methods for finding differences? (4.NBT.4)

-How can you subtract whole numbers? (4.NBT.4)

-How can place value properties aid computation? (4.NBT.4) | *Students will understand that…*

4.NTB.4

-Computation involves taking apart and combining numbers using a variety of approaches.

-Fluency with basic addition and subtraction facts will aid in estimation and computation of larger numbers.

-The standard algorithm for addition is based in the understanding of place value. | *Students will be able to…*

4.NBT.4

-Use standard algorithm to add multi-digit numbers

-Use standard algorithm to subtract multi-digit numbers

-Explain why algorithm for addition or subtraction works using knowledge of place value. | -Slate Drills

-Teacher Observation

-Quiz

-Teacher-Made Unit Assessment

-State Model Unit Assessment

-Performance Assessment

- Practice Pages

-Games on Eboard

-Accelerated Math Program

-Reflex Math (Online Program)

-Renaissance Learning Star Math | **4.NBT.4:**

Fluently add and subtract multi-digit whole numbers using the standard algorithm |

Unit	Essential Questions	Content	Skills	Assessment	Standard
Unit 5: *Compare Decimals and Measure and Classify Geometric Figures*	-How can you relate angles and fractional parts of a circle? (4.MD.5)

-How are degrees related to fractional parts of a circle? (4.MD.5)

- How are geometric properties used to solve problems in everyday life? (4.MD.5)

-How can angles be classified? (4.MD.5)

- How can angles be measured? (4.MD.5)

-When would you use angles to solve problems? (4.MD.5) | *Students will understand that . . .*

4.MD.5

 -There is a connection between angles and circular measurement (360).

- Angles are geometric shapes formed by 2 rays.

 -Angles are classified based on their characteristics.

 -Angles can be measured by using a protractor.

- Angles can be decomposed to solve problems. | *Students will be able to...*

4.MD.5

-Recognize angles as geometric shapes that are formed wherever 2 rays share a common endpoint

-Recognize benchmark angles: right angle = 90 degrees, straight angle measures 180 degrees

-Recognize acute angles measure less than 90

-Recognize obtuse angles measure more than 90

-Draw acute and obtuse angles

-Know that an angle is measured with reference to a circle | -Slate Drills

-Teacher Observation

-Quiz

-Teacher-Made Unit Assessment

-State Model Unit Assessment

-Performance Assessment

- Practice Pages

-Games on Eboard

-Accelerated Math Program

-Reflex Math (Online Program)

-Renaissance Learning Star Math | *4.MD.5:*

Recognize angles as geometric shapes that are formed whenever two rays share a common endpoint, and understand concepts of angle measurement.
a. An angle is measured with reference to a circle with its center at the common endpoint of the rays, by considering the fraction of the circular arc between the points where the two rays intersect the circle. An angle that turns through 1/360 of a circle is called a "one-degree angle," and can be used to measure angles.
b. An angle that turns through n one-degree angles is said to have an angle measure of n degrees. |

Unit	Essential Questions	Content	Skills	Assessment	Standard
Unit 5: *Compare Decimals and Measure and Classify Geometric Figures*	-How can you use a protractor to measure and draw angles? (4.MD.6)	*Students will understand that . . .* 4.MD.6 -There is a connection between angles and circular measurement (360). - Angles are geometric shapes formed by 2 rays. -Angles are classified based on their characteristics. -Angles can be measured by using a protractor. - Angles can be decomposed to solve problems.	*Students will be able to...* 4.MD.6 -Draw angles of specified measures -Measure angles by using a circular protractor to the nearest whole number	-Slate Drills -Teacher Observation -Quiz -Teacher-Made Unit Assessment -State Model Unit Assessment -Performance Assessment - Practice Pages -Games on Eboard -Accelerated Math Program -Reflex Math (Online Program) -Renaissance Learning Star Math	*4.MD.6:* Measure angles in whole-number degrees using a protractor. Sketch angles of specified measure.

Unit	Essential Questions	Content	Skills	Assessment	Standard
Unit 5: Compare Decimals and Measure and Classify Geometric Figures	-How can you determine the measure of an angle separated into parts? (4.MD.7)	*Students will understand that . . .* 4.MD. 7 -There is a connection between angles and circular measurement (360). - Angles are geometric shapes formed by 2 rays. -Angles are classified based on their characteristics. -Angles can be measured by using a protractor. - Angles can be decomposed to solve problems.	*Students will be able to...* 4.MD.7 -Decompose (break) an angle into smaller parts (e.g. 25 + 65 = 90) -Solve addition and subtraction problems to find unknown angle.	-Slate Drills -Teacher Observation -Quiz -Teacher-Made Unit Assessment -State Model Unit Assessment -Performance Assessment - Practice Pages -Games on Eboard -Accelerated Math Program -Reflex Math (Online Program) -Renaissance Learning Star Math	*4.MD.7:* Recognize angle measure as additive. When an angle is decomposed into non-overlapping parts, the angle measure of the whole is the sum of the angle measures of the parts. Solve addition and subtraction problems to find unknown angles on a diagram in real world and mathematical problems, e.g., by using an equation with a symbol for the unknown angle measure.

Unit	Essential Questions	Content	Skills	Assessment	Standard
Unit 5: *Compare Decimals and Measure and Classify Geometric Figures*	-How can you identify and draw parallel lines and perpendicular lines? (4.G.1) -What is the difference between intersecting, parallel, and perpendicular lines? (4.G.1)	*Students will understand that . . .* 4.G.1 -Geometric properties can be used to construct geometric figures. -Objects can be described and compared using their geometric attributes. -Everyday objects have a variety of attributes, each of which can be measured in many ways.	*Students will be able to…* 4.G.1 Draw and identify the following in isolation and within two-dimensional figures: -Points -Lines -Line Segments -Rays -Angles (Right, Acute, and Obtuse) -Perpendicular Lines -Parallel Lines	-Slate Drills -Teacher Observation -Quiz -Teacher-Made Unit Assessment -State Model Unit Assessment -Performance Assessment - Practice Pages -Games on Eboard -Accelerated Math Program -Reflex Math (Online Program) -Renaissance Learning Star Math	*4.G.1:* Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.

Unit	Essential Questions	Content	Skills	Assessment	Standard
Unit 5: *Compare Decimals and Measure and Classify Geometric Figures*	-How can you sort and classify quadrilaterals? (4.G.2)	*Students will understand that . . .* 4.G.2 -Geometric properties can be used to construct geometric figures. -Objects can be described and compared using their geometric attributes. -Everyday objects have a variety of attributes, each of which can be measured in many ways.	*Students will be able to...* 4.G.2 Classify two-dimensional figures based on the presence or absence of -parallel lines -perpendicular lines -angles of a specified size -Recognize right triangles as a category -Identify right triangles -Classify two-dimensional shapes on specific attributes. -Indentify and classify triangles by their angles and sides.	-Slate Drills -Teacher Observation -Quiz -Teacher-Made Unit Assessment -State Model Unit Assessment -Performance Assessment - Practice Pages -Games on Eboard -Accelerated Math Program -Reflex Math (Online Program) -Renaissance Learning Star Math	*4.G.2:* Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size. Recognize right triangles as a category, and identify right triangles.

Unit	Essential Questions	Content	Skills	Assessment	Standard
Unit 5: **Compare Decimals and Measure and Classify Geometric Figures**	- What strategies can be used to verify symmetry? (4.G.3)	*Students will understand that . . .* 4.G.3 -Objects can be described and compared by using their geometric attributes, including symmetry. -Transforming an object does not affect its attributes. -Symmetry is in art and nature.	*Students will be able to...* 4.G.3 -Identify/draw symmetrical objects -Identify/draw asymmetrical objects -Identify patterns with objects, and/or geometric figures that are symmetrical -Identify line-symmetrical figures -Draw lines of symmetry through line-symmetrical figures	-Slate Drills -Teacher Observation -Quiz -Teacher-Made Unit Assessment -State Model Unit Assessment -Performance Assessment - Practice Pages -Games on Eboard -Accelerated Math Program -Reflex Math (Online Program) -Renaissance Learning Star Math	*4.G.3:* Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching parts. Identify line-symmetric figures and draw lines of symetry.