



MATHEMATICS CURRICULUM MAP

Grade 7 Intro to Algebra

(Algebra Pathway)

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Grade 7 Intro to Algebra: Year at a Glance

Resource: Big Ideas Math: Modeling Real Life - Grade 7 Advanced (ISBN: 9781642450644)

Semester 1	Standards	Big Ideas
Rational Number Operations	<p>7.NS.1 (Add and subtract rational numbers)</p> <p>7.NS.2 (Multiply and divide rational numbers)</p> <p>7.NS.3 (Solve real-world problems with rational numbers)</p>	Chapter 1, 2, and 6 (7th Grade text)
Expressions	<p>7.EE.1 (Add, subtract, factor, expand linear expressions)</p> <p>7.EE.2 (Understand rewriting expressions as strategy for solving in context)</p>	Supplemental Materials
Equations	<p>7.EE.4a (Solve real-world and multi-step equations involving rational numbers)</p> <p>8.EE.7 (Solve linear equations in one variable - variables on both sides, multi-step including, special solutions, and writing and solving equations for word problems)</p>	Chapter 1 and Chapter A
Inequalities	7.EE.4b (solve, graph, interpret, and word problems with inequalities)	Chapter A
Application of Proportional Relationships	<p>7.RP.1 (Complex unit rate)</p> <p>7.RP.2 (Proportional relationships in tables, graphs, equations, descriptions)</p>	Chapter 5 (7th Grade text)
Linear Equations	<p>8.EE.5 (graph and compare proportional relationships/ direct variation)</p> <p>8.EE.6 (slope-intercept form and explaining slope)</p> <p>8.F.4 (slope-intercept form)</p>	Chapter 4
Semester 2	Standards	Big Ideas
Linear Equations (Continued)	Continued	
Geometry	7.G.3 (Describe 2-D figures resulting from slicing 3-D figures)	Chapters D, E, and 10

	<p>7.G.4 (Area and Circumference of a circle)</p> <p>7.G.6 (Solve real-world problems involving area, volume and surface area)</p> <p>8.G.9 (Volume of cones, cylinders, and spheres)</p>	
Probability	<p>7.SP.5 (Probability of chance event)</p> <p>7.SP.6 (Collect data on chance process)</p> <p>7.SP.7 (Develop probability model)</p> <p>7.SP.8 (Find probabilities of compound events)</p>	Chapter B
Statistics	<p>7.SP.1 (Sample populations)</p> <p>7.SP.2 (Interpret random sample data)</p> <p>7.SP.3 (Visual overlap of data distributions)</p> <p>7.SP.4 (Measures of center and variability with 2 populations)</p>	Chapter C
Scale Drawings and Indirect Measurement	<p>7.G.1 (Scale Drawings)</p> <p>8.G.5 (Indirect measurement)</p>	Chapters 3, 5, D
Angle Relationships	<p>7.G.2 (Draw geometric shapes with given conditions)</p> <p>7.G.5 (Solve equations for unknown angles)</p> <p>8.G.5 (Angles, parallel lines cut by transversal, similar triangles)</p>	Chapters 3, 5, and D
Real Numbers and Pythagorean Theorem	<p>8.EE.2 (Square root and cube roots and equations)</p> <p>8.NS.1 (Irrational versus rational numbers and decimal expansions)</p> <p>8.NS.2 (Rational number approximations of irrational numbers)</p> <p>8.G.6 (Proof of Pythagorean Theorem)</p> <p>8.G.7 (Apply Pythagorean Theorem to determine unknown side length)</p> <p>8.G.8 (Apply Pythagorean Theorem to find distance between points)</p>	Chapter 9
Transformations, Congruence, and Similarity	<p>8.G.1 (Verify properties of transformations)</p> <p>8.G.2 (Understand congruence using transformation)</p> <p>8.G.3 (Describe effects of transformations in plane)</p> <p>8.G.4 (Understand similarity using transformation)</p>	Chapter 2

Priority Standards: Not all content in a given grade is emphasized equally in the Standards. Some clusters require greater emphasis than others based on the depth of the ideas, the time that they take to master, and/or their importance to future mathematics or the demands of college and career readiness. More time in these areas is necessary. These standards are taught in-depth to full mastery.

Supporting vs. Additional: Supporting standards (highlighted in blue) are designed to strengthen the areas of major emphasis. Connections are clear and emphasize coherence between topics. Additional standards (highlighted in yellow) do not connect as tightly as supporting standards.