✱ Congruent math

7th Grade Curriculum

Make 7th grade math engaging with Congruent Math. Help your class master proportions, advanced algebra, and statistics through fun, real-life lessons. Try our free lesson plans today!

Overview

In 7th grade math, students deepen their understanding of ratios and proportional relationships, applying them to complex problems. They expand their work with rational numbers, including negative numbers, and advance their algebraic thinking through more sophisticated equations and expressions. Geometry concepts grow to include more intricate shapes and relationships, while statistical analysis and probability are explored in greater depth.

Make math exciting with our curriculum, unit & lesson plans covering every 7th grade CCSS standard.

In each lesson, students master these topics through interactive guided notes and engaging activities like doodle exercises and color-by-number challenges. Practice is reinforced with creative worksheets, including mazes that make problem-solving fun. Every lesson concludes with a real-life application, demonstrating the relevance of math in everyday situations.

If you're looking to make 7th grade math more engaging — while staying fully aligned with Common Core standards — this curriculum plan is designed for you.

Year at a Glance

Unit	Title	Summary	Key Standards*
1	**Rational Numbers**	Students explore rational numbers by comparing, ordering, adding, subtracting, multiplying, dividing integers, fractions, and decimals, along with converting between fractions, decimals, and percents.	7.NS.A.1 7.NS.A.2 7.NS.A.3 7.RP.A.3
2	**Expressions**	Students learn to write algebraic expressions, evaluate them with rational coefficients, combine like terms, and simplify expressions using the distributive property with rational coefficients.	7.EE.A.1 7.EE.A.2 7.EE.B.3
3	**Equations & Inequalities**	Students solve two-step and multi-step equations with rational numbers, write and graph one-step and two-step inequalities, and learn how to represent solutions graphically.	7.EE.A.1 7.EE.B.3 7.EE.B.4
4	**Ratios, Rates & Proportions**	Students explore ratios, rates, and proportions, including calculating unit rates, representing proportional relationships with graphs and equations, solving proportions, and understanding the constant of proportionality.	7.RP.A.1 7.RP.A.2 7.RP.A.3

5	**Percents & Simple Interest**	Students learn to calculate percentages using percent equations and double number lines, determine percent changes using formulas and proportions, apply percentages to calculate discounts, sale prices, and tips, and calculate simple interest using the formula I=PRT in real-world contexts.	7.RP.A.3
6	**Plane Geometry & Angle Relationships**	Students explore scale drawings, triangles' areas, circles' areas and circumferences, composite figures' areas, angle pair relationships, the Triangle Inequality Theorem, and cross sections of 3D figures in the context of plane geometry and angle relationships.	7.G.A.1 7.G.A.2 7.G.A.3 7.G.B.4 7.G.B.5 7.G.B.6
7	**Surface Area & Volume**	Students will learn to calculate the total and lateral surface area of rectangular and triangular prisms, as well as the volume of rectangular prisms with whole number and fractional edge lengths.	7.G.B.6
8	**Statistics**	Students explore measures of central tendency like mean, median, and mode, analyze variability using mean absolute deviation, construct and interpret box and whisker plots, and draw population inferences through random sampling.	7.SP.A.1 7.SP.A.2 7.SP.B.4
9	**Probability**	Students explore theoretical and experimental probability, simple events, and compound events including independent, dependent, and mutually exclusive events using sample spaces and tree diagrams.	7.SP.A.1 7.SP.A.2 7.SP.C.5 7.SP.C.6 7.SP.C.7 7.SP.C.8

* Abbreviated list. Visit congruentmath.com/curriculum/7th-grade/ for full standards alignment & resources.

CCSS Alignment

Unit	7.EE	7.G	7.NS	7.RP	7.SP
1			A.1 A.2 A.3	A.3	
2	A.1 A.2 B.3				
3	A.1 B.3 B.4				
4				A.1 A.2 A.3	
5				A.3	
6		A.1 A.2 A.3 B.4 B.5 B.6			
7		B.6			
8					A.1 A.2 B.4
9					A.1 A.2 C.5 C.6 C.7 C.8

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Materials You May Need

Supporting resources that pair with this pacing guide.

- Guided Notes Bundle: structured printable & digital notes for every unit – [open resource](#)
- Free Curriculum Library: unit maps & lesson plans – [browse online](#)
- Practice & Extension Activities: printable + interactive options – [open catalog](#)