

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

Department: Math

Course: Algebra 2 (113)

Grade Level: 9 - 12

Big Ideas

- To learn the basics of quadratic functions
- To learn the basics of radical functions
- To learn the basics of polynomial functions
- To learn the basics of exponential functions
- To practice modeling data and transforming the data into function form

Units of Study	% of Course Time	Textbooks & Supplemental Materials	Assessments	Standards Addressed
<ul style="list-style-type: none"> • Variation, Mathematical Modeling • Review of Linear Functions 	10%	<ul style="list-style-type: none"> • Big Ideas <i>Algebra 2 - A Common Core Curriculum</i> by Ron Larson and Laurie Boswell: • Variation packet • Calculators, Graphing Calculators, Computers • Supplemental worksheets 	<ul style="list-style-type: none"> • Regression Project • Written Exam 	<ul style="list-style-type: none"> • HAS-CED.A.2 • HSH-IF.C.9 • HAS-CED.A.1
<ul style="list-style-type: none"> • Graphs of Quadratic Functions 	15%	<ul style="list-style-type: none"> • Big Ideas <i>Algebra 2</i> textbook • Calculators, Graphing Calculators, Computers • Supplemental worksheets 	<ul style="list-style-type: none"> • Graphing Activity • Written Exam 	<ul style="list-style-type: none"> • HSF-IF.B.4 • HSF-IF.C.7c • HSF-IF.C.9 • HAS-CED.A.2 • HSF-IF.B.6
<ul style="list-style-type: none"> • Solving Quadratic Functions and Complex Numbers 	20%	<ul style="list-style-type: none"> • Big Ideas <i>Algebra 2</i> textbook • Calculators, Graphing Calculators, Computers • Supplemental worksheets 	<ul style="list-style-type: none"> • Solving Quadratics Activities • Written Exam 	<ul style="list-style-type: none"> • HAS-SSE.A.2 • HAS-REI.B.4b • HSN-CN.A.1 • HSN-CN.C.7 • HSA-CED.A.1
<ul style="list-style-type: none"> • Polynomial Functions 	25%	<ul style="list-style-type: none"> • Big Ideas <i>Algebra 2</i> textbook • Calculators, Graphing Calculators, Computers • Supplemental worksheets 	<ul style="list-style-type: none"> • Polynomial Function Activity and Application Packet • Written Exam 	<ul style="list-style-type: none"> • HSF-IF-B.4 • HAS-APR.A.1 • HAS-APR.B.2 • HAS-APR.B.3 • HAS-CED.A.2
<ul style="list-style-type: none"> • Rational Exponents and Radical Functions 	25%	<ul style="list-style-type: none"> • Big Ideas <i>Algebra 2</i> textbook • Calculators, Graphing Calculators, Computers • Supplemental worksheets 	<ul style="list-style-type: none"> • Written Exam • Inverse Function Application Activity 	<ul style="list-style-type: none"> • HSN-RN.A.1 • HSN-RN.A.2 • HSF-IF.C.7b • HAS-REI.A.1 • HAS-CED.A.4
<ul style="list-style-type: none"> • Exponential Functions 	5%	<ul style="list-style-type: none"> • Big Ideas <i>Algebra 2</i> textbook • Calculators, Graphing Calculators, Computers • Supplemental worksheets 	<ul style="list-style-type: none"> • Written Exam 	<ul style="list-style-type: none"> • HSA-SSE.B.3c • HSF-LE.A.2



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

Students will be encouraged to think and make conjectures while they persevere through challenging problems and exercises. Students will be encouraged to analyze their thinking and learn from mistakes throughout the course.