

Content Area	Algebra	Grade Level/Course: Algebra I			District		
Author	Steve Michaletz				Date		
Unit #	Content	Objectives Skills Processes	Vocabulary	Assessment	Resources Chapters / Sections	Mn Standard & Benchmarks	Estimate # of days on Unit
Unit 1	Expressions, Equations, and Functions	Focuses on the basics of Algebra showing how variables are used in forming expressions, equations, and inequalities	Variable , Base, Algebraic Expression, Power, Exponent , Order of Operations, Verbal Model, Rate , Unit Rate, Open Sentence, Equation, Solution , Inequality, Formula, Function, Domain, Range, Independent and Dependent Variable	Unit Test	Section 1.1- 1.7	9.2.1.1 9.2.1.2 9.2.1.3 9.2.1.4	about 10
Unit 2	Properties of Real Numbers	Focuses on the set of real numbers and its subsets. Compare, order and perform operations using these numbers	Whole Numbers, Integers, Rational Number , Opposites, Absolute Value , Term, Coefficient , Constant Term, Like Terms, Square Root , Perfect Square, Irrational Number, Real Number	Unit Test	Section 2.1 - 2.7	9.2.1.1 9.2.1.2 9.2.1.3	about 10
Unit 3	Solving Linear Equations	Focuses on solving linear equations in one variable. Using these skills to solve proportions and percent problems.	Inverse Operations, Equivalent Equations, Identity, Ratio, Proportion, Cross Product, Scale Drawing, Scale Model, Scale	Unit Test	Section 3.1 - 3.8	8.2.4.1 8.2.4.2	about 12
Unit 4	Graphing Linear Equations and Functions	Focuses on graphing linear equations in two variables by using tables, intercepts, slope and rate of change.	Quadrant, Standard form, Linear Function, Slope, x & y-Intercepts, Rate of Change, Slope-Intercept Form, Parallel, Direct Variation, Constant of Variation, Function Notation	Unit Test	Section 4.1 - 4.7	8.2.1.2 8.2.1.3 8.2.2.1 9.2.2.2 9.2.2.3 9.2.1.4 9.2.2.3 9.2.2.1	about 12

Unit 5	Writing Linear Equations	Focuses on writing linear equations in two variables using slope-intercept, point slope and standard forms.	Point-Slope Form, Perpendicular, Scatter Plot, Correlation, Line of Fit, Linear Regression, Inerpolation, Extrapolation, Zero of a Function	Unit Test	Section 5.1-5.7	8.2.4.3 8.3.2.1 8.3.2.3 9.2.1.3 8.4.2.1	about 15
Unit 6	Solving and Graphing Linear Inequalities	Focuses on solving and graphing linear inequalities. Using these skills to solve compound inequalities and absolute value equations.	Graph of an Inequality, Equivalent Inequalities, Compound Inequality, Absolute Value Equation, Absolute Deviation, Linear Inequality in Two Variables, Graph of an Inequality in Two Variables	Unit Test	Section 6.1-6.7	8.2.4.4 8.2.4.5 8.2.4.6	about 13
Unit 7	Systems of Equations and Inequalities	Focuses on solving systems of equations by graphing, substituting and eliminating a variable.	System of Linear Equations, Solution of a System of Linear Equations, System of Linear Inequalities, Solution of a System of Inequalities, Graph of a System of Linear Inequalities	Unit Test	Section 7.1-7.6	8.2.4.7 8.2.4.8 9.2.4.4	about 13
Unit 8	Exponents and Exponential Functions	Focuses on the properties of exponents and graphing exponential functions.	Scientific Notation, Exponential Function, Exponential Growth, Compound Interest, Compound Decay	Unit Test	Section 8.1-8.6	9.2.2.2 9.2.4.2	about 15
Unit 9	Polynomials and Factoring	Focuses on solving polynomial equations and how to factor polynomials using several techniques.	Monomial, Degree, Polynomial, Leading coefficient, Binomial, Trinomial, Roots, Vertical Motion Model, Perfect Square Trinomial, Factor by Grouping Factor Completely	Unit Test	Section 9.1 - 9.8	9.2.3.1 9.2.3.2 9.2.3.3	about 19

Unit 10	Quadratic Equations and Functions	Focuses on graphing and solving quadratic equations, by factoring, completing the square and the quadratic formula.	Quadratic Function, Parabola, Vertex, Axis of Symmetry, Minimum & Maximum Value, Quadratic Equation, Completing the Square, Quadratic Formula, Discriminant	Unit Test	Section 10.1 -10.8	9.2.1.5 9.2.1.6 9.2.2.1 9.2.2.3	about 13
Unit 11	Radicals and Geometry Connections	Focuses on working with radicals. Graphing, simplifying and solving square root functions.	Radical Expression & Function, Square Root Function, Simplest Form of a Radical Expression, Rationalizing the Denominator, Radical Equation, Extraneous Solution, Pythagorean theorem, distance Formula, Midpoint, Midpoint Formula, Hypotenuse & Legs of Right Triangle	Unit Test	Section 11.1 - 11.5	9.2.3.1 9.2.4.7 9.2.4.8	about 10
Unit 12	Rational Equations and Functions	Focuses on graphing simplifying and solving rational equations.	Inverse Variation, Constant of Variation, Hyperbola, Branches & Asymptotes of Hyperbola, Rational function & Expression, Excluded Value, Simplest Form of Rational Expression, Least common Denominator of Rational Expressions, Rational Equation	Unit Test	Section 12.1 - 12.7	9.2.1.7 9.2.3.4	about 15
Unit 13	Probability and Data Analysis	Focuses on probability and combinatorics as well as data analysis.	Outcome, Event, Probability, Odds, Permutation, Combination, Compound Event, Survey, Sample, Range, Stem-and-Leaf Plot, Frequency, Histogram, Box-and-Whisker Plot, Interquartile Range, Outlier	Unit Test	Section 13.1 - 13.8		Don't Cover