

Pacing Guide

Unit 1: Pre-Algebra Review

- 1.1 Integers and Absolute Value
- 1.2 Subtracting Integers
- 1.3 Order of Operations
- 1.4 Evaluating Expressions Using Substitution
- 1.5 Properties of Real Numbers
- 1.6 Like Terms
- 1.7 Distributive Property
- 1.8 Greatest Common Factor
- 1.9 Least Common Multiple
- 1.10 Reciprocals and Dividing Fractions
- 1.11 Cancelling to Simplify Multiplication and Division
- 1.12 Adding and Subtracting Fractions with Unlike Denominators
- Unit 1 Review
- Unit 1 Test

Unit 1 Completion – 14 Days

Unit 2: Equations

- 2.1 Introduction to Equations
- 2.2 Solving Equations Using Addition and Subtraction
- 2.3 Solving Equations Using Multiplication and Division
- 2.4 Two-Step Equations
- 2.5 Multistep Equations and the Distributive Property

- 2.6 Multistep Equations and the Distributive Property Part II
- 2.7 Formulas and Equations with Multiple Variables
- 2.8 Solving Percent Equations
- 2.9 More Applications of Formulas
- Unit 2 Review
- Unit 2 Test

Unit 2 Completion – 11 Days

Unit 3: Linear Functions

- 3.1 Introduction to Linear Functions
- 3.2 Graphing a Coordinate Point
- 3.3 Relations and Linear Functions
- 3.4 Relations and Linear Functions Part II
- 3.5 Direct Variation
- 3.6 Slope & Rate of Change
- 3.7 Calculating Slope Using a Graph
- 3.8 Slope-Intercept Form
- 3.9 X and Y – Intercepts and Standard Form
- 3.10 Calculating Slope with $\Delta y/\Delta x$
- 3.11 Equation of a Line
- 3.12 Special Lines
- 3.13 Cost vs. Time Functions
- 3.14 Distance vs. Time Functions
- Unit 3 Review
- Unit 3 Test

Unit 3 Completion – 16 Days

Unit 4: Inequalities and Absolute Value Functions

4.1 Introduction to Inequalities and Absolute Value Functions

4.2 Writing Solution Sets

4.3 Graphing Inequalities in One Dimension

4.4 Solving Multistep Inequalities

4.5 Compound Inequalities

4.6 Solving Compound Inequalities

4.7 Inequalities in 2D

4.8 Absolute Value & Inequalities

4.9 Graphing the Absolute Value Function

Unit 4 Review

Unit 4 Test

Unit 4 Completion – 11 Days

Unit 5: Exponential Functions

5.1 Introduction to Exponents

5.2 The Product Property

5.3 The Quotient Property

5.4 Zeros and Negative Exponents

5.5 Fractional Exponents

5.6 Power of a Power Property

5.7 Power of a Product Property

5.8 Power of a Fraction Property

5.9 Order of Operations with Exponents

5.10 Simplifying Algebraic Expressions with Exponents

- 5.11 Scientific Notation
- 5.12 Scientific Notation Part II
- 5.13 Scientific Notation Part III
- 5.14 Exponential Growth
- 5.15 Exponential Decay
- Unit 5 Review
- Unit 5 Test

Unit 5 Completion – 17 Days

Unit 6: Polynomials

- 6.1 Introduction to Polynomials
- 6.2 Adding Polynomials
- 6.3 Subtracting Polynomials
- 6.4 Adding and Subtracting Polynomials with More than One Variable
- 6.5 Multiplying Polynomials
- 6.6 Common Factoring
- 6.7 Factoring Polynomials Using the Greatest Common Factor
- 6.8 Factoring Perfect Square Trinomials
- 6.9 Factoring Differences of Squares
- 6.10 Factoring Trinomials
- 6.11 Solving Trinomials Using Factoring
- Unit 6 Review
- Unit 6 Test

Unit 6 Completion – 13 Days

Unit 7: Quadratic Functions

- 7.1 Introduction to Quadratic Functions
- 7.2 Graphing Quadratic Functions
- 7.3 Graphing Quadratic Functions in Vertex Form
- 7.4 Solving Equations with Square Roots
- 7.5 Solving Quadratics by Completing the Square
- 7.6 Converting to Vertex Form by Completing the Square
- 7.7 The Quadratic Formula
- 7.8 Graphing Quadratic Inequalities
- 7.9 Applications of Quadratics
- Unit 7 Review
- Unit 7 Test

Unit 7 Completion – 11 Days

Algebra 1 Midterm

- Midterm Exam Review – 3 Days
- Midterm Exam – 1 Day

Midterm Completion – 4 Days

Unit 8: Rational Functions

- 8.1 Introduction to Rational Functions
- 8.2 Simplifying Rational Expressions
- 8.3 Adding & Subtracting Rational Expressions

8.4 Multiplying Rational Expressions

8.5 Dividing Rational Expressions

8.6 Solving Rational Equations

8.7 Graphing Rational Functions

Unit 8 Review

Unit 8 Test

Unit 8 Completion – 9 Days

Unit 9: Radical Functions

9.1 Introduction to Radical Functions

9.2 Prime Factors

9.3 Square Roots

9.4 Simplifying Numerical Radicals

9.5 Simplifying Algebraic Radicals

9.6 Adding and Subtracting Radicals

9.7 Multiplying Radicals

9.8 Dividing Radicals

9.9 Solving Radical Equations

9.10 Graphing Radical Functions

Unit 9 Review

Unit 9 Test

Unit 9 Completion – 12 Days

Unit 10: Transformations

10.1 Introduction to Transformations

10.2 Domain of Parent Functions
10.3 Range of Parent Functions
10.4 Translations
10.5 Reflections
10.6 Vertical Stretches and Compressions
10.7 Horizontal Stretches and Compressions
10.8 Summary of Transformations
10.9 Multiple Transformations
Unit 10 Review
Unit 10 Test

Unit 10 Completion – 11 Days

Unit 11: Systems of Equations and Inequalities

11.1 Introduction to Systems of Equations and Inequalities
11.2 Graphing Systems of Equations
11.3 Graphing Inequalities
11.4 Graphing Systems of Inequalities
11.5 Solving Systems of Equations by Substitution
11.6 Solving Systems of Equations by Elimination
11.7 Identifying Types of Systems of Equations
11.8 Writing Equations
11.9 Applications of Systems of Equations and Inequalities
Unit 11 Review
Unit 11 Test

Unit 11 Completion – 11 Days

Unit 12: Trigonometry

12.1 Introduction to Trigonometry

12.2 Sine Ratio

12.3 Cosine Ratio

12.4 Tangent Ratio

Unit 12 Review

Unit 12 Test

Unit 12 Completion – 6 Days

Unit 13: Probability

13.1 Introduction to Probability

13.2 Simple Probability

13.3 Fundamental Counting Principle

13.4 Independent Events

13.5 Dependent Events

13.6 Compound Probability

13.7 Experimental and Theoretical Probability

13.8 Set Theory and Venn Diagrams

13.9 Set Theory Part II – Intersection and Union

13.10 Set Theory Part III – Disjoint and Complement

13.11 Applications of Probability

Unit 13 Review

Unit 13 Test

Unit 13 Completion – 13 Days

Algebra 1 Final Exam

Final Exam Review – 4 Days

Final Exam – 1 Day

Final Exam Completion – 5 Days

Note: One day is allotted for each lesson, unit test and unit review.

Total: 164 Days

32.8 five-day weeks or 41 four-day weeks