PAP Algebra 2 Year-At-A-Glance

Term 1	Term 2	Term 3	Term 4
Function Foundations • Attributes of Functions, including Function Definition and Function Vocabulary • Interval/Set/Inequality Notation • Transformations of Functions • Inverse Functions and Function Composition **Absolute Value Functions, Equations, and Inequalities** • Graphing Absolute Value Functions and Transformations • Solving Absolute Value Equations and Inequalities **Quadratic Functions** • Graphing Quadratic Functions and Transformations • Writing Equations of Quadratic Functions and Converting Between Forms • Projectile Motion and Other Applications **Quadratic Equations and Inequalities** • Solving Quadratic Equations Using 5 Methods (Factoring, Square Root, Graphing, Completing the Square, Quadratic Formula)	**(Continued from Term 1)** **Quadratic Equations and Inequalities** • Imaginary Solutions and Complex Numbers • Solving Quadratic Inequalities **Solving Systems of Equations and Inequalities** • Linear and Quadratic Systems • Linear Systems in 3 Variables • Systems of Linear Inequalities **Cubic and Intro to Polynomial Functions** • Graphing Cubic Functions • Graphing using End Behavior and Multiplicity **Polynomial Functions** • Add, Subtract, and Multiply Polynomials • Factoring Polynomials and Polynomial Division • Solving Polynomials **Rational Expressions and Equations** • Simplify Rational Expressions • Add, Subtract, Multiply, and Divide Rational Expressions • Solving Rational Equations **Semester Exam**	**Rational Functions** • Graphs & Transformations of Rational Functions • Asymptotes and Domain and Range Restrictions • Inverse Variation **Radical Functions** • Inverses of Quadratic and Cubic Functions • Graphing Square Root and Cube Root Functions and Transformations • Simplifying Radical Expressions and Rational Exponents • Solving Radical Equations **Exponential Functions** • Geometric Sequences • Graphing and Transforming Exponential Functions • Writing Exponential Functions **Logarithmic Functions and Equations** • Evaluating Logarithms • Properties of Logarithms • Graphing and Transforming Logarithms • Solving Logarithmic and Exponential Equations	**Data Analysis** • Using Regression Models (Linear, Quadratic, Exponential) • Choosing Appropriate Regression Models **Conics** • Graph and Write Equations of Circles • Graph and Write Equations of Ellipses • Graph and Write Equations of Parabolas • Graph and Write Equations of Hyperbolas **Preparation for Future Math Courses (ex: AP Precalculus, Precalculus, College Algebra)** **Semester Exam**