

Geometry Math Curriculum Alignment with State Standards

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

Geometry textbook: SIMMS Integrated Mathematics Level 2

Strand: ALGEBRA, FUNCTIONS, AND GRAPHS	Standard: Students will understand algebraic concepts and applications.	9-12 Benchmark A.1: Represent and analyze mathematical situations and structures using algebraic symbols.
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Geometry Performance Standards	Geometry textbook Pages	Supplemental Materials	Month(s) when Addressed
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This item is not applicable.

Geometry Math Curriculum Alignment with State Standards

District: Quemado Independent School District #2

Geometry textbook: SIMMS Integrated Mathematics Level 2

Strand: ALGEBRA, FUNCTIONS, AND GRAPHS	Standard: Students will understand algebraic concepts and applications.	9-12 Benchmark A.2: Understand patterns, relations, functions, and graphs.
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Geometry Performance Standards	Geometry textbook Pages	Supplemental Materials	Month(s) when Addressed
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This item is not applicable.

Geometry Math Curriculum Alignment with State Standards

District: Quemado Independent School District #2

Geometry textbook: SIMMS Integrated Mathematics Level 2

Strand: ALGEBRA, FUNCTIONS, AND GRAPHS	Standard: Students will understand algebraic concepts and applications.	9-12 Benchmark A.3: Use mathematical models to represent and understand quantitative relationships.
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Geometry Performance Standards	Geometry textbook Pages	Supplemental Materials	Month(s) when Addressed
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This item is not applicable.

Geometry Math Curriculum Alignment with State Standards

District: Quemado Independent School District #2

Geometry textbook: SIMMS Integrated Mathematics Level 2

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.
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Geometry Performance Standards	Geometry textbook Pages	Supplemental Materials	Month(s) when Addressed
9-12.G.1.1 Understand that numerical values associated with measurements of physical quantities must be assigned units of measurement or dimensions; apply such units correctly in expressions, equations and problem solutions that involve measurements; and convert a measurement using one unit of measurement to another unit of measurement.	Modules 3, 7, 13 Text 60-72, 217-222, 364-369 SIMMS 3 Module 14 Text 400-406 SIMMS 1 Module 11 Text 285-293	Geometry Utility: Cabri Microsoft Excel	September October December January
9-12.G.1.2 Find the area and perimeter of a geometric figure composed of a combination of two or more rectangles, triangles, and/or semicircles with just edges in common.	Module 3 Text 60-64	Geometry Utility: Cabri Microsoft Excel	January
9-12.G.1.3 Draw three-dimensional objects and calculate the surface areas and volumes of these figures (e.g. prisms, cylinders, pyramids, cones, spheres) as well as figures constructed from unions of prisms with faces in common, given the formulas for these figures.	Module 3 Text 65-68	Geometry Utility: Cabri	January
9-12.G.1.4 Identify the hypothesis and conclusion in examples of conditional statements.	Module 12 Text 326 -345	Geometry Utility: Cabri Glenco Geometry Text 70-75	Decmeber

9-12.G.1.5 Use definitions in making logical arguments.	Module 12 Text 324 - 333		December
9-12.G.1.6 Use counterexamples to show that an assertion is false and recognize that a single counterexample is sufficient to refute a universal statement.	Module 12 Text 349 - 355		December
9-12.G.1.7 Explain the difference between inductive and deductive reasoning and provide examples of each.	Module 12 Text 326 - 345	Glenco Geometry Text 70-85	December
9-12.G.1.8 Explain why, for inductive reasoning, showing a statement is true for a finite number of examples does not show it is true for all cases unless the cases verified are all possible cases.	Module 12 Text 326 - 345	Glenco Geometry Text 70-85	December
9-12.G.1.9 Write geometric proofs, including proofs by contradiction, and perform and explain basic geometric constructions related to: theorems involving the properties of parallel and perpendicular lines, circles, and polygons; theorems involving complementary, supplementary, and congruent angles; theorems involving congruence and similarity; and the Pythagorean theorem.	Module 12 Text 326 - 345	Geometry Utility: Cabri Glenco Geometry Text 86 - 111	December
9-12.G.1.10 Recognize that there are geometries, other than Euclidean geometry, in which the parallel postulate is not true.	SIMMS 3 Module 14 Text 390 - 406		December

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Geometry textbook: SIMMS Integrated Mathematics Level 2

Strand: Geometry and Trigonometry	Standard: Students will understand geometric concepts and applications.	9-12 Benchmark G.2: Specify locations and describe spatial relationships using coordinate geometry and other representational systems.
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Geometry Performance Standards	Geometry textbook Pages	Supplemental Materials	Month(s) when Addressed
9-12.G.2.1 Identify the origin, coordinate axes, and four quadrants on the Cartesian coordinate plane, and draw and label them correctly.	Module 5 Text 132 - 144	Geometry Utility: Cabri Microsoft Excel	August September
9-12.G.2.2 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 5 Text 132 - 144	Geometry Utility: Cabri Microsoft Excel	August September
9-12.G.2.3 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 5 Text 132 - 144	Geometry Utility: Cabri Microsoft Excel	August September

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Geometry textbook: SIMMS Integrated Mathematics Level 2

Strand: Geometry and Trigonometry	Standard: Students will understand geometric concepts and applications.	9-12 Benchmark G.3: Apply transformations and use symmetry to analyze mathematical situations.
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Geometry Performance Standards	Geometry textbook Pages	Supplemental Materials	Month(s) when Addressed
9-12.G.3.1 Use rigid motions (compositions of reflections, translations and rotations) to determine whether two geometric figures are congruent in a coordinate plane.	Module 5 Text 153-159	Microsoft Excel Scientific Notebook	August September
9-12.G.3.2 Sketch a planar figure that is the result of given transformations (i.e., translation, reflection, rotation, and/or dilation).	Module 5 Text 153-156	Microsoft Excel Scientific Notebook	August September
9-12.G.3.3 Identify similarity in terms of transformations.	Module 5 Text 153 -159	Microsoft Excel Scientific Notebook	August September
9-12.G.3.4 Determine the effects of transformations on linear and area measurements of the original planar figure.	Module 5 Text 159 - 166	Microsoft Excel Scientific Notebook	August September

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Strand: Geometry and Trigonometry	Standard: Students will understand geometric concepts and applications.	9-12 Benchmark G.4: Use visualization, spatial reasoning, and geometric modeling to solve problems.
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Geometry Performance Standards	Geometry textbook Pages	Supplemental Materials	Month(s) when Addressed
9-12.G.4.1 Solve contextual problems using congruence and similarity relationships of triangles (e.g., find the height of a pole given the length of its shadow).	Modules 7 Text 199 - 206	Geometry Utility: Cabri Microsoft Excel Scientific Notebook	September October
9-12.G.4.2 Solve problems involving complementary, supplementary, and congruent angles.	Modules 12 Text 326 - 343	Geometry Utility: Cabri Microsoft Excel Scientific Notebook	September October December
9-12.G.4.3 Know that the effect of a scale factor k on length, area and volume is to multiply each by k , k^2 and k^3 , respectively.	Modules 5, 7 Text 133 – 144 Text 199 – 206, 217 - 222	Geometry Utility: Cabri Microsoft Excel Scientific Notebook	August September October
9-12.G.4.4 Solve problems using the Pythagorean theorem.	Module 12 Text 335 - 343	Geometry Utility: Cabri	December
9-12.G.4.5 Understand how similarity of right triangles allows the trigonometric functions sine, cosine and tangent to be defined as ratios of sides and be able to use these functions to solve problems.	SIMMS 1 Module 11 Text 293 - 306	Geometry Utility: Cabri Microsoft Excel	November
9-12.G.4.6 Apply basic trigonometric functions to solve right-triangle problems.	SIMMS 1 Module 11 Text 293 - 300	Geometry Utility: Cabri Microsoft Excel	November

<p>9-12.G.4.7 Use angle and side relationships in problems with special right triangles (e.g., 30-, 60-, 90-, and 45-, 45-, 90- degree triangles).</p>	<p>SIMMS 1 Module 11 Text 293 - 300</p>	<p>Geometry Utility: Cabri Microsoft Excel</p>	<p>November</p>
<p>9-12.G.4.8 Describe the intersections of a line and a plane, intersections of lines in the plane and in space, or of two planes in space.</p>	<p>Module 7 Text 197 - 216</p>	<p>Geometry Utility: Cabri Scientific Notebook</p>	<p>September October</p>

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Strand: DATA ANALYSIS AND PROBABILITY	Standard: Students will understand how to formulate questions, analyze data, and determine probabilities.	9-12 Benchmark D.1: Formulate questions that can be addressed with data and collect, organize, and display relevant data to answer them.
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Geometry Performance Standards	Geometry textbook Pages	Supplemental Materials	Month(s) when Addressed
9-12.D.1.1 Explain the differences between various methods of data collection.	Module 13 Text 363 - 369		April May
9-12.D.1.2 Describe the characteristics of a well-designed and well-conducted survey by differentiating between sampling and census, and a biased and unbiased sample.	Module 8 Text 228 - 231	Microsoft Excel	February March
9-12.D.1.3 Describe the characteristics of a well-designed and well-conducted experiment by differentiating between experiments and observational studies, and recognizing the sources of bias in poorly designed experiments.	Module 13 Text 369 - 373		April May
9-12.D.1.4 Explain the role of randomization in well-designed surveys and experiments.	Module 8 Text 232 - 236	Microsoft Excel	February March

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Strand: DATA ANALYSIS AND PROBABILITY	Standard: Students will understand how to formulate questions, analyze data, and determine probabilities.	9-12 Benchmark D.2: Select and use appropriate statistical methods to analyze data and make predictions.
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Strand: DATA ANALYSIS AND PROBABILITY	Standard: Students will understand how to formulate questions, analyze data, and determine probabilities.	9-12 Benchmark D.3: Understand and apply basic concepts of probability.
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9-12.D.3.1 Explain the concept of a random variable.	Module 13 Text 363 - 369		April May
9-12.D.3.2 Explain how the relative frequency of a specified outcome of an event can be used to estimate the probability of the outcome.	Module 13 Text 369 - 373		April May
9-12.D.3.3 Use the results of simulations to compute the expected value and probabilities of random variables in simple cases.	Module 13 Text 369 - 373		April May
9-12.D.3.4 Compute the probability of an event using the complement rule, addition rule for disjoint and joint events, multiplication rule for independent events, and rules for conditional probability.	Module 13 Text 373 -380		April May