**Curriculum Map**

**Unit 1 – The Foundations of Algebra**

**1-1 The Real Number System**

**1-2 Operations on Integers**

**1-3 Simplifying Numerical Expressions (Order of Operations)**

**1-4 Rational Numbers**

**1-5 Approximating Square Roots**

**1-6 Constants, Variables and Expressions**

**1-7 Evaluating Algebraic Expressions**

**1-8 The Distributive Property**

**1-9 The Cummulative and Associative Properties**

**1-10 Operations on Polynomials (Addition and Subtraction)**

**1-11 Operation on Polynomials (Multiplication and Division)**

**Unit 2 – Special Products and Factoring**

**2-1 Multiplying Binomials**

**2-2 Solving Two-Step Equations**

**2-3 Solving Multi-Step Equations**

**2-4 Solving Equations with Variables on Both Sides**

**2-5 Literal Equations and Formulas**

**2-6 Ratios, Rates, and Conversions**

**2-7 Solving Proportions**

**2-8 Proportions and Similar Figures**

**2-9 Percentages**

**2-10 Change Expressed as a Percent**

**Unit 3 – Solving Equations and Inequalities**

**3-1 Inequalities and Their Graphs**

**3-2 Solving Inequalities Using Addition and Subtraction**

**3-3 Solving Inequalities Using Multiplication or Division**

**3-4 Solving Multi-Step Inequalities**

**3-5 Working with Sets**

**3-6 Compound Inequalities**

**3-7 Absolute Value Equations and Inequalities**

**3-8 Union and Intersection of Sets**

**Unit 4 – An Introduction to Functions**

**4-1 Using Graphs to Relate Two Quantities**

**4-2 Patterns and Linear Functions**

**4-3 Patterns and Nonlinear Functions**

**4-4 Graphing a Function Rule**

**4-5 Writing a Function Rule**

**4-6 Formalizing Relations and Functions**

**4-7 Arithmetic Sequences**

**Unit 5 - Linear Functions**

**5-1 Rate of Change and Slope**

**5-2 Direct Variation**

**5-3 Slope-Intercept Form**

**5-4 Point-Slope Form**

**5-5 Standard Form**

**5-6 Parallel and Perpendicular Lines**

**5-7 Scatter Plots and Trend Lines**

**5-8 Graphing Absolute Value Functions**

**Unit 6 – Systems of Equations and Inequalities**

**6-1 Solving Systems by Graphing**

**6-2 Solving Linear Systems by Substitution**

**6-3 Solving Linear Systems Using Elimination**

**6-4 Applications of Linear Systems**

**6-5 Linear Inequalities**

**6-6 Systems of Linear Inequalities**

**Unit 7 – Exponents and Exponential Functions**

**7-1 Zero and Negative Exponents**

**7-2 Multiplying Powers with the Same Base**

**7-3 More Multiplication Properties of Exponents**

**7-4 Division Properties of Exponents**

**7-5 Rational Exponents and Radicals**

**7-6 Exponential Functions**

**7-7 Exponential Growth and Decay**

**7-8 Geometric Sequences**

**Unit 8 – Polynomials and Factoring**

**8-1 Adding and Subtracting Polynomials**

**8-2 Multiplying and Factoring**

**8-3 Multiplying Binomials**

**8-4 Multiplying Special Cases**

**8-5 Factoring x squared plus bx plus c**

**8-6 Factoring ax squared plus bx plus c**

**8-7 Factoring Special Case**

**8-8 Factoring by Grouping**

**Unit 9 - Exponents and Exponential Functions**

**9-1 Quadratic Graphs and Their Properties**

**9-2 Quadratic Functions**

**9-3 Solving Quadratic Equations**

**9-4 Factoring to Solve Quadratic Equations**

**9-5 Completing the Square**

**9-6 The Quadratic Formula and the Discriminant**

**9-7 Linear, Quadratic and Exponential Models**

**9-8 Systems of Linear and Quadratic Equations**

**Unit 10 – Radical Expressions and Equations**

 **10-1 Pythagorean Theorem**

**10-2 Simplifying Radical**

**10-3 Operations with Radical Expressions**

**10-4 Solving Radical Equations**

**10-5 Graphing Square Root Functions**

**10-6 Trigonometric Ratios**

**Unit 11 – Rational Expressions and Functions**

**11-1 Simplifying Rational Expressions**

**11-2 Multiplying and Dividing Rational Expressions**

**11-3 Dividing Polynomials**

**11-4 Adding and Subtracting Rational Expressions**

**11-5 Solving Rational Expressions**

**11-6 Inverse Variation**

**11-7 Graphing Rational Functions**

**Unit 12 – Data Analysis and Probability**

**12-1 Organizing Data Using Matrices**

**12-2 Frequency and Histogram**

**12-3 Measures of Central Tendency and Dispersion**

**12-4 Box and Whiskers Plots**

**12-5 Samples and Surveys**

**12-6 Permutation and Combination**

**12-7 Theoretical and Experimental Probability**

**12-8 Probability of Compound Events**