Danville Area School District
Course Overview and Scope and Sequence

Course Title: Algebra
Content Area: Mathematics
Grade Level: Grades 9-10
Date Developed: June 2023

COURSE OVERVIEW: Algebra is the first of three Algebra courses. This course is aligned to the Pennsylvania Keystone Assessment Anchors, focusing on operations with real numbers, solving single-variable equations and inequalities, graphing linear equations, and solving and applying proportions.

ANCHOR STANDARDS:

CC.2.2.HS.D.1 Interpret the structure of expressions to represent a quantity in terms of its context.
A1.1.1.5.1, A1.1.1.5.2, A1.1.1.5.3, A2.1.2.2.1, A2.1.2.2.2

CC.2.2.HS.D.2 Write expressions in equivalent forms to solve problems.
A1.1.1.5.1, A1.1.1.5.2, A1.1.1.5.3, A2.1.2.1.1, A2.1.2.1.2, A2.1.2.1.3, A2.1.2.1.4, A2.1.2.2.1, A2.1.2.2.2

CC.2.2.HS.D.9 Use reasoning to solve equations and justify the solution method.
A1.1.1.4.1, A1.1.2.1.1, A1.1.2.1.2, A1.1.2.1.3, A1.1.2.2.1, A1.1.2.2.2, A1.1.3.1.1, A1.1.3.1.2, A1.1.3.1.3, A2.1.3.1.1, A2.1.3.1.2, A2.1.3.1.3, A2.1.3.1.4, A2.1.3.2.1, A2.1.3.2.2

CC.2.2.HS.D.10 Represent, solve, and interpret equations/inequalities and systems of equations/inequalities algebraically and graphically.
A1.1.2.1.1, A1.1.2.1.2, A1.1.2.1.3, A1.1.2.2.1, A1.1.2.2.2, A1.1.3.1.1, A1.1.3.1.2, A1.1.3.1.3, A1.1.3.2.1, A1.1.3.2.2, A2.1.3.1.1, A2.1.3.1.2, A2.1.3.1.3, A2.1.3.1.4

KEY COURSE TEXT AND MATERIALS: Algebra I by Ron Larson and Paul Battaglia

KEY ASSESSMENTS:

Diagnostic: CDT, PVAAS Data, 8th Grade PSSA
Formative: Bellringer assignments, quizzes, exit tickets, graded assignments
Summative: Unit tests, Final Exam

SCOPE AND SEQUENCE					
Unit	PRIORITY STANDARDS	SUPPORTING STANDARDS	ASSESSMENT	MATERIALS	TIMEFRAME
Expressions and Equations	CC.2.2.HS.D.1 CC.2.2.HS.D.2 CC.2.2.HS.D.9 CC.2.2.HS.D.10		Order of Operations Quiz Fractions Quiz One Step Equations Quiz Two Step Equations Quiz Two Step Equations with Fractions and Decimals Quiz Multi Step Equations Quiz Multi Step Equations with Fractions and Decimals Quiz	Expressions and Equations Notes Packet Worksheets/Quizzes Google Slides Activities Calculators Whiteboard Chromebooks	44 Days
Unit: Graphing Linear Equations	CC.2.2.HS.D.10		Inequality Quiz Compound Inequality Quiz	Linear Equations Notes Packet Worksheets/Quizzes	35 Days

				Google Slides Activities Calculators Whiteboard Chromebooks	
Unit: Simplifying Radicals	CC.2.2.8.B.1		Radical Quiz	Radical Packet Worksheets/Quizzes Google Slides Activities Calculators Whiteboard Chromebooks	5 Days
Unit: Exponent Properties	CC.2.2.8.B.1		Exponent Properties Quiz(Product) Exponent Properties Quiz(Quotient) Exponent Properties Quiz(Power) Exponent Properties Quiz(all)	Exponent Properties Packet Worksheets/Quizzes Google Slides Activities Calculators Whiteboard Chromebooks	20 Days
Unit: Factoring	CC.2.2.HS.D.3		GCF Quiz Factoring Quiz 1 Factoring Quiz 2 Factoring Quiz 3 Factoring Quiz 4 Factoring Exam	Factoring Packet Worksheets/Quizzes Google Slides Activities Calculators Whiteboard	30 Days

				Chromebooks	
Unit: Probability	CC.2.4.7.B.1 CC.2.4.7.B.3		Simple Probability Quiz Probability Quiz	Probability Packet Worksheets/Quizzes Google Slides Activities Calculators Whiteboard Chromebooks	10 Days
Unit: Review				Review Packet Google Slides Activities Calculators Whiteboard Chromebooks	45 Days