

Eureka Math<sup>2</sup> Level 5 Correlation to  
Connecticut Model Curriculum



Level 5: Fractions are Numbers			
Model Unit Name	Model Unit Standards	Lessons	Pacing <small>Lessons that address concepts in more than one unit are only counted once.</small>
Area/Coordinate Grid	5.G.A.1	<b>Module 6: Foundations to Geometry in the Coordinate Plane</b> <b>Topic A: Coordinate Systems</b> Lesson 1: Construct a coordinate system in a line. Lesson 2: Construct a coordinate system in a plane. Lesson 3: Identify and plot points by using ordered pairs.	18 days
	5.G.A.2	<b>Module 6: Foundations to Geometry in the Coordinate Plane</b> <b>Topic A: Coordinate Systems</b> Lesson 4: Describe the distance and direction between points in the coordinate plane.  <b>Module 6: Foundations to Geometry in the Coordinate Plane</b> <b>Topic B: Patterns in the Coordinate Plane</b> Lesson 5: Identify properties of horizontal and vertical lines. Lesson 6: Use properties of horizontal and vertical lines to solve problems. Lesson 7: Generate number patterns to form ordered pairs. Lesson 8: Identify addition and subtraction relationships between corresponding terms in number patterns. Lesson 9: Identify multiplication and division relationships between corresponding terms in number patterns.	

Area/Coordinate Grid (cont.)		<p><b>Module 6: Foundations to Geometry in the Coordinate Plane</b>  <b>Topic C: Solve Mathematical Problems in the Coordinate Plane</b>  Lesson 11: Draw lines in the coordinate plane and identify points on the lines.  Lesson 12: Graph and classify quadrilaterals in the coordinate plane.  Lesson 13: Draw symmetric figures in the coordinate plane.  Lesson 14: Solve mathematical problems with rectangles in the coordinate plane.  Lesson 15: Use the coordinate plane to reason about perimeters and areas of rectangles.</p> <p><b>Module 6: Foundations to Geometry in the Coordinate Plane</b>  <b>Topic D: Solve Real-World Problems with the Coordinate Plane</b>  Lesson 16: Interpret graphs that represent real-world situations.  Lesson 17: Plot data in the coordinate plane and analyze relationships.  Lesson 18: Interpret line graphs.  Lesson 20: Reason about patterns in real-world situations.</p>	
Whole Number Multiplication/Volume	5.NBT.B.5	<p><b>Module 1: Place Value Concepts for Multiplication and Division with Whole Numbers</b>  <b>Topic B: Multiplication of Whole Numbers</b>  Lesson 7: Multiply by using familiar methods.  Lesson 8: Multiply two- and three-digit numbers by two-digit numbers by using the distributive property.  Lesson 9: Multiply two- and three-digit numbers by two-digit numbers by using the standard algorithm.  Lesson 10: Multiply three- and four-digit numbers by three-digit numbers by using the standard algorithm.  Lesson 11: Multiply two multi-digit numbers by using the standard algorithm.</p>	18 days
	5.MD.C.3	<p><b>Module 5: Addition and Multiplication with Area and Volume</b>  <b>Topic C: Volume Concepts</b>  Lesson 16: Identify attributes and properties of right rectangular prisms.  Lesson 17: Find the volume of right rectangular prisms by packing with unit cubes and counting.  Lesson 19: Compose and decompose right rectangular prisms to find their volume by using layers.  Lesson 20: Interpret volume as filling.  Lesson 21: Relate volumes of solids and liquid volume.</p>	

Whole Number Multiplication/Volume (cont.)	5.MD.C.4	<b>Module 5: Addition and Multiplication with Area and Volume</b> <b>Topic C: Volume Concepts</b> Lesson 17: Find the volume of right rectangular prisms by packing with unit cubes and counting. Lesson 18: Find the volume of right rectangular prisms by packing with improvised units. Lesson 19: Compose and decompose right rectangular prisms to find their volume by using layers. Lesson 21: Relate volumes of solids and liquid volume.	
	5.MD.C.5	<b>Module 5: Addition and Multiplication with Area and Volume</b> <b>Topic D: Volume and the Operations of Multiplication and Addition</b> Lesson 22: Find the volumes of right rectangular prisms by using the area of the base. Lesson 23: Find the volumes of right rectangular prisms by multiplying the edge lengths. Lesson 24: Solve word problems involving volumes of right rectangular prisms. Lesson 25: Find the volumes of solid figures composed of right rectangular prisms. Lesson 26: Solve word problems involving perimeter, area, and volume. Lesson 27: Apply concepts and formulas of volume to design a sculpture by using right rectangular prisms, part 1. Lesson 28: Apply concepts and formulas of volume to design a sculpture by using right rectangular prisms, part 2.	
Whole Number Division and Fractions as Division	5.NBT.C.6	<b>Module 1: Place Value Concepts for Multiplication and Division with Whole Numbers</b> <b>Topic C: Division of Whole Numbers</b> Lesson 12: Divide two- and three-digit numbers by multiples of 10. Lesson 13: Divide two-digit numbers by two-digit numbers resulting in one-digit quotients. Lesson 14: Divide three-digit numbers by two-digit numbers in problems that result in one-digit quotients. Lesson 15: Divide three-digit numbers by two-digit numbers in problems that result in two-digit quotients. Lesson 16: Divide four-digit numbers by two-digit numbers.	9 days
	5.NF.B.3	<b>Module 2: Addition and Subtraction with Fractions</b> <b>Topic A: Fractions and Division</b> Lesson 1: Interpret a fraction as division. Lesson 2: Interpret a fraction as division by writing remainders as fractions. Lesson 3: Represent fractions as division by using models. Lesson 4: Solve word problems involving division and fractions.	

Add and Subtract Fractions/Lines Plots	5.NF.A.1	<p><b>Module 2: Addition and Subtraction with Fractions</b></p> <p><b>Topic B: Addition and Subtraction of Fractions by Making Like Units</b></p> <p>Lesson 5: Add and subtract fractions with related units by using pictorial models.</p> <p>Lesson 6: Add and subtract fractions with related units by using area models to rename fractions.</p> <p>Lesson 7: Add and subtract fractions with related units by finding equivalent fractions numerically.</p> <p>Lesson 8: Add and subtract fractions with unrelated units by finding equivalent fractions pictorially.</p> <p>Lesson 9: Add and subtract fractions with unrelated units by finding equivalent fractions numerically.</p> <p><b>Module 2: Addition and Subtraction with Fractions</b></p> <p><b>Topic C: Addition and Subtraction of Fractions, Whole Numbers, and Mixed Numbers</b></p> <p>Lesson 10: Add whole numbers and mixed numbers and add mixed numbers with related units.</p> <p>Lesson 11: Add mixed numbers with unrelated units.</p> <p>Lesson 12: Subtract whole numbers from mixed numbers and mixed numbers from whole numbers.</p> <p>Lesson 13: Subtract mixed numbers from mixed numbers with related units.</p> <p>Lesson 14: Subtract mixed numbers from mixed numbers with unrelated units.</p>	13 days
	5.NF.A.2	<p><b>Module 2: Addition and Subtraction with Fractions</b></p> <p><b>Topic C: Addition and Subtraction of Fractions, Whole Numbers, and Mixed Numbers</b></p> <p>Lesson 10: Add whole numbers and mixed numbers and add mixed numbers with related units.</p> <p>Lesson 11: Add mixed numbers with unrelated units.</p> <p>Lesson 12: Subtract whole numbers from mixed numbers and mixed numbers from whole numbers.</p> <p>Lesson 13: Subtract mixed numbers from mixed numbers with related units.</p> <p>Lesson 14: Subtract mixed numbers from mixed numbers with unrelated units.</p> <p><b>Module 2: Addition and Subtraction with Fractions</b></p> <p><b>Topic D: Problem Solving and Line Plots with Fractional Measurements</b></p> <p>Lesson 17: Solve problems by equally redistributing a total amount.</p>	

Add and Subtract Fractions/Lines Plots (cont.)	5.MD.B.2	<b>Module 2: Addition and Subtraction with Fractions</b> <b>Topic D: Problem Solving and Line Plots with Fractional Measurements</b> Lesson 15: Represent data on a line plot. Lesson 16: Solve problems by using data from a line plot.	
Understanding the Place Value System and Add and Subtract Decimals	5.NBT.A.1	<b>Module 1: Place Value Concepts for Multiplication and Division with Whole Numbers</b> <b>Topic A: Place Value Understanding for Whole Numbers</b> Lesson 1: Relate adjacent place value units by using place value understanding. Lesson 2: Multiply and divide by 10, 100, and 1,000 and identify patterns in the products and quotients.  <b>Module 4: Place Value Concepts for Decimal Operations</b> <b>Topic A: Understanding Decimals with Place Value and Fraction Thinking</b> Lesson 1: Model and relate decimal place value units to thousandths. Lesson 2: Represent thousandths as a place value unit. Lesson 3: Represent decimal numbers to the thousandths place in different forms. Lesson 4: Relate the values of digits in a decimal number by using place value understanding.	16 days
	5.NBT.A.2	<b>Module 1: Place Value Concepts for Multiplication and Division with Whole Numbers</b> <b>Topic A: Place Value Understanding for Whole Numbers</b> Lesson 2: Multiply and divide by 10, 100, and 1,000 and identify patterns in the products and quotients. Lesson 3: Use exponents to multiply and divide by powers of 10. Lesson 4: Estimate products and quotients by using powers of 10 and their multiples.  <b>Module 4: Place Value Concepts for Decimal Operations</b> <b>Topic A: Understanding Decimals with Place Value and Fraction Thinking</b> Lesson 5: Multiply and divide decimal numbers by powers of 10.	
	5.NBT.A.3	<b>Module 4: Place Value Concepts for Decimal Operations</b> <b>Topic A: Understanding Decimals with Place Value and Fraction Thinking</b> Lesson 1: Model and relate decimal place value units to thousandths. Lesson 2: Represent thousandths as a place value unit. Lesson 3: Represent decimal numbers to the thousandths place in different forms. Lesson 6: Compare decimal numbers to the thousandths place.	

Understanding the Place Value System and Add and Subtract Decimals (cont.)	5.NBT.A.4	<b>Module 4: Place Value Concepts for Decimal Operations</b> <b>Topic A: Understanding Decimals with Place Value and Fraction Thinking</b> Lesson 7: Round decimal numbers to the nearest one, tenth, or hundredth. Lesson 8: Round decimal numbers to any place value unit.	
	5.NBT.B.7	<b>Module 4: Place Value Concepts for Decimal Operations</b> <b>Topic B: Addition and Subtraction of Decimal Numbers</b> Lesson 9: Add decimal numbers by using different methods. Lesson 10: Add decimal numbers by using place value understanding. Lesson 11: Subtract decimal numbers by using different methods. Lesson 12: Subtract decimal numbers by using place value understanding.	
Making Sense of Multiplication of Fractions	5.NF.B.4	<b>Module 3: Multiplication and Division with Fractions</b> <b>Topic A: Multiplication of a Whole Number by a Fraction</b> Lesson 1: Find fractions of a set with arrays. Lesson 2: Interpret fractions as division to find fractions of a set with tape diagrams and number lines. Lesson 3: Multiply a whole number by a fraction less than 1. Lesson 4: Multiply a whole number by a fraction. Lesson 5: Convert larger customary measurement units to smaller measurement units. Lesson 6: Convert smaller customary measurement units to larger measurement units.  <b>Module 3: Multiplication and Division with Fractions</b> <b>Topic B: Multiplication of Fractions</b> Lesson 7: Multiply fractions less than 1 by unit fractions pictorially. Lesson 8: Multiply fractions less than 1 pictorially. Lesson 9: Multiply fractions by unit fractions by making simpler problems. Lesson 10: Multiply fractions greater than 1 by fractions. Lesson 11: Multiply fractions.  <b>Module 5: Addition and Multiplication with Area and Volume</b> <b>Topic B: Areas of Rectangular Figures with Fraction Side Lengths</b> Lesson 8: Find areas of square tiles with fraction side lengths by relating the tile to a unit square. Lesson 9: Organize, count, and represent a collection of square tiles.	21 days

<b>Making Sense of Multiplication of Fractions (cont.)</b>		<p>Lesson 10: Find the area of a rectangle with fraction side lengths by relating the rectangle to a unit square.</p> <p>Lesson 11: Find areas of rectangles with fraction side lengths by using multiplication.</p> <p>Lesson 12: Multiply mixed numbers.</p> <p>Lesson 13: Solve mathematical problems involving areas of composite figures with mixed-number side lengths.</p> <p>Lesson 14: Solve real-world problems involving areas of composite figures with mixed-number side lengths.</p> <p><b>Module 6: Foundations to Geometry in the Coordinate Plane</b>  <b>Topic C: Solve Mathematical Problems in the Coordinate Plane</b>  Lesson 15: Use the coordinate plane to reason about perimeters and areas of rectangles.</p>	
	5.NF.B.6	<p><b>Module 3: Multiplication and Division with Fractions</b>  <b>Topic C: Division with a Unit Fraction and a Whole Number</b>  Lesson 17: Solve word problems involving fractions with multiplication and division.</p> <p><b>Module 3: Multiplication and Division with Fractions</b>  <b>Topic D: Multi-Step Problems with Fractions</b>  Lesson 21: Solve multi-step word problems involving fractions.</p> <p><b>Module 5: Addition and Multiplication with Area and Volume</b>  <b>Topic B: Areas of Rectangular Figures with Fraction Side Lengths</b>  Lesson 14: Solve real-world problems involving areas of composite figures with mixed-number side lengths.  Lesson 15: Solve multi-step word problems involving multiplication of mixed numbers.</p>	
<b>Understanding Division of a Unit Fraction and a Whole Number</b>	5.NF.B.7	<p><b>Module 3: Multiplication and Division with Fractions</b>  <b>Topic C: Division with a Unit Fraction and a Whole Number</b>  Lesson 12: Divide a nonzero whole number by a unit fraction to find the number of groups.  Lesson 13: Divide a nonzero whole number by a unit fraction to find the size of the group.  Lesson 14: Divide a unit fraction by a nonzero whole number.  Lesson 15: Divide by whole numbers and unit fractions.  Lesson 16: Reason about the size of quotients of whole numbers and unit fractions and quotients of unit fractions and whole numbers.  Lesson 17: Solve word problems involving fractions with multiplication and division.</p>	8 days

Understanding Division of a Unit Fraction and a Whole Number (cont.)		<b>Module 3: Multiplication and Division with Fractions</b> <b>Topic D: Multi-Step Problems with Fractions</b> Lesson 19: Create and solve one-step word problems involving fractions. Lesson 20: Solve multi-step word problems involving fractions and write equations with parentheses. Lesson 21: Solve multi-step word problems involving fractions. Lesson 22: Evaluate expressions involving nested grouping symbols. (Optional)	
Multiply and Divide Decimals/Metric Conversions	5.NBT.B.7	<b>Module 4: Place Value Concepts for Decimal Operations</b> <b>Topic C: Multiplication of Decimal Numbers</b> Lesson 13: Solve word problems involving addition and subtraction of decimal numbers and fractions. Lesson 14: Multiply decimal numbers to hundredths by one-digit whole numbers by using different models. Lesson 15: Multiply decimal numbers to hundredths by one-digit whole numbers and multiples of 10, 100, or 1,000 by using different written methods. Lesson 16: Multiply decimal numbers to hundredths by two-digit whole numbers by using area models and vertical form. Lesson 17: Multiply decimal numbers to hundredths by two-digit whole numbers by using different methods. Lesson 18: Relate decimal-number multiplication to fraction multiplication. Lesson 19: Multiply a decimal number by a decimal number. Lesson 20: Divide decimal numbers to hundredths by one-digit whole numbers and multiples of 10, 100, or 1,000 by using unit form and place value understanding.  <b>Module 4: Place Value Concepts for Decimal Operations</b> <b>Topic D: Division of Decimal Numbers</b> Lesson 21: Divide decimal numbers to hundredths by one-digit whole numbers and multiples of 10, 100, or 1,000 by using place value understanding and vertical form. Lesson 22: Divide decimal numbers to hundredths by two-digit whole numbers. Lesson 23: Relate division by 0.1 and 0.01 to division by a unit fraction. Lesson 24: Divide decimal numbers by decimal numbers, resulting in whole-number quotients.	18 days



Multiply and Divide Decimals/Metric Conversions (cont.)		Lesson 25: Divide decimal numbers by decimal numbers, resulting in decimal-number quotients.	
	5.MD.A.1	<b>Module 1: Place Value Concepts for Multiplication and Division with Whole Numbers</b> <b>Topic A: Place Value Understanding for Whole Numbers</b> Lesson 5: Convert measurements and describe relationships between metric units. Lesson 6: Solve multi-step word problems by using metric measurement conversion.  <b>Module 4: Place Value Concepts for Decimal Operations</b> <b>Topic E: Applications of Decimals</b> Lesson 26: Solve a real-world problem involving metric measurements. (Optional) Lesson 27: Convert metric measurements involving decimals. Lesson 28: Convert customary measurements involving decimals.	
2-Dimensional Geometry	5.G.B.3 5.G.B.4	<b>Module 5: Addition and Multiplication with Area and Volume</b> <b>Topic A: Drawing, Analysis, and Classification of Two-Dimensional Figures</b> Lesson 1: Analyze hierarchies and identify properties of quadrilaterals. Lesson 2: Classify trapezoids based on their properties. Lesson 3: Classify parallelograms based on their properties. Lesson 4: Classify rectangles and rhombuses based on their properties. Lesson 5: Classify kites and squares based on their properties. Lesson 6: Identify quadrilaterals from given properties. Lesson 7: Classify quadrilaterals in a hierarchy based on properties.  <b>Module 6: Foundations to Geometry in the Coordinate Plane</b> <b>Topic C: Solve Mathematical Problems in the Coordinate Plane</b> Lesson 12: Graph and classify quadrilaterals in the coordinate plane.	7 days
Algebraic Connections: (Order of Operations, Expressions, Patterns, Coordinate Plane)	5.OA.A.1 5.OA.A.2	<b>Module 1: Place Value Concepts for Multiplication and Division with Whole Numbers</b> <b>Topic B: Multiplication of Whole Numbers</b> Lesson 7: Multiply by using familiar methods. Lesson 8: Multiply two- and three-digit numbers by two-digit numbers by using the distributive property.  <b>Module 1: Place Value Concepts for Multiplication and Division with Whole Numbers</b> <b>Topic D: Multi-Step Problems with Whole Numbers</b> Lesson 17: Write, interpret, and compare numerical expressions.	7 days

<b>Algebraic Connections:</b> <b>(Order of Operations,</b> <b>Expressions, Patterns,</b> <b>Coordinate Plane)</b> <b>(cont.)</b>		<p>Lesson 18: Create and solve real-world problems for given numerical expressions.  Lesson 19: Solve multi-step word problems involving multiplication and division.  Lesson 20: Solve multi-step word problems involving the four operations.</p> <p><b>Module 3: Multiplication and Division with Fractions</b>  <b>Topic C: Division with a Unit Fraction and a Whole Number</b>  Lesson 12: Divide a nonzero whole number by a unit fraction to find the number of groups.  Lesson 16: Reason about the size of quotients of whole numbers and unit fractions and quotients of unit fractions and whole numbers.</p> <p><b>Module 3: Multiplication and Division with Fractions</b>  <b>Topic D: Multi-Step Problems with Fractions</b>  Lesson 18: Compare and evaluate expressions with parentheses.  Lesson 22: Evaluate expressions involving nested grouping symbols. (Optional)</p> <p><b>Module 4: Place Value Concepts for Decimal Operations</b>  <b>Topic E: Applications of Decimals</b>  Lesson 29: Interpret, evaluate, and compare numerical expressions involving decimals.  Lesson 30: Create and solve real-world problems for given numerical expressions involving decimals.</p>	
<b>Algebraic Connections:</b> <b>(Order of Operations,</b> <b>Expressions, Patterns,</b> <b>Coordinate Plane)</b> <b>(cont.)</b>	<b>5.OA.B.3</b>	<p><b>Module 6: Foundations to Geometry in the Coordinate Plane</b>  <b>Topic B: Patterns in the Coordinate Plane</b>  Lesson 7: Generate number patterns to form ordered pairs.  Lesson 8: Identify addition and subtraction relationships between corresponding terms in number patterns.  Lesson 9: Identify multiplication and division relationships between corresponding terms in number patterns.  Lesson 11: Draw lines in the coordinate plane and identify points on the lines.</p> <p><b>Module 6: Foundations to Geometry in the Coordinate Plane</b>  <b>Topic D: Solve Real-World Problems with the Coordinate Plane</b>  Lesson 20: Reason about patterns in real-world situations.</p>	

# Eureka Math<sup>2</sup> Scope and Sequence: Year at a Glance

## Level 5: Fractions are Numbers





If a district uses this resource to implement the state model curriculum for grade 5, the following scope and sequence should be followed to ensure alignment and attention to the progressions of mathematics.


Module 1	Module 2	Module 3	Module 4	Module 5	Module 6
Place Value Concepts for Multiplication and Division with Whole Numbers	Addition and Subtraction with Fractions	Multiplication and Division with Fractions	Place Value Concepts for Decimal Operations	Addition and Multiplication with Area and Volume	Foundations to Geometry in the Coordinate Plane
<p><b>Topic A: Place Value Understanding for Whole Numbers</b></p> <p><b>Lesson 1:</b> Relate adjacent place value units by using place value understanding. 5.NBT.A.1, MP5, 5.Mod1.AD6</p> <p><b>Lesson 2:</b> Multiply and divide by 10, 100, and 1,000 and identify patterns in the products and quotients. 5.NBT.A.1, 5.NBT.A.2, MP8, 5.Mod1.AD6, 5.Mod1.AD7</p> <p><b>Lesson 3:</b> Use exponents to multiply and divide by powers of 10. 5.NBT.A.2, MP3, 5.Mod1.AD7, 5.Mod1.AD8</p> <p><b>Lesson 4:</b> Estimate products and quotients by using powers of 10 and their multiples. 5.NBT, 5.NBT.A.2, MP7, 5.Mod1.AD5, 5.Mod1.AD7</p>	<p><b>Topic A: Fractions and Division</b></p> <p><b>Lesson 1:</b> Interpret a fraction as division. 5.NF.B.3, MP7, 5.Mod2.AD8, 5.Mod2.AD9, 5.Mod2.AD10</p> <p><b>Lesson 2:</b> Interpret a fraction as division by writing remainders as fractions. 5.NF.B.3, MP5, 5.Mod2.AD9, 5.Mod2.AD10</p> <p><b>Lesson 3:</b> Represent fractions as division by using models. 5.NF.B.3, MP2, 5.Mod2.AD9, 5.Mod2.AD10</p> <p><b>Lesson 4:</b> Solve word problems involving division and fractions. 5.NF, 5.NF.B.3, MP1, 5.Mod2.AD1, 5.Mod2.AD9, 5.Mod2.AD10</p>	<p><b>Topic A: Multiplication of a Whole Number by a Fraction</b></p> <p><b>Lesson 1:</b> Find fractions of a set with arrays. 5.NF.B.4.a, 5.NF.B.5.b, MP8, 5.Mod3.AD7, 5.Mod3.AD9</p> <p><b>Lesson 2:</b> Interpret fractions as division to find fractions of a set with tape diagrams and number lines. 5.NF.B.4.a, 5.NF.B.5.b, MP4, 5.Mod3.AD7, 5.Mod3.AD9</p> <p><b>Lesson 3:</b> Multiply a whole number by a fraction less than 1. 5.NF.B.4, 5.NF.B.4.a, 5.NF.B.5.a, MP5, 5.Mod3.AD6, 5.Mod3.AD7, 5.Mod3.AD8</p> <p><b>Lesson 4:</b> Multiply a whole number by a fraction. 5.NF.B.4.a, 5.NF.B.5.a, 5.NF.B.5.b, MP2, 5.Mod3.AD7, 5.Mod3.AD8, 5.Mod3.AD9</p>	<p><b>Topic A: Understanding Decimal Numbers with Place Value and Fraction Thinking</b></p> <p><b>Lesson 1:</b> Model and relate decimal place value units to thousandths. 5.NBT.A, 5.NBT.A.1, 5.NBT.A.3.a, MP8, 5.Mod4.AD5, 5.Mod4.AD6, 5.Mod4.AD9</p> <p><b>Lesson 2:</b> Represent thousandths as a place value unit. 5.NBT.A, 5.NBT.A.1, 5.NBT.A.3.a, MP7, 5.Mod4.AD5, 5.Mod4.AD6, 5.Mod4.AD9</p> <p><b>Lesson 3:</b> Represent decimal numbers to the thousandths place in different forms. 5.NBT.A, 5.NBT.A.1, 5.NBT.A.3.a, MP7, 5.Mod4.AD5, 5.Mod4.AD6, 5.Mod4.AD9</p>	<p><b>Topic A: Drawing, Analysis, and Classification of Two-Dimensional Figures</b></p> <p><b>Lesson 1:</b> Analyze hierarchies and identify properties of quadrilaterals. 5.G.B.3, 5.G.B.4, MP8, 5.Mod5.AD13, 5.Mod5.AD14</p> <p><b>Lesson 2:</b> Classify trapezoids based on their properties. 5.G.B.3, 5.G.B.4, MP7, 5.Mod5.AD13, 5.Mod5.AD14</p> <p><b>Lesson 3:</b> Classify parallelograms based on their properties. 5.G.B.3, 5.G.B.4, MP3, 5.Mod5.AD13, 5.Mod5.AD14</p> <p><b>Lesson 4:</b> Classify rectangles and rhombuses based on their properties. 5.G.B.3, 5.G.B.4, MP6, 5.Mod5.AD13, 5.Mod5.AD14</p>	<p><b>Topic A: Coordinate Systems</b></p> <p><b>Lesson 1:</b> Construct a coordinate system on a line. 5.G.A.1, MP6, 5.Mod6.AD3</p> <p><b>Lesson 2:</b> Construct a coordinate system in a plane. 5.G.A.1, MP7, 5.Mod6.AD3</p> <p><b>Lesson 3:</b> Identify and plot points by using ordered pairs. 5.G.A.1, MP1, 5.Mod6.AD3</p> <p><b>Lesson 4:</b> Describe the distance and direction between points in the coordinate plane. 5.G.A.2, MP2, 5.Mod6.AD4, 5.Mod6.AD5</p> <hr/> <p><b>Topic B: Patterns in the Coordinate Plane</b></p> <p><b>Lesson 5:</b> Identify properties of horizontal and vertical lines. 5.G.A.2, MP8, 5.Mod6.AD5</p>


<p><b>Lesson 5:</b> Convert measurements and describe relationships between metric units. 5.MD.A.1, MP6, 5.Mod1.AD12</p> <p><b>Lesson 6:</b> Solve multi-step word problems by using metric measurement conversion. 5.MD.A.1, MP2, 5.Mod1.AD12</p> <hr/> <p><b>Topic B: Multiplication of Whole Numbers</b></p> <p><b>Lesson 7:</b> Multiply by using familiar methods. 5.OA.A.1, 5.NBT.B.5, MP5, 5.Mod1.AD1, 5.Mod1.AD2, 5.Mod1.AD9</p> <p><b>Lesson 8:</b> Multiply two- and three-digit numbers by two-digit numbers by using the distributive property. 5.OA.A.1, 5.NBT.B.5, MP8, 5.Mod1.AD1, 5.Mod1.AD2, 5.Mod1.AD9</p> <p><b>Lesson 9:</b> Multiply two- and three-digit numbers by two-digit numbers by using the standard algorithm. 5.NBT.B.5, MP6, 5.Mod1.AD9</p> <p><b>Lesson 10:</b> Multiply three- and four-digit numbers by three-digit numbers by using the standard algorithm. 5.NBT.B.5, MP6, 5.Mod1.AD9</p> <p><b>Lesson 11:</b> Multiply two multi-digit numbers by using the standard algorithm. 5.NBT.B.5, MP3, 5.Mod1.AD9</p>	<p><b>Topic B: Addition and Subtraction of Fractions by Making Like Units</b></p> <p><b>Lesson 5:</b> Add and subtract fractions with related units by using pictorial models. 5.NF.A, MP6, 5.Mod2.AD2, 5.Mod2.AD3</p> <p><b>Lesson 6:</b> Add and subtract fractions with related units by using area models to rename fractions. 5.NF.A, MP7, 5.Mod2.AD2</p> <p><b>Lesson 7:</b> Add and subtract fractions with related units by finding equivalent fractions numerically. 5.NF.A, 5.NF.A.1, MP5, 5.Mod2.AD2, 5.Mod2.AD4</p> <p><b>Lesson 8:</b> Add and subtract fractions with unrelated units by finding equivalent fractions pictorially. 5.NF.A, 5.NF.A.1, MP8, 5.Mod2.AD3, 5.Mod2.AD4</p> <p><b>Lesson 9:</b> Add and subtract fractions with unrelated units by finding equivalent fractions numerically. 5.NF.A, 5.NF.A.1, MP5, 5.Mod2.AD2, 5.Mod2.AD4</p> <hr/> <p><b>Topic C: Addition and Subtraction of Fractions, Whole Numbers, and Mixed Numbers</b></p>	<p><b>Lesson 5:</b> Convert larger customary measurement units to smaller measurement units. 5.NF.B.4.a, 5.NF.B.5.b, 5.MD.A.1, MP6, 5.Mod3.AD7, 5.Mod3.AD9, 5.Mod3.AD14</p> <p><b>Lesson 6:</b> Convert smaller customary measurement units to larger measurement units. 5.NF.B.4.a, 5.NF.B.5.b, 5.MD.A.1, MP7, 5.Mod3.AD7, 5.Mod3.AD9, 5.Mod3.AD14</p> <hr/> <p><b>Topic B: Multiplication of Fractions</b></p> <p><b>Lesson 7:</b> Multiply fractions less than 1 by unit fractions pictorially. 5.NF.B.4.a, 5.NF.B.5.a, 5.NF.B.5.b, MP6, 5.Mod3.AD7, 5.Mod3.AD8, 5.Mod3.AD9</p> <p><b>Lesson 8:</b> Multiply fractions less than 1 pictorially. 5.NF.B.4.a, 5.NF.B.5.a, 5.NF.B.5.b, MP3, 5.Mod3.AD7, 5.Mod3.AD8, 5.Mod3.AD9</p> <p><b>Lesson 9:</b> Multiply fractions by unit fractions by making simpler problems. 5.NF.B.4, 5.NF.B.5.a, 5.NF.B.5.b, MP8, 5.Mod3.AD6, 5.Mod3.AD8, 5.Mod3.AD9</p> <p><b>Lesson 10:</b> Multiply fractions greater than 1 by fractions. 5.NF.B.4, 5.NF.B.5.a, 5.NF.B.5.b, MP7, 5.Mod3.AD6, 5.Mod3.AD8, 5.Mod3.AD9</p>	<p><b>Lesson 4:</b> Relate the values of digits in a decimal number by using place value understanding. 5.NBT.A.1, MP6, 5.Mod4.AD6</p> <p><b>Lesson 5:</b> Multiply and divide decimal numbers by powers of 10. 5.NBT.A.2, MP8, 5.Mod4.AD7</p> <p><b>Lesson 6:</b> Compare decimal numbers to the thousandths place. 5.NBT.A.3, 5.NBT.A.3.b, MP5, 5.Mod4.AD8, 5.Mod4.AD10</p> <p><b>Lesson 7:</b> Round decimal numbers to the nearest one, tenth, or hundredth. 5.NBT.A.4, MP6, 5.Mod4.AD11</p> <p><b>Lesson 8:</b> Round decimal numbers to any place value unit. 5.NBT.A.4, MP3, 5.Mod4.AD11</p> <hr/> <p><b>Topic B: Addition and Subtraction of Decimal Numbers</b></p> <p><b>Lesson 9:</b> Add decimal numbers by using different methods. 5.NBT.B, 5.NBT.B.7, MP5, 5.Mod4.AD12, 5.Mod4.AD14, 5.Mod4.AD19</p> <p><b>Lesson 10:</b> Add decimal numbers by using place value understanding. 5.NBT.B.7, MP1, 5.Mod4.AD14, 5.Mod4.AD18, 5.Mod4.AD19</p>	<p><b>Lesson 5:</b> Classify kites and squares based on their properties. 5.G.B.3, 5.G.B.4, MP6, 5.Mod5.AD13, 5.Mod5.AD14</p> <p><b>Lesson 6:</b> Identify quadrilaterals from given properties. 5.G.B.3, 5.G.B.4, MP1, 5.Mod5.AD13, 5.Mod5.AD14</p> <p><b>Lesson 7:</b> Classify quadrilaterals in a hierarchy based on properties. 5.G.B.3, 5.G.B.4, MP7, 5.Mod5.AD13, 5.Mod5.AD14</p> <hr/> <p><b>Topic B: Areas of Rectangular Figures with Fraction Side Lengths</b></p> <p><b>Lesson 8:</b> Find areas of square tiles with fraction side lengths by relating the tile to a unit square. 5.NF.B.4.b, MP7, 5.Mod5.AD2</p> <p><b>Lesson 9:</b> Organize, count, and represent a collection of square tiles. 5.NF.B.4.b, MP5, 5.Mod5.AD2</p> <p><b>Lesson 10:</b> Find the area of a rectangle with fraction side lengths by relating the rectangle to a unit square. 5.NF.B.5.b, MP7, 5.Mod5.AD2</p> <p><b>Lesson 11:</b> Find areas of rectangles with fraction side lengths by using multiplication. 5.NF.B.4.b, MP8, 5.Mod5.AD3</p>	<p><b>Lesson 6:</b> Use properties of horizontal and vertical lines to solve problems. 5.G.A.2, MP6, 5.Mod6.AD5</p> <p><b>Lesson 7:</b> Generate number patterns to form ordered pairs. 5.OA.B.3, 5.G.A.2, MP7, 5.Mod6.AD1, 5.Mod6.AD2, 5.Mod6.AD5</p> <p><b>Lesson 8:</b> Identify addition and subtraction relationships between corresponding terms in number patterns. 5.OA.B.3, 5.G.A.2, MP8, 5.Mod6.AD1, 5.Mod6.AD2, 5.Mod6.AD5</p> <p><b>Lesson 9:</b> Identify multiplication and division relationships between corresponding terms in number patterns. 5.OA.B.3, 5.G.A.2, MP8, 5.Mod6.AD1, 5.Mod6.AD2, 5.Mod6.AD5</p> <p><b>Lesson 10:</b> Identify mixed-operation relationships between corresponding terms in number patterns. (Optional) MP7</p> <hr/> <p><b>Topic C: Solve Mathematical Problems in the Coordinate Plane</b></p> <p><b>Lesson 11:</b> Draw lines in the coordinate plane and identify points on the lines. 5.OA.B.3, 5.G.A.2, MP3, 5.Mod6.AD2, 5.Mod6.AD5</p>
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<p><b>Topic C: Division of Whole Numbers</b></p> <p><b>Lesson 12:</b> Divide two- and three-digit numbers by multiples of 10. 5.NBT, 5.NBT.B.6, MP2, 5.Mod1.AD5, 5.Mod1.AD10, 5.Mod1.AD11</p> <p><b>Lesson 13:</b> Divide two-digit numbers by two-digit numbers in problems that result in one-digit quotients. 5.NBT, 5.NBT.B.6, MP7, 5.Mod1.AD5, 5.Mod1.AD10, 5.Mod1.AD11</p> <p><b>Lesson 14:</b> Divide three-digit numbers by two-digit numbers in problems that result in one-digit quotients. 5.NBT, 5.NBT.B.6, MP1, 5.Mod1.AD5, 5.Mod1.AD10</p> <p><b>Lesson 15:</b> Divide three-digit numbers by two-digit numbers in problems that result in two-digit quotients. 5.NBT, 5.NBT.B.6, MP7, 5.Mod1.AD5., 5.Mod1.AD10, 5.Mod1.AD11</p> <p><b>Lesson 16:</b> Divide four-digit numbers by two-digit numbers. 5.NBT, 5.NBT.B.6, MP2, 5.Mod1.AD5., 5.Mod1.AD10</p> <hr/> <p><b>Topic D: Multi-Step Problems with Whole Numbers</b></p>	<p><b>Lesson 10:</b> Add whole numbers and mixed numbers and add mixed numbers with related units. 5.NF.A.1, 5.NF.A.2, MP5, 5.Mod2.AD4, 5.Mod2.AD7</p> <p><b>Lesson 11:</b> Add mixed numbers with unrelated units. 5.NF.A.1, 5.NF.A.2, MP2, 5.Mod2.AD4, 5.Mod2.AD5, 5.Mod2.AD6</p> <p><b>Lesson 12:</b> Subtract whole numbers from mixed numbers and mixed numbers from whole numbers. 5.NF.A, 5.NF.A.1, 5.NF.A.2, MP6, 5.Mod2.AD2, 5.Mod2.AD4, 5.Mod2.AD7</p> <p><b>Lesson 13:</b> Subtract mixed numbers from mixed numbers with related units. 5.NF.A.1, 5.NF.A.2, MP7, 5.Mod2.AD4, 5.Mod2.AD7</p> <p><b>Lesson 14:</b> Subtract mixed numbers from mixed numbers with unrelated units. 5.NF.A.1, 5.NF.A.2, MP4, 5.Mod2.AD4, 5.Mod2.AD5, 5.Mod2.AD6</p> <hr/> <p><b>Topic D: Problem Solving and Line Plots with Fractional Measurements</b></p> <p><b>Lesson 15:</b> Represent data on a line plot. 5.MD.B.2, MP6, 5.Mod2.AD11</p>	<p><b>Lesson 11:</b> Multiply fractions. 5.NF.B.4.a, 5.NF.B.5.a, 5.NF.B.5.b, MP3, 5.Mod3.AD7, 5.Mod3.AD8, 5.Mod3.AD9</p> <hr/> <p><b>Topic C: Division with a Unit Fraction and a Whole Number</b></p> <p><b>Lesson 12:</b> Divide a nonzero whole number by a unit fraction to find the number of groups. 5.OA.A.2, 5.NF.B.7.b, 5.NF.B.7.c, MP1, 5.Mod3.AD3, 5.Mod3.AD12, 5.Mod3.AD13</p> <p><b>Lesson 13:</b> Divide a nonzero whole number by a unit fraction to find the size of the group. 5.NF.B.7.b, 5.NF.B.7.c, MP2, 5.Mod3.AD12, 5.Mod3.AD13</p> <p><b>Lesson 14:</b> Divide a unit fraction by a nonzero whole number. 5.NF.B.7.a, 5.NF.B.7.c, MP4, 5.Mod3.AD11, 5.Mod3.AD13</p> <p><b>Lesson 15:</b> Divide by whole numbers and unit fractions. 5.NF.B.7.a, 5.NF.B.7.b, 5.NF.B.7.c, MP3, 5.Mod3.AD11, 5.Mod3.AD12, 5.Mod3.AD13</p> <p><b>Lesson 16:</b> Reason about the size of quotients of whole numbers and unit fractions and quotients of unit fractions and whole numbers. 5.OA.A.2, 5.NF.B.7.a, 5.NF.B.7.b, MP7, 5.Mod3.AD4, 5.Mod3.AD11, 5.Mod3.AD12</p>	<p><b>Lesson 11:</b> Subtract decimal numbers by using different methods. 5.NBT.B.7, MP7, 5.Mod4.AD15, 5.Mod4.AD18, 5.Mod4.AD19</p> <p><b>Lesson 12:</b> Subtract decimal numbers by using place value understanding. 5.NBT.B, 5.NBT.B.7, MP5, 5.Mod4.AD12, 5.Mod4.AD15, 5.Mod4.AD19</p> <p><b>Lesson 13:</b> Solve word problems involving addition and subtraction of decimal numbers and fractions. 5.NBT.B, MP6, 5.Mod4.AD13</p> <hr/> <p><b>Topic C: Multiplication of Decimal Numbers</b></p> <p><b>Lesson 14:</b> Multiply decimal numbers to hundredths by one-digit whole numbers by using different models. 5.NBT.B.7, MP7, 5.Mod4.AD16, 5.Mod4.AD18, 5.Mod4.AD19</p> <p><b>Lesson 15:</b> Multiply decimal numbers to hundredths by one-digit whole numbers and multiples of 10, 100, or 1,000 by using different written methods. 5.NBT.B, 5.NBT.B.7, MP1, 5.Mod4.AD12, 5.Mod4.AD16, 5.Mod4.AD19</p> <p><b>Lesson 16:</b> Multiply decimal numbers to hundredths by two-digit whole numbers by using area models and vertical form. 5.NBT.B, 5.NBT.B.7, MP8, 5.Mod4.AD13, 5.Mod4.AD16, 5.Mod4.AD18</p>	<p><b>Lesson 12:</b> Multiply mixed numbers. 5.NF.B.4, 5.NF.B.4.b, MP5, 5.Mod5.AD1, 5.Mod5.AD4</p> <p><b>Lesson 13:</b> Solve mathematical problems involving areas of composite figures with mixed-number side lengths. 5.NF.B.4.b, MP7, 5.Mod5.AD3</p> <p><b>Lesson 14:</b> Solve real-world problems involving areas of composite figures with mixed-number side lengths. 5.NF.B.4.b, 5.NF.B.6, MP1, 5.Mod5.AD3, 5.Mod5.AD5</p> <p><b>Lesson 15:</b> Solve multi-step word problems involving multiplication of mixed numbers. 5.NF.B.6, MP2, 5.Mod5.AD5</p> <hr/> <p><b>Topic C: Volume Concepts</b></p> <p><b>Lesson 16:</b> Identify attributes and properties of right rectangular prisms. 5.MD.C.3, 5.MD.C.3.a, 5.MD.C.3.b, MP7, 5.Mod5.AD6</p> <p><b>Lesson 17:</b> Find the volume of right rectangular prisms by packing with unit cubes and counting. 5.MD.C.3, 5.MD.C.3.a, 5.MD.C.3.b, 5.MD.C.4, MP2, 5.Mod5.AD6, 5.Mod5.AD7</p> <p><b>Lesson 18:</b> Find the volume of right rectangular prisms by packing with improvised units. 5.MD.C.4, MP3, 5.Mod5.AD7</p>	<p><b>Lesson 12:</b> Graph and classify quadrilaterals in the coordinate plane. 5.G.A.2, 5.G.B.4, MP7, 5.Mod5.AD14, 5.Mod6.AD5</p> <p><b>Lesson 13:</b> Draw symmetric figures in the coordinate plane. 5.G.A.2, MP1, 5.Mod6.AD5</p> <p><b>Lesson 14:</b> Solve mathematical problems with rectangles in the coordinate plane. 5.G.A.2, MP5, 5.Mod6.AD5</p> <p><b>Lesson 15:</b> Use the coordinate plane to reason about perimeters and areas of rectangles. 5.G.A.2, 5.NF.B.4.b, MP3, 5.Mod5.AD3, 5.Mod6.AD5</p> <hr/> <p><b>Topic D: Solve Real-World Problems with the Coordinate Plane</b></p> <p><b>Lesson 16:</b> Interpret graphs that represent real-world situations. 5.G.A.2, MP3, 5.Mod6.AD4, 5.Mod6.AD5</p> <p><b>Lesson 17:</b> Plot data in the coordinate plane and analyze relationships. 5.G.A.2, MP2, 5.Mod6.AD4</p> <p><b>Lesson 18:</b> Interpret line graphs. 5.G.A.2, MP2, 5.Mod6.AD5</p> <p><b>Lesson 19:</b> Reason about visual patterns by using tables and graphs. (Optional) MP5</p>
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<p><b>Lesson 17:</b> Write, interpret, and compare numerical expressions. 5.OA.A.1, 5.OA.A.2, MP6, 5.Mod1.AD1, 5.Mod1.AD3, 5.Mod1.AD4</p> <p><b>Lesson 18:</b> Create and solve real-world problems for given numerical expressions. 5.OA.A.1, 5.OA.A.2, MP2, 5.Mod1.AD2, 5.Mod1.AD3</p> <p><b>Lesson 19:</b> Solve multi-step word problems involving multiplication and division. 5.OA.A.1, 5.OA.A.2, 5.NBT, MP4, 5.Mod1.AD2, 5.Mod1.AD3, 5.Mod1.AD5</p> <p><b>Lesson 20:</b> Solve multi-step word problems involving the four operations. 5.OA.A.1, 5.OA.A.2, 5.NBT, MP1, 5.Mod1.AD2, 5.Mod1.AD3, 5.Mod1.AD5</p> 	<p><b>Lesson 16:</b> Solve problems by using data from a line plot. 5.MD.B.2, MP3, 5.Mod2.AD11</p> <p><b>Lesson 17:</b> Solve problems by equally redistributing a total amount. 5.NF.A.2, 5.MD.B.2, MP5, 5.Mod2.AD5, 5.Mod2.AD11</p> 	<p><b>Lesson 17:</b> Solve word problems involving fractions with multiplication and division. 5.NF.B.6, 5.NF.B.7.c, MP1, 5.Mod3.AD10, 5.Mod3.AD13</p> <hr/> <p><b>Topic D: Multi-Step Problems with Fractions</b></p> <p><b>Lesson 18:</b> Compare and evaluate expressions with parentheses. 5.OA.A.1, 5.OA.A.2, MP6, 5.Mod3.AD2, 5.Mod3.AD3, 5.Mod3.AD4</p> <p><b>Lesson 19:</b> Create and solve one-step word problems involving fractions. 5.NF.B.7.a, 5.NF.B.7.b, 5.NF.B.7.c, MP2, 5.Mod3.AD11, 5.Mod3.AD12, 5.Mod3.AD13</p> <p><b>Lesson 20:</b> Solve multi-step word problems involving fractions and write equations with parentheses. 5.NF, 5.NF.B.7.c, MP4, 5.Mod3.AD5, 5.Mod3.AD13</p> <p><b>Lesson 21:</b> Solve multi-step word problems involving fractions. 5.NF, 5.NF.B.6, 5.NF.B.7.c, MP4, 5.Mod3.AD5, 5.Mod3.AD10, 5.Mod3.AD13</p> <p><b>Lesson 22:</b> Evaluate expressions involving nested grouping symbols. (Optional) 5.OA.A.1, MP6, 5.Mod3.AD1, 5.Mod3.AD2</p> 	<p><b>Lesson 17:</b> Multiply decimal numbers to hundredths by two-digit whole numbers by using different methods. 5.NBT.B, 5.NBT.B.7, MP5, 5.Mod4.AD13, 5.Mod4.AD16, 5.Mod4.AD19</p> <p><b>Lesson 18:</b> Relate decimal-number multiplication to fraction multiplication. 5.NBT.B.7, MP8, 5.Mod4.AD16, 5.Mod4.AD18, 5.Mod4.AD19</p> <p><b>Lesson 19:</b> Multiply a decimal number by a decimal number. 5.NBT.B, 5.NBT.B.7, MP7, 5.Mod4.AD12, 5.Mod4.AD16, 5.Mod4.AD19</p> <hr/> <p><b>Topic D: Division of Decimal Numbers</b></p> <p><b>Lesson 20:</b> Divide decimal numbers to hundredths by one-digit whole numbers and multiples of 10, 100, or 1,000 by using unit form and place value understanding. 5.NBT.B, 5.NBT.B.7, MP7, 5.Mod4.AD12, 5.Mod4.AD17, 5.Mod4.AD18</p> <p><b>Lesson 21:</b> Divide decimal numbers to hundredths by one-digit whole numbers and multiples of 10, 100, or 1,000 by using place value understanding and vertical form. 5.NBT.B.7, MP3, 5.Mod4.AD17, 5.Mod4.AD19</p>	<p><b>Lesson 19:</b> Compose and decompose right rectangular prisms to find their volume by using layers. 5.MD.C.3, 5.MD.C.3.a, 5.MD.C.3.b, 5.MD.C.4, MP8, 5.Mod5.AD6, 5.Mod5.AD7</p> <p><b>Lesson 20:</b> Interpret volume as filling. 5.MD.C.3, 5.MD.C.3.a, 5.MD.C.3.b, MP2, 5.Mod5.AD6</p> <p><b>Lesson 21:</b> Relate volumes of solids and liquid volume. 5.MD.C.3, 5.MD.C.3.a, 5.MD.C.3.b, 5.MD.C.4, MP2, 5.Mod5.AD6, 5.Mod5.AD7</p> <hr/> <p><b>Topic D: Volume and the Operations of Multiplication and Addition</b></p> <p><b>Lesson 22:</b> Find the volumes of right rectangular prisms by using the area of the base. 5.MD.C.5, 5.MD.C.5.a, 5.MD.C.5.b, MP7, 5.Mod5.AD8, 5.Mod5.AD9, 5.Mod5.AD11</p> <p><b>Lesson 23:</b> Find the volumes of right rectangular prisms by multiplying the edge lengths. 5.MD.C.5.a, 5.MD.C.5.b, MP7, 5.Mod5.AD9, 5.Mod5.AD10, 5.Mod5.AD11</p> <p><b>Lesson 24:</b> Solve word problems involving volumes of right rectangular prisms. 5.MD.C.5, 5.MD.C.5.c, MP2, 5.Mod5.AD8, 5.Mod5.AD12</p>	<p><b>Lesson 20:</b> Reason about patterns in real-world situations. 5.OA.B.3, 5.G.A.2, MP4, 5.Mod6.AD1, 5.Mod6.AD2, 5.Mod6.AD4</p> 
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Year-Long Curriculum Overview: Levels 3–5 | STORY OF UNITS

Trimester and quarter indicators are provided as a guide for pacing. A few optional lessons in each grade level are included in total number of lessons. About 30 additional days are allotted at each level for assessment and responsive teaching.

		Level 3 Units of Any Number	Level 4 Fractional Units	Level 5 Fractions Are Numbers
Trimester 1	Quarter 1	Module 1: Multiplication and Division with Units of 2, 3, 4, 5, and 10 5 Topics   23 Lessons	Module 1: Place Value Concepts for Addition and Subtraction 5 Topics   24 Lessons	Module 1: Place Value Concepts for Multiplication and Division with Whole Numbers 4 Topics   20 Lessons
	Quarter 2	Module 2: Place Value Concepts through Metric Measurement 4 Topics   25 Lessons	Module 2: Place Value Concepts for Multiplication and Division 5 Topics   26 Lessons	Module 2: Addition and Subtraction with Fractions 4 Topics   17 Lessons
Trimester 2	Quarter 2	Module 3: Multiplication and Division with Units of 0, 1, 6, 7, 8, and 9 4 Topics   25 Lessons	Module 3: Multiplication and Division of Multi-Digit Numbers 6 Topics   24 Lessons	Module 3: Multiplication and Division with Fractions 4 Topics   22 Lessons
	Quarter 3	Module 4: Multiplication and Area 4 Topics   19 Lessons	Module 4: Foundations for Fraction Operations 6 Topics   34 Lessons	Module 4: Place Value Concepts for Decimal Operations 5 Topics   30 Lessons
Trimester 3	Quarter 3	Module 5: Fractions as Numbers 5 Topics   27 Lessons	Module 5: Place Value Concepts for Decimal Fractions 4 Topics   14 Lessons	Module 5: Addition and Multiplication with Area and Volume 4 Topics   28 Lessons
	Quarter 4	Module 6: Geometry, Measurement, and Data 4 Topics   26 Lessons	Module 6: Angle Measurements and Plane Figures 4 Topics   20 Lessons	Module 6: Foundations to Geometry in the Coordinate Plane 4 Topics   20 Lessons
		TOTAL: 26 Topics   145 Lessons	TOTAL: 30 Topics   142 Lessons	TOTAL: 25 Topics   137 Lessons

# Supports of Diversity, Equity, and Inclusion

## Providing Culturally Responsive Instruction

*Eureka Math*<sup>2</sup> values the funds of knowledge that students bring into the classroom and acknowledges that deep learning happens when all students are able to leverage their diverse life experiences while learning mathematics.

4 • M1 • TA • Lesson 4

EUREKA MATH<sup>2</sup>

Learn

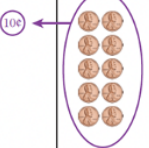
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Compose New Units

Students use multiplicative comparison to represent the relationship between units of money.

Direct students to problem 1 in their books. Read the problem chorally with the class.

1. Bundle pennies to show how to compose a larger unit.

dollars	dimes	pennies
		


How many pennies do you see in the chart?  
10

What is the value of 10 pennies?  
10 cents

Can we bundle pennies to compose a larger unit? How do you know?  
Yes, I know we can bundle 10 pennies to make 1 dime because I know the value of 10 pennies is the same as the value of 1 dime.

Differentiation: Support

If students need support making the connection between the value of 10 pennies and the value of 1 dime, have them label the images of the pennies with their value.

dollars	dimes	pennies
		

UDL: Action & Expression

Consider providing actual pennies, dollar bills to support students in e to make larger units. Students can trade 10 pennies for 1 dime and 10 for 1 dollar.

FAMILY MATH

Place Value and Comparison within 1,000,000







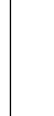
Module 1  
Topic 8

Dear Family,

In previous grades, your student learned about place value for numbers up to 1,000. Using that knowledge, your student explores counting with large sums of money as a context for understanding large numbers. They learn to read, write, and compare numbers up to 1,000,000. They also connect recent learning about times as much to realize that a digit represents 10 times the value of the same digit in the place to its right. A strong sense of place value understanding helps your student add, subtract, multiply, and divide with large numbers later this year.

Key Terms

hundred thousand  
million  
ten thousand  
10 times as much

million	hundred thousand	ten thousand	thousand	hundred	ten	ones
						

A place value chart organizes numbers and shows the relationships between place value units.

56,348						
50,000 + 6,000 + 300 + 40 + 8						
Eighty-six thousand, three hundred forty-eight						
56 thousands 3 hundreds 4 tens 8 ones						

Writing numbers in various forms, such as in standard form, expanded form, word form, and unit form, enables flexible thinking.

10 times as much as 3 tens is 3 hundreds.  
10 × 30 = 300  
3 hundreds is 10 times as much as 3 tens.  
300 = 10 × 30

One of the ways *Eureka Math*<sup>2</sup> invites students into mathematics and celebrates the diversity present in every classroom is by highlighting for teachers those specific lesson moments that can be tailored to bring students’ experiences from their home and communities into the classroom. For example, a strategically placed Universal Design for Learning (UDL) margin note in grade 4 module 1 lesson 4 suggests that teachers leverage life experiences by using real pennies instead of images of pennies while working with a place value chart.

UDL: Engagement

Consider adjusting the problem to make it more relevant to students in your class. For example, identify items in the school or community with the dimensions and quantity in the problem and change the problem to reflect the more relevant context. When you select a different context, the units of measure could change, but the quantity 5 and the dimensions 6 by 8 should remain the same to maintain the complexity of the problem.

Adjusting questions to make them more meaningful to students provides options for recruiting interest by personalizing and contextualizing the content to learners’ lives. In grade 3 module 4 lesson 13, students reason about, represent, and solve a two-step area word problem. A Universal Design for Learning Engagement margin note encourages the teacher to adjust the existing problem context by identifying items in the school or community with the dimensions and quantity in the problem, making the context more relevant and meaningful to students.

Students’ experiences from their home and communities are also leveraged through Family Math. Family Math is a letter to families that describes the major concepts in the current topic. Each letter uses words and phrases that should be familiar to the student from the lessons in the topic. It includes visual supports that students can use to explain the concepts or strategies to their family or that can help adults at home understand or unpack a concept. Family Math also includes simple and practical at-home activities to extend learning and help students see mathematics in their world.

Students are diverse, and any one classroom can have students from either an individualist frame of reference or a collectivist frame of reference. The teacher-writers of *Eureka Math*<sup>2</sup> considered both frames of reference in intentionally balancing activities that build off individualism as well as collectivism.

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In her book *Culturally Responsive Teaching and the Brain*, Zaretta Hammond references collectivism as emphasizing relationships, interdependence within a community, and cooperative learning (page 25). In *Eureka Math*<sup>2</sup>, a collectivist approach to learning mathematics is present in the embedded cooperative learning structures in open-middle and open-ended tasks. Specifically, the instructional routines Numbered Heads and Co-construction are rooted in students working cooperatively in groups to deepen their mathematical conceptual understanding. See grade 3 module 6 lesson 6, in which students work with a partner to create a context that could apply to an elapsed time situation in the routine Co-construction. Also, grade 5 module 3 lesson 3 features the routine Numbered Heads, in which students work in groups of three to describe how to solve one multiplication problem.

Beyond the instructional routines, *Eureka Math*<sup>2</sup> leverages the power of student relationships and interdependence through frequent partner and group work. For any partner or group work referenced in the instructional materials, teachers may make use of strategic, flexible groupings that build off students’ strengths, including home language. A Language Support margin note in the first lesson of every module serves to remind teachers to leverage students’ cultural perspectives when strategically placing students in partners.

Hammond references individualism as emphasizing individual achievement and independence (page 25). In *Eureka Math*<sup>2</sup>, an individualist approach to learning mathematics may be seen in the embedded systems for independent practice in every lesson, such as Exit Tickets and Practice Sets. Additionally, the instructional routines Critique a Flawed Response and Take a Stand both start with students working on a math problem individually before engaging in student discourse. See grade 4 module 3 lesson 3, in which students engage with the Critique a Flawed Response routine by first identifying an error individually before a whole-class discussion. Also, grade 3 module 3 lesson 6 invites students to engage with the Take a Stand routine, in which students first determine how they would decompose a number before engaging in a whole-class discussion about different ways to decompose numbers.

Beyond balancing individualism and collectivism, *Eureka Math*<sup>2</sup> activities and problems provide students with mirrors in which to see their own cultural perspectives reflected, as well as windows through which to view others’ cultural perspectives.

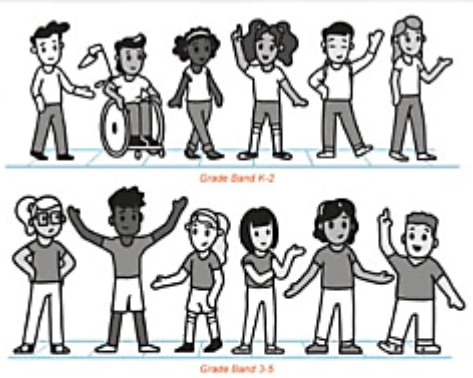
**Language Support**

Consider using strategic, flexible grouping throughout the module.

- Pair students who have different levels of mathematical proficiency.
- Pair students who have different levels of English language proficiency.
- Join pairs to form small groups of four.

As applicable, complement any of these groupings by pairing students who speak the same native language.

*Eureka Math*<sup>2</sup> is an inclusive mathematics curriculum that represents diverse doers of math. The curriculum’s images, fine art, and pictures of people represent diversity through problems and exercises related to real-life experiences, perspectives, and contributions of people from various cultures, ethnicities, and gender identities. These representations affirm student identities while rejecting the stereotypes and biases that have excluded many students from mathematical learning in favor of a more robust and inclusive perspective. Representing a diverse array of doers of mathematics in the curriculum inspires all students to think of themselves as mathematicians.



For example, *Eureka Math*<sup>2</sup> includes various mathematical activities that involve counting on hands or simulating a number line with one’s fingers. In images throughout the curriculum, care was taken to include a variety of body types and skin tones.

The names used in word problems and for sample students in the lesson vignettes are intentionally diverse to represent the wide variety of students who use the curriculum. The names in student-facing word problems are also designed for readability to ensure that they are not a barrier to accessing the math.

**Story of Units®**

Tam, Kit, Zan, Ren, Mac, Jon, Baz, Liv, Jade, Ling, Sal, Deepa, Oka, Mia, Gabe, Pablo, Shea, Jayla, Shen, Lacy, Sasha, Yuna, Leo, Adesh, Toby

According to CAST, “individuals are engaged by information and activities that are relevant and valuable to their interests and goals.” ([UDL Guidelines, Engagement, Checkpoint 7.2](#)) *Eureka Math*<sup>2</sup> also leverages students’ experiences, goals, and interests through Math Pasts (described below), art connections, and wordless context videos.

To honor the diverse contributions to the development of the field of mathematics, to build knowledge about our shared math history, and to empower every child to see themselves as able to do mathematics, nearly every module in *Eureka Math*<sup>2</sup> includes a feature called Math Past. Each Math Past tells the history of some big ideas in the module, recounting the story of the mathematics through artifacts, discoveries, and other contributions from cultures around the world. Math Past also provides ideas about how to engage students in the history of mathematics.

Math Past counters the traditional Eurocentric perspective and celebrates the many contributions of Black, Indigenous, and People of Color communities to the history of mathematics.

For example, students explore large numbers in expanded form by first engaging with Egyptian hieroglyphics in Launch of grade 4 module 1 lesson 8. The Math Past Teacher Resource highlights the specific hieroglyphic numerals and their connection to familiar objects for Egyptians 4,000 years ago. Studying the mathematics used by people thousands of years ago helps students view mathematics as a worthwhile and useful subject that stands the test of time.

In a similar vein, *Eureka Math*<sup>2</sup> connects works of fine art to the standards of each grade level. Each *Teach* book opens with a stunning work of fine art that has a connection to the math learned in the grade. There is also a wide variety of additional pieces of art embedded in each grade's lessons. For example:

- Land (the culminating section of each day's lesson) in grade 3 module 1 lesson 1 relates Diego Rivera's painting *Flower Vendor* to making equal groups to count the total number of objects.
- Land in grade 4 module 2 lesson 19 connects the painting *Composition with Large Red Plane, Yellow, Black, Gray and Blue* by Piet Mondrian to the formulas for area and perimeter of rectangles.



Lovelace – "Portrait of Ada Lovelace, 1836/Wikimedia Commons"

Turing – "famouspeople/Alamy Stock Photo"

Vazquez – "University of California Davis, Photo by Gregory Urquiaga"

Calderon – "Photograph Courtesy of the University of Chicago"

Land 10

Debrief 5 min

Objective: Organize, count, and represent a collection of objects.

Display *Flower Vendor*, 1949, by Diego Rivera.

This painting is called *Flower Vendor*. The artist who painted this is named Diego Rivera. It is one of many paintings he made of calla lily flowers.

Use the following questions to help students engage with the art:

- What do you notice in the painting?
- What do you wonder?

Guide students to think about the painting in terms of their experience with the counting collection. Tell the class that the children in the painting are making bundles of flowers for the woman to carry.



- Land in grade 5 module 3 lesson 7 connects the painting *Thirteen Rectangles* by Wassily Kandinsky to multiplying fractions less than one by unit fractions.

Additionally, *Eureka Math*<sup>2</sup> lessons include more than 190 videos. These wordless context-building videos highlight how we use math to solve problems in our everyday lives and make sense of the world around us. Three types of highly engaging videos may be found in the curriculum: character animation, collage animation, and live action.

Students can identify with the diverse set of actors and characters in the videos, which helps them visualize how math is part of their own lives. Through these videos, students will more readily realize that math surrounds them and that they, too, can engage in mathematical pursuits. The videos allow students to see themselves in the math problems they encounter, which lowers the barrier to engagement and makes the math classroom a more welcoming place.

Wordless videos in lessons serve many other purposes as well, such as the following:

- They make the context for a given problem come alive, putting all students on the same footing by activating or building the requisite background knowledge.
- They remove any language and reading barriers to the written word problem.
- They raise the accessibility of mathematics through accurate and inclusive representation.
- They show the many ways in which we interact with math in the world around us and how these interactions spark curiosity and joy.
- They help students see the delight and wonder associated with being a mathematician.
- They create excitement and buzz in the classroom about the content of the new word problem.
- They invite students to tell the story of the math problem, to notice, to wonder, and to drive the discussion.

Examples include:

- Grade 3 module 6 lesson 12: *Real World Perimeters*
- Grade 4 module 1 lesson 23: *Running Meters and Kilometers*
- Grade 5 module 3 lesson 12: *Julie's Birdhouse*
- Grade 5 module 5 lesson 20: *Cubes in a Cylinder*

Land 10

Debrief 5 min

Objective: Multiply fractions less than 1 by unit fractions pictorially.

Facilitate a class discussion about multiplying fractions less than 1 by unit fractions by using the following prompts. Encourage students to restate or add on to their classmates' responses.

Display *Thirteen Rectangles*, 1930, by Wassily Kandinsky.

This painting is called *Thirteen Rectangles*. The artist who painted it is named Wassily Kandinsky.

Use the following questions to help students engage with the art:

- What do you notice about the painting?
- What do you wonder?

Guide students to think about the painting in terms of their experience with multiplying a fraction less than 1 by a unit fraction.

What do you notice about the shapes in the painting? They are all rectangles.

Some of the rectangles appear to be squares.

Some of the rectangles and squares overlap.





Specific instructional prompts, engaging word problems, accessible and engaging tasks, art connections, Math Past connections, and context videos throughout *Eureka Math*<sup>2</sup> work together to create a powerful curriculum that welcomes all students and invites them to become doers of mathematics.

## Addressing Learner Variance

To ensure success of all learners, every *Eureka Math*<sup>2</sup> lesson includes Universal Design for Learning (UDL) strategies and scaffolds that address learner variance. These suggestions promote flexibility with engagement, representation, and action and expression, the three UDL principles described by CAST. These strategies and scaffolds are complements to the curriculum’s overall alignment with the UDL Guidelines and were designed to support educators in effectively teaching students who experience difficulty in mathematics. The strategies are based on research specific to mathematics instruction.

According to *Teaching Mathematics Meaningfully: Solutions for Reaching Struggling Learners, Second Edition*, (page 71) “Students who have learning difficulties that affect their ability to do well in mathematics come from a variety of backgrounds and experiences. Although each of these students is individual and unique, students often demonstrate one or more of the nine learning characteristics...” The nine learning characteristics described include: learned helplessness, passive learning, knowledge and skills gaps, math anxiety, memory disabilities, attention disabilities, metacognitive thinking disabilities, processing disabilities, and reading disabilities. Some of these characteristics can affect all students who may be struggling in math regardless of whether they have learning-related disabilities (learned helplessness, passive learning, knowledge and skills gaps, math anxiety). Other characteristics result from learning-related disabilities (memory disabilities, attention disabilities, metacognitive thinking disabilities, processing disabilities, and reading disabilities). These learning characteristics as well as curriculum factors can result in common mathematics performance traits of students who struggle in mathematics.

### UDL: Action & Expression

Consider comparing the correct solution for problem 3 with an incorrect work sample. Present a chart that shows the correct work in sample A and the incorrect work in sample B to emphasize how the placement of parentheses affects the value of the expression. Ask students, “How would you compare the work in sample A to the work in sample B? Why is it incorrect to evaluate problem 3 the way it is shown in sample B?” Post the chart for the remainder of the topic as an example of why parentheses are used and the importance of their placement. Use color coding and annotation to highlight these features, such as in the following example:

First we need to find the sum. Then find $\frac{3}{5}$ of that sum. $\frac{3}{5}$ of the sum of $\frac{1}{6}$ and $\frac{2}{3}$	
Sample A ✓	$\frac{3}{5} \times \left( \frac{1}{6} + \frac{2}{3} \right) = \frac{3}{5} \times \left( \frac{1}{6} + \frac{4}{6} \right)$ $= \frac{3}{5} \times \frac{5}{6}$ $= \frac{3}{6}$
Sample B ✗	$\left( \frac{3}{5} \times \frac{1}{6} \right) + \frac{2}{3} = \frac{3}{30} + \frac{2}{3}$ $= \frac{3}{30} + \frac{20}{30}$ $= \frac{23}{30}$

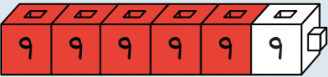
According to Allsopp et. al (2018), “Mathematics visuals appear to be most effective when used in conjunction with other effective instructional practices. An example of this is the use of explicit instruction techniques in conjunction with visuals. (page 192).” “Explicit cueing techniques can be utilized with visuals in ways that help students attend to the visual’s most important features and its representation of the mathematical idea. Simple techniques, such as color-coding, using directional arrows, and highlighting, can help students focus on what is most relevant.” An example of this is found in grade 7 module 5 lesson 7.

A variety of other strategies suggested in the literature are the foundation of all UDL margin notes found in *Eureka Math*<sup>2</sup>. Each margin note is aligned to a strategy found to minimize the impacts of one of the nine learning characteristics listed above. Strategies include, but are not limited to:

- Break down tasks into manageable chunks.
- Demonstrate the belief that students can be successful.
- Visually organize to cue student to important aspects of concept.
- Teach students to change their frame of thinking.
- Embed math in relevant contexts.
- Help students make connections to prior knowledge
- Engage students by addressing interests.
- Celebrate progress and success.
- Cultivate a growth mindset.
- Relate math to students’ lives.
- Use concrete materials.
- Associate content with meaningful context.
- Use a variety of strategies (visual, auditory, tactile, or kinesthetic).
- Provide visual organizers.
- Provide think alouds.
- Use novel learning contexts.
- Help students focus on what is important rather than on things that are irrelevant.

### UDL: Representation

To support students in transitioning from the array to the tape diagram, consider using interlocking cubes. Model the array vertically as 6 nines by using 5 cubes of one color and 1 cube of another color. Then rotate the array horizontally to show that it looks like the tape diagram.



*Eureka Math*<sup>2</sup> embeds differentiation through the simple-to-complex sequencing of lesson and Practice problems. This logical sequence gradually reduces scaffolds and builds in complexity, allowing teachers to differentiate assignments for either individual or small-group work. For all students, including those working above grade level, the gradual reduction of support and increase in complexity builds independent thinking and encourages productive struggle. Problems toward the end of the Problem Set (a lesson’s daily independent practice) are often open-ended, at Depth of Knowledge (DOK) levels 2 and 3, and integrate two or more standards and/or Standards for Mathematical Practice. Teachers can assign problems of different complexities to students according to their needs or allow students to select problems in the 10-minute (approximate) timeframe. Lessons provide differentiation suggestions at the point of instruction to support a wide variety of learners. Differentiation margin notes found in the *Teach* book offer guidance for adapting instruction so that all students can successfully access grade-level content. There are two types of Differentiation margin notes: Support and Challenge. Challenge boxes suggest ways to keep students working at a more advanced level engaged by providing opportunities for extension while Support boxes offer specific, lesson-based scaffolds for helping students access content.

In this example from grade 5 module 6 lesson 2, the Differentiation margin note offers a suggestion for students to interact with the lesson objective of describing the location of points in the coordinate plane at a deeper level of complexity by describing a point’s location relative to another point rather than providing an ordered pair.

This Support box from grade 4 module 4 lesson 2 encourages the use of concrete models to bolster understanding of fractions greater than 1 and their decomposition into both unit and non-unit fractions.

Supporting Multilanguage Learners

*Eureka Math*<sup>2</sup> writers relied on language development research to outline and build in the language support needed for multilanguage learners to engage with the language-rich lessons. With the goal of supporting the clear, concise, and precise use of reading, writing, speaking, and listening in English, *Eureka Math*<sup>2</sup>

**Differentiation: Challenge**

Consider challenging students by describing a point’s location relative to another point, as opposed to providing an ordered pair. For example, ask students to plot a point that is 3 units to the left and 4 units up from point *P* in problem 1. Then have students name the ordered pair for the point they plotted.

**Differentiation: Support**

Consider providing a concrete example of a fraction greater than 1 before presenting  $\frac{6}{5}$ . Pair students and ask one partner to shade all 4 fourths of their fraction strip. Have partners lay the shaded  $\frac{4}{4}$  and  $\frac{2}{4}$  side by side. Ask students what fraction is shaded and have them write an equation to show  $\frac{6}{4}$  as the sum of  $\frac{4}{4}$  and  $\frac{2}{4}$ .

supports multilanguage learners through each lesson’s instructional design. It does this by including instructional best practices, support for mathematical discourse, and support for the different tiers of terminology. Additionally, Language Support margin notes provide just-in-time, targeted instructional recommendations to support multilanguage learners.

Instructional Best Practices

The following table outlines the instructional best practices included in *Eureka Math*<sup>2</sup>.

Practice	Eureka Math <sup>2</sup>
Activate prior knowledge (mathematics content, terminology, contexts)	The daily Fluency and Launch lesson components activate prior knowledge to prepare students for new learning. Context videos demonstrate math concepts in a concrete or real-world context.
Provide multiple entry points to the mathematics	Recurring Notice and Wonder routines and frequent open-middle and open-ended tasks provide multiple points of entry for students to participate. The inclusion of fine art and Math Past history components engages students with math in the real world.
Use clear, concise student-facing language	Readability guidelines ensure that words are never an obstacle to math learning.
Provide strategic active processing time	Frequent mathematical discourse, core instructional routines, and the 10/2 principle expand opportunities for students to synthesize and process new information.
Illustrate multiple modes and formats	Varied physical and visual models, such as digital interactives, context videos, and graphic organizers, help students make connections and deepen understanding.
Provide opportunities for strategic review	Daily fluency activities, distributed practice Remember problems, Exit Tickets, and comprehensive assessments provide frequent opportunities for strategic review.

Mathematical Discourse

To support all learners, lessons provide ample authentic and engaging opportunities for students to read, write, speak, and listen. *Eureka Math*<sup>2</sup> supports teachers in creating language-rich classrooms by modeling teacher-student discourse and by providing suggestions for supported student-to-student discourse. Because curricula in general have an abundance of receptive language experiences (reading and listening), *Eureka Math*<sup>2</sup> focuses specific supports on language production (speaking and writing) in mathematics.

The instructional routines that promote discourse are aligned with Stanford’s Language Design Principles of supporting sense-making, optimizing output, cultivating conversation, and maximizing linguistic and cognitive meta-awareness.

*Eureka Math*<sup>2</sup> periodically includes Language Support notes that suggest specific sentence frames and sentence starters to support multilanguage learners in student-to-student discussions, such as those used in instructional routines. General sentence frames and sentence starters are provided in the Talking Tool which is referenced often during times of student-to-student discourse.

Talking Tool	
Share Your Thinking	I know . . . . I did it this way because . . . . The answer is ____ because . . . . My drawing shows . . . .
Agree or Disagree	I agree because . . . . That is true because . . . . I disagree because . . . . That is not true because . . . . Do you agree or disagree with ____? Why?
Ask for Reasoning	Why did you . . . ? Can you explain . . . ? What can we do first? How is ____ related to ____?
Say It Again	I heard you say . . . . ____ said . . . . Another way to say that is . . . . What does that mean?

Terminology

*Eureka Math*<sup>2</sup> lessons give students experience with a new mathematical concept before naming it with a precise mathematical term. Students may see a mathematical concept come to life in a digital interactive, manipulate counters in groups, or use an instructional routine to engage in mathematical discourse before the teacher gives that concept a name. In addition, teachers are provided with educative guidance, either in the body of the lesson or in a Language Support margin note, to support students in pairing the written term with a visual representation. *Eureka Math*<sup>2</sup> highlights domain-specific terms from previous lessons in the current lesson, along with instructional recommendations for supporting those terms. These instructional recommendations focus on previewing the meaning of the terms before students are expected to interact with them

in the mathematics of the lesson. Additionally, domain-specific terms from previous lessons are also supported by pairing the written term with a visual representation. For each grade, the academic verbs needed to engage with the mathematics were considered. Each grade in *Eureka Math*<sup>2</sup> offers a carefully curated list of targeted academic verbs that appear in the lessons for students to preview before they are expected to understand and use the language. For example, before students are asked to classify in grade 4 module 6 (page 39), lessons preview the meaning of the academic verb, supporting the meaning of the term in a class discussion and through a Language Support box, shown to the right.

Multiple-meaning terms encompass homophones like *whole* and *hole*, homographs like *scale* and *scale*, and other pronunciation-based challenges, like the difference between *estimate* (as a noun, as in, *What is your estimate?*) and *estimate* (as a verb, as in, *Estimate the sum.*). Lessons call out multiple-meaning terms that could affect emergent bilingual learners’ understanding of the mathematics. Lessons also include Language Support notes to preview the meaning of the term in the lesson. These previews include pairing the term with a visual, with real items, or with a video to highlight the different meanings of the term and emphasize the specific meaning used in the lesson.

Language Support Boxes

A Language Support margin note appears in the first lesson of every module to prompt teachers to consider using strategic, flexible grouping in each activity of the module to support multilanguage learners. These grouping suggestions invite teachers to use students’ knowledge and home language by pairing students in different ways. Each of these different ways of pairing students has specific benefits for multilanguage learners. The Language Support margin notes also highlight discourse, language or terminology supports.

To learn more, please visit the Great Minds MLL blog: <https://gm.greatminds.org/how-to-support-multilingual-learners-in-engaging-in-math-conversations-in-the-classroom>

Language Support

To further develop students’ understanding of the word *classify*, explain that we classify things regularly. Consider using an example such as animals. Provide students with the following categories: fish, bird, insect. Name some animals and invite students to classify them. Invite students to describe what makes each category distinct from the other categories.

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