

Connecticut Mathematics Model Curricula Alignment

Resource: EdGems Math LLC.

Alignment Grade 7				
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>
Operating with Rational Numbers (Addition & Subtraction)	7.NS.A.1, 7.NS.A.3	Unit 4 – Sums and Differences of Rational Numbers Unit 5 – Products and Quotients of Rational Numbers	7.NS.A.1 – 4.1, 4.2, 4.3, 4.4 7.NS.A.3 – 4.1, 4.2, 4.3, 4.4, 5.1, 5.2, 5.3, 5.4	21 Days
Operating with Rational Numbers (Multiplication & Division)	7.NS.A.2, 7.NS.A.3, 7.EE.A.2, 7.EE.B.3	Unit 3 – Percents Unit 4 – Sums and Differences of Rational Numbers Unit 5 – Products and Quotients of Rational Numbers Unit 6 – Algebraic Expressions Unit 7 – Solving Equations and Inequalities	7.NS.A.2 – 3.1, 5.1, 5.2, 5.3 7.NS.A.3 – 4.1, 4.2, 4.3, 4.4, 5.1, 5.2, 5.3, 5.4 7.EE.A.2 – 6.2, 6.3, 7.2, 7.3 7.EE.B.3 – 6.3, 7.2, 7.3	37 Days
Two and Three Dimensional Geometry	7.G.A.2, 7.G.A.3, 7.G.B.4, 7.G.B.5, 7.G.B.6	Unit 8 – Two-Dimensional Geometry Unit 9 – Three-Dimensional Geometry	7.G.A.2 – 8.3 7.G.A.3 – 9.1 7.G.B.4 – 8.5, 8.6, 8.7 7.G.B.5 – 8.1, 8.2 7.G.B.6 – 8.4, 8.7, 9.1, 9.2, 9.3, 9.4	23 Days
Proportional Reasoning	7.RP.A.1, 7.RP.A.2, 7.RP.A.3, 7.G.A.1	Unit 1 – Ratios and Rates Unit 2 – Proportional Relationships	7.RP.A.1 – 1.1, 1.2, 1.3 7.RP.A.2 – 2.1, 2.3, 2.4 7.RP.A.3 – 2.2, 3.2, 3.3, 3.4	29 Days

		Unit 3 – Percents	7.G.A.1 – 1.4	
Algebraic Reasoning II	7.EE.A.1, 7.EE.A.2, 7.EE.A.4	Unit 6 – Algebraic Expressions Unit 7 – Solving Equations and Inequalities	7.EE.A.1 – 6.2, 6.3 7.EE.A.2 – 6.2, 6.3, 7.2, 7.3 7.EE.A.4 – 7.2, 7.4	14 Days
Probability	7.SP.C.5, 7.SP.C.6, 7.SP.C.7, 7.SP.C.8	Unit 10 – Probability and Statistics	7.SP.C.5 – 10.1 7.SP.C.6 – 10.1, 10.2 7.SP.C.7 – 10.1, 10.2 7.SP.C.8 – 10.3	7 Days
Inferences and Populations	7.SP.A.1, 7.SP.A.2, 7.SP.B.3, 7.SP.B.4	Unit 10 – Probability and Statistics	7.SP.A.1 – 10.4 7.SP.A.2 – 10.4, 10.5 7.SP.B.3 – 10.5 7.SP.B.4 – 10.5	5 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	Writing ratios and using ratio concepts to solve problems.	3	
2	1.2 Unit Rates	Calculating and using unit rates to solve problems.	2	
3	1.3 Rates and Ratios with Complex Fractions	Computing rates and ratios that include complex fractions.	3	
4	1.4 Scale Drawings	Using scales and scale factors to draw figures and find missing side lengths.	2	
5	2.1 Proportional Relationships	Determining proportions from ratios and solving for missing values.	2	
6	2.2 Problem-Solving with Proportions	Solving problems by writing and solving proportions.	3	
7	2.3 Tables and Graphs of Proportional Relationships	Recognizing proportional relationships in tables and graphs.	3	
8	2.4 Proportional Relationship Equations	Writing and graphing equations for proportional relationships.	3	
9	3.1 Fractions, Decimals and Percents	Converting between fractions, decimals, and percents.	3	

10	3.2 Percent of a Number	Using percents to find a missing number using proportions and equations.	3	
11	3.3 Percent of Change	Finding percent of change or error for real-world situations.	2	
12	3.4 Percent Applications	Solving problems involving markups, discounts, tips, and taxes.	3	
13	4.1 Adding Integers	Adding two or more integers to find the sum.	3	
14	4.2 Adding Rational Numbers	Adding positive and negative fractions and decimals.	3	
15	4.3 Subtracting Integers	Subtracting two integers to find the difference.	3	
16	4.4 Subtracting Rational Numbers	Subtracting positive and negative fractions and decimals.	3	
17	5.1 Multiplying and Dividing Integers	Finding the integer value of multiplication and division expressions.	2	
18	5.2 Multiplying Rational Numbers	Finding products of positive and negative fractions and decimals.	3	
19	5.3 Dividing Rational Numbers	Finding quotients of positive and negative fractions and decimals.	3	
20	5.4 Order of Operations	Finding the value of expressions using the order of operations.	3	
21	6.1 Algebraic Expressions	Writing and evaluating algebraic expressions.	2	
22	6.2 The Distributive Property	Using the distributive property to write equivalent expressions.	2	
23	6.3 Equivalent Expressions	Simplifying expressions using the distributive property and like terms.	3	
24	7.1 Solving One-Step Equations	Solving one-step equations.	2	
25	7.2 Solving Two-Step Equations	Solving two-step equations.	3	
26	7.3 Simplifying and Solving Equations	Simplifying and solving equations with variables.	3	
27	7.4 Linear Inequalities	Solving linear inequalities and graphing solutions on the number line.	3	
28	8.1 Complementary and Supplementary Angles	Solving problems using complementary and supplementary angles.	2	

29	8.2 Vertical Angles and Adjacent Angles	Solving problems using vertical, adjacent, and linear pair angles.	2	
30	8.3 Drawing Triangles with Given Conditions	Determining if given conditions lead to a unique triangle.	2	
31	8.4 Areas of Polygons	Finding the area of polygons.	2	
32	8.5 Circumference and Pi	Finding the circumference of a circle using pi and diameter.	2	
33	8.6 Area of a Circle	Understanding and using the circle area formula.	2	
34	8.7 Composite Figures	Finding the area of composite figures.	3	
35	9.1 Three- Dimensional Figures	Describing 3D figures and their 2D cross sections.	2	
36	9.2 Surface Area of Prisms	Calculating the surface area of prisms.	2	
37	9.3 Surface Area of Pyramids	Calculating the surface area of regular pyramids.	2	
38	9.4 Volume of Prisms and Pyramids	Finding the volume of prisms and pyramids.	2	
39	10.1 Probability	Finding the interpreting experimental and theoretical probabilities.	2	
40	10.2 Using Probability to Predict	Predicting an outcome using experimental and theoretical probability.	3	
41	10.3 Compound Probability	Finding compound probabilities using lists, tree diagrams, and tables.	2	
42	10.4 Random Sampling and Inferences	Making inferences about populations using random sampling data.	2	
43	10.5 Measures of Center and Variability in Two Data Sets	Comparing samples using measures of center and variability.	3	

[Grade 7 Scope and Sequencing document](#)

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.)