

## Algebra 1 Math Curriculum Alignment with State Standards

**NOTE: *italicized underlined* EXCLUDED from Algebra 1**

NM Statute 22-13-1.6.A. Each school district shall align its curricula to meet the state standards for each grade level and subject area so that students who transfer between public schools within the school district receive the same educational opportunity within the same grade or subject area.

**District:** Quemado Independent School District #2

**Algebra Textbook:** SIMMS Integrated Mathematics Level 1

<b>Strand: ALGEBRA, FUNCTIONS, AND GRAPHS</b>	<b>Standard: Students will understand algebraic concepts and applications.</b>	<b>9-12 Benchmark A.1: Represent and analyze mathematical situations and structures using algebraic symbols.</b>
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Algebra 1 Performance Standards	Algebra 1 Textbook Pages	Supplemental Materials	Month(s) when Addressed
9-12.A.1.1 Use the special symbols of mathematics correctly and precisely.	Modules 3, 5, 6, 10, 11, 13	Kuta Software handouts	August 2009- May 2010
9-12.A.1.2 Classify and use equivalent representations of natural, whole, integer, rational, irrational numbers and <i>complex numbers</i> , and choose which type of number is appropriate in a given context.	Module 3	Glencoe – Applied Algebra I ISBN#	August 2009
9-12.A.1.3 Determine the relative position on the number line and the relative magnitude of integers, decimals, rationals, irrationals, and numbers in scientific notation.	Modules 1, 3	Glencoe – Applied Algebra I ISBN#	August 2009- September 2009
9-12.A.1.4 Explain that the distance between two numbers on the number line is the absolute value of their difference.	Module 3	Glencoe – Applied Algebra I	September 2009
9-12.A.1.5 Use a variety of computational methods, recognize when an estimate or approximation is more appropriate than an exact answer, and understand the limits on precision of approximations.	Modules 3, 5, 6, 10, 11, 13	Kuta Software handouts	August 2009- May 2010
9-12.A.1.6 Simplify numerical expressions using the order of operations, including integer exponents.	Modules 3, 5, 6, 10, 11, 13	Kuta Software handouts	August 2009- May 2010
9-12.A.1.7 Translate verbal statements into algebraic expressions or equations.	Modules 3, 5, 6, 10, 11, 13	Kuta Software handouts	August 2009- May 2010

9-12.A.1.8 Solve formulas for specified variables.	Modules 3, 5	Kuta Software handouts	August 2009- May 2010
9-12.A.1.11 Describe the properties of <i>rational</i> exponents and apply these properties to simplify algebraic expressions. . (Note: integer exponents)	Modules 6, 10	Kuta Software for handouts	
9-12.A.1.12 Explain and use equivalent representations for algebraic expressions (e.g., simplify using the distributive property).	Modules 3, 5, 6, 10, 11, 13	Kuta Software handouts Glencoe: Applied Algebra I	August 2009- May 2010
9-12.A.1.14 Evaluate polynomial, <i>rational, radical, and absolute value</i> expressions for one or more variables. (Note: first and second degree polynomials)	Modules 3, 5, 6, 10, 11, 13	Kuta Software handouts Glencoe: Applied Algebra I	August 2009- May 2010
9-12.A.1.16 Factor second degree polynomials <i>of various types (e.g., difference of squares, perfect square trinomials, sum and difference of cubes)</i> . (Note: second degree polynomials)	Module 10	Kuta Software Handouts	March 2010
9-12.A.1.17 Solve linear equations and inequalities in one variable <i>including those involving the absolute value of a linear function</i> .	Modules 3, 5, 10	Kuta Software handouts	August 2009- March 2010
9-12.A.1.18 Use the four basic operations (+, -, ×, ÷) with linear and second degree polynomials, and <i>rational</i> expressions in contextual situations. (Note: second degree polynomials)	Modules 3, 5, 6, 10, 11, 13	Kuta Software handouts Glencoe: Applied Algebra I	August 2009- May 2010
9-12.A.1.19 Use the four basic operations (+, -, ×, ÷) in contextual situations with numbers in scientific notation, <i>and express the results with the appropriate number of significant figures</i> .		Kuta Software handouts Glencoe: Applied Algebra I	August 2009- May 2010

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<b>Strand: ALGEBRA, FUNCTIONS, AND GRAPHS</b>	<b>Standard: Students will understand algebraic concepts and applications.</b>	<b>9-12 Benchmark A.2: Understand patterns, relations, functions, and graphs.</b>
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Algebra 1 Performance Standards	Algebra 1 Textbook Pages	Supplemental Materials	Month(s) when Addressed
9-12.A.2.3 Translate among tabular, symbolic, and graphical representations of functions and relations.	Modules 3, 5, 6, 10, 11, 13	Kuta Software handouts Glencoe: Applied Algebra I	August 2009- May 2010
9-12.A.2.4 Construct a linear function that represents a given graph.	Modules 3, 10, 13	Kuta Software handouts Glencoe: Applied Algebra I	January 2010- March 2010
9-12.A.2.6 Graph a linear equation and demonstrate that it has a constant rate of change.	Module 3	Kuta Software handouts Glencoe: Applied Algebra I	January 2010- March 2010
9-12.A.2.7 Graph a linear inequality in two variables.	Module 13	Kuta Software handouts Glencoe: Applied Algebra I	January 2010- March 2010
9-12.A.2.13 Read information and draw conclusions from graphs, and identify properties of a graph that provide useful information about the original problem.	Modules 3, 5, 6, 10, 11, 13	Kuta Software handouts Glencoe: Applied Algebra I	August 2009- May 2010
9-12.A.2.14 Understand the relationship between the coefficients of a linear equation and the slope and x- and y-intercepts of its graphs.	Modules 3, 10, 13	Kuta Software handouts Glencoe: Applied Algebra I	January 2010- March 2010
9-12.A.2.15 Evaluate estimated rate of change in a contextual situations.	Modules 3, 10, 13	Kuta Software handouts Glencoe: Applied Algebra I	August 2009- May 2010

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<b>Strand: ALGEBRA, FUNCTIONS, AND GRAPHS</b>	<b>Standard: Students will understand algebraic concepts and applications.</b>	<b>9-12 Benchmark A.3: Use mathematical models to represent and understand quantitative relationships.</b>
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Algebra 1 Performance Standards	Algebra 1 Textbook Pages	Supplemental Materials	Month(s) when Addressed
9-12.A.3.1 Model real-world phenomena using linear equations and linear inequalities interpret resulting solutions, and use estimation to detect errors.	Modules 3, 10, 13	Kuta Software handouts Glencoe: Applied Algebra I	August 2009- May 2010
9-12.A.3.4 Solve systems of linear equations in two variables algebraically and graphically.	Module 13	Kuta Software handouts Glencoe: Applied Algebra I	March 2010-May 2010
9-12.A.3.6 Write an equation of the line that passes through two given points.	Module 3	Kuta Software handouts Glencoe: Applied Algebra I	January 2010- March 2010
9-12.A.3.7 Verify that a point lies on a line, given an equation of the line, and be able to derive linear equations given a point and a slope.	Module 3	Kuta Software handouts Glencoe: Applied Algebra I	January 2010
9-12.A.3.8 Determine whether the graphs of two given linear equations are parallel, perpendicular, coincide or none of these.	Module 3	Kuta Software handouts Glencoe: Applied Algebra I	January 2010

## Algebra 1 Math Curriculum Alignment with State Standards

**District:** Quemado Independent School District #2

**Algebra 1 Textbook:** SIMMS Integrated Mathematics Level 1

**Strand: Geometry and Trigonometry**

**Standard: Students will understand geometric concepts and applications.**

**9-12 Benchmark G.1: Analyze characteristics and properties of two- and three-dimensional geometric shapes and develop mathematical arguments about geometric relationships.**

Algebra 1 Performance Standards	Algebra 1 Textbook Pages	Supplemental Materials	Month(s) when Addressed
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This item is not applicable.

## Algebra 1 Math Curriculum Alignment with State Standards

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**Algebra 1 Textbook:** SIMMS Integrated Mathematics Level 1

<b>Strand: Geometry and Trigonometry</b>	<b>Standard: Students will understand geometric concepts and applications.</b>	<b>9-12 Benchmark G.2: Specify locations and describe spatial relationships using coordinate geometry and other representational systems.</b>
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Algebra 1 Performance Standards	Algebra 1 Textbook Pages	Supplemental Materials	Month(s) when Addressed
<b>9-12.G.2.1</b> Identify the origin, coordinate axes, and four quadrants on the Cartesian coordinate plane, and draw and label them correctly.	Module 3	Kuta Software handouts Glencoe: Applied Algebra I	January 2010- March 2010
<b>9-12.G.2.2</b> Determine the midpoint and distance between two points within a coordinate system and relate these ideas to geometric figures in the plane (e.g., find the center of a circle given the two points of a diameter of the circle).	Module 3	Kuta Software handouts Glencoe: Applied Algebra I	January 2010- March 2010
<b>9-12.G.2.3</b> Use basic geometric ideas (e.g., the Pythagorean theorem, area and perimeter) in the context of the Cartesian coordinate plane (e.g., calculate the perimeter of a rectangle with integer coordinates and with sides parallel to the coordinate axes, and of a rectangle with sides not parallel).	Module 11	Kuta Software handouts Glencoe: Applied Algebra I	January 2010- March 2010

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**Algebra 1 Textbook:** SIMMS Integrated Mathematics Level 1

<b>Strand: Geometry and Trigonometry</b>	<b>Standard: Students will understand geometric concepts and applications.</b>	<b>9-12 Benchmark G.3: Apply transformations and use symmetry to analyze mathematical situations.</b>
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<b>Algebra 1 Performance Standards</b>	<b>Algebra 1 Textbook Pages</b>	<b>Supplemental Materials</b>	<b>Month(s) when Addressed</b>
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This item is not applicable.

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**Algebra 1 Textbook:** SIMMS Integrated Mathematics Level 1

<b>Strand: Geometry and Trigonometry</b>	<b>Standard: Students will understand geometric concepts and applications.</b>	<b>9-12 Benchmark G.4: Use visualization, spatial reasoning, and geometric modeling to solve problems.</b>	
<b>Algebra 1 Performance Standards</b>	<b>Algebra 1 Textbook Pages</b>	<b>Supplemental Materials</b>	<b>Month(s) when Addressed</b>
9-12.G.4.4 Solve problems using the Pythagorean theorem.	Module 11	Kuta Software handouts Glencoe: Applied Algebra I	April 2010

## Algebra 1 Math Curriculum Alignment with State Standards

**District:** Quemado Independent School District #2

**Algebra 1 Textbook:** SIMMS Integrated Mathematics Level 1

<b>Strand: DATA ANALYSIS AND PROBABILITY</b>	<b>Standard: Students will understand how to formulate questions, analyze data, and determine probabilities.</b>	<b>9-12 Benchmark D.1: Formulate questions that can be addressed with data and collect, organize, and display relevant data to answer them.</b>
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This item is not applicable.

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**Algebra 1 Textbook:** SIMMS Integrated Mathematics Level 1

<b>Strand: DATA ANALYSIS AND PROBABILITY</b>	<b>Standard: Students will understand how to formulate questions, analyze data, and determine probabilities.</b>	<b>9-12 Benchmark D.2: Select and use appropriate statistical methods to analyze data and make predictions.</b>
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Algebra 1 Performance Standards	Algebra 1 Textbook Pages	Supplemental Materials	Month(s) when Addressed
9-12.D.2.1 Distinguish measurement data from categorical data, and define the term <i>variable</i> .	Module 2	Kuta Software handouts Glencoe: Applied Algebra I	August 2009 – September 2010
9-12.D.2.2 Explain the meaning of <i>univariate</i> and <i>bivariate</i> data.	Module 2	Kuta Software handouts Glencoe: Applied Algebra I	August 2009 – September 2010
9-12.D.2.3 Display the distribution of univariate data, describe its shape using appropriate summary statistics, and understand the distinction between a statistic and a parameter.	Module 2	Kuta Software handouts Glencoe: Applied Algebra I	August 2009 – September 2010
9-12.D.2.8 Describe the shape of a scatterplot.	Module 2	Kuta Software handouts Glencoe: Applied Algebra I X-cell Spreadsheets	August 2009 – September 2010
9-12.D.2.9 Use linear patterns in data to make predictions.	Module 5	Kuta Software handouts Glencoe: Applied Algebra I	January – March 2010

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<b>Strand: DATA ANALYSIS AND PROBABILITY</b>	<b>Standard: Students will understand how to formulate questions, analyze data, and determine probabilities.</b>	<b>9-12 Benchmark D.3: Understand and apply basic concepts of probability.</b>
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This item is not applicable.