Grade Level:		JH 7th/8th Grade			
Subject/Course:		Algebra			
Month/ Quarter	**Topic**	**Standards**	**Skills**	**Resources/ Materials**	**Assessments**
Quarter 1	Chapter 0 Preparing for Algebra 0.2/0.3 Real Numbers & Operations with Integers 0.4 Addition and Subtraction of Rational Numbers 0.5 Multiplication and Division of Rational Numbers 0.6 The Percent Proportion 0.7 /0.8 Perimeter & Area 0.9/0.10 Volume and Surface Area Chapter 1 Expressions, Equations, and Functions 1.1 Variables and Expressions 1.2 Order of Operations 1.3 Properties of Numbers 1.4 The Distributive Property 1.5 Equations 1.6 Relations 1.7 Functions	A.SSE.1a A.SSE.2 A.SSE.1b A.SSE.2 A.SSE.1b A.SSE.2	1a. Students will write verbal expressions for algebraic expressions and write algebraic expressions for verbal expressions. 1b. Students will evaluate numerical and algebraic expressions by using the order of operations. 1c. Students will recognize the properties of equality and identity, along with the Commutative and Associative Properties.	Textbook Lessons 0-2 thru 0-10 Note-taking binder Accelerated Math Textbook Lessons 1-1 thru 1-7 Note-taking binder Accelerated Math	Daily assignments Quizzes Chapter Test Accelerated Math Daily assignments Quizzes Chapter Test Accelerated Math

		A.SSE.1a A.SSE.2 A.CED.1 A.REI.3 A.REI.10 F.IF.1 F.IF.1 F.IF.2 F.IF.4	1d. Students will use the Distributive Property to evaluate and simplify expressions. 1e. Students will solve equations with one or two variables. 1f. Students will be able to represent relations and interpret graphs of relations. 1g. Students will determine whether a relation is a function and find function values. 1h. Students will interpret intercepts, and symmetry of graphs of functions. Students will interpret positive, negative, increasing and decreasing behavior of graphs of functions.		
Quarter 1	Chapter 2 Linear Equations 2.1 Writing Equations 2.2 Solving One-Step Equations 2.3 Solving Multi-Step Equations 2.4 Solving Equations with the Variable on Each Side 2.5 Solving Equations Involving Absolute Value 2.6 Ratios and Proportions 2.7 Percent of Change 2.8 Literal Equations and Dimensional Analysis 2.9 Weighted Averages	A.CED.1 A.REI.1 A.REI.3 A.REI.1 A.REI.3 A.REI.1 A.REI.3	2a. Students will translate sentences into equations and equations into sentences. 2b. Students will solve equations by using addition, subtraction, multiplication, and division. 2c. Students will solve equations involving multiple operations and consecutive integers. 2d. Students will solve equations with the variable on each side and equations with grouping symbols.	Textbook Lessons 2-1 thru 2-9 Note-taking binder Accelerated Math	Daily assignments Quizzes Chapter Test Accelerated Math

		A.REI.1 A.REI.3	2e. Students will evaluate absolute value expressions and solve absolute value equations.		
		A.REI.1 A.REI.3	2f. Students will compare ratios and solve proportions.		
		N.Q.1 A.REI.3	2g. Students will find the percent of change and solve problems involving percent of change.		
		A.CED.4 A.REI.3	2h. Students will solve equations for given variables and use formulas to solve real-world problems.		
		A.REI.1 A.REI.3	2i. Students will solve mixture and uniform motion problems.		
Quarter 2	Chapter 3 Linear Functions 3.1 Graphing Linear Equations 3.2 Solving Linear Equations by Graphing 3.3 Rate of Change and Slope 3.4 Direct Variation 3.5 Arithmetic Sequence as Linear Functions 3.6 Proportional and Nonproportional Relationships	F.IF.4 F.IF.7a A.REI.10 F.IF.7a F.IF.6 F.LE.1a A.REI.10 F.IF.7a F.BF.2 F.LE.2	3a. Students will identify and graph linear equations, intercepts, and zeros. 3b. Students will solve linear equations by graphing and estimate solutions to an equation by graphing. 3c. Students will use rate of change to solve problems and find the slope of a line. 3d. Students will write, graph, and solve direct variation equations and problems. 3e. Students will recognize arithmetic sequences and relate them to linear functions.	Textbook Lessons 3-1 thru 3-6 Note-taking binder Accelerated Math	Daily assignments Quizzes Chapter Test Accelerated Math

		F.LE.1b F.LE.2	3f. Students will write an equation for a proportional and a nonproportional relationship.		
Quarter 2	Chapter 4 Equations of Linear Functions 4.1 Graphing Equations in Slope-Intercept Form 4.2 Writing Equations in Slope-Intercept Form 4.3 Writing Equations in Point-Slope Form 4.4 Parallel and Perpendicular Lines 4.5 Scatter Plots and Lines of Fit	F.BF.3 S.ID.7 F.BF.1 F.LE.2 F.IF.2 F.LE.2 F.LE.2 S.ID.7 F.LE.2 S.ID.6a S.ID.6c	4a. Students will write and graph linear equations in slope-intercept form and model real-world data with equations in slope-intercept form. 4b. Students will write an equation of a line in slope-intercept form given the slope and one point and given two points. 4c. Students will write equations of lines in point-slope form and in different forms 4d. Students will write an equation of a line that passes through a given point, parallel or perpendicular to a given line. 4e. Students will investigate relationships between quantities by using points on scatter plots and use lines of fit to make and evaluate predictions.	Textbook Lessons 4-1 thru 4-5 Note-taking binder Accelerated Math	Daily assignments Quizzes Chapter Test Accelerated Math
Quarter 2	Chapter 5 Linear Inequalities 5.1 Solving Inequalities by Addition and Subtraction 5.2 Solving Inequalities by Multiplication and Division 5.3 Solving Multi-Step	A.CED.1 A.REI.3 A.CED.1 A.REI.3	5a. Students will solve linear inequalities by using addition and subtraction. 5b. Students will solve linear inequalities by using multiplication and division.	Textbook Lessons 5-1 thru 5-6 Note-taking binder Accelerated	Daily assignments Quizzes Chapter Test Accelerated Math

	Inequalities 5.4 Solving Compound Inequalities 5.5 Inequalities Involving Absolute Value 5.6 Graphing Inequalities in Two Variables	A.CED.1 A.REI.3 A.CED.1 A.REI.3 A.CED.1 A.REI.3 A.CED.3 A.REI.12	5c. Students will solve linear inequalities involving multiple steps and the distributive property. 5d. Students will solve compound inequalities containing the word *and* and *or* and graph their solution set. 5e. Students will solve and graph absolute value inequalities involving < and >. 5f. Students will graph linear inequalities on the coordinate plane and solve inequalities by graphing.	Math	
Quarter 3	Chapter 6 Systems of Linear Equations and Inequalities 6.1Graphing Systems of Equations 6.2 Substitution 6.3 Elimination Using Addition and Subtraction 6.4 Elimination Using Multiplication 6.5 Applying Systems of Linear Equations 6.6 Systems of Inequalities	A.CED.2 A.REI.6 A.REI.6 A.REI.5 A.REI.6 A.REI.6 A.REI.12	6a. Students will determine the number of solutions a system of linear equations has and solve it by graphing. 6b. Students will solve systems of equations by using substitution and solve real-world problems involving systems of equations. 6c. Students will solve systems of equations using elimination with addition, subtraction, and multiplication, and solve real-world problems involving systems of equations. 6d. Students will determine the best method for solving systems of equations and apply systems of equations. 6e. Students will solve systems of linear inequalities by graphing and will apply systems of linear inequalities.	Textbook Lessons 6-1 thru 6-6 Note-taking binder Accelerated Math	Daily assignments Quizzes Chapter Test Accelerated Math

Quarter 3	Chapter 7 Exponents and Exponential Functions 7.1 Multiplication Properties of Exponents 7.2 Division Properties of Exponents 7.3 Rational Exponents 7.4 Scientific Notation 7.5 Exponential Functions 7.6 Growth and Decay 7.7 Geometric Sequences as Exponential Functions	A.SSE.2 F.IF.8b A.SSE.2 F.IF.8b N.RN.1 N.RN.2 A.SSE.2 F.IF.7e F.LE.2 F.IF.8b F.LE.2	7a. Students will multiply monomials and simplify expressions using the multiplication properties of exponents. 7b. Students will divide monomials and simplify expressions using the division properties of exponents. 7c. Students will evaluate, rewrite, and solve equations involving expressions with rational exponents. 7d. Students will express numbers in scientific notation and find products and quotients of numbers expressed in scientific notation. 7e. Students will graph and identify data that display exponential behavior. 7f. Students will solve problems involving exponential growth and decay.	Textbook Lessons 7-1 thru 7-7 Note-taking binder Accelerated Math	Daily assignments Quizzes Chapter Test Accelerated Math
Quarter 3/4	Chapter 8 Quadratic Expressions and Equations 8.1 Adding and Subtracting Polynomials 8.2 Multiplying a Polynomial by a Monomial 8.3 Multiplying Polynomials 8.4 Special Products 8.5 Using the Distributive Property 8.6 Solving $x^2 + bx + c = 0$	A.SSE.1a A.APR.1 A.APR.1	8a. Students will write polynomials in standard form and add and subtract polynomials. 8b. Students will multiply a polynomial by a monomial and solve equations involving the products of monomials and polynomials. 8c. Students will multiply binomials by using the FOIL method and multiply polynomials by using the distributive property.	Textbook Lessons 8-1 thru 8-9 Note-taking binder Accelerated Math	Daily assignments Quizzes Chapter Test Accelerated Math

	8.7 Solving $ax^2 + bx + c = 0$ 8.8 Differences of Squares 8.9 Perfect Squares	A.APR.1 A.SSE.2 A.SSE.3a A.SSE.3a A.REI.4b A.SSE.3a A.REI.4b A.SSE.3a A.REI.4b A.SSE.3a A.REI.1	8d. Students will find squares of sums and differences and the product of a sum and a difference. 8e. Students will use the distributive property to factor polynomials and solve quadratic equations of the form $ax^2 + bx = 0$. 8f. Students will factor and solve equations of the form $x^2 + bx + c = 0$. 8g. Students will factor and solve equations of the form $ax^2 + bx + c = 0$. 8h. Students will factor binomials that are the difference of squares and use the difference of squares to solve equations. 8i. Students will factor perfect square trinomials and solve equations involving perfect squares.		
Quarter 4	Chapter 9 Quadratic Functions and Equations 9.1 Graphing Quadratic Functions 9.2 Solving Quadratic Equations by Graphing 9.3 Transformations of Quadratic Functions 9.4 Solving Quadratic Equations by Completing the Square 9.5Solving Quadratic Equations by Using the Quadratic Formula 9.6 Analyzing Functions with Successive Differences 9.7 Special Functions	F.IF.4 F.IF.7a A.REI.4b F.IF.7a A.SSE.3b F.IF.7a A.REI.4 F.IF.8a	9a. Students will analyze the characteristics of the graphs of quadratic functions and graph quadratic functions. 9b. Students will solve quadratic equations by graphing and estimate solutions of quadratic equations by graphing. 9c. Students will apply translations of quadratic functions and apply dilations and reflections to quadratic functions. 9d. Students will complete the square to write perfect square trinomials and solve quadratic equations by completing the square.	Textbook Lessons 9-1 thru 9-7 Note-taking binder Accelerated Math	Daily assignments Quizzes Chapter Test Accelerated Math

		A.REI.4	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.		
Quarter 4	Chapter 10 Radical Functions in Geometry 10.1 Square Root Functions 10.2 Simplifying Radical Expressions 10.3 Operations with Radical Expressions 10.4 Radical Expressions 10.5 The Pythagorean Theorem 10.6 Trigonometic Ratios	F.IF.4 F.IF.7b A.REI.4a N.RN.2 N.RN.2 A.CED.2 NA NA	10a. Students will graph and analyze dilations, reflections, and translations of radical functions. 10b. Students will simplify radical expressions by using the Product Property and Quotient Property of Square Roots. 10c. Students will add, subtract, and multiply radical expressions 10d. Students will solve radical equations with and without extraneous solutions. 10e. Students will solve problems using the Pythagorean Theorem and determine whether a triangle is a right triangle. 10f. Students will find trigonometric ratios of angles and use trigonometry to solve triangles.		
Quarter 4	Chapter 11 Rational Functions and Equations 11.1 Inverse Variation 11.2 Rational Functions 11.3 Simplifying Rational Expressions 11.4 Multiplying and Dividing Rational Expressions 11.5 Dividing Polynomials 11.6 Adding and Subtracting	NA NA NA	11a. Students will identify, use, and graph inverse variations. 11b. Students will identify values excluded from the domain of a rational expression and simplify rational expressions. 11c. Students will multiply and divide rational expressions.		

	Rational Expressions 11.7 Mixed Expressions and Complex Fractions 11.8 Rational Equations	NA NA NA A.CED.2	11d. Students will divide a polynomial by a monomial and by a binomial. 11e. Students will add and subtract rational expressions with like denominators. 11f. Students will simplify mixed expressions and complex fractions. 11g. Students will solve rational equations and use rational equations to solve problems.		
Extra	Chapter 12	Preparing for S.ID.2 S.ID.2 S.ID.2 S.ID.3 S.ID.2 S.ID.3	12a. Students will classify and analyze samples and studies. 12b. Students will identify sample statistics and population parameters and analyze data sets using statistics. 12c. Students will describe the shape of a distribution and use the shapes of distributions to select appropriate statistics. 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.		