

Connecticut Mathematics Model Curricula Alignment

Resource Name: [REVEAL MATH GRADE 4](#)

Alignment Grade 4

Model Unit Name	Model Unit Standards	Resource Unit(s) Number	Resources Lessons	Pacing
<i>This is the title of the unit in the model curricula</i>	<i>These are the standards addressed in the unit</i>	<i>This is the unit(s) that aligns with the model unit from the resource</i>	<i>These are the lessons from the identified units that align to the standards within the model unit</i>	<i>This is the expected number of days for instruction</i>
Understanding and Using Place Value to Multiply and Divide	4.NBT.A.1, 4.NBT.A.2, 4.NBT.A.3, 4.NBT.B.5, 4.NBT.B.6	Unit 2: Generalize Place-Value Structure Unit 6: Multiplication Strategies with Multi-Digit Numbers Unit 7: Division Strategies with Multi-Digit Dividends and 1-Digit Divisors Unit 8: Fraction Equivalence	Lesson 2-1: Understand the Structure of Multi-Digit Numbers Lesson 2-2: Read and Write Numbers to One Million Lesson 2-3: Compare Multi-Digit Numbers Lesson 2-4: Round Multi-Digit Numbers Lesson 6-1: Multiply by Multiples of 10, 100, and 1,000 Lesson 6-2: Estimate Products	20 Days

			<p>Lesson 6-3: Use the Distributive Property to Multiply</p> <p>Lesson 6-4: Multiply 2-Digit by 1-Digit Factors</p> <p>Lesson 6-5: Multiply Multi-Digit by 1-Digit Factors</p> <p>Lesson 6-6: Multiple Two Multiples of 10</p> <p>Lesson 6-7: Multiply Two 2-Digit Factors</p> <p>Lesson 7-1: Divide Multiples of 10, 100, or 1,000</p> <p>Lesson 7-2: Estimate Quotients</p> <p>Lesson 7-3: Find Equal Shares</p> <p>Lesson 7-4: Understand Partial Quotients</p> <p>Lesson 7-5: Divide 4-Digit Dividends by 1-Digit Divisors</p> <p>Lesson 7-6: Understand Remainders</p> <p>Lesson 7-8: Solve Multi-Step Problems Using Division</p> <p>Lesson 8-4: Compare Fractions using Benchmarks</p>	
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			Lesson 8-5: Other Ways to Compare Fractions	
Factors and Multiples	4.OA.A.1, 4.OA.B.4, 4.OA.C.5	Unit 4: Multiplication as Comparison Unit 5: Numbers and Number Patterns Unit 8: Fraction Equivalence	Lesson 4-1: Understand Comparing with Multiplication Lesson 4-2: Represent Comparison Problems Lesson 5-1: Understand Factors of a Number Lesson 5-2: Understand Prime and Composite Numbers Lesson 5-3: Understand Multiples Lesson 5-4: Number or Shape Patterns Lesson 5-5: Generate a Pattern Lesson 5-6: Analyze Features of a Pattern Lesson 8-1: Equivalent Fractions Lesson 8-2: Generate Equivalent Fractions using Models	11 Days

			Lesson 8-3: Generate Equivalent Fractions using Number Lines	
Multi-Digit Whole Number Computation	4.NBT.B.4, 4.OA.A.2, 4.OA.A.3	Unit 3: Addition and Subtraction Strategies and Algorithms Unit 4: Multiplication as Comparison Unit 6: Multiplication Strategies with Multi-Digit Numbers Unit 7: Division Strategies with Multi-Digit Dividends and 1-Digit Divisors Unit 13: Units of Measurement and Data	Lesson 3-1: Estimate Sums or Differences Lesson 3-2: Strategies to Add Multi-Digit Numbers Lesson 3-3: Understand an Addition Algorithm Lesson 3-4: Understand an Addition Algorithm Involving Regrouping Lesson 3-5: Strategies to Subtract Multi-Digit Numbers Lesson 3-6: Understand a Subtraction Algorithm Lesson 3-7: Understand a Subtraction Algorithm Involving Regrouping Lesson 3-8: Represent and Solve Multi-Step Problems Lesson 3-9: Solve Multi-Step Problems Involving Addition and Subtraction Lesson 4-2: Represent Comparison Problems Lesson 4-3: Solve Comparison Problems Using Multiplication	31 Days

			<p>Lesson 4-4: Solve Comparison Problems Using Division</p> <p>Lesson 6-1: Multiply by Multiples of 10, 100, or 1,000</p> <p>Lesson 6-2: Estimate Products</p> <p>Lesson 6-3: Use the Distributive Property to Multiply</p> <p>Lesson 6-4: Multiply 2-Digit by 1-Digit Factors</p> <p>Lesson 6-5: Multiply Multi-Digit by 1-Digit Factors</p> <p>Lesson 6-6: Multiple Two Multiples of 10</p> <p>Lesson 6-7: Multiply Two 2-Digit Factors</p> <p>Lesson 6- 8: Solve Multi-Step Problems Involving Multiplication</p> <p>Lesson 7-1: Divide Multiples of 10, 100, or 1,000</p> <p>Lesson 7-2: Estimate Quotients</p> <p>Lesson 7-3: Find Equal Shares</p> <p>Lesson 7-4: Understand Partial Quotients</p> <p>Lesson 7-5: Divide 4-Digit Dividends by 1-Digit Divisors</p>	
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			<p>Lesson 7-6: Understand Remainders</p> <p>Lesson 7-7: Make Sense of a Remainder</p> <p>Lesson 7-8: Solve Multi-Step Problems Using Division</p> <p>Lesson 13-7: Solve Problems Using a Perimeter Formula</p> <p>Lesson 13-8: Solve Problems Using an Area Formula</p> <p>Lesson 13-9: Solve Problems Involving Perimeter and Area</p>	
Comparing Fractions and Understanding Decimal Notation	<p>4.NF.A.1, 4.NF.A.2, 4.NF.C.5, 4.NF.C.6, 4.NF.C.7</p>	<p>Unit 8: Fraction Equivalence</p> <p>Unit 12: Decimal Fractions</p>	<p>Lesson 8-1: Equivalent Fractions</p> <p>Lesson 8-2: Generate Equivalent Fractions using Models</p> <p>Lesson 8-3: Generate Equivalent Fractions using Number Lines</p> <p>Lesson 8-4: Compare Fractions using Benchmarks</p> <p>Lesson 8-5: Other Ways to Compare Functions</p> <p>Lesson 12-1: Understand Tenths and Hundredths</p> <p>Lesson 12-2: Understand Decimal Notation</p>	9 Days

			<p>Lesson 12-3: Compare Decimals</p> <p>Lesson 12-4: Adding Decimals Using Fractions</p>	
Building Understanding of Addition, Subtraction and Multiplication of Fractions	4.NF.B.3, 4.NF.B.4	<p>Unit 9: Addition and Subtraction Meanings and Strategies with Fractions</p> <p>Unit 10: Addition and Subtraction Strategies with Mixed Numbers</p> <p>Unit 11: Multiply Fractions by Whole Numbers</p>	<p>Lesson 9-1: Understand Decomposing Fractions</p> <p>Lesson 9-2: Represent Adding Fractions</p> <p>Lesson 9-3: Add Fractions with Like Denominators</p> <p>Lesson 9-4: Represent Subtracting Fractions</p> <p>Lesson 9-5: Subtract Fractions with Like Denominators</p> <p>Lesson 9-6: Solve Problems Involving Fractions</p> <p>Lesson 10-1: Understand Decomposing Mixed Numbers</p> <p>Lesson 10-2: Represent Adding Mixed Numbers</p> <p>Lesson 10-3: Add Mixed Numbers</p> <p>Lesson 10-4: Represent Subtracting Mixed Numbers</p> <p>Lesson 10-5: Subtract Mixed Numbers</p>	17 Days

			<p>Lesson 10-6: Solve Problems Involving Mixed Numbers</p> <p>Lesson 11-1: Represent Multiplication of a Unit Fraction by a Whole Number</p> <p>Lesson 11-2: Understand Multiplying a Fraction by a Whole Number</p> <p>Lesson 11-3: Multiply a Fraction by a Whole Number</p> <p>Lesson 11-4: Multiply a Mixed Number by a Whole Number</p> <p>Lesson 11-5: Solve Problems Involving Fractions and Mixed Numbers</p>	
Solving Problems Involving Measurement and Data	4.MD.A.1, 4.MD.A.2, 4.MD.A.3	<p>Unit 12: Decimal Fractions</p> <p>Unit 13: Units of Measurement and Data</p>	<p>Lesson 12-5: Solve Problems Involving Money</p> <p>Lesson 13-1: Relate Metric Units</p> <p>Lesson 13-2: Relate Customary Units of Weight</p> <p>Lesson 13-3: Relate Customary Units of Capacity</p> <p>Lesson 13-4: Convert Units of Time</p>	10 Days

			<p>Lesson 13-5: Solve Problems That Involve Units of Measure</p> <p>Lesson 13-6: Solve More Problems That Involve Units of Measure</p> <p>Lesson 13-7: Solve Problems Using a Perimeter Formula</p> <p>Lesson 13-8: Solve Problems Using an Area Formula</p> <p>Lesson 13-9: Display and Interpret Data on a Line Plot</p>	
Exploring Angles and Angle Measurement	4.MD.C.5, 4.MD.C.6, 4.MD.C.7	Unit 14: Geometric Figures	<p>Lesson 14-2: Classify Angles</p> <p>Lesson 14-3: Draw and Measure Angles</p> <p>Lesson 14-5: Add and Subtract Angle Measures</p> <p>Lesson 14-6: Solve Problems Involving Unknown Angle Measures</p>	4 Days
Understanding Properties of Two-Dimensional Figures	4.G.A.1, 4.G.A.2, 4.G.A.3	Unit 14: Geometric Figures	<p>Lesson 14-1: Understand Lines, Line Segments, and Rays</p> <p>Lesson 14-2: Classify Angles</p> <p>Lesson 14-4: Understand Parallel and Perpendicular Lines</p> <p>Lesson 14-7: Classify Polygons</p>	7 Days

			Lesson 14-8: Classify Triangles Lesson 14-9: Understand Line Symmetry Lesson 14-10: Draw Lines of Symmetry	
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Reveal Math® was designed based on a learning progression of mathematical content and connecting concepts across all grades and within each grade. A program scope and sequence is available in the Teacher Digital Center: Program Resources. In support of effective implementation and best practices, guiding principles of the instructional design & pedagogy, professional learning videos, and other program features can be found in the Teacher Digital Center: Program Resources.

Scope and Sequence			
<i>If a district uses this resource to implement the state model curriculum for grade 4, the following scope and sequence should be followed to ensure alignment and attention to the progressions of mathematics.</i>			
Unit Number/Title and Lessons	Lesson Objectives	# of days (assume 1 hour of instruction)	Number of weeks
Unit 1: Math Is...			
Lesson 1-1: Math is Mine	Students discuss their strength in math. They describe their math story.	1	1 Week 1 Day
Lesson 1-2: Math is Exploring and Thinking	Students discuss approaches for understanding a problem and strategies for solving it. Students make sense of quantities in the problem and look for connections among quantities.	1	
Lesson 1-3: Math is in My World	Students consider different ways to use mathematics to represent a real-world situation.	1	

Lesson 1-4: Math is Explaining and Sharing	Students construct arguments to support their thinking. Students respond to the ideas and arguments of others.	1	
Lesson 1-5: Math is Finding Patterns	Students describe strategies for uncovering patterns and for using patterns to solve problems.	1	
Lesson 1-6: Math is Ours	Students discuss and decide on classroom norms of interaction for a productive math learning environment.	1	
Unit 2: Generalize Place-Value Structure			
Lesson 2-1: Understand the Structure of Multi-Digit Numbers	Students relate the value of a digit in one place-value position to that of the same digit in the place to its right; determine the value of a digit in any place in a number.	1	4 Days
Lesson 2-2: Read and Write Numbers to One Million	Students read and write numbers from 1 to 1,000,000 in standard form, word form, and expanded form.	1	
Lesson 2-3: Compare Multi-Digit Numbers	Students compare multi-digit numbers using place value and record comparisons using symbols.	1	
Lesson 2-4: Round Multi-Digit Numbers	Students determine an estimate by rounding numbers to an appropriate place; round multi-digit numbers to any place.	1	
Unit 3: Addition and Subtraction Strategies and Algorithms			
Lesson 3-1: Estimate Sums or Differences	Students estimate sums and differences involving multi-digit numbers, and use their estimate to determine if their answer is reasonable.	1	1 Week 4 Days

Lesson 3-2: Strategies to Add Multi-Digit Numbers	Students add multi-digit numbers by adjusting numbers or decomposing numbers based on place value.	1	
Lesson 3-3: Understand an Addition Algorithm	Students use and explain a standard addition algorithm without regrouping.	1	
Lesson 3-4: Understand an Addition Algorithm Involving Regrouping	Students use and explain a standard addition algorithm with regrouping.	1	
Lesson 3-5: Strategies to Subtract Multi-Digit Numbers	Students subtract multi-digit numbers by adjusting or decomposing numbers based on place value.	1	
Lesson 3-6: Understand a Subtraction Algorithm	Students use and explain a standard subtraction algorithm without regrouping.	1	
Lesson 3-7: Understand a Subtraction Algorithm Involving Regrouping	Students use and explain a standard subtraction algorithm with regrouping.	1	
Lesson 3-8: Represent and Solve Multi-Step Problems	Students solve multi-step problems with whole numbers by using representations such as, bar diagrams and equations.	1	
Lesson 3-9: Solve Multi-Step Problems Involving Addition and Subtraction	Students solve multi-step problems involving addition and subtraction.	1	
Unit 4: Multiplication as Comparison			
Lesson 4-1: Understand Comparing with Multiplication	Students represent multiplication as comparison; represent multiplicative comparison statements as multiplication equations.	1	4 Days
Lesson 4-2: Represent Comparison Problems	Students use multiplication equations to represent multiplicative comparison; distinguish between multiplicative and additive comparison.	1	
Lesson 4-3: Solve Comparison Problems Using Multiplication	Students solve multiplicative comparison problems by using multiplication.	1	

Lesson 4-4: Solve Comparison Problems Using Division	Students solve multiplicative comparison problems by using division.	1	
Unit 5: Numbers and Number Patterns			
Lesson 5-1: Understand Factors of a Number	Students use their understanding of multiplication to determine all factor pairs of a whole number.	1	1 Week 1 Day
Lesson 5-2: Understand Prime and Composite Numbers	Students identify a whole number as prime or composite based on the number of factor pairs it has.	1	
Lesson 5-3: Understand Multiples	Students determine whether a whole number is a multiple of a given number.	1	
Lesson 5-4: Number or Shape Patterns	Students recognize, extend, and describe a number or shape pattern.	1	
Lesson 5-5: Generate a Pattern	Students generate a number or shape pattern from a given rule.	1	
Lesson 5-6: Analyze Features of a Pattern	Students identify and explain features of a number or shape pattern.	1	
Unit 6: Multiplication Strategies with Multi-Digit Numbers			
Lesson 6-1: Multiply by Multiples of 10, 100, or 1,000	Students identify patterns with zeros in products of 1-digit numbers and multiples of 10, 100, and 1,000.	1	1 Week 4 Days
Lesson 6-2: Estimate Products	Students use estimation strategies such as rounding and compatible numbers to estimate products.	1	
Lesson 6-3: Use the Distributive Property to Multiply	Students use array models and the Distributive Property of Multiplication to multiply two 1-digit factors.	1	
Lesson 6-4: Multiply 2-Digit by 1-Digit Factors	Students use the area model to determine the product of 2-digit and 1-digit factors.	1	

Lesson 6-5: Multiply Multi-Digit by 1-Digit Factors	Students use the area model to determine the product of a multi-digit factor and 1-digit factor.	1	
Lesson 6-6: Multiply Two Multiples of 10	Students identify patterns with zeros in products of two multiples of 10.	1	
Lesson 6-7: Multiply Two 2-Digit Factors	Students use the area model to determine the product of two 2-digit factors.	1	
Lesson 6-8: Solve Multi-Step Problems Involving Multiplication	Students represent and solve multi-step word problems involving multiplication. Representations include equations with a variable.	1	
Unit 7: Division Strategies with Multi-Digit Dividends and 1-Digit Divisors			
Lesson 7-1: Divide Multiples of 10, 100, or 1,000	Students use basic division facts, the relationship between multiplication and division, and place value to divide multiples of 10, 100, and 1,000. Students use number patterns to divide multiples of 10, 100, or 1,000.	1	1 Week 3 Days
Lesson 7-2: Estimate Quotients	Students use compatible numbers and related division facts to estimate quotients. Students find a reasonable range for the estimate.	1	
Lesson 7-3: Find Equal Shares	Students use the equal share meaning of division to divide 2-digit dividends by 1-digit divisors.	1	
Lesson 7-4: Understand Partial Quotients	Students use partial quotients to divide 3-digit dividends by 1-digit divisors.	1	
Lesson 7-5: Divide 4-Digit Dividends by 1-Digit Divisors	Students use partial quotients to divide 4-digit dividends by 1-digit divisors.	1	

Lesson 7-6: Understand Remainders	Students divide multi-digit whole numbers that result in a quotient and a remainder. Students explain what a remainder means in the context of the problem.	1	
Lesson 7-7: Make Sense of a Remainder	Students determine how to interpret the remainder of a division equation based on the context of the problem.	1	
Lesson 7-8: Solve Multi-Step Problems Using Division	Students solve multi-step word problems involving division by representing these problems using equations with a variable.	1	
Unit 8: Fraction Equivalence			
Lesson 8-1: Equivalent Fractions	Students use fraction models to recognize equivalent fractions and explain their equivalence by reasoning about the number of parts in the fraction and the number of parts in the whole.	1	1 Week
Lesson 8-2: Generate Equivalent Fractions using Models	Students use multiplication and division to generate equivalent fractions.	1	
Lesson 8-3: Generate Equivalent Fractions using Number Lines	Students use number line representations with different intervals and use multiplication and division to generate equivalent fractions.	1	
Lesson 8-4: Compare Fractions using Benchmarks	Students compare two fractions using the benchmark numbers 0, $\frac{1}{2}$, and 1.	1	
Lesson 8-5: Other Ways to Compare Fractions	Students compare two fractions by generating equivalent fractions with like numerators or like denominators.	1	
Unit 9: Addition and Subtraction Meanings and Strategies with Fractions			
Lesson 9-1: Understand Decomposing Fractions	Students use fraction models to decompose fractions into sums of fractions with the same denominator in more than one way.	1	1 Week 1 Day

Lesson 9-2: Represent Adding Fractions	Students use fraction models to understand addition of fractions as joining parts that refer to the same whole. Students add fractions with like denominators.	1	
Lesson 9-3: Add Fractions with Like Denominators	Students use representations to show that the sum of fractions with like denominators can be found by adding the numerators and keeping the denominators the same.	1	
Lesson 9-4: Represent Subtracting Fractions	Students use fraction models to understand subtraction of fractions as separating parts that refer to the same whole. Students subtract fractions with like denominators.	1	
Lesson 9-5: Subtract Fractions with Like Denominators	Students use representations to show that the difference of fractions with like denominators can be found by subtracting the numerators and keeping the denominators the same.	1	
Lesson 9-6: Solve Problems Involving Fractions	Students solve word problems involving addition and subtraction of fractions with like denominators.	1	
Unit 10: Addition and Subtract Strategies with Mixed Numbers			
Lesson 10-1: Understand Decomposing Mixed Numbers	Students use mixed numbers as another way to write fractions greater than 1. Students use fraction models to decompose a mixed number in more than one way and write equations to record their decompositions.	1	1 Week 1 Day
Lesson 10-2: Represent Adding Mixed Numbers	Students represent addition of mixed numbers with like denominators using fraction models.	1	
Lesson 10-3: Add Mixed Numbers	Students add mixed numbers using various strategies, such as using equivalent fractions	1	

	that are greater than 1 and decomposing the mixed numbers.		
Lesson 10-4: Represent Subtracting Mixed Numbers	Students represent subtracting of mixed numbers with like denominators using fraction models.	1	
Lesson 10-5: Subtract Mixed Numbers	Students subtract mixed numbers using various strategies, such as using equivalent fractions and related addition equations.	1	
Lesson 10-6: Solve Problems Involving Mixed Numbers	Students represent and solve word problems involving addition and subtraction of mixed numbers with like denominators.	1	
Unit 11: Multiply Fractions by Whole Numbers			
Lesson 11-1: Represent Multiplication of a Unit Fraction by a Whole Number	Students apply their understanding of fractions and multiplication to multiply a unit fraction by a whole number. Students use fraction models to represent a fraction as a multiple of a unit fraction.	1	1 Week
Lesson 11-2: Understand Multiplying a Fraction by a Whole Number	Students multiply a fraction by a whole number using visual fraction models. Students write multiples of fractions as multiples of a unit fraction.	1	
Lesson 11-3: Multiply a Fraction by a Whole Number	Students use their understanding of fractions as multiples of unit fractions to multiply a fraction by a whole number.	1	
Lesson 11-4: Multiply a Mixed Number by a Whole Number	Students multiply mixed numbers by whole numbers by using strategies, such as equivalent fractions and decomposing the mixed number into whole number and fractional parts.	1	
Lesson 11-5: Solve Problems Involving Fractions and Mixed Numbers	Students represent and solve word problems involving multiplying fractions by whole	1	

	numbers with visual fraction models and multiplication equations.		
Unit 12: Decimal Fractions			
Lesson 12-1: Understand Tenths and Hundredths	Students represent fractions with denominators of 10 and denominators of 100 using fractions models; express a fraction with a denominator of 10 as an equivalent fraction with a denominator of 100.	1	1 Week
Lesson 12-2: Understand Decimal Notation	Students express fractions with denominators of 10 or 100 using decimal notation; extend the place-value chart to hundredths, and use place-value reasoning to understand that the decimal point separates the ones place from the tenths place.	1	
Lesson 12-3: Compare Decimals	Students compare two decimals using representations, such as decimal grids and numbers lines; compare two decimals by expressing the decimals as fractions.	1	
Lesson 12-4: Adding Decimals Using Fractions	Students use equivalent fractions to add fractions with denominators of 10 and 100.	1	
Lesson 12-5: Solve Problems Involving Money	Students solve problems involving money using the relationship between tenths and hundredths by representing with dollars, dimes, and pennies.	1	
Unit 13: Units of Measurement and Data			
Lesson 13-1: Relate Metric Units	Students convert larger metric units of length, liquid volume, and mass to smaller equivalent units.	1	2 Weeks 1 Day
Lesson 13-2: Relate Customary Units of Weight	Students express larger units of weight in terms of smaller units.	1	

Lesson 13-3: Relate Customary Units of Capacity	Students express larger units of capacity in terms of smaller units.	1	
Lesson 13-4: Convert Units of Time	Students express larger units of time in terms of smaller units.	1	
Lesson 13-5: Solve Problems That Involve Units of Measure	Students solve word problems that involve converting metric units of measure by using representations.	1	
Lesson 13-6: Solve More Problems That Involve Units of Measure	Students use representations to solve word problems that involve converting units of measure.	1	
Lesson 13-7: Solve Problems Using a Perimeter Formula	Students use the formula for the perimeter of a rectangle. Students use the formula to solve real-world problems.	1	
Lesson 13-8: Solve Problems Using an Area Formula	Students use the formula for the area of a rectangle. Students use the formula to solve real-world problems.	1	
Lesson 13-9: Solve Problems Involving Perimeter and Area	Students solve real-world problems by applying the area and perimeter formulas.	1	
Lesson 13-10: Display and Interpret Data on a Line Plot	Students create line plots to display measurement data sets in fractions of a unit. Students interpret measurement data displayed on a line plot to answer questions.	1	
Lesson 13-11: Solve Problems Involving Data on a Line Plot	Students solve problems involving addition and subtraction of fractions based on analysis of data displayed in line plots.	1	
Unit 14: Geometric Figures			

Lesson 14-1: Understand Lines, Line Segments, and Rays	Students identify and draw points, lines, line segments, and rays.	1	2 Weeks
Lesson 14-2: Classify Angles	Students recognize that an angle is formed when two rays share a common endpoint and they classify angles as right, acute, or obtuse.	1	
Lesson 14-3: Draw and Measure Angles	Students recognize that an angle’s measure is the number of degrees one ray rotates about the endpoint. Students measure angles.	1	
Lesson 14-4: Understand Parallel and Perpendicular Lines	Students draw and identify perpendicular and parallel lines.	1	
Lesson 14-5: Add and Subtract Angle Measures	Students decompose an angle into two or more angles and recognize that the whole angle is the sum of the decomposed angles.	1	
Lesson 14-6: Solve Problems Involving Unknown Angle Measures	Students represent and solve problems involving an unknown angle measure using an equation with a variable.	1	
Lesson 14-7: Classify Polygons	Students identify properties of quadrilaterals and classify them based on these properties.	1	
Lesson 14-8: Classify Triangles	Students use side lengths and angle size to classify triangles.	1	
Lesson 14-9: Understand Line Symmetry	Students identify lines of symmetry on 2-dimensional figures.	1	
Lesson 14-10: Draw Lines of Symmetry	Students draw lines of symmetry on 2-dimensional figures. Students identify attributes of 2-dimensional figures that are symmetrical.	1	

Supports of Diversity, Equity and Inclusion

Please provide any information relative to supporting culturally responsive instruction, multi-language learners, and students with disabilities

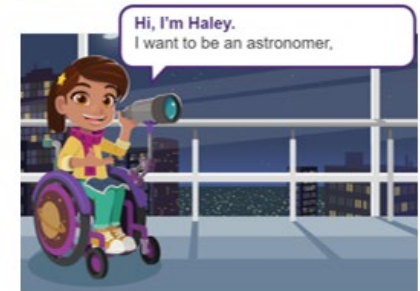
Culturally Responsive Instruction | Reveal Math

Drawing from research, McGraw Hill understands there are a number of factors that support classroom equity and echo the tenets of culturally responsive practices: high academic expectations for all students; a socially and emotionally positive classroom; a safe school climate; authentic and rigorous tasks; inclusive, relevant, and meaningful content; open and accepting communication; drawing from students' strengths, knowledge, culture, and competence; critically and socially aware inquiry practices; and strong teaching and teacher professional support for equity and inclusion.

McGraw Hill is committed to publishing pedagogically sound, high-quality, instructional materials that are fair, unbiased, and that recognize the unique contributions of people of all races and cultures. *Reveal Math* prides itself on exceeding the requirements for equal opportunity and representation in its program. We believe that all children should be able to see themselves as doers of mathematics and that means showing students from a range of genders, ethnicities, cultural backgrounds, and with different disabilities. McGraw Hill is also committed to producing materials that are free from cultural, ethnic or gender bias. Utmost care was taken to ensure an antiracist, anti-biased, nonsexist, and nonstereotyping presentation in the production of this resource.

The program displays males and females from various ethnic backgrounds in all types of environments, avoiding stereotypes. It provides every student with access and opportunities to learn. Throughout *Reveal Math*, all types of students are portrayed in all types of environments, so students of all backgrounds will be able to relate to the text.

For grades K-5, the **STEM Career Kids** support students in seeing their potential in mathematics. The Kids introduce each unit and are then seen in various exercises throughout the unit. Both the career and application are presented.



To help build student mathematical identity and student agency and to set high expectations for all students while incorporating principles of culturally responsive teaching, the authorship team developed the **Math is...** unit, the first unit in each grade. The first lesson in this unit has students think and write about their mathematical identity to build student agency. Other lessons in the unit focus on important thinking habits that are integral to doing mathematics. The last lesson has students think about and determine classroom norms for a productive learning experience for all. This can encourage an exploration to recognize and value differences between the home cultures of students and the classroom.

On My Own

Complete the exercise on this page.

Show your work or explain your thinking.

What is my math story?



Each unit begins with an **Ignite! Activity** by Dr. Raj Shah and each lesson has a **Be Curious Moment** written by Annie Fetter to allow all students to engage in conversation around the topic and to bring in their various cultural backgrounds and experiences to enrich the discussion and to provide various on-ramps into learning.



What do you notice?

What do you wonder?



The focus on Social Emotional Learning also provides multiple opportunities for students and teachers to recognize and value differences between home cultures of students and the classroom. Each lesson has an SEL focus in the Math in Mindset that is seen as part of the Be Curious Moment and reflection at the end of the lesson. These were designed using the CASEL Core Competencies in SEL.

Multi-language learners and students with disabilities

A core instructional belief of McGraw Hill's *Reveal Math* K-12 is that the learning of mathematics requires a focus on language and the language of mathematics. To support students' development of the language of mathematics, the program includes rich support for language development, for both native and non-native speakers of English.

Each lesson features a language objective in addition to a content and SEL (social and emotional learning) objective to highlight the importance of language development in the program. In addition, these features provide support and scaffolds for building students' mathematical language proficiency:

- **Language of Math (LOM)** strategies and features focus on mathematical and academic terms that students need to understand to be successful.
- **Math Language Development** support at the unit level offer support and strategies that teachers can use to help students build proficiency with language skills.
- **Math Language Routines (MLR)** found in each lesson are specifically designed to help English language learners build fluency with math language. These routines were developed by a team of educators and researchers at Stanford Graduate School of Education.
- **English Language Learner Supports** also found in each lesson provide scaffolded support at three levels of proficiency: Entering/Emerging, Developing/Expanding, and Bridging/Reaching. These three levels align to the WIDA levels: Entering, Beginning, Developing, Expanding, Bridging, and Reaching.

The Teacher Edition also has specific pedagogical suggestions for teachers based on the WIDA levels. These are included both at the Unit/Module and Lesson Levels.

Reveal Math addresses the needs for all students and a variety of tiered instructional resources are provided for remediation or enrichment. Each lesson includes a list of suggested **Differentiated** resources that is based on assessment data from the **Checks** after each **Example**. Remediation resources (**Review** resources) target prerequisite skill knowledge. Leveled **Questions for Mathematical Discourse** are also included for every Example in the Teacher Edition. The supplemental materials differ in K-5 and 6-12 based on the different nature of these classrooms and age appropriateness for students.

Reveal Math K-5

In *Reveal Math* K-5, scaffolding for various learners begins with assessment. The course level diagnostic gives teachers a view into where their students are with their math ability. In addition, at the unit level, teachers can have students take the diagnostic assessment that targets the pre-requisite content and skills, and can assign different program assets for students who may have weaknesses in pre-requisite skills. This guided intervention directs teachers to the specific assets for each pre-cursor standard. This can be small group or independent work. With the coming Remediation Report, teachers will be able to assign these resources with a click to the indicated students who need the support.

In the *Reveal Math* Lesson Design, Part 5 of each lesson, “**Assess and Differentiate,**” the teacher can assign differentiated instructional activities to students based on their results on the Lesson Check. These differentiated instructional activities were designed to address the individual learning needs of students, depending on their levels of understanding of the math concept presented in the lesson.

The following is an example from Grade 2, Unit 2, Lesson 3:

Every lesson in *Reveal Math* contains multiple, specific suggestions for working with special populations of students. Point-of-use tips, activities, and strategies are provided in the Teacher Edition and every lesson has the **Differentiate** feature in the Teacher Edition which identifies support for Reinforcement, Building Understanding, and Extending the learning. This includes a small group or workstation option, a Digital Option, and an independent option for each category. Depending on the topics special education students are mastering or need more support on, there are a variety of ways to meet their needs.

Support for **English Language Learners** and other special populations is thoughtful and helps those students meet the same content expectations as all other students. The language in which problems are posed is carefully considered.

There are robust Spanish resources for *Reveal Math* K-5. There is a Spanish translation of the Student Edition and other resources. The Student Edition includes support for all students in vocabulary development, notetaking, and writing skills using word cards, vocabulary squares, three-column charts, definition maps, concept webs, and other graphic organizers, along with English/Spanish cognates in Dinah Zike’s Visual Kinesthetic Vocabulary®.

A course-level digital and print **Glossary** is provided with words translated into English and Spanish. Also, online are K-5 Math Replay Videos that provide additional support and review opportunities for concepts presented in the text.

Language and vocabulary support is provided both within the Teacher Edition and in the support materials. Additionally, the Student Digital Center includes an audio read function; student-facing material can be read aloud to students. Embedded **Take Another Look** lessons are digital mini-lessons that provide quick, actionable data to help inform instruction while supporting each student with a three-part, gradual release activity...modeling, interactive practice, and check.

For additional information, please refer to Page 10 of our [Reveal Math Research Foundations Brochure](#).