Fourth Grade Mathematics Scope and Sequence

Quarter 1		
Domain	**Operations & Algebraic Thinking**	**Numbers & Operations In Base Ten**
Standard	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. 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. See Table 2, page 96. Drawings need not show details, but should show the mathematics in the problem. (This applies wherever drawings are mentioned in the Standards.) 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. 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.	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 by applying concepts of place value, multiplication, or division. 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. 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.
Resource	Bridges – Unit 1 & 2	Bridges – Unit 1 & 2

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Quarter 2				
Domain	**Operations & Algebraic Thinking**	**Numbers & Operations In Base Ten**	**Numbers & Operations –Fractions**	**Measurement and Data**
Standard	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.	4.NBT.2 Read and write multi-digit whole numbers using standard form, word form, 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. Grade 4 expectations in this domain are limited to whole numbers less than or equal to 1,000,000. 4.NBT.3 Use place value understanding to round multi-digit whole numbers to any place through 1,000,000. 4.NBT.4 Fluently add and subtract multi-digit whole numbers using a standard algorithm.	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. 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. 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. Examples: 3 /8 = 1 /8 +	4.MD.1 Know relative sizes of the metric measurement units within one system of units. Metric units include kilometer, meter, centimeter, and millimeter; kilogram and gram; and liter and milliliter. Express a larger measurement unit in terms of a smaller unit. Record measurement conversions in a two-column table. For example, express the length of a 4-meter rope in centimeters. Because 1 meter is 100 times as long as a 1 centimeter, a two-column table of meters and centimeters includes the number pairs 1 and 100, 2 and 200, 3 and 300,… 4.MD.2 Solve real-world problems involving money, time, and metric measurement. A. Using models, add and subtract money and express the answer in decimal notation. B. Using number line diagrams, clocks, or other models, add and subtract intervals of time in hours and minutes. C. Add, subtract, and multiply whole numbers to solve metric measurement problems involving distances, liquid volumes, and masses of objects

			1 /8 + 1 /8; 3 /8 = 1 /8 + 2 /8; 2 1 /8 = 1 + 1 + 1 /8 = 8 /8 + 8 /8 + 1 /8. 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 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. 4.NF.6 Use decimal notation for fractions with denominators 10 or 100. For example, rewrite 0.62 as 62/100; describe a length as 0.62 meters; locate 0.62 on a number line diagram. 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.	
Resource	Bridges – Unit 3 & 4	Bridges – Unit 3 & 4	Bridges – Unit 3	Bridges – Unit 4

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Quarter 3					
Domain	**Operations & Algebraic Thinking**	**Numbers & Operations In Base Ten**	**Numbers & Operations – Fractions**	**Measurement and Data**	**Geometry**
Standard	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. 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. 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.	4.NBT.4 Fluently add and subtract multi-digit whole numbers using a standard algorithm. 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. 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	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. For example, use a visual fraction model to represent 5 /4 as the product 5 × (1 /4), recording the conclusion by the equation 5 /4 = 5 × (1 /4) or 5 /4 = (1 /4) + (1 /4) + (1 /4) + (1 /4) + (1 /4). b. Understand a multiple of a /b as a multiple of 1 /b, and use this understanding to multiply a fraction by a whole number. For example, use a visual fraction model to express 3 × (2 /5) as 6 × (1 /5), recognizing this product as 6 /5. (In general, n × (a /b) = (n × a)/b.) c. Solve word problems involving multiplication of a fraction by a whole number, e.g., by using visual fraction models and equations to represent the problem. For example, if each person at a party will eat 3 /8 of a pound	4.MD.3 Develop efficient strategies to determine the area and perimeter of rectangles in real-world situations and mathematical problems. For example, given the total area and one side length of a rectangle, solve for the unknown factor, and given two adjacent side lengths of a rectangle, find the perimeter. 4.MD.4 Display and interpret data in graphs (picture graphs, bar graphs, and line plots) to solve problems using numbers and operations for this grade. 4.MD.5 Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement. a. Understand 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	4.G.1 Draw points, lines, line segments, rays, angles (right, acute, and obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures. 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.

			of roast beef, and there will be 5 people at the party, how many pounds of roast beef will be needed? Between what two whole numbers does your answer lie? 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. For example, express 3 /10 as 30/100, and add 3 /10 + 4 /100 = 34/100. In general, students who can generate equivalent fractions can develop strategies for adding fractions with unlike denominators, but addition and subtraction with unlike denominators is not a requirement at this grade.	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. Understand an angle that turns through n one-degree angles is said to have an angle measure of n degrees. 4.MD.6 Measure angles in whole-number degrees using a protractor. Sketch angles of specified measure. 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.	
Resource	Bridges – Unit 5 & 6	Bridges – Unit 5 & 6	Bridges – Unit 6	Bridges – 5 & 6	Bridges – Unit 5

WHCSD Scope and Sequence Fourth Grade Mathematics 2021-2022

Quarter 4				
Domain	**Operations & Algebraic Thinking**	**Numbers & Operations In Base Ten**	**Numbers & Operations –Fractions**	**Measurement and Data**
Standard	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.	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. 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.	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. 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. 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. For example, express 3 /10 as 30/100, and add 3 /10 + 4 /100 = 34/100. In general, students who can generate equivalent fractions can develop strategies for adding fractions with unlike denominators, but addition and subtraction with unlike denominators is not a requirement at this grade.	4.MD.1 Know relative sizes of the metric measurement units within one system of units. Metric units include kilometer, meter, centimeter, and millimeter; kilogram and gram; and liter and milliliter. Express a larger measurement unit in terms of a smaller unit. Record measurement conversions in a two-column table. For example, express the length of a 4-meter rope in centimeters. Because 1 meter is 100 times as long as a 1 centimeter, a two-column table of meters and centimeters includes the number pairs 1 and 100, 2 and 200, 3 and 300,… 4.MD.2 Solve real-world problems involving money, time, and metric measurement. A. Using models, add and subtract money and express the answer in decimal notation. B. Using number line diagrams, clocks, or other models, add and subtract intervals of time in hours and minutes. C. Add, subtract, and multiply whole numbers to solve metric measurement problems

			4.NF.6 Use decimal notation for fractions with denominators 10 or 100. For example, rewrite 0.62 as 62/100; describe a length as 0.62 meters; locate 0.62 on a number line diagram. 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.	involving distances, liquid volumes, and masses of objects.
Resource	Bridges – Unit 7	Bridges – Unit 7	Bridges – Unit 7	Bridges – Unit 8 (Playground Design) ; spirals all MD standards

WHCSD Scope and Sequence **Fourth Grade** **Mathematics** **2021-2022**

Quarter 1 Learning Targets

Ohio Standard	Learning Targets	Notes
4.OA.1	Solve multiplication facts through 10 x 10 and solve related division facts through 100 divided by 10.	This is a 3rd grade skill, but learning target can be used as a review.
	Interpret a multiplication equation as a comparison.	
	Represent verbal statements of multiplicative comparisons as multiplication equations.	
4.OA.2	Multiply to solve word problems involving multiplicative comparisons by using drawings and equations with a symbol for the unknown to represent the problem.	See table 2 in the Appendix for word problem examples.
	Divide to solve word problems involving multiplicative comparison by using drawings and equations with a symbol for the unknown to represent the problem.	
4.OA.3	Solves multi-step word problems posed with whole numbers and having whole-number answers using addition and subtraction.	
	Represent addition and subtraction word problems using equations with a letter standing for the unknown quantity.	
	Assess the reasonableness of answers using mental computation and estimation strategies.	
4.OA.4	Find all factor pairs for a whole number in the range of 1-100.	
	Recognize that a whole number is a multiple of each of its factors.	
	Determine whether a given whole number in the range of 1-100 is a multiple of a given one-digit number.	
	Use models to explain and justify if a given whole number in the range of 1-100 is prime or composite.[1]	
	Determine whether a given whole-number in the range of 1-100 is prime or composite.	
4.NBT.1	Recognize that in a multi-digit whole number, a digit in the ones place represents ten times what is represents in the place to its right by applying concepts of place value, multiplication or division.	
4.NBT.5	Multiplies 2-and 3-digit whole numbers by 1-digit whole number using strategies based on place value and the properties of operations.	Spirals back in Quarter 3
	Illustrate and explain 2-and 3-digit whole numbers by 1-digit calculation by using equations, rectangular arrays, and/or area models.	
4.NBT.6	Find whole number quotients and remainders with up to two-digit dividends and one-digit divisors using strategies based on place value.	
	Illustrate and explain whole number division calculations by using equations, rectangular arrays, and/or area models (two-digit dividends and one-digit divisors).	

[1] Instructional Focus recommended by the ODE's Mathematics Model Curriculum; Learning Target needed for complete standard mastery

Quarter 2 Learning Targets

Ohio Standard	Learning Targets	Notes
4.OA.3	Solves multi-step word problems posed with whole numbers and having whole-number answers using the four operations.	Spirals back in Quarters 3 & 4.
	Interpret and explain the use of remainders with respect to context. [1]	Apply to word problems.
	Represent word problems using equations with a letter standing for the unknown quantity.	Spirals back in Quarters 3 & 4.
	Assess the reasonableness of answers using mental computation and estimation strategies including rounding.	Spirals back in Quarters 3 & 4.
4.NBT.2	Read and write multi-digit whole numbers using standard form.	
	Read and write multi-digit whole numbers using word form.	
	Read and write multi-digit whole numbers using expanded form.	
	Use patterns in the place value system to read and write numbers. [1]	
	Compare two multi-digits numbers based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons (numbers less than or equal to 1,000, 000).	Compare with same/different number of digits, same/different leading numbers
	Create numbers given specific criteria. [1]	
4.NBT.3	Use place value understanding to round multi-digit whole numbers to any place through 1,000,000.	
	Develop and generalize rounding rules for larger numbers [1]	
	Identify or create numbers that will round to a chosen number. [1]	
	Explore the purposes of rounding. [1]	
4.NBT.4	(Introductory) Fluently add and subtract multi-digit whole numbers using a standard algorithm.	Mastery expected in Quarter 3
4.NF.1	Explain why a fraction a/b is equivalent to fraction (n x b) by using visual fraction models.	Include wholes and values greater than a whole; Use denominators 2, 3, 4, 5, 6, 8, 10, 12, and 100 [1]; spirals back in Quarter 4
	Recognize equivalent fractions on number lines or using other length models.	
	Generate equivalent fractions on number lines or using other length models.	
4.NF.2	Compare two fractions with different numerators and denominators by creating common denominators or numerators or by comparing to a benchmark fraction.	Use the following benchmark fractions, 0, ½, and 1 to compare
	Recognize that comparisons are valid only when the two fractions refer to the same whole.	
	Represent fractions with different numerators and denominators given pairs of visual models. [1]	Shaded area models can be used
	Record results of fraction comparisons with the symbols >, =, or <.	
	Justify the conclusions of fraction comparisons.	

4.NF.3	Decompose a fraction into sums of fractions with the same denominator in more than one way, recording each decomposition by an equation.	See standard for examples
	Justify decompositions of fractions.	
	Understand addition of fractions as joining parts referring to the same whole.	
	Understand subtraction of fraction as separating parts referring to the same whole.	
	Add and subtract fractions with like denominators. [1]	
4.NF.3	Add and subtract mixed numbers with like denominators by replacing each mixed number with an equivalent fraction, and/or using the relationship between addition and subtraction.	
	Solve word problems involving addition and subtraction of fractions referring to the same whole and having like denominators by using visual fraction models and equations to represent the problem.	
4.NF.6	Use decimal notation for fractions with denominators 10 or 100.	
4.NF.7	Compares two decimals to hundredths by reasoning about their size.	
	Recognize that comparisons are valid only when two decimals refer to the same whole.	
	Record the results of comparisons of decimals through hundredths with the symbols >, =, < and justify the conclusions.	
4.MD.1	Know relative sizes of the metric measurement units within one system of units including metric length (kilometer, meter, centimeter), metric mass (kilogram, gram), and metric volume (liter, milliliter).	
	Express a larger measurement unit in terms of a small unit.	
	Record measurement conversions in a two-column table.	See standard for example
4.MD.2	Solve real-world problems involving metric measurement (distances, mass and volume) by adding, subtracting, and multiplying whole numbers.	Teach with 4.MD.1
	Solve real-world problems involving money by using models to add and subtract. Express the answer in decimal notation.	

[1] Instructional Focus recommended by the ODE's Mathematics Model Curriculum; Learning Target needed for complete standard mastery

Quarter 3 Learning Targets

Ohio Standard	Learning Targets	Notes
4.OA.3	Solves multi-step word problems posed with whole numbers and having whole-number answers using the four operations in which remainders must be interpreted.	Spirals back in Quarter 4.
	Represent word problems using equations with a letter standing for the unknown quantity.	
	Assess the reasonableness of answers using mental computation and estimation strategies including rounding.	
4.OA.5	Generate a number pattern that follows a given rule.	Include patterns that repeatedly add and multiply whole numbers[1]
	Identify apparent features of a number pattern that were not explicit in the rule itself.	See standard for examples.
	Generate a shape pattern that follows a given rule.	Growing sequences of designs & repeated sequences should be included
	Identify apparent features of a shape pattern that were not explicit in the rule itself.	
4.NBT.4	Fluently add and subtract multi-digit whole numbers using a standard algorithm.	
4.NBT.5	Multiply a whole number of up to four-digits by a one-digit whole number.	
	Illustrate and explain up to four-digit by a one-digit whole number multiplication calculations by using equations, rectangular arrays, and/or area models.	
	(Introductory) Multiply two two-digit whole numbers using strategies based on place value and properties of operations.	Mastery expected in Quarter 4
	(Introductory) Illustrate and explain two two-digit whole numbers multiplication calculations by using equations, rectangular arrays, and/or area models.	
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 operation, and/or the relationship between multiplication and division.	
	Illustrate and explain whole number division calculations by using equations, rectangular arrays, and/or area models.	
4.NF.4	Understand a multiple of a/b as a multiple of 1/b.	See standard (part a) for example.
	Use the understanding of a multiple to multiply a fraction by a whole number.	See standard (part b) for example.
	Solves word problems involving multiplication of a fraction by a whole number by using visual fraction models and equations to represent the problem.	See standard (part c) for problem examples.
	Express a fraction with denominator of 10 as an equivalent fraction with denominator of 100.	Convert fractions from 10 to 100 in the denominator

4.NF.5	Use equivalent fractions to add two fraction with the respective denominators 10 and 100.	See standard for example.
4.MD.3	Develop efficient strategies to determine the area of rectangles in real-world situations and mathematical problems.	See standard for examples.
	Develop efficient strategies to determine the perimeter of rectangles in real-world situations and mathematical problems.	
4.MD.4	Interpret data in picture graphs to solve problems using numbers and operations.	
	Display data in picture graphs to solve problems using numbers and operations.	
	Interpret data in bar graphs to solve problems using numbers and operations.	
	Display data in bar graphs to solve problems using numbers and operations.	
	Interpret data in line plots to solve problems using numbers and operations.	
	Display data in line plots to solve problems using numbers and operations.	
4.MD.5	Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint.	Can be taught with Geometry standards
	Understand an angle is measured with reference to a circle with its center at the common endpoint of the rays.	360° in a circle, one degree is 1/360, straight angle = 180°, right angle = 90°
	Understand an angle that turns through *n* one-degree angles is said to have an angle measure of *n* degrees.	
4.MD.6	Measure angles in whole-number degrees using a protractor.	
	Sketch angles if a specific measure.	
4.MD.7	Recognize angle measures as additive	
	Solve addition and subtraction problems to find unknown angles on a diagram in real-world and mathematical problems by using an equation with a symbol for the unknown measure.	
4.G.1	Identify points, lines, line segments, rays, perpendicular and parallel lines. [1]	
	Draw points, lines, line segments, rays, perpendicular and parallel lines.	
	Identify points, lines, line segments, rays, perpendicular and parallel lines in two-dimensional figures.	
	Identify right, acute and obtuse angles.	
	Draw right, acute and obtuse angles.	
	Identify right, acute and obtuse angles in two-dimensional figures.	
	Use correct language when discussing points, lines, line segments, rays, and angles. [1]	
4.G.2	Classify two dimensional figures based on: • Presence or absence of acute, right, and/or obtuse angles; • Presence or absence of parallel and/or perpendicular sides; and/or • Presence or absence of symmetry	

[1] Instructional Focus recommended by the ODE's Mathematics Model Curriculum; Learning Target needed for complete standard mastery

Quarter 4 Learning Targets

Ohio Standard	Learning Targets	Notes
4.MD.1	Know relative sizes of the metric measurement units within one system of units including metric length (kilometer, meter, centimeter), metric mass (kilogram, gram), and metric volume (liter, milliliter).	
	Express a larger measurement unit in terms of a small unit.	
	Record measurement conversions in a two-column table.	See standard for example
4.MD.2	Solve real-world problems involving metric measurement (distances, mass and volume) by adding, subtracting, and multiplying whole numbers.	Teach with 4.MD.1
	Solve real-world problems involving time by using number line diagrams, clocks or other models to add and subtract intervals of time in hours and minutes.	
4.OA.3	Solves multi-step word problems posed with whole numbers and having whole-number answers using the four operations in which remainders must be interpreted.	
	Represent word problems using equations with a letter standing for the unknown quantity.	
	Assess the reasonableness of answers using mental computation and estimation strategies including rounding.	
4.NBT.5	Multiply two two-digit whole numbers using strategies based on place value and properties of operations.	
	Illustrate and explain two two-digit whole numbers multiplication calculations by using equations, rectangular arrays, and/or area models.	
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 operation, and/or the relationship between multiplication and division.	
	Illustrate and explain whole number division calculations by using equations, rectangular arrays, and/or area models.	
4.NF.1	Explain why a fraction a/b is equivalent to fraction (n x b) by using visual fraction models.	
	Recognize equivalent fractions on number lines or using other length models.	
	Generate equivalent fractions on number lines or using other length models.	
4.NF.2	Compare two fractions with different numerators and denominators by creating common denominators or numerators or by comparing to a benchmark fraction.	Use the following benchmark fractions, 0, ½, and 1 to compare
	Recognize that comparisons are valid only when the two fractions refer to the same whole.	
	Represent fractions with different numerators and denominators given pairs of visual models. [1]	Shaded area models can be used
	Record results of fraction comparisons with the symbols >, =, or <.	

	Justify the conclusions of fraction comparisons.	
4.NF.6	Use decimal notation for fractions with denominators 10 or 100.	
4.NF.7	Compares two decimals to hundredths by reasoning about their size.	
	Recognize that comparisons are valid only when two decimals refer to the same whole.	
	Record the results of comparisons of decimals through hundredths with the symbols >, =, < and justify the conclusions.	

[1] Instructional Focus recommended by the ODE's Mathematics Model Curriculum; Learning Target needed for complete standard mastery