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 Time:3 weeks HMH Lesson: 1.1, 1.2, 13, 1.4 **Absolute Value Functions, Equations, and Inequalities** • Graphing Absolute Value Functions and Transformations • Solving Absolute Value Equations and Inequalities Time: 2 weeks HMH Lesson: 2.1, 2.2 **BOY** **Quadratic Functions** • Graphing Quadratic Functions and Transformations • Writing Equations of Quadratic Functions and Converting Between Forms • Projectile Motion and Other Applications Time: 2 weeks HMH Lesson: 3.1, 3.2, 3.3	**Quadratic Equations and Inequalities** • Solving Quadratic Equations Using 5 Methods (Factoring, Square Root, Graphing, Completing the Square, Quadratic Formula) • Imaginary Solutions and Complex Numbers • Solving Quadratic Inequalities Time: 2 weeks HMH Lesson: 4.1, 4.2, 4.3, 4.4 **Solving Systems of Equations and Inequalities** • Linear and Quadratic Systems • Linear Systems in 3 Variables • Systems of Linear Inequalities Time:1.5 weeks HMH Lesson: 5.2, 5.3, 5.4 **Cubic and Intro to Polynomial Functions** • Graphing Cubic Functions • Graphing using End Behavior and Multiplicity Time: 1 week HMH Lesson: 6.1, 6.2 **Polynomial Functions** • Add, Subtract, and Multiply Polynomials • Factoring Polynomials and Polynomial Division • Solving Polynomials Time: 2.5 weeks HMH Lesson: 7.1, 7.2, 7.3, 7.4, 8.1, 8.2 **Semester Exam**	**Rational Expressions and Equations** • Simplify Rational Expressions • Add, Subtract, Multiply, and Divide Rational Expressions • Solving Rational Equations Time: 1.5 weeks HMH Lesson: 10.2, 10.3 **Rational Functions** • Graphs & Transformations of Rational Functions • Asymptotes and Domain and Range Restrictions • Inverse Variation Time: 2 weeks HMH Lesson: 9.1, 9.2, 9.3 **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 Time: 2.5 weeks HMH Lesson: 11.1, 11.2, 11.4, 12.1, 12.2, 12.3 **Exponential Functions** • Geometric Sequences • Graphing and Transforming Exponential Functions • Writing Exponential Functions Time: 2 weeks HMH Lesson: 13.1, 13.2, 13.3, 13.4	**Logarithmic Functions and Equations** • Evaluating Logarithms • Properties of Logarithms • Graphing and Transforming Logarithms • Solving Logarithmic and Exponential Equations Time: 4 weeks HMH Lesson: 15.1, 15.2, 16.1, 16.2, 16.3 **Data Analysis** • Using Regression Models (Linear, Quadratic, Exponential) • Choosing Appropriate Regression Models Time: 1 week HMH Lesson: 14.1, 14.2 **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 Time: 2.5 weeks **EOY** **Preparation for Future Math Courses (ex: AP Precalculus, Precalculus, College Algebra)** **Semester Exam**

*HMH TX Algebra 2 can be accessed via Clever.
Timeframes may vary slightly based on student needs.