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**Algebra 1 - PACING GUIDE**

**2017 - 2018**

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| **FIRST QUARTER** | | |
| **UNIT** | **PACING**  **(Instruction, Review, and Assessment)** | **TOPICS** |
| **Algebra Basics** | **1 week**  **(Use as bellwork/review throughout the year)** | * **Real Numbers System** * **Properties of Real Numbers** * **Combining Like Terms** * **Distributive Property** * **Order of Operations & Absolute Value** * **Evaluating and Simplifying Expressions** |
| **Statistics** | **1 week**  **(Use as bellwork/review throughout the year)** | * **Statistics Overview (mean, median, mode, lower extreme, upper extreme, lower quartile, upper quartile, range, interquartile, outliers)** * **Box-and-whisker plots** * **Stem-and-leaf plots** * **Histograms** |
| **Multi-Step Equations & Inequalities** | **3 weeks** | * **Two-Step & Multi-Step Equations** * **Solving Equations with variables on both sides** * **Infinite and No solution equations** * **Solving Algebraic Proportions** * **Absolute Value Equations** * **Literal Equations** * **Two-Step & Multi-Step Inequalities** * **Compound Inequalities** * **Absolute Value Inequalities**   **(word problems included in each lesson)** |
| **Relations & Functions** | **4 weeks** | * **Relations, Domain, Range** * **Domain & Range of continuous graphs** * **Functions** * **Functions vs. Relations (Is a relation a function?)** * **Graphing Functions (with Function tables & Zeros of Functions)** * **Function Notation** |
| **SECOND QUARTER** | | |
| **UNIT** | **PACING**  **(Instruction, Review, and Assessment)** | **TOPICS** |
| **Linear Equations** | **3 weeks** | * **Finding Slope/Rate of Change (table, ordered pairs, graphs)** * **Linear Equation Formulas (Slope Intercept Form, Standard Form)** * **Graphing Linear Equations (Slope Intercept Form, Standard Form, x-and y- intercepts, vertical and horizontal Lines)** * **Writing Linear Equations – Point Slope Formula (given point & slope/given two points)** * **Linear Equation Word Problems** * **Parallel & Perpendicular Lines (writing & graphing)** * **Scatter Plots/ Line of Best Fit/ Linear Regression** |
| **Systems of Equations & Inequalities** | **2 weeks** | * **Solving Systems of Equations by Graphing** * **Solving Systems of Equations by Substitutions** * **Solving Systems of Equations by Elimination** * **Linear Inequalities** * **Systems of Linear Inequalities**   **(word problems included in each lesson)** |
| **Exponent Rules** | **4 weeks** | * **Introduction to Monomials (addition & subtraction)** * **Multiplying Monomials (Product Rule/ Power Rule** * **Quotient Rule** * **Negative Exponents** * **Scientific Notation** * **Geometric Sequences** * **Exponential Growth & Decay** |
| **THIRD QUARTER** | | |
| **UNIT** | **PACING**  **(Instruction, Review, and Assessment)** | **TOPICS** |
| **Polynomials & Factoring** | **4 weeks** | * **Introduction to Polynomials: Classify, Add, & Subtract** * **Multiplying Polynomials** * **Factoring Polynomials: GCF** * **Factoring Polynomials: Difference of Squares** * **Factoring Polynomials: Trinomials (x2 + bx + c)** * **Factoring Polynomials: Trinomials (ax2 + bx + c)** * **Factoring Polynomials: Grouping (four terms)** * **Dividing Polynomials by a Monomial/Binomial** |
| **Quadratic Equations** | **4 weeks** | * **Intro to Quadratic Equations: Axis of Symmetry, Vertex, Minimum, Maximum, Parabolas** * **Graphing Quadratic Equations** * **Quadratic Roots** * **Quadratic Equations: Vertex Form** * **Solving Quadratic Equations by Factoring** * **Solving Quadratic Equations by the Quadratic Formula** * **Solving Quadratic Equations by Square Roots** * **Area Problems** * **Projectile Motion** * **Linear vs. Quadratic Modes** |
| **Rational Expression** | **2 weeks**  **(rollover into 4th Quarter)** | * **Simplifying Rational Expressions** * **Multiplying Rational Expressions** * **Dividing Rational Expressions** |
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| **FOURTH QUARTER** | | |
| **Unit** | **PACING**  **(Instruction, Review, and Assessment)** | **TOPICS** |
| **Radical Expressions** | **2 weeks** | * **Simplifying Radicals (squares & cube roots, with variables)** * **Multiplying Radicals** * **Dividing Radicals (includes rationalizing the denominator & conjugates)** |
| **Allow time for TNReady Review** |  |  |