

Level 4: Focused Mathematics Intervention Lesson Correlations

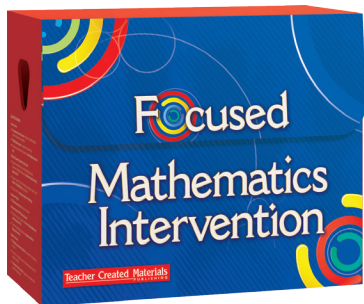
Lesson	Domain	Cluster	Standard	Math Practice
Lesson 1: Understanding Multiplicative Comparison	Operations & Algebraic Thinking	Use the four operations with whole numbers to solve problems.	4.OA.A.1 —Interpret a multiplication equation as a comparison; e.g., interpret $35 = 5 \times 7$ as a statement 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.	<ul style="list-style-type: none"> • Make sense of problems and persevere in solving them. • Reason abstractly and quantitatively. • Look for and express regularity in repeated reasoning.
Lesson 2: Multiplying to Solve Comparison Problems	Operations & Algebraic Thinking	Use the four operations with whole numbers to solve problems.	4.OA.A.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.	<ul style="list-style-type: none"> • Make sense of problems and persevere in solving them. • Reason abstractly and quantitatively. • Look for and express regularity in repeated reasoning.
Lesson 3: Dividing to Solve Comparison Problems	Operations & Algebraic Thinking	Use the four operations with whole numbers to solve problems.	4.OA.A.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.	<ul style="list-style-type: none"> • Make sense of problems and persevere in solving them. • Reason abstractly and quantitatively. • Look for and express regularity in repeated reasoning.
Lesson 4: Multi-Step Word Problems	Operations & Algebraic Thinking	Use the four operations with whole numbers to solve problems.	4.OA.A.3 —Solve multi-step 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.	<ul style="list-style-type: none"> • Make sense of problems and persevere in solving them. • Reason abstractly and quantitatively. • Construct viable arguments and critique the reasoning of others. • Model with mathematics.
Lesson 5: Solving Division Word Problems with Remainders	Operations & Algebraic Thinking	Use the four operations with whole numbers to solve problems.	4.OA.A.3 —Solve multi-step 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.	<ul style="list-style-type: none"> • Make sense of problems and persevere in solving them. • Reason abstractly and quantitatively. • Construct viable arguments and critique the reasoning of others. • Model with mathematics.
Lesson 6: Finding Factor Pairs	Operations & Algebraic Thinking	Gain familiarity with factors and multiples.	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.	<ul style="list-style-type: none"> • Look for and make use of structure. • Look for and express regularity in repeated reasoning.

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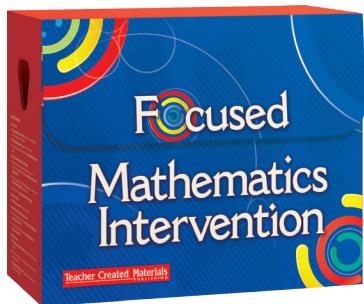
Lesson	Domain	Cluster	Standard	Math Practice
Lesson 7: Determining Prime and Composite	Operations & Algebraic Thinking	Gain familiarity with factors and multiples.	4.OA.B.4 —Find all factor pairs for a whole number in the range 1–100. Recognize that a whole number is a multiple of each of its factors. 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.	<ul style="list-style-type: none"> Look for and make use of structure. Look for and express regularity in repeated reasoning.
Lesson 8: Patterns and Pattern Features	Operations & Algebraic Thinking	Generate and analyze patterns.	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.	<ul style="list-style-type: none"> Make sense of problems and persevere in solving them. Look for and make use of structure. Look for and express regularity in repeated reasoning.
Lesson 9: Connecting Place Value to Multiplication and Division	Number & Operations in Base Ten	Generalize place value understanding for multi-digit whole numbers.	4.NBT.A.1 —Recognize that in a multi-digit whole number, a digit in one place represents 10 times what it represents in the place to its right.	<ul style="list-style-type: none"> Model with mathematics. Attend to precision. Look for and make use of structure.
Lesson 10: Reading and Writing Multi-Digit Numbers	Number & Operations in Base Ten	Generalize place value understanding for multi-digit whole numbers.	4.NBT.A.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.	<ul style="list-style-type: none"> Reason abstractly and quantitatively. Attend to precision. Look for and make use of structure. Look for and express regularity in repeated reasoning.
Lesson 11: Comparing Multi-Digit Numbers	Number & Operations in Base Ten	Generalize place value understanding for multi-digit whole numbers.	4.NBT.A.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.	<ul style="list-style-type: none"> Attend to precision. Look for and make use of structure. Look for and express regularity in repeated reasoning.
Lesson 12: Rounding Multi-Digit Numbers	Number & Operations in Base Ten	Generalize place value understanding for multi-digit whole numbers.	4.NBT.A.3 —Use place value understanding to round multi-digit whole numbers to any place.	<ul style="list-style-type: none"> Make sense of problems and persevere in solving them. Use appropriate tools strategically. Look for and make use of structure.
Lesson 13: Adding Multi-Digit Numbers	Number & Operations in Base Ten	Use place value understanding and properties of operations to perform multi-digit arithmetic.	4.NBT.B.4 —Fluently add and subtract multi-digit whole numbers using the standard algorithm.	<ul style="list-style-type: none"> Attend to precision. Look for and make use of structure. Look for and express regularity in repeated reasoning.
Lesson 14: Subtracting Multi-Digit Numbers	Number & Operations in Base Ten	Use place value understanding and properties of operations to perform multi-digit arithmetic.	4.NBT.B.4 —Fluently add and subtract multi-digit whole numbers using the standard algorithm.	<ul style="list-style-type: none"> Attend to precision. Look for and make use of structure. Look for and express regularity in repeated reasoning.

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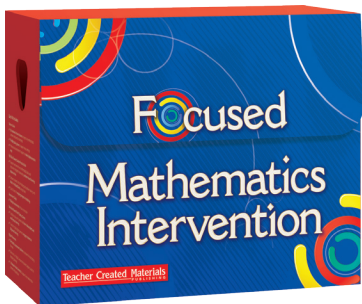
Lesson	Domain	Cluster	Standard	Math Practice
Lesson 15: Multiplying Multi-Digit Numbers I	Number & Operations in Base Ten	Use place value understanding and properties of operations to perform multi-digit arithmetic.	4.NBT.B.5 —Multiply a whole number of up to four digits by a one-digit whole number, 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.	<ul style="list-style-type: none"> • Make sense of problems and persevere in solving them. • Reason abstractly and quantitatively. • Model with mathematics. • Look for and make use of structure.
Lesson 16: Multiplying Multi-Digit Numbers II	Number & Operations in Base Ten	Use place value understanding and properties of operations to perform multi-digit arithmetic.	4.NBT.B.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.	<ul style="list-style-type: none"> • Make sense of problems and persevere in solving them. • Reason abstractly and quantitatively. • Model with mathematics. • Look for and make use of structure.
Lesson 17: Dividing with Multi-Digit Dividends	Number & Operations in Base Ten	Use place value understanding and properties of operations to perform multi-digit arithmetic.	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.	<ul style="list-style-type: none"> • Make sense of problems and persevere in solving them. • Reason abstractly and quantitatively. • Model with mathematics. • Look for and make use of structure.
Lesson 18: Finding Equivalent Fractions	Number & Operations—Fractions	Extend understanding of fraction equivalence and ordering.	4.NF.A.1 —Explain why a fraction a/b is equivalent to a fraction $(n \times a)/(n \times b)$ by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions.	<ul style="list-style-type: none"> • Reason abstractly and quantitatively. • Model with mathematics. • Look for and make use of structure.
Lesson 19: Comparing Fractions: Common Denominators	Number & Operations—Fractions	Extend understanding of fraction equivalence and ordering.	4.NF.A.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.	<ul style="list-style-type: none"> • Reason abstractly and quantitatively. • Model with mathematics. • Look for and express regularity in repeated reasoning.
Lesson 20: Comparing Fractions: Benchmark Numbers	Number & Operations—Fractions	Extend understanding of fraction equivalence and ordering.	4.NF.A.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.	<ul style="list-style-type: none"> • Reason abstractly and quantitatively. • Model with mathematics. • Look for and express regularity in repeated reasoning.

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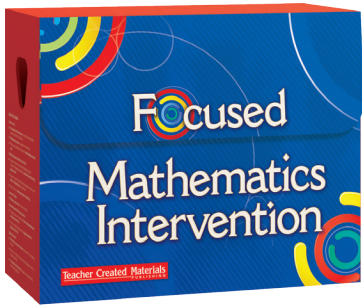
Lesson	Domain	Cluster	Standard	Math Practice
Lesson 21: Adding and Subtracting Fractions	Number & Operations—Fractions	Build fractions from unit fractions.	4.NF.B.3.a —Understand a fraction a/b with $a > 1$ as a sum of fractions $1/b$; Understand addition and subtraction of fractions as joining and separating parts referring to the same whole.	<ul style="list-style-type: none"> Reason abstractly and quantitatively. Model with mathematics. Look for and make use of structure.
Lesson 22: Adding and Subtracting Mixed Numbers	Number & Operations—Fractions	Build fractions from unit fractions.	4.NF.B.3.c —Understand a fraction a/b with $a > 1$ as a sum of fractions $1/b$; 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.	<ul style="list-style-type: none"> Reason abstractly and quantitatively. Model with mathematics. Look for and make use of structure.
Lesson 23: Problem Solving with Fractions	Number & Operations—Fractions	Build fractions from unit fractions.	4.NF.B.3.d —Understand a fraction a/b with $a > 1$ as a sum of fractions $1/b$; 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.	<ul style="list-style-type: none"> Reason abstractly and quantitatively. Model with mathematics. Look for and make use of structure.
Lesson 24: Multiplying Whole Numbers and Fractions	Number & Operations—Fractions	Build fractions from unit fractions.	<p>4.NF.4.a: Apply and extend previous understandings of multiplication to multiply a fraction by a whole number: Understand a fraction a/b as a multiple of $1/b$.</p> <p>For example, use a visual fraction model to represent $5/4$ as the product $5 \times (1/4)$, recording the conclusion by the equation $5/4 = 5 \times (1/4)$.</p> <p>4.NF.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.</p>	<ul style="list-style-type: none"> Make sense of problems and persevere in solving them. Reason abstractly and quantitatively. Model with mathematics. Look for and express regularity in repeated reasoning.
Lesson 25: Fractions in Tenths and Hundredths	Number & Operations—Fractions	Understand decimal notation for fractions, and compare decimal fractions.	4.NF.C.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.	<ul style="list-style-type: none"> Reason abstractly and quantitatively. Model with mathematics. Look for and make use of structure. Look for and express regularity in repeated reasoning.
Lesson 26: Writing Fractions as Decimals	Number & Operations—Fractions	Understand decimal notation for fractions, and compare decimal fractions.	4.NF.C.6 —Use decimal notation for fractions with denominators 10 or 100.	<ul style="list-style-type: none"> Reason abstractly and quantitatively. Model with mathematics. Use appropriate tools strategically. Look for and make use of structure.
Lesson 27: Comparing Decimals	Number & Operations—Fractions	Understand decimal notation for fractions, and compare decimal fractions.	4.NF.C.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.	<ul style="list-style-type: none"> Reason abstractly and quantitatively. Model with mathematics. Look for and make use of structure.

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Lesson	Domain	Cluster	Standard	Math Practice
Lesson 28: Problem Solving with Area and Perimeter	Measurement & Data	Solve problems involving measurement and conversion of measurements.	4.MD.A.3 —Apply the area and perimeter formulas for rectangles in real-world and mathematical problems.	<ul style="list-style-type: none"> • Make sense of problems and persevere in solving them. • Model with mathematics. • Attend to precision.
Lesson 29: Measuring Angles	Measurement & Data	Geometric measurement: Understand concepts of angles and measure angles.	4.MD.C.5.b —Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement: An angle that turns through n one-degree angles is said to have an angle measure of n degrees. 4.MD.C.6 —Measure angles in whole-number degrees using a protractor. Sketch angles of specified measure.	<ul style="list-style-type: none"> • Construct viable arguments and critique the reasoning of others. • Attend to precision. • Look for and make use of structure.
Lesson 30: Understanding Geometric Language	Geometry	Draw and identify lines and angles, and classify shapes by properties of their lines and angles.	4.G.A.1 —Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.	<ul style="list-style-type: none"> • Construct viable arguments and critique the reasoning of others. • Model with mathematics. • Attend to precision. • Look for and make use of structure.

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