



Course Title: Algebra I

Content Area: Mathematics

Grade Level: 8-9

Scope and Sequence

Grade Level: 8 - 9

Course Introduction: Algebra I is the first of two Algebra courses which are aligned to the Pennsylvania State Keystone Anchors. Topics will build on concepts previously learned in Pre-Algebra.

Units of Study	Standards	Length of Time	Key Content	Assessment Tools	Scaffolding Strategies (Interventions, Special Education)	Resources & Materials
Linear Equations and Inequalities	CC.2.2.HS.D.8 CC.2.2.HS.D.9 CC.2.2.HS.D.5 CC.2.2.HS.D.7 CC.2.2.HS.D.10	7 weeks	- Solving Equations (Review) - Solving Linear Inequalities - Solving Absolute Value Equations and Inequalities	- Teacher created assessments (quizzes/tests) - Blackboard	Students are allowed to retest if needed.	- OneNote - Blackboard - Textbook - Kuta Software
Graphs and Functions	CC.2.2.HS.C.1 CC.2.2.HS.C.2 CC.2.2.HS.C.3	2 weeks	- Relations and Functions - Function Rules, Tables, and Graphs - Number Patterns	- Teacher created assessments (quizzes/tests) - Blackboard	Students are allowed to retest if needed.	- OneNote - Blackboard - Textbook - Kuta Software
Coordinate Geometry	CC.2.2.HS.D.7 CC.2.2.HS.D.10	6 weeks	- Rates of Change and Slope - Slope-Intercept Form (Graphing and Writing Equations) - Standard Form (Graphing and Writing Equations) - Use Point-Slope Form to Write Linear Equations - Write Equations Given Various Information - Scatter Plots and Trend Lines	- Teacher created assessments (quizzes/tests) - Blackboard	Students are allowed to retest if needed.	- OneNote - Blackboard - Textbook - Kuta Software

Solving Systems of Equations and Inequalities	CC.2.2.HS.D.10 CC.2.2.HS.D.10	4 weeks	<ul style="list-style-type: none"> - Solving Systems by Graphing - Solving Systems by Substitution - Solving Systems by Elimination - Applications of Linear Systems - Graphing Systems of Inequalities 	<ul style="list-style-type: none"> - Teacher created assessments (quizzes/tests) - Blackboard 	Students are allowed to retest if needed.	<ul style="list-style-type: none"> - OneNote - Blackboard - Textbook - Kuta Software
Operations with Real Numbers and Expressions (Part 1)	CC.2.2.8.B.1 CC.2.2.HS.D.3 CC.2.2.HS.D.2 CC.2.2.HS.D.1	5 weeks	<ul style="list-style-type: none"> - Simplifying Expressions (Monomials) - GCF and LCM - Polynomial Expressions - Factoring by GCF, Different of Squares, and Simple Trinomials - Simplifying Rational Expressions 	<ul style="list-style-type: none"> - Teacher created assessments (quizzes/tests) - Blackboard 	Students are allowed to retest if needed.	<ul style="list-style-type: none"> - OneNote - Blackboard - Textbook - Kuta Software
Operations with Real Numbers and Expressions (Part 2)	CC.2.2.8.B.1 CC.2.3.8.A.3	2 weeks	<ul style="list-style-type: none"> - Simplifying Radicals - Applications of Pythagorean Theorem 	<ul style="list-style-type: none"> - Teacher created assessments (quizzes/tests) - Blackboard 	Students are allowed to retest if needed.	<ul style="list-style-type: none"> - OneNote - Blackboard - Textbook - Kuta Software
Data Analysis and Probability	CC.2.4.HS.B.1	3 weeks	<ul style="list-style-type: none"> - Using Measures of Central Tendency - Probability of Compound Events - Data Plots - Making Predictions 	<ul style="list-style-type: none"> - Teacher created assessments (quizzes/tests) - Blackboard 	Students are allowed to retest if needed.	<ul style="list-style-type: none"> - OneNote - Blackboard - Textbook - Kuta Software