

Connecticut Mathematics Model Curricula Alignment

Resource Name: [REVEAL MATH GRADE 5](#)

Alignment Grade 5

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>
Area/Coordinate Grid	5.G.A.1, 5.G.A.2	Unit 13: Geometry	Lesson 13-1: Understand the Coordinate Plane Lesson 13-2: Plot Ordered Pairs on the Coordinate Plane Lesson 13-3: Represent Problems on a Coordinate Plane	3 Days
Whole Number Multiplication/Volume	5.NBT.B.5, 5.MD.C.3, 5.MD.C.4, 5.MD.C.5	Unit 2: Volume Unit 5: Multiply Multi-Digit Whole Numbers	Lesson 2-1: Understand Volume Lesson 2-2: Use Unit Cubes to Determine Volume Lesson 2-3: Use Formulas to Determine Volume Lesson 2-4: Determine Volume of Composite Figures Lesson 2-5: Solve Problems Involving Volume	10 Days

			Lesson 5-3: Estimate Products of Multi-Digit Factors Lesson 5-4: Use Area Models to Multiply Multi-Digit Factors Lesson 5-5: Use Partial Products to Multiply Multi-Digit Factors Lesson 5-6: Relate Partial Products to an Algorithm Lesson 5-7: Multiply Multi-Digit Factors Fluently	
Whole Number Division and Fractions as Division	5.NBT.6, 5.NF.B.3	Unit 7: Divide Whole Numbers Unit 11: Divide Fractions	Lesson 7-1: Division Patterns with Multi-Digit Numbers Lesson 7-2: Estimate Quotients Lesson 7-3: Relate Multiplication and Division of Multi-Digit Numbers Lesson 7-4: Represent Division of 2-Digit Divisors Lesson 7-5: Use Partial Quotients to Divide Lesson 7-6: Divide Multi-Digit Whole Numbers Lesson 11-1: Relate Fractions to Division	7 Days
Add and Subtract Fractions/Line Plots	5.NF.A.1, F.NF.A.2, 5.MD.B.2	Unit 9: Add and Subtract Fractions Unit 12: Measurement and Data	Lesson 9-1: Estimate Sums and Differences of Fractions Lesson 9-2: Represent Addition of Fractions with Unlike Denominators	11 Days

			Lesson 9-3: Add Fractions with Unlike Denominators Lesson 9-4: Represent Subtraction of Fractions with Unlike Denominators Lesson 9-5: Subtract Fractions with Unlike Denominators Lesson 9-6: Add Mixed Numbers with Unlike Denominators Lesson 9-7: Subtract Mixed Numbers with Unlike Denominators Lesson 9-8: Add and Subtract Mixed Numbers with Regrouping Lesson 9-9: Solve Problems Involving Fractions and Mixed Numbers Lesson 12-4: Represent Measurement Data on a Line Plot Lesson 12-5: Solve Problems Involving Measurement Data on Line Plots	
Understanding the Place Value System and Add and Subtract Decimals	5.NBT.A.1, 5.NBT.A.2, 5.NBT.A.3, 5.NBT.A.4, 5.NBT.B.7	Unit 3: Place Value and Number Relationships Unit 4: Add and Subtract Decimals Unit 5: Multiply Multi-Digit Whole Numbers Unit 6: Multiply Decimals	Lesson 3-1: Generalize Place Value Lesson 3-2: Extend Place Value to Decimals Lesson 3-3: Read and Write Decimals Lesson 3-4: Compare Decimals Lesson 3-5: Use Place Value to Round Decimals	27 Days

		Unit 8: Divide Decimals	Lesson 4-1: Estimate Sums and Differences of Decimals Lesson 4-2: Represent Addition of Decimals Lesson 4-3: Represent Addition of Tenths and Hundredths Lesson 4-4: Use Partial Sums to Add Decimals Lesson 4-5: Represent Subtraction of Decimals Lesson 4-6: Represent Subtraction of Tenths and Hundredths Lesson 4-7: Strategies to Subtract Decimals Lesson 4-8: Explain Strategies to Add and Subtract Decimals Lesson 5-1: Understand Powers and Exponents Lesson 5-2: Patterns When Multiplying a Whole Number by Powers of 10 Lesson 6-1: Patterns When Multiplying Decimals by Powers of 10 Lesson 6-2: Estimate Products of Decimals Lesson 6-3: Represent Multiplication of Decimals	
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			Lesson 6-4: Use an Area Model to Multiply Decimals Lesson 6-5: Generalizations about Multiplying Decimals Lesson 6-6: Explain Strategies to Multiply Decimals Lesson 8-1: Division Patterns with Decimals and Powers of 10 Lesson 8-2: Estimate Quotients of Decimals Lesson 8-3: Represent Division of Decimals by a Whole Number Lesson 8-4: Divide Decimals by Whole Numbers Lesson 8-5: Divide Whole Numbers by Decimals Lesson 8-6: Divide Decimals by Decimals	
Making Sense of Multiplication of Fractions	5.NF.B.4, 5.NF.B.5, 5.NF.B.6	Unit 10: Multiply Fractions	Lesson 10-1: Represent Multiplication of a Whole Number by a Fraction Lesson 10-2: Multiply a Whole Number by a Fraction Lesson 10-3: Represent Multiplication of a Fraction by a Fraction Lesson 10-4: Multiply a Fraction by a Fraction	9 Days

			Lesson 10-5: Determine the Area of Rectangles with Fractional Side Lengths Lesson 10-6: Represent Multiplication of Mixed Numbers Lesson 10-7: Multiply Mixed Numbers Lesson 10-8: Multiplication as Scaling Lesson 10-9: Solve Problems Involving Fractions	
Understanding Division of a Unit Fraction and a Whole Number	5.NF.B.7	Unit 11: Divide Fractions	Lesson 11-3: Represent Division of Whole Numbers by Unit Fractions Lesson 11-4: Divide Whole Numbers by Unit Fractions Lesson 11-5: Represent Division of Unit Fractions by Non-Zero Whole Numbers Lesson 11-6: Divide Unit Fractions by Non-Zero Whole Numbers Lesson 11-7: Solve Problems Involving Fractions	5 Days
Multiply and Divide Decimals/Metric Conversions	5.NBT.B.7, 5.MD.A.1	Unit 4: Add and Subtract Decimals Unit 6: Multiply Decimals Unit 8: Divide Decimals	Lesson 4-1: Estimate Sums and Differences of Decimals Lesson 4-2: Represent Addition of Decimals Lesson 4-3: Represent Addition of Tenths and Hundredths Lesson 4-4: Use Partial Sums to Add Decimals Lesson 4-5: Represent Subtraction of Decimals	17 Days

			Lesson 4-6: Represent Subtraction of Tenths and Hundredths Lesson 4-7: Strategies to Subtract Decimals Lesson 4-8: Explain Strategies to Add and Subtract Decimals Lesson 6-2: Estimate Products of Decimals Lesson 6-3: Represent Multiplication of Decimals Lesson 6-4: Use an Area Model to Multiply Decimals Lesson 6-5: Generalizations about Multiplying Decimals Lesson 6-6: Explain Strategies to Multiply Decimals Lesson 8-2: Estimate Quotients of Decimals Lesson 8-3: Represent Division of Decimals by a Whole Number Lesson 8-5: Divide Whole Numbers by Decimals Lesson 8-6: Divide Decimals by Decimals	
2-Dimensional Geometry	5.G.B.3, 5.G.B.4	Unit 13: Geometry	Lesson 13-4: Classify Triangles by Properties	3 Days

			Lesson 13-5: Properties of Quadrilaterals Lesson 13-6: Classify Quadrilaterals by Properties	
Algebraic Connections: (Order of Operations, Expressions, Patterns, Coordinate Plane)	5.OA.A.1, 5.OA.A.2, 5.OA.B.3, 5.G.A.1, 5.G.A.2	Unit 13: Geometry Unit 14: Algebraic Thinking	Lesson 13-1: Understand the Coordinate Plane Lesson 13-2: Plot Ordered Pairs on the Coordinate Plane Lesson 13-3: Represent Problems on a Coordinate Plane Lesson 14-1: Write Numerical Expressions Lesson 14-2: Interpret Numerical Expressions Lesson 14-3: Evaluate Numerical Expressions Lesson 14-4: Numerical Patterns Lesson 14-5: Relate Numerical Patterns Lesson 14-6: Graphs of Numerical Patterns	9 Days

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 5, 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 the role of math in their and other people's lives.	1	1 Week 1 Day
Lesson 1-2: Math Is Exploring and Thinking	Students discuss approaches for making sense of a problem and determining strategies for solving it. Students 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 refine their skills in constructing arguments to support their thinking. Students respond to the ideas and arguments of others.	1	
Lesson 1-5: Math is Finding Patterns	Students consider strategies for uncovering patterns and for using patterns to solve problems. Students consider efficient strategies derived from repeated reasoning.	1	

Lesson 1-6: Math Is Ours	Students discuss classroom norms of interaction for a productive learning environment.	1	
Unit 2: Volume			
Lesson 2-1: Understand Volume	Students understand volume is a measurable attribute of 3-dimensional figures. Students understand that a rectangular prism can be packed using unit cubes with no gaps or overlaps to establish volume.	1	1 Week
Lesson 2-2: Use Unit Cubes to Determine Volume	Students determine the volume of a rectangular prism by counting unit cubes. Students determine the volume of a rectangular prism by multiplying the number of unit cubes in one layer by the number of layers.	1	
Lesson 2-3: Use Formulas to Determine Volume	Students determine the volume of rectangular prism using formulas.	1	
Lesson 2-4: Determine Volume of Composite Figures	Students determine the volume of composite solid figures.	1	
Lesson 2-5: Solve Problems Involving Volume	Students apply the volume formulas to solve real-world problems involving rectangular prisms.	1	
Unit 3: Place Value and Number Relationships			
Lesson 3-1: Generalize Place Value	Students relate the value of a digit in a multi-digit whole number in one place value position to that of the same digit in the place to its right. Students relate the value of a digit in a multi-digit whole number in one place value position to that of the same digit in the place to its left.	1	1 Week

Lesson 3-2: Extend Place Value to Decimals	Students relate the value of a digit in a decimal in one place value position to that of the same digit in the place to its right. Students relate the value of a digit in a decimal in one place value position to that of the same digit in the place to its left.	1	
Lesson 3-3: Read and Write Decimals	Students read and write decimals to the thousandths place in standard form, expanded form, and word form.	1	
Lesson 3-4: Compare Decimals	Students compare two decimals to the thousandths place using place value and record the comparison using appropriate symbols.	1	
Lesson 3-5: Use Place Value to Round Decimals	Students round decimals to any place value position. Students identify situations that call for rounding decimals and determine the place to which to round.	1	
Unit 4: Add and Subtract Decimals			
Lesson 4-1: Estimate Sums and Differences of Decimals	Students estimate decimal sums and differences using the same strategies used with whole number sums and differences.	1	1 Week 3 Days
Lesson 4-2: Represent Addition of Decimals	Students use decimal grids to represent addition of decimals with the same number of decimal places.	1	
Lesson 4-3: Represent Addition of Tenths and Hundredths	Students use decimal grids to represent addition of decimals with different numbers of decimal places.	1	
Lesson 4-4: Use Partial Sums to Add Decimals	Students use addition strategies they know, such as partial sums, to add decimals.	1	

Lesson 4-5: Represent Subtraction of Decimals	Students use decimal grids to represent subtraction of decimals with the same number of decimal places.	1	
Lesson 4-6: Represent Subtraction of Tenths and Hundredths	Students use decimal grids to represent subtraction of decimals with different numbers of decimal places.	1	
Lesson 4-7: Strategies to Subtract Decimals	Students can use subtraction strategies they know, such as partial differences, to subtract decimals.	1	
Lesson 4-8: Explain Strategies to Add and Subtract Decimals	Students can explain their choice of strategy to solve.	1	
Unit 5: Multiply Multi-Digit Whole Numbers			
Lesson 5-1: Understand Powers and Exponents	Students write a power of 10 as a multiplication expression with factors of 10. Students write a power of 10 using a base of 10 and exponents.	1	1 Week 2 Days
Lesson 5-2: Patterns When Multiplying a Whole Number by Powers of 10	Students use patterns to determine products when multiplying whole numbers by powers of 10. Students explain patterns in the products when multiplying whole numbers by powers of 10.	1	
Lesson 5-3: Estimate Products of Multi-Digit Factors	Students estimate products of multi-digit factors using the same strategies used to estimate products of lesser factors. Students use estimated products to make predictions about a calculated solution. Students use estimated product to assess the reasonableness of a calculated solution.	1	

Lesson 5-4: Use Area Models to Multiply Multi-Digit Factors	Students use an area model to determine partial products and add partial products to calculate the product.	1	
Lesson 5-5: Use Partial Products to Multiply Multi-Digit Factors	Students determine partial products by decomposing the factors and add partial products to calculate the product.	1	
Lesson 5-6: Relate Partial Products to an Algorithm	Students use an algorithm to multiply multi-digit factors by a one-digit factor. Students understand and explain a multiplication algorithm.	1	
Lesson 5-7: Multiply Multi-Digit Factors Fluently	Students use an algorithm to multiply two multi-digit factors.	1	
Unit 6: Multiply Decimals			
Lesson 6-1: Patterns When Multiplying Decimals by Powers of 10	Students use patterns to multiply a decimal by a power of 10. Students explain patterns when multiplying a decimal by a power of 10.	1	1 Week 1 Day
Lesson 6-2: Estimate Products of Decimals	Students estimate products of decimals. Students use estimated products to make predictions about a calculated solution. Students use estimated products to assess the reasonableness of a calculated solution.	1	
Lesson 6-3: Represent Multiplication of Decimals	Students use decimal grids to represent and solve multiplication equations involving decimals.	1	
Lesson 6-4: Use an Area Model to Multiply Decimals	Students use an area model to determine partial products and add partial products to calculate the product of two decimals.	1	

Lesson 6-5: Generalizations about Multiplying Decimals	Students use patterns based on place value concepts and properties of operations to determine the placement of the digits in a product.	1	
Lesson 6-6: Explain Strategies to Multiply Decimals	Students can explain their reasoning for using different strategies to solve. Students explain different strategies to multiply decimals.	1	
Unit 7: Divide Whole Numbers			
Lesson 7-1: Division Patterns with Multi-Digit Numbers	Students use place-value patterns and basic facts to divide a whole number by a multiple of 10.	1	1 Week 2 Days
Lesson 7-2: Estimate Quotients	Students estimate quotients of multi-digit numbers using the same strategies used to estimate quotients of lesser numbers. Students use estimated quotients to make predictions about a calculated solution. Students use estimated quotients to assess the reasonableness of a calculated solution.	1	
Lesson 7-3: Relate Multiplication and Division of Multi-Digit Numbers	Students use the relationship between multiplication and division to determine the quotient of multi-digit numbers.	1	
Lesson 7-4: Represent Division of 2-Digit Divisors	Students use an area model to determine partial quotients and add partial quotients to calculate the quotient.	1	
Lesson 7-5: Use Partial Quotients to Divide	Students record partial quotients using an algorithm.	1	
Lesson 7-6: Divide Multi-Digit Whole Numbers	Students solve division problems using partial quotients, which sometimes include remainders.	1	

Lesson 7-7: Solve Problems Involving Division	Students solve word problems involving division. Students interpret the remainder, when necessary, to solve problems.	1	
Unit 8: Divide Decimals			
Lesson 8-1: Division Patterns with Decimals and Powers of 10	Students use place-value patterns to determine the quotient of a decimal divided by a power of 10. Students use the relationship between place-value positions to explain patterns when dividing decimals by powers of 10.	1	1 Week 1 Day
Lesson 8-2: Estimate Quotient of Decimals	Students estimate quotients of decimals using the same strategies used to estimate quotients of whole numbers. Students use estimated quotients to make predictions about a calculated solution. Students use estimated quotients to assess the reasonableness of a calculated solution.	1	
Lesson 8-3: Represent Division of Decimals by a Whole Number	Students represent division of decimals with equal sharing or equal grouping.	1	
Lesson 8-4: Divide Decimals by Whole Numbers	Students use place-value understanding and equivalent representations to divide a decimal by a whole number.	1	
Lesson 8-5: Divide Whole Numbers by Decimals	Students use decimal grids to represent and solve a division equation. Students multiply by a power of 10 to write an equivalent expression with a whole-number divisor to solve a division equation.	1	
Lesson 8-6: Divide Decimals by Decimals	Students multiply the dividend and the divisor by a power of 10 to write an equivalent	1	

	equation containing whole numbers to solve a division equation.		
Unit 9: Add and Subtract Fractions			
Lesson 9-1: Estimate Sums and Differences of Fractions	Students use benchmark numbers to estimate sums and differences of fractions. Students explain how to use an estimate to predict or check the reasonableness of a calculated sum or difference of fractions.	1	1 Week 4 Days
Lesson 9-2: Represent Addition of Fractions with Unlike Denominators	Students use and explain how to use a representation to add fractions with unlike denominators.	1	
Lesson 9-3: Add Fractions with Unlike Denominators	Students add and explain how to add fractions with unlike denominators.	1	
Lesson 9-4: Represent Subtraction of Fractions with Unlike Denominators	Students use and explain how to use a representation to subtract fractions with unlike denominators.	1	
Lesson 9-5: Subtract Fractions with Unlike Denominators	Students subtract and explain how to subtract fractions with unlike denominators.	1	
Lesson 9-6: Add Mixed Numbers with Unlike Denominators	Students add and explain how to add mixed numbers with unlike denominators.	1	
Lesson 9-7: Subtract Mixed Numbers with Unlike Denominators	Students subtract and explain how to subtract mixed numbers with unlike denominators.	1	
Lesson 9-8: Add and Subtract Mixed Numbers with Regrouping	Students add and subtract mixed numbers with regrouping.	1	
Lesson 9-9: Solve Problems Involving Fractions and Mixed Numbers	Students solve word problems involving fractions.	1	
Unit 10: Multiply Fractions			
Lesson 10-1: Represent Multiplication of a Whole Number by a Fraction	Students use a representation to multiply a whole number by a fraction.	1	1 Week 4 Days

Lesson 10-2: Multiply a Whole Number by a Fraction	Students multiply a whole number by a fraction.	1	
Lesson 10-3: Represent Multiplication of a Fraction by a Fraction	Students use a representation to multiply a fraction by a fraction.	1	
Lesson 10-4: Multiply a Fraction by a Fraction	Students multiply a fraction by a fraction by multiplying the numerators and multiplying the denominators.	1	
Lesson 10-5: Determine the Area of Rectangles with Fractional Side Lengths	Students find the area of a rectangle with fractional side lengths by tiling. Students find the area of a rectangle with fractional side lengths by multiplying the side lengths.	1	
Lesson 10-6: Represent Multiplication of Mixed Numbers	Students use an area model to represent multiplication of mixed numbers. Students find partial products using an area model.	1	
Lesson 10-7: Multiply Mixed Numbers	Students use partial products to multiply mixed numbers. Students write mixed numbers as fractions to find the product.	1	
Lesson 10-8: Multiplication as Scaling	Students explain how the size of the factors impacts the size of the product without performing the multiplication.	1	
Lesson 10-9: Solve Problems Involving Fractions	Students solve word problems involving fractions.	1	
Unit 11: Divide Fractions			
Lesson 11-1: Relate Fractions to Division	Students represent the quotient to a division equation as a fraction or mixed number.	1	1 Week 2 Days

Lesson 11-2: Solve Problems Involving Division	Students determine whether a quotient should be written with a remainder or as a mixed number.	1	
Lesson 11-3: Represent Division of Whole Numbers by Unit Fractions	Students use representations to divide whole numbers by unit fractions.	1	
Lesson 11-4: Divide Whole Numbers by Unit Fractions	Students use the meaning of multiplication as equal groups to divide whole numbers by unit fractions.	1	
Lesson 11-5: Represent Division of Unit Fractions by Non-Zero Whole Numbers	Students use representations to divide unit fractions by non-zero whole numbers.	1	
Lesson 11-6: Divide Unit Fractions by Non-Zero Whole Numbers	Students extend their understanding that dividing by a whole is the same as multiplying by a unit fraction to divide unit fractions by whole numbers.	1	
Lesson 11-7: Solve Problems Involving Fractions	Students solve word problems involving division of fractions using strategies such as using fraction models.	1	
Unit 12: Measurement and Data			
Lesson 12-1: Convert Customary Units	Students use the relationship between customary units of measurement to convert measurements. Students use the relationship between units of time to convert measurements.	1	1 Week
Lesson 12-2: Convery Metric Units	Students use the relationship between metric units of measurement to convert measurements.	1	
Lesson 12-3: Solve Multi-Step Problems Involving Measurement Units	Students solve multi-step problems by identifying and answering a hidden question and using that answer to solve the initial problem.	1	

Lesson 12-4: Represent Measurement Data on a Line Plot	Students create a line plot to display a data set involving measurement. Students interpret line plots.	1	
Lesson 12-5: Solve Problems Involving Measurement Data on Line Plots	Students solve problems using data in a line plot and performing operations on the data.	1	
Unit 13: Geometry			
Lesson 13-1: Understand the Coordinate Plane	Students identify and describe features of a coordinate grid. Students use a coordinate plane to determine the ordered pair associated with a point.	1	1 Week 1 Day
Lesson 13-2: Plot Ordered Pairs on the Coordinate Plane	Students plot ordered pairs on a coordinate plane.	1	
Lesson 13-3: Represent Problems on a Coordinate Plane	Students plot points that represent real-world situations. Students interpret coordinate values of points in the context of the situation.	1	
Lesson 13-4: Classify Triangles by Properties	Students classify triangles into categories and subcategories based on their properties. Students organize the categories and subcategories into a hierarchy.	1	
Lesson 13-5: Properties of Quadrilaterals	Students name quadrilaterals based on their properties.	1	
Lesson 13-6: Classify Quadrilaterals by Properties	Students classify quadrilaterals into categories and subcategories based on their properties. Students organize the categories and subcategories into a hierarchy.	1	
Unit 14: Algebraic Thinking			

Lesson 14-1: Write Numerical Expressions	Students write numerical expressions to represent calculations that are described using written statements.	1	1 Week 1 Day
Lesson 14-2: Interpret Numerical Expressions	Students interpret numerical expressions without evaluating the expression.	1	
Lesson 14-3: Evaluate Numerical Expressions	Students use the order of operations to evaluate numerical expressions.	1	
Lesson 14-4: Numerical Patterns	Students generate two numerical patterns that follow two given rules. Students identify relationships between corresponding terms in the generated number patterns.	1	
Lesson 14-5: Relate Numerical Patterns	Students use a table to arrange corresponding terms of two numerical patterns. Students describe the relationship between corresponding terms in two numerical patterns.	1	
Lesson 14-6: Graphs of Numerical Patterns	Students plot ordered pairs consisting of the corresponding terms from two numerical patterns.	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 I 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:

The screenshot displays the 'Differentiate' interface for Lesson 3-3: Read and Write Numbers to 1,000. The interface is organized into four main columns, each representing a different level of support or activity type:

- Reinforce Understanding (R):** Includes 'Different Forms' (work with students in groups of 3, provide each group with 3 number cubes, each student rolls one cube, the numbers rolled represent the hundreds, tens, and ones places), 'Take Another Look Lessons' (assign the interactive lessons to students beyond 1000), and 'Differentiation Resource Book, p. 5' (Lesson 3-3: Building Understanding, Read and Write Numbers to 1,000).
- Build Proficiency (B):** Includes 'Practice It! Game Station' (represent that 3-Digit Number Task Cards), 'Own It! Digital Station' (assign the digital game to develop fluency with addition through 100), 'Interactive Additional Practice' (assign the digital version of the Student Practice Book), and 'Spiral Review' (assign the digital Spiral Review).
- Extend Thinking (E):** Includes 'Use It! Application Station' (color by number: students create a color by number picture and write the equations for completing it), 'Webquest Exploration' (assign a webquest exploration to apply skills and extend thinking), and 'Differentiation Resource Book, p. 6' (Lesson 3-3: Extend Thinking, Read and Write Numbers to 1,000).

Each column also features a 'Student Practice Book, pp. 5-6' preview, showing the corresponding student activity pages. The interface is designed to help teachers quickly identify and assign appropriate differentiated activities based on student needs.

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](#).