

Mt. Zion High School Curriculum Map

Name: Chris Ellis

Department: Math

Subject: Algebra 1

Quarter	Essential Skills	Strategies and Activities	CC Standards	Assessments
3	<p>7. Students will be able to understand, manipulate, and create exponents and exponential functions.</p>	<p>7a. Students will multiply monomials and simplify expressions using the multiplication properties of exponents.</p> <p>7b. Students will divide monomials and simplify expressions using the division properties of exponents.</p> <p>7c. Students will evaluate, rewrite, and solve equations involving expressions with rational exponents.</p> <p>7d. Students will express numbers in scientific notation and find products and quotients of numbers expressed in scientific notation.</p> <p>7e. Students will graph and identify data that display exponential behavior.</p> <p>7f. Students will solve problems involving exponential growth and decay.</p>	<p>A.SSE.2 F.IF.8b</p> <p>A.SSE.2 F.IF.8b</p> <p>N.RN.1 N.RN.2</p> <p>A.SSE.2</p> <p>F.IF.7e F.LE.2</p> <p>F.IF.8b F.LE.2</p>	<p>Daily Assignments</p> <p>Mid-Chapter Quiz</p> <p>Chapter 7 Test</p>

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Quarter	Essential Skills	Strategies and Activities	CC Standards	Assessments
3	8. Students will be able to understand, manipulate, and create quadratic expressions and equations.	<p>8a. Students will write polynomials in standard form and add and subtract polynomials.</p> <p>8b. Students will multiply a polynomial by a monomial and solve equations involving the products of monomials and polynomials.</p> <p>8c. Students will multiply binomials by using the FOIL method and multiply polynomials by using the distributive property.</p> <p>8d. Students will find squares of sums and differences and the product of a sum and a difference.</p> <p>8e. Students will use the distributive property to factor polynomials and solve quadratic equations of the form $ax^2 + bx = 0$.</p> <p>8f. Students will factor and solve equations of the form $x^2 + bx + c = 0$.</p> <p>8g. Students will factor and solve equations of the form $ax^2 + bx + c = 0$.</p> <p>8h. Students will factor binomials that are the difference of squares and use the difference of squares to solve equations.</p> <p>8i. Students will factor perfect square trinomials and solve equations involving perfect squares.</p>	<p>A.SSE.1a</p> <p>A.APR.1</p> <p>A.APR.1</p> <p>A.APR.1</p> <p>A.SSE.2 A.SSE.3a</p> <p>A.SSE.3a A.REI.4b</p> <p>A.SSE.3a A.REI.4b</p> <p>A.SSE.3a A.REI.4b</p> <p>A.SSE.3a A.REI.1</p>	<p>Daily Assignments</p> <p>Mid-Chapter Quiz</p> <p>Chapter 8 Test</p>

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3	<p>9. Students will be able to understand, manipulate, and create quadratic functions and equations.</p>	<p>9a. Students will analyze the characteristics of the graphs of quadratic functions and graph quadratic functions.</p> <p>9b. Students will solve quadratic equations by graphing and estimate solutions of quadratic equations by graphing.</p> <p>9c. Students will apply translations of quadratic functions and apply dilations and reflections to quadratic functions.</p> <p>9d. Students will complete the square to write perfect square trinomials and solve quadratic equations by completing the square.</p> <p>9e. Students will solve quadratic equations by using the Quadratic Formula and use the discriminant to determine the number of solutions to a quadratic equation.</p>	<p>F.IF.4 F.IF.7a</p> <p>A.REI.4b F.IF.7a</p> <p>A.SSE.3b F.IF.7a</p> <p>A.REI.4 F.IF.8a</p> <p>A.REI.4</p>	<p>Daily Assignments</p> <p>Mid-Chapter Quiz</p> <p>Chapter 9 Test</p>

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Quarter	Essential Skills	Strategies and Activities	CC Standards	Assessments
4	10. Students will be able to understand, manipulate, and create radical functions and geometry.	10a. Students will graph and analyze dilations, reflections, and translations of radical functions.	F.IF.4 F.IF.7b	Daily Assignments
		10b. Students will simplify radical expressions by using the Product Property and Quotient Property of Square Roots.	A.REI.4a	
		10c. Students will add, subtract, and multiply radical expressions	N.RN.2	
		10d. Students will solve radical equations with and without extraneous solutions.	N.RN.2 A.CED.2	
		10e. Students will solve problems using the Pythagorean Theorem and determine whether a triangle is a right triangle.	NA	
		10f. Students will find trigonometric ratios of angles and use trigonometry to solve triangles.	NA	Chapter 10 Test
	11. Students will be able to understand, manipulate, and create rational functions and equations.	11a. Students will identify, use, and graph inverse variations.	NA	Daily Assignments
		11b. Students will identify values excluded from the domain of a rational expression and simplify rational expressions.	NA	
		11c. Students will multiply and divide rational expressions.	NA	

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4	12. Students will be able to understand, manipulate, and create statistics and probability.	<p>11d. Students will divide a polynomial by a monomial and by a binomial.</p> <p>11e. Students will add and subtract rational expressions with like denominators.</p> <p>11f. Students will simplify mixed expressions and complex fractions.</p> <p>11g. Students will solve rational equations and use rational equations to solve problems.</p> <p>12a. Students will classify and analyze samples and studies.</p> <p>12b. Students will identify sample statistics and population parameters and analyze data sets using statistics.</p> <p>12c. Students will describe the shape of a distribution and use the shapes of distributions to select appropriate statistics.</p> <p>12d. Students will determine the effect that transformations of data have on measures of central tendency and variation and compare data using the measures of central tendency and variation.</p>	<p>NA</p> <p>NA</p> <p>NA</p> <p>A.CED.2</p> <p>Preparing for S.ID.2</p> <p>S.ID.2</p> <p>S.ID.2 S.ID.3</p> <p>S.ID.2 S.ID.3</p>	<p>Mid-Chapter Quiz</p> <p>Chapter 11 Test</p> <p>Daily Assignments</p> <p>Mid-Chapter</p>

