Pacing Guide

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Lesson	Mathematics Standards, Grade 4	Pacing
Unit 1 PLACE VALUE AND WHOLE-NUMBER OPERATIONS		
Module 1: Place Value of Whole Numbers		
Lesson 1.1 Understand Place Value Relationships	■ 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.	2 days
Lesson 1.2 Read and Write Numbers	■ 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.	1 day
Lesson 1.3 Regroup and Rename Numbers	■ 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.	1 day
Lesson 1.4 Compare and Order Numbers	■ 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.	1 day
Lesson 1.5 Use Place Value Understanding to Round Numbers	■ Use place value understanding to round multi-digit whole numbers to any place.	1 day
Module 2: Addition and Subtraction of Whole Numbers		
Lesson 2.1 Add Whole Numbers and Assess Reasonableness	■ Fluently add and subtract multi-digit whole numbers using the standard algorithm.	1 day
Lesson 2.2 Subtract Whole Numbers and Assess Reasonableness	■ Fluently add and subtract multi-digit whole numbers using the standard algorithm.	1 day
Lesson 2.3 Use Addition and Subtraction to Solve Comparison Problems	■ Fluently add and subtract multi-digit whole numbers using the standard algorithm.	1 day
Lesson 2.4 Apply the Perimeter Formula for Rectangles	□ Apply the area and perimeter formulas for rectangles in real world and mathematical problems.	1 day
Unit 2 MULTIPLICATION AND DIVISION PROBLEMS		
Module 3: Interpret and Solve Problem Situations		
Lesson 3.1 Explore Multiplicative Comparisons	■ 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. ■ 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.	1 day
Lesson 3.2 Distinguish Between Multiplicative and Additive Comparisons	■ 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.	1 day

Major
Supporting
Additional

In addition to the core instructional pacing, HMH recommends the following:
- 3 days per year for the Growth Measure assessments
- 2 days per module for the Module Opener, Are You Ready?, Module Review, and Module Test
- 1 day per unit for the Performance Task

Using these recommendations, the total pacing for Grade 4 is 170 days.

Lesson	Mathematics Standards, Grade 4	Pacing
Lesson 3.3 Use Division to Solve Multiplicative Comparison Problems	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.	1 day
Lesson 3.4 Use Comparisons to Solve Problem Situations	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.	1 day
Lesson 3.5 Solve Multistep Problems with Multiplication and Division	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. 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.	1 day
Module 4: Mental Math and Estimation Strategies		
Lesson 4.1 Explore Multiplication Patterns with Tens, Hundreds, and Thousands	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.	1 day
Lesson 4.2 Explore Division Patterns with Tens, Hundreds, and Thousands	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.	1 day
Lesson 4.3 Estimate Products by 1-Digit Numbers	Use place value understanding to round multi-digit whole numbers to any place. 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.	1 day
Lesson 4.4 Estimate Quotients Using Compatible Numbers	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.	1 day

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Lesson	Mathematics Standards, Grade 4	Pacing
Module 4: Mental Math and Estimation Strategies		
Lesson 4.5 Use Mental Math Strategies for Multiplication and Division	■ 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. ■ 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.	1 day
Module 5: Multiply by 1-Digit Numbers		
Lesson 5.1 Represent Multiplication	■ 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.	1 day
Lesson 5.2 Use Area Models and the Distributive Property to Multiply	■ 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.	1 day
Lesson 5.3 Multiply Using Expanded Form	■ 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.	1 day
Lesson 5.4 Multiply Using Partial Products	■ 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.	1 day
Lesson 5.5 Use Place Value to Multiply 2-Digit Numbers	■ 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.	1 day
Lesson 5.6 Multiply 3-Digit and 4-Digit Numbers	■ 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.	1 day
Lesson 5.7 Use Equations to Solve Multistep Problems	■ 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.	1 day

Major Supporting Additional

Lesson	Mathematics Standards, Grade 4	Pacing
Module 6: Understand Division by 1-Digit Numbers		
Lesson 6.1 Represent Division	■ 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.	1 day
Lesson 6.2 Investigate Remainders	■ 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.	1 day
Lesson 6.3 Interpret Remainders	■ 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. ■ 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.	1 day
Lesson 6.4 Use Area Models and the Distributive Property to Divide	■ 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.	1 day
Lesson 6.5 Divide Using Repeated Subtraction	■ 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.	1 day
Lesson 6.6 Divide Using Partial Quotients	■ 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.	1 day
Module 7: Divide by 1-Digit Numbers		
Lesson 7.1 Represent Division with Regrouping	■ 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.	1 day

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Module 7: Divide by 1-Digit Numbers		
Lesson 7.2 Use Place Value to Divide	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.	2 days
Lesson 7.3 Divide by 1-Digit Numbers	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.	1 day
Lesson 7.4 Solve Multistep Multiplication and Division Problems	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.	1 day
Unit 3 EXTEND AND APPLY MULTIPLICATION		
Module 8: Multiply by 2-Digit Numbers		
Lesson 8.1 Multiply with Tens	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.	1 day
Lesson 8.2 Estimate Products	Use place value understanding to round multi-digit whole numbers to any place.	2 days
Lesson 8.3 Relate Area Models and Partial Products	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.	1 day
Lesson 8.4 Multiply Using Partial Products	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.	1 day
Lesson 8.5 Multiply with Regrouping	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.	1 day
Lesson 8.6 Choose a Multiplication Strategy	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.	1 day

Lesson		Mathematics Standards, Grade 4	Pacing
Lesson 8.7 Solve Multistep Problems and Assess Reasonableness	■	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.	1 day
Module 9: Apply Multiplication to Area			
Lesson 9.1 Apply the Area Formula to Rectangles	□	Apply the area and perimeter formulas for rectangles in real world and mathematical problems.	1 day
Lesson 9.2 Find the Area of Combined Rectangles	□	Apply the area and perimeter formulas for rectangles in real world and mathematical problems.	1 day
Lesson 9.3 Find Unknown Measures	□	Apply the area and perimeter formulas for rectangles in real world and mathematical problems.	1 day
Lesson 9.4 Solve Area Problems	□	Apply the area and perimeter formulas for rectangles in real world and mathematical problems.	1 day
Unit 4 FRACTIONS AND DECIMALS			
Module 10: Algebraic Thinking: Number Theory			
Lesson 10.1 Investigate Factors	□	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.	1 day
Lesson 10.2 Identify Factors	□	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.	2 days
Lesson 10.3 Generate Multiples Using Factors	□	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.	1 day
Lesson 10.4 Identify Prime and Composite Numbers	□	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.	1 day
Lesson 10.5 Generate and Analyze Number Patterns	○	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.	1 day

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Lesson	Mathematics Standards, Grade 4	Pacing
Module 11: Fraction Equivalence and Comparison		
Lesson 11.1 Compare Fractions Using Visual Models	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.	1 day
Lesson 11.2 Compare Fractions Using Benchmarks	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.	1 day
Lesson 11.3 Explain Fraction Equivalence Using Visual Models	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.	1 day
Lesson 11.4 Generate Equivalent Fractions	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.	1 day
Lesson 11.5 Use Common Multiples to Write Equivalent Fractions	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.	1 day
Lesson 11.6 Compare Fractions Using Common Numerators and Denominators	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.	1 day
Lesson 11.7 Use Comparisons to Order Fractions	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.	1 day
Module 12: Relate Fractions and Decimals		
Lesson 12.1 Represent Tenths as Fractions and Decimals	Use decimal notation for fractions with denominators 10 or 100.	1 day
Lesson 12.2 Represent Hundredths as Fractions and Decimals	Use decimal notation for fractions with denominators 10 or 100.	1 day

Lesson	Mathematics Standards, Grade 4	Pacing
Lesson 12.3 Identify Equivalent Fractions and Decimals	■ 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. ■ Use decimal notation for fractions with denominators 10 or 100.	1 day
Lesson 12.4 Compare Decimals	■ 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.	1 day
Lesson 12.5 Relate Fractions, Decimals, and Money	■ Use decimal notation for fractions with denominators 10 or 100.	1 day
Lesson 12.6 Solve Multistep Money Problems	□ 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.	1 day
Module 13: Use Fractions to Understand Angles		
Lesson 13.1 Explore Lines, Rays, and Angles	○ Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.	1 day
Lesson 13.2 Explore Angles	○ Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement: 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.	1 day
Lesson 13.3 Relate Angles to Fractional Parts of a Circle	○ Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement: 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.	1 day
Lesson 13.4 Relate Degrees to Fractional Parts of Circles	○ 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. ○ Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement: 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.	2 days

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Lesson	Mathematics Standards, Grade 4	Pacing
Module 13: Use Fractions to Understand Angles		
Lesson 13.5 Measure and Draw Angles Using a Protractor	Measure angles in whole-number degrees using a protractor. Sketch angles of specified measure. Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.	1 day
Lesson 13.6 Join and Separate Angles	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.	1 day
Lesson 13.7 Find Unknown Angle Measures	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.	1 day
Unit 5 OPERATIONS WITH FRACTIONS		
Module 14: Understand Addition and Subtraction of Fractions with Like Denominators		
Lesson 14.1 Decompose Fractions into Sums	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.	1 day
Lesson 14.2 Join Parts of the Same Whole	Understand addition and subtraction of fractions as joining and separating parts referring to the same whole.	1 day
Lesson 14.3 Represent Addition of Fractions	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.	1 day
Lesson 14.4 Separate Parts of the Same Whole	Understand addition and subtraction of fractions as joining and separating parts referring to the same whole.	1 day
Lesson 14.5 Represent Subtraction of Fractions	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.	1 day
Lesson 14.6 Add Fractional Parts of 10 and 100	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.	1 day
Module 15: Add and Subtract Fractions and Mixed Numbers with Like Denominators		
Lesson 15.1 Add and Subtract Fractions to Solve Problems	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.	1 day
Lesson 15.2 Rename Fractions and Mixed Numbers	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.	1 day

Lesson	Mathematics Standards, Grade 4	Pacing
Lesson 15.3 Add and Subtract Mixed Numbers to Solve Problems	■ 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.	2 days
Lesson 15.4 Rename Mixed Numbers to Subtract	■ 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.	1 day
Lesson 15.5 Apply Properties of Addition to Add Fractions and Mixed Numbers	■ 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.	1 day
Lesson 15.6 Practice Solving Fraction Problems	■ 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.	1 day
Module 16: Multiply Fractions by Whole Numbers		
Lesson 16.1 Understand Multiples of Unit Fractions	■ Understand a fraction a/b as a multiple of $1/b$.	1 day
Lesson 16.2 Find Multiples of Fractions	■ Understand a multiple of a/b as a multiple of $1/b$, and use this understanding to multiply a fraction by a whole number. ■ 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.	1 day
Lesson 16.3 Represent Multiplication of a Fraction by a Whole Number	■ Understand a multiple of a/b as a multiple of $1/b$, and use this understanding to multiply a fraction by a whole number. ■ 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.	2 days
Lesson 16.4 Solve Problems Using Multiplication of a Fraction or Mixed Number by a Whole Number	■ 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.	1 day
Unit 6 TWO-DIMENSIONAL FIGURES AND SYMMETRY		
Module 17: Two-Dimensional Figures		
Lesson 17.1 Identify and Draw Perpendicular and Parallel Lines	○ Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.	1 day

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Module 17: Two-Dimensional Figures		
Lesson 17.2 Identify and Classify Triangles by Angles	Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures. 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.	1 day
Lesson 17.3 Identify and Classify Triangles by Sides	Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures. 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.	1 day
Lesson 17.4 Identify and Classify Quadrilaterals	Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures. 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.	1 day
Lesson 17.5 Measure and Draw Angles of Two-Dimensional Figures	Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures. Measure angles in whole-number degrees using a protractor. Sketch angles of specified measure.	1 day
Module 18: Symmetry and Patterns		
Lesson 18.1 Recognize Lines of Symmetry	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 symmetry.	1 day
Lesson 18.2 Identify and Draw Lines of Symmetry	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 symmetry.	2 days
Lesson 18.3 Generate and Identify Shape Patterns	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.	1 day
Unit 7 MEASUREMENT, DATA, AND TIME		
Module 19: Relative Sizes of Customary Measurement Units		
Lesson 19.1 Identify Customary Measurement Benchmarks	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.	1 day

Lesson	Mathematics Standards, Grade 4	Pacing
Lesson 19.2 Compare Customary Units of Length	☐ 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.	2 days
Lesson 19.3 Compare Customary Units of Weight	☐ 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.	1 day
Lesson 19.4 Compare Customary Units of Liquid Volume	☐ 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.	1 day
Lesson 19.5 Represent and Interpret Measurement Data in Line Plots	☐ 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. ☐ 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.	1 day
Module 20: Relative Sizes of Metric Measurement Units		
Lesson 20.1 Identify Metric Measurement Benchmarks	☐ 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.	1 day
Lesson 20.2 Compare Metric Units of Length	☐ 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.	1 day
Lesson 20.3 Compare Metric Units of Mass and Liquid Volume	☐ 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.	1 day

Module continued on next page ➔

Pacing Guide

Build Understanding
Connect Concepts and Skills
Apply and Practice

Lesson	Mathematics Standards, Grade 4	Pacing
Module 20: Relative Sizes of Metric Measurement Units		
Lesson 20.4 Solve Problems Using Measurements	☐ 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.	1 day
Module 21: Solve Problems with Time and Measurement		
Lesson 21.1 Compare Units of Time	☐ 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.	1 day
Lesson 21.2 Solve Problems Involving Elapsed Time	☐ 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.	1 day
Lesson 21.3 Solve Problems Involving Start Time and End Time	☐ 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.	1 day
Lesson 21.4 Practice with Mixed Measure	☐ 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.	1 day