

## Connecticut Mathematics Model Curricula Alignment

Resource: EdGems Math LLC.

<b>Alignment Grade 6</b>				
<b>Model Unit Name</b>	<b>Model Unit Standards</b>	<b>Resource Unit(s) Number</b>	<b>Resources Lessons</b>	<b>Pacing</b>
<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>
Operating with Positive Rational Numbers	6.NS.A.1, 6.NS.B.2, 6.NS.B.3, 6.NS.B.4, 6.G.A.2	Unit 2 – Multi-Digit Operations Unit 4 – Fraction Operations Unit 5 – Expression Unit 9 – Area and Volume	6.NS.A.1 – 4.2, 4.3, 4.4 6.NS.B.2 – 2.3, 2.4 6.NS.B.3 – 2.1, 2.2, 9.1 6.NS.B.4 – 2.6, 5.6 6.G.A.2 – 9.5	27 Days
Understanding Positive and Negative Numbers	6.NS.C.5, 6.NS.C.6, 6.NS.C.7, 6.NS.C.8	Unit 7 – Rational Numbers on the Coordinate Plane Unit 8 – Two-Variable Equations	6.NS.C.5 – 7.1 6.NS.C.6 – 7.1, 7.4, 7.5 6.NS.C.7 – 7.1, 7.2 6.NS.C.8 – 7.5, 8.1, 8.2, 8.3	20 Days
Using Expressions and Equations	6.EE.A.1, 6.EE.A.2, 6.EE.A.3, 6.EE.A.4, 6.EE.B.5, 6.EE.B.6, 6.EE.B.7, 6.EE.B.8	Unit 5 – Expressions Unit 6 – One-Variable Equations Unit 7 – Rational Numbers on the Coordinate Plane Unit 9 – Area and Volume	6.EE.A.1 – 5.1, 5.2 6.EE.A.2 – 5.3, 5.4, 5.5 6.EE.A.3 – 5.5, 5.6 6.EE.A.4 – 5.6 6.EE.B.5 – 6.1, 7.3 6.EE.B.6 – 5.3, 5.4, 5.5 6.EE.B.7 – 6.1, 6.2, 6.3, 9.1 6.EE.B.8 – 7.3	29 Days
Applications of Geometry	6.G.A.1, 6.G.A.3, 6.G.A.4	Unit 7 – Rational Numbers on the Coordinate Plane Unit 9 – Area and Volume	6.G.A.1 – 9.1, 9.2, 9.3 6.G.A.3 – 7.5 6.G.A.4 – 9.4	11 Days
Ratios and Rates	6.RP.A.1, 6.RP.A.2, 6.RP.A.3	Unit 1 – Ratios and Rates Unit 3 – Percents Unit 6 – One-Variable Equations	6.RP.A.1 – 1.1 6.RP.A.2 – 1.3, 1.4 6.RP.A.3 – 1.1, 1.2, 1.3, 1.4, 1.5, 3.1, 3.2, 3.3, 3.4, 6.4	27 Days
Algebraic Reasoning	6.EE.B.6, 6.EE.B.7, 6.EE.C.9	Unit 5 – Expressions	6.EE.B.6 – 5.3, 5.4, 5.5	26 Days

		Unit 6 – One-Variable Equations Unit 8 – Two-Variable Equations Unit 9 – Area and Volume	6.EE.B.7 – 6.1, 6.2, 6.3, 9.1 6.EE.C.9 – 8.1, 8.2, 8.3	
Statistics and Distributions	6.SP.A.1, 6.SP.A.2, 6.SP.A.3, 6.SP.B.4, 6.SP.B.5	Unit 10 – Statistics	6.SP.A.1 – 10.1 6.SP.A.2 – 10.1, 10.2, 10.6 6.SP.A.3 – 10.2, 10.6 6.SP.B.4 – 10.3, 10.4, 10.5 6.SP.B.5 – 10.1, 10.2, 10.3, 10.4, 10.5, 10.6, 10.7	14 Days

### Scope and Sequence

*If a district uses this resource to implement the state model curriculum for grade 6, the following scope and sequence should be followed to ensure alignment and attention to the progressions of mathematics.*

Order	Unit Number/Title and Lessons	Lesson Objectives	# of days (assume 1 hour of instruction)	Number of weeks
1	1.1 Ratios	Simplifying and writing ratios.	3	
2	1.2 Ratio Tables and Graphs	Creating ratios that represent the same value.	3	
3	1.3 Rates and Unit Rates	Using equivalent ratios to solve problems.	3	
4	1.4 Comparing Rates	Comparing rates to solve problems.	3	
5	1.5 Measurement Conversions	Converting measurements within and between systems.	2	
6	2.1 Adding and Subtracting Decimals	Finding sums and differences involving decimals.	2	
7	2.2 Multiplying Decimals	Finding products of expressions involving decimals.	2	
8	2.3 Dividing by 1-Digit Numbers	Finding quotients of whole number expressions divided by 1-digit numbers.	2	
9	2.4 Dividing by Multi-Digit Numbers	Finding quotients of whole number expressions divided by multi-digit whole numbers.	2	
10	2.5 Dividing Decimals	Finding quotients of expressions involving decimals.	2	
11	2.6 Common Factors and Multiples	Finding the GCF and LCM of two whole numbers.	2	

12	3.1 Introducing Percents	Writing percents as fractions and decimals.	2	
13	3.2 Percents, Decimals and Fractions	Writing fractions and decimals as percents.	2	
14	3.3 Percent of a Number	Finding the percent of a number.	3	
15	3.4 Percent Applications	Solving problems involving markups and discounts.	3	
16	4.1 Multiplying Fractions	Multiplying fractions using models and the algorithm.	2	
17	4.2 Dividing Fractions with Models	Using models to divide fractions.	3	
18	4.3 Dividing Fractions	Finding quotients of expressions involving two fractions.	2	
19	4.4 Multiplying and Dividing Mixed Numbers	Finding products and quotients of expressions that include mixed numbers.	4	
20	5.1 Powers and Exponents	Writing and computing expressions with powers.	2	
21	5.2 Order of Operations	Finding values of expressions using the order of operations.	3	
22	5.3 Variables and Expressions	Writing expressions involving variables.	2	
23	5.4 Evaluating Expressions	Evaluating algebraic expressions.	3	
24	5.5 Equivalent Expressions	Combining like terms to create equivalent expressions.	3	
25	5.6 The Distributive Property	Using the distributive property to calculate and simplify expressions.	3	
26	6.1 Equations and Solutions	Determining if a number is a solution to an equation.	2	
27	6.2 Solving Addition and Subtractions Equations	Solving equations involving addition and subtractions.	2	
28	6.3 Solving Multiplication and Division Equations	Solving equations involving multiplication and division.	3	
29	6.4 Solving Percent Equations	Solving percent equations.	3	
30	7.1 Understanding Integers	Comparing, ordering, and using integers in real-world situations.	2	
31	7.2 Comparing Rational Numbers	Ordering and comparing rational numbers.	3	
32	7.3 Inequalities	Writing inequalities and displaying the graphed solution.	4	

33	7.4 The Coordinate Plane	Graphing points of the coordinate plane.	3	
34	7.5 Quadrilaterals on the Coordinate Plane	Using properties of quadrilateral to solve problems on the coordinate plane.	3	
35	8.1 Input-Output Tables	Creating tables for equations with two variables.	3	
36	8.2 Writing Two-Variable Equations	Writing equations for tables, graphs, and contextual situations.	3	
37	8.3 Graphing Two-Variable Equations	Graphing two-variable equations on the coordinate plane.	3	
38	9.1 Area with Fractions	Calculating areas of polygons with fractional side lengths.	2	
39	9.2 Area and Perimeter with Decimals	Calculating areas and perimeters of polygons with decimal side lengths.	2	
40	9.3 Areas of Composite Figures	Finding the areas of composite figures.	2	
41	9.4 Nets and Surface Area	Drawing nets and finding the surface area of solids using nets.	2	
42	9.5 Volume of Rectangular Prisms	Finding the volume of rectangular prisms.	2	
43	10.1 Introduction to Statistics	Identifying types of data and statistical questions.	2	
44	10.2 Measures of Center	Finding measures of center and range.	2	
45	10.3 Dot Plots	Making, reading, and interpreting dot plots.	2	
46	10.4 Histograms	Making, reading, and interpreting histograms.	2	
47	10.5 Box-and-Whisker Plots	Making, reading, and interpreting box-and-whisker plots.	2	
48	10.6 Analyzing Statistics	Analyzing how characteristics of a data set affect the measures of center.	2	
49	10.7 Mean Absolute Deviation	Finding and using mean absolute deviation to describe the spread of a data set.	2	

## Supports of Diversity, Equity and Inclusion

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

EdGems Math is built on principles of equity and has been designed to meet the needs of all learners. The program follows an intentional sequence with scaffolding instruction so that all students gain a deeper understanding of mathematics. Each unit includes rich tasks, grouped activities, and "Big Idea" content connections that engage students through their cultural experiences and leverage their diverse backgrounds to promote collaboration and discussion.

Teachers are provided with the tools and instructional strategies that meet students' varying needs through strong differentiation supports. An ELL Support Guide provides resource-specific strategies for helping English Language Learners at all levels engage in skill-building exercises, such as using sentence prompts and graphic organizers. Linked PD videos demonstrate these strategies in a real teaching environment.

In the latest edition of our program, we will have instructional supports and practices (mathematical language routines, or "MLRs") in every lesson to help teachers recognize and support students' language development in the context of mathematical sense-making when planning and delivering lessons. While these instructional supports can be used to support all students in the demands of reading, writing, listening, conversing, and representing in math, they are particularly well-suited to meet the needs of linguistically and culturally diverse students. When students are using language in ways that are purposeful and meaningful for themselves, in their efforts to understand—and be understood by—each other, they are motivated to attend to ways in which language can be both clarified and clarifying (Mondada & Doehler, 2004). The MLRs help teachers "amplify, assess, and develop students' language in math class" (Zwiers et al, 2017: "Principals for the Design of Mathematics Curricula").

Lesson Videos are narrated in English with closed captioning provided. In the latest edition of our program, we will have narration and closed captioning available in Spanish as well. Teachers can access editable Spanish-language resources from every Teacher Unit page, and Spanish edition textbooks are available. An online ten-language middle school math glossary is easily accessible.

EdGems Math supports and complies with the Individuals with Disabilities Act (IDEA) and the terms and conditions of the National Instructional Materials Access Center, NIMAC. In accordance with IDEA, EdGems Math provides braille-formatted materials.

Students can choose instructional material display options through the digital student edition (via HTML5 format) and each lesson's eBook, located by clicking the eBook icon. The eBook contains the following functionality:

- Teacher narrated text and images, via the "speaker" icon at the lower left side of the page. The textbook can be read on a sentence-by-sentence basis with each selected sentence highlighted in yellow. This tool also reads alt text for images.
- Text highlighting
- Key word searching
- Comment functionality for one-to-one devices

Additional functionality found in the digital program includes:

- Closed-caption Lesson videos for every lesson.
- Text-based instructional materials, provided in PDF format, can be enlarged or reduced using “+” and “-” functionality located on the right side of the PDF when opened.
- Alt text exists for instruction-related images and can be read with Adobe Acrobat Pro.
- Adjustments to color and brightness can be done using the device's built-in manufacturer’s settings or built-in browser settings (dimming of screens, color of fonts, color of backgrounds, etc.)