

Cocalico School District
Year-at-a-Glance - Curriculum Overview

Department: Math

Course: Algebra 1 (103B)

Grade Level: 9-10

Big Ideas

- Evaluate and simplify expressions with exponents, including rational exponents; find the nth roots.
- Identify, evaluate, solve and graph exponential functions and geometric sequences.
- Simplify (add, subtract and multiply) polynomials and solve quadratic equations.
- Analyze, interpret, display and use data in a variety of forms.
- Find the probabilities of a variety of events including compound events.

Units of Study	% of Course Time	Textbooks & Supplemental Materials	Assessments	Standards Addressed
<ul style="list-style-type: none"> • Exponential Functions and Sequences 	25%	<ul style="list-style-type: none"> • Big Ideas Math – <i>Algebra 1- A Common Core Curriculum</i> by Ron Larson and Laurie Boswell: Chapter 6 • Scientific or Graphing Calculator • Supplemental Resources 	<ul style="list-style-type: none"> • Quizzes • Chapter Test 	<ul style="list-style-type: none"> • CC.2.1.HS.F.1 • CC.2.1.HS.F.2 • CC.2.2.HS.D.9 • CC.2.2.HS.C.1 • CC.2.2.HS.C.2 • CC.2.2.HS.C.3 • CC.2.2.HS.C.5 • CC.2.2.8.B.1
<ul style="list-style-type: none"> • Polynomial Equations and Factoring 	25%	<ul style="list-style-type: none"> • Big Ideas Math – <i>Algebra 1</i>: Chapter 7 • Scientific or Graphing Calculator • Supplemental Resources 	<ul style="list-style-type: none"> • Quizzes • Chapter Test 	<ul style="list-style-type: none"> • CC.2.2.HS.D.1 • CC.2.2.HS.D.2 • CC.2.2.HS.D.3 • CC.2.2.HS.D.5 • CC.2.2.HS.D.6
<ul style="list-style-type: none"> • Graphing Quadratic Functions 	10%	<ul style="list-style-type: none"> • Big Ideas Math – <i>Algebra 1</i>: Chapter 8 • Scientific or Graphing Calculator • Supplemental Resources 	<ul style="list-style-type: none"> • Quizzes • Chapter Test 	<ul style="list-style-type: none"> • CC.2.2.HS.C.2 • CC.2.2.HS.C.5
<ul style="list-style-type: none"> • Data Analysis and Displays 	20%	<ul style="list-style-type: none"> • Big Ideas Math – <i>Algebra 1</i>: Chapter 11 • Scientific or Graphing Calculator • Supplemental Resources 	<ul style="list-style-type: none"> • Quizzes • Chapter Test 	<ul style="list-style-type: none"> • CC.2.2.HS.C.6 • 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
<ul style="list-style-type: none"> • Counting Methods and Probability 	11%	<ul style="list-style-type: none"> • <i>Algebra 2</i> by McDougal Littell - Chapter 10 • Scientific or Graphing Calculator • Supplemental Resources 	<ul style="list-style-type: none"> • Quizzes • Chapter Test 	<ul style="list-style-type: none"> • CC.2.4.HS.B.4 • CC.2.4.HS.B.7
<ul style="list-style-type: none"> • Solving Quadratic Equations 	9%	<ul style="list-style-type: none"> • Big Ideas Math – <i>Algebra 1</i>: Chapter 9 • Scientific or Graphing Calculator • Supplemental Resources 	<ul style="list-style-type: none"> • Quizzes • Chapter Test 	<ul style="list-style-type: none"> • CC.2.2.HS.D.9 • CC.2.2.HS.D.10



Eagle P.A.C.T. Course Connections:

Algebra 1 (103B) encourages students to use problem solving skills as they study a variety of topics involving polynomial equations and factoring, graphing and solving quadratic equations, radical functions and equations, probability and data analysis to prepare for the Algebra 1 Keystone Exam that they will take at the end of course. Students will have opportunities to work together to collaborate and communicate their algebraic thinking.