Danville Area School District
Course Overview and Scope and Sequence

Course Title: Keystone Algebra
Content Area: Mathematics
Grade Level: 8th Grade
Date Developed: August 2023

COURSE OVERVIEW: This course is aligned to the Pennsylvania Keystone Assessment Anchors and focuses on simplifying algebraic expressions, graphing / interpreting linear equations and inequalities, solving systems of equations, analyzing functions, applying properties of exponents, factoring,and simplifying rational expressions. In addition students will learn probability and data analysis including "line of best fit." The Keystone Algebra I Exam will be administered during the fourth marking period. Additionally, this course is also aligned with the 8th grade Pennsylvania System of School Assessment (PSSA) anchors. Topics include eligible content including the number system, expressions and equations (including systems of equations), functions, intro to geometry concepts, probability and statistics. In addition to the Keystone Exam, students will take the PSSA Math test during the fourth marking period.
ANCHOR STANDARDS: M08.A-N.1.1.1, M08.A-N.1.1.2, M08.A-N.1.1.3, M08.A-N.1.1.4, M08.A-N.1.1.5, M08.B-E.3.1.1, M08.B-E.3.1.2, A1.1.2.1.1, A1.1.3.1.1, A1.1.2.1.2, A1.1.2.1.3 A1.1.1.3.1, CC.2.1.HS.F.1, M08.B-E.1.1.4, M08.B-E.1.1.2, M08.C-G.1.1.1, M08.C-G.1.1.2, M08.C-G.1.1.3, M08.C-G.1.1.4, M08.C-G.2.1, M08.C-G.2.1.1, M08.C-G.2.1.2, M08.C-G.2.1.3 M08.C-G.3.1, M08.C-G.3.1.1, A1.1.1.1.2, M08.D-S.1.1, M08.D-S.1.1.3, M08.D-S.1.2, M08.D-S.1.2.1, A1.2.1.1.1, A1.2.1.2.1 A1.2.3.1.1, A1.2.3.2.1, A1.2.3.2.2, A1.2.3.3.1, M08.B-E.2.1, M08.B-E.2.1.1, M08.B-E.2.1.2, M08.B-E.2.1.3, M08.B-E.3.1 M08.B-F.2.1.1, M08.B-F.2.1.2, M08.B-F.1.1.3, A1.2.1.2.2, A1.2.2.1.1, A1.2.2.1.2, A1.2.2.1.3, A1.2.2.1.4, M08.B-F.1.1, M08.B-F.1.1.1, M08.B-F.1.1.2, M08.B-F.1.1.3, A1.1.3.1.3, A1.2.1.1.1, A1.2.1.1.2, A1.2.1.1.3, A1.2.2.2.1, M08.B-E.3.1.4 M08.B-E.3.1.5, A1.1.2.2.1, A1.1.2.2.2, A1.1.3.2.1, A1.1.3.2.2, A1.1.1.2.1, A1.1.1.3.1, A1.1.1.4.1, A1.1.1.5.1, A1.1.1.5.2 A1.1.1.5.3
KEY COURSE TEXT AND MATERIALS: Chromebook, White Boards, Scientific Calculators, Unit Packet

KEY ASSESSMENTS:
Diagnostic: iReady
Formative: Quizzes, CDTs
Summative: PSSA's, Unit Tests

SCOPE AND SEQUENCE				
Unit	PRIORITY STANDARDS	ASSESSMENT	MATERIALS	TIMEFRAME
Unit 0: Expressions, Equations & Inequalities	M08.A-N.1.1.1 M08.A-N.1.1.2 M08.A-N.1.1.3 M08.A-N.1.1.4 M08.A-N.1.1.5 M08.B-E.3.1.1 M08.B-E.3.1.2 A1.1.2.1.1 A1.1.3.1.1 A1.1.2.1.2 A1.1.2.1.3	Quiz throughout the unit Chapter Exam Homework Checks Q & A Progress monitoring	Chromebook White Boards Scientific Calculators Unit Packet - including all worksheets Projector	25 Days
Unit 1: Properties of Exponents	A1.1.1.3.1 CC.2.1.HS.F.1 M08.B-E.1.1. M08.B-E.1.1.3 M08.B-E.1.1.4	Quiz through the unit Unit Exam Homework Checks Q & A Progress monitoring and	Chromebook White Boards Scientific Calculators Unit Packet - including all worksheets Projector	20 Days

		Check Understandings		
Unit 2: Radicals, Pythagorean Theorem, Volume, Transformations	M08.B-E.1.1.2 M08.C-G.1.1.1 M08.C-G.1.1.2 M08.C-G.1.1.3 M08.C-G.1.1.4 M08.C-G.2.1 M08.C-G.2.1.1 M08.C-G.2.1.2 M08.C-G.2.1.3 M08.C-G.3.1 M08.C-G.3.1.1 M08.A-N.1.1.3 A1.1.1.1.2	Quizzes Unit Exam Homework Checks Q & A Progress monitoring and Check Understandings	White Boards Scientific Calculators Unit Packet - including all worksheets Projector	26 Days
Unit 3: Data Analysis, Statistics, & Probability	M08.D-S.1.1 M08.D-S.1.1.3 M08.D-S.1.2 M08.D-S.1.2.1 A1.2.1.1.1 A1.2.1.2.1 A1.2.3.1.1 A1.2.3.2.1 A1.2.3.2.2 A1.2.3.3.1	Quizzes Unit Exam Homework Checks Q & A Progress monitoring and Check Understandings	White Boards Scientific Calculators Unit Packet - including all worksheets Projector	26 Days
Unit 4: Rate of change & Linear Equations	M08.B-E.2.1 M08.B-E.2.1.1 M08.B-E.2.1.2 M08.B-E.2.1.3 M08.B-E.3.1 M08.B-F.2.1.1	Quizzes Unit Exam Homework Checks Q & A Progress	White Boards Scientific Calculators Unit Packet - including all worksheets Projector	20 Days

	M08.B-F.2.1.2 M08.B-F.1.1.3 A1.2.1.1.1 A1.2.1.2.1 A1.2.1.2.2 A1.2.2.1.1 A1.2.2.1.2 A1.2.2.1.3 A1.2.2.1.4	monitoring and Check Understandings		
Unit 5: Functions & Scatterplots	M08.B-F.1.1 M08.B-F.1.1.1 M08.B-F.1.1.2 M08.B-F.1.1.3 A1.1.3.1.3 A1.2.1.1.1 A1.2.1.1.2 A1.2.1.1.3 A1.2.1.2.1 A1.2.2.2.1	Quizzes Unit Exam Homework Checks Q & A Progress monitoring and Check Understandings	White Boards Scientific Calculators Unit Packet - including all worksheets Projector	15 Days
Unit 6: Systems of Equations & Inequalities	M08.B-E.3.1.1 M08.B-E.3.1.4 M08.B-E.3.1.5 A1.1.2.2.1 A1.1.2.2.2 A1.1.3.2.1 A1.1.3.2.2	Quizzes Unit Exam Homework Checks Q & A Progress monitoring and Check Understandings	White Boards Scientific Calculators Unit Packet - including all worksheets Projector	18 Days
Unit 7: Polynomials and Factoring	A1.1.1.2.1 A1.1.1.3.1 A1.1.1.4.1 A1.1.1.5.1 A1.1.1.5.2	Quizzes Unit Exam Homework Checks	White Boards Scientific Calculators Unit Packet - including all worksheets	30 Days

	A1.1.1.5.3	Q & A Progress monitoring and Check Understandings	Projector	