

Danville Area School District
Course Overview and Scope and Sequence

Course Title: Keystone Algebra II Concepts
Content Area: Mathematics
Grade Level: 9th - 12th
Date Developed: June 2023

COURSE OVERVIEW: Compare and order; add and subtract rational numbers. Multiply and divide rational numbers. Use the FOIL method to multiply binomials. Use various techniques to factor polynomials.
ANCHOR STANDARDS: CC.2.2.HS.D.1 Interpret the structure of expressions to represent a quantity in terms of its context. CC.2.2.HS.D.2 Write expressions in equivalent forms to solve problems. CC.2.2.HS.D.1 Interpret the structure of expressions to represent a quantity in terms of its context. CC.2.2.HS.D.7 Create and graph equations or inequalities to describe numbers or relationships. CC.2.2.HS.C.2 Graph and analyze functions and use their properties to make connections between the different representations. CC.2.2.HS.D.1 Interpret the structure of expressions to represent a quantity in terms of its context. CC.2.2.HS.D.7 Create and graph equations or inequalities to describe numbers or relationships. CC.2.2.HS.D.7 Create and graph equations or inequalities to describe numbers or relationships. CC.2.2.HS.D.10 Represent, solve and interpret equations/inequalities and systems of equations/inequalities algebraically and graphically. CC.2.2.HS.D.1 Interpret the structure of expressions to represent a quantity in terms of its context. CC.2.2.HS.C.2 Graph and analyze functions and use their properties to make connections between the different representations. CC.2.2.HS.D.7 Create and graph equations or inequalities to describe numbers or relationships. CC.2.2.HS.D.10 Represent, solve and interpret equations/inequalities and systems of equations/inequalities algebraically and

graphically.
CC.2.1.HS.F.6 Extend the knowledge of arithmetic operations and apply to complex numbers.
CC.2.1.HS.F.7 Apply concepts of complex numbers in polynomial identities and quadratic equations to solve problems.
CC.2.2.HS.C.4 Interpret the effects transformations have on functions and find the inverses of function
CC.2.2.HS.D.3 Extend the knowledge of arithmetic operations and apply to polynomials.
CC.2.2.HS.C.2 Graph and analyze functions and use their properties to make connections between the different representations.
CC.2.4.HS.B.1 Summarize, represent, and interpret data on a single count or measurement variable.
CC.2.1.6.E.3, CC.2.1.8.E.1, CC.2.1.8.E.4, CC.2.1.HS.F.1, CC.2.1.HS.F.2, CC.2.1.HS.F.3
CC.2.1.HS.F.4, CC.2.1.HS.F.5, CC.2.2.7.B.3, CC.2.2.8.B.1, CC.2.2.8.B.2, CC.2.2.8.B.3
CC.2.2.8.C.1, CC.2.2.8.C.2, CC.2.2.HS.C.1, CC.2.2.HS.C.2, CC.2.2.HS.C.3, CC.2.2.HS.C.4
CC.2.2.HS.C.5, CC.2.2.HS.C.6, CC.2.2.HS.D.1, CC.2.2.HS.D.10, CC.2.2.HS.D.2, CC.2.2.HS.D.3
CC.2.2.HS.D.5, CC.2.2.HS.D.6, CC.2.2.HS.D.7, CC.2.2.HS.D.8, CC.2.2.HS.D.9, CC.2.4.7.B.3
CC.2.4.8.B.1, CC.2.4.HS.B.1, CC.2.4.HS.B.2, CC.2.4.HS.B.3, CC.2.4.HS.B.4, CC.2.4.HS.B.5

KEY COURSE TEXT AND MATERIALS: Algebra 2 by Carter, Cuevas, Day, Malloy, Casey ,and Holliday

KEY ASSESSMENTS:
Diagnostic: Keystone Algebra Exam
Formative:Quizzes and Chapter Test
Summative: Final Exam

SCOPE AND SEQUENCE

Unit	STANDARDS	ASSESSMENT	MATERIALS	TIMEFRAME
Preparing for Advanced Algebra	CC.2.2.HS.D.1 CC.2.2.HS.D.2	Exit Tickets 0-4 and 0-5 Quiz 0-2 and 0-3 Quiz	Getting To Know You Icebreaker Activity Bell Ringers 0-4 Worksheets (Algebra I) 0-5 Worksheets (Algebra I)	10 Days

			0-2 Worksheets (Algebra II) 0-3 Worksheets (Algebra II)	
Equations and Inequalities	CC.2.2.HS.D. 1 CC.2.2.HS.D.7	Exit Tickets 1-1 and 1-2 Quiz: Simplifying Expressions 1-3 Quiz: Solving Equations	I-84 Graphing Calculators Bell Ringers 1-1 Worksheets: Study Guide and Intervention, Skills Practice, and Practice 1.2 Worksheets: Study Guide and Intervention and Practice 1.3 Worksheets: Kuta One-Step Equations, Kuta Two-Step Equations, Kuta Multi-Step Equations, Study Guide and Intervention, and Word Problem Practice LAB 1.3 Worksheet:	30 Days

			Graphing Calculator Activity 1.4 Worksheets: Study Guide and Intervention, Practice, and Word Problem Practice worksheets 1.5 Worksheets: Study Guide and Intervention, Practice, and Word Problem Practice worksheets 1.6 Worksheets: Study Guide and Intervention, Skills Practice, Practice, and Word Problem Practice R&R Lesson Materials: Product Worksheet, Lesson HyperDoc, and Equation Worksheet Standardized Test Practice Worksheet	

Linear Relations and	CC.2.2.HS.C.2 CC.2.2.HS.D.1 CC.2.2.HS.D.7		TI-84 Graphing Calculators Graph Paper Section Worksheets Slope Points Cards Equation Doors PDF Standardized Test Practice Worksheets	20 Days
Systems of Equations and Inequalities	CC.2.2.HS.D.7 CC.2.2.HS.D.10		TI-84 Graphing Calculators Graph Paper Section Worksheets Standardized Test Practice Worksheets	
Quadratic Functions and Relations	CC.2.2.HS.D.1 CC.2.2.HS.C.2 CC.2.2.HS.D.7 CC.2.1.HS.F.6 CC.2.1.HS.F.7 CC.2.2.HS.C.4		TI-84 Graphing Calculators Graph Paper Section Worksheets Standardized Test Practice Worksheets	

Polynomials and Polynomial Functions	CC.2.2.HS.D.3 CC.2.2.HS.C.2		TI-84 Graphing Calculators Graph Paper Section Worksheets -Standardized Test Practice Worksheets	
Statistics and Probability	CC.2.4.HS.B.		TI-84 Graphing Calculators Graph Paper Section Worksheets Standardized Test Practice Worksheets	15 Days
Keystone Exam Review and Remediation		CC.2.1.6.E.3, CC.2.1.8.E.1, CC.2.1.8.E.4, CC.2.1.HS.F.1, CC.2.1.HS.F.2, CC.2.1.HS.F.3 CC.2.1.HS.F.4, CC.2.1.HS.F.5, CC.2.2.7.B.3, CC.2.2.8.B.1, CC.2.2.8.B.2, CC.2.2.8.B.3	Keystone Anchor inventory / checklist TI-84 Graphing Calculators Graph Paper Section Worksheets	25 Days

		CC.2.2.8.C.1, CC.2.2.8.C.2, CC.2.2.HS.C.1, CC.2.2.HS.C.2, CC.2.2.HS.C.3, CC.2.2.HS.C.4 CC.2.2.HS.C.5, CC.2.2.HS.C.6, CC.2.2.HS.D.1, CC.2.2.HS.D.10, CC.2.2.HS.D.2, CC.2.2.HS.D.3 CC.2.2.HS.D.5, CC.2.2.HS.D.6, CC.2.2.HS.D.7, CC.2.2.HS.D.8, CC.2.2.HS.D.9, CC.2.4.7.B.3 CC.2.4.8.B.1, CC.2.4.HS.B.1, CC.2.4.HS.B.2, CC.2.4.HS.B.3, CC.2.4.HS.B.4, CC.2.4.HS.B.5 CC.2.4.HS.B.7		