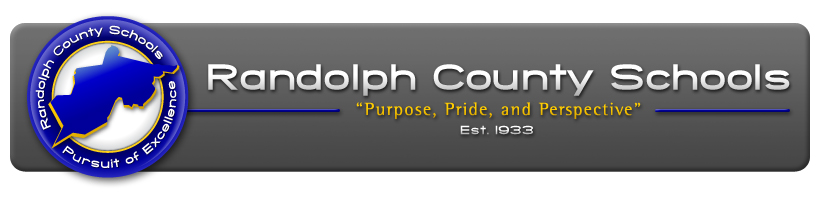
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| **Course: High School Algebra I Content Area Mathematics** | | | | | | |
| **Timeline** | **Cluster** | **College and Career Readiness Standard** | **Student I Can Statement(s) / Learning Target(s)** | **Academic Vocabulary** | **Assessments** | **Notes / Self - Reflection** |
| First Quarter | Reason Quantitatively | Standards 1-3 | Choose and interpret units to model application problems. | Units  Scale  Limitations | Star Benchmark  Teacher created formative and summative assessment  Ongoing informal assessment  Performance based assessment |  |
| First Quarter | Expressions | Standard 4 | Write, interpret and simplify algebraic expressions | Expression  Terms  Factors  Coefficients | Star Benchmark  Teacher created formative and summative assessment  Ongoing informal assessment  Performance based assessment |  |
| First Quarter | Writing equations to model problems | Standards 5 - 8 | Model a problem with an equation  Rearrange formulas | Constraints  Equations  Inequalities  Formula  Variable | Star Benchmark  Teacher created formative and summative assessment  Ongoing informal assessment  Performance based assessment |  |
| First Quarter | Solve equations and inequalities in one variable | Standards 9 -10 | Solve equations and inequalities in one variable and justify reasoning | Equations  Inequalities  Solution  Variable  Linear | Star Benchmark  Teacher created formative and summative assessment  Ongoing informal assessment  Performance based assessment |  |
| Second Quarter | Graph linear equations and inequalities | Standards 15 - 17 | Graph linear equations inequalities and using tables, slope-intercept form and intercepts, and using technology. | Coordinate Plane  X,Y axis  Origin  Solution  Quadrant  Linear  Half-plane  Slope  Intercepts | Star Benchmark  Teacher created formative and summative assessment  Ongoing informal assessment  Performance based assessment |  |
| Second Quarter | Functions and Function Notation | Standards 18 - 25 | Evaluate functions for given inputs  Identify domain and range of functions  Show key features of a graph (max, min)  Write functions from sequences, tables, and graphs | Function  Function Notation  Domain  Range  Maximum, Minimum  End Behavior  Rate of Change | Star Benchmark  Teacher created formative and summative assessment  Ongoing informal assessment  Performance based assessment |  |
| Second Quarter | Systems of Equations | Standards 13 - 14 | Solve systems by graphing, substitution, elimination, and technology  Use systems of equations to solve application problems | System  Solution  Substitution  Elimination  Infinite Solution  No Solution | Star Benchmark  Teacher created formative and summative assessment  Ongoing informal assessment  Performance based assessment |  |
| Third Quarter | Linear and Exponential Relationships | Standards 26 - 32 | Build a function that models a relationship between two quantities and from existing functions.  Construct and compare linear, exponential, and quadratic models to solve problems.  Interpret expressions for functions in terms of the situation they model. | Explicit and Recursive Function  Arithmetic and Geometric Sequences  Function Transformations  Rate of Change  Growth  Decay  Exponential Function | Star Benchmark  Teacher created formative and summative assessment  Ongoing informal assessment  Performance based assessment |  |
| Third Quarter | Expressions and Equations | Standards 11-12  Standards 41 - 49 | Extend the properties of Exponents to Rational Exponents  Interpret the Structure of Equations.  Write Expressions in Equivalent forms to solve problems.  Perform arithmetic operations on polynomials.  Create equations that describe numbers or relationships.  Solve equations and inequalities in one variable. | Radicals and Rational Exponents  Quadratic  Polynomial  Term  Degree  Coefficient  Equivalent Form  Factoring  Zeros  Complete the Square  Maximum  Minimum  Imaginary Number  Complex Number System  (Will not solve quadratics over complex number system.)  Quadratic Formula  System | Star Benchmark  Teacher created formative and summative assessment  Ongoing informal assessment  Performance based assessment |  |
| Fourth Quarter | Quadratic Functions and Modeling | Standards 50 - 60 | Use properties of rational and irrational numbers.  Interpret functions that arise in applications in terms of a context.  Analyze functions using different representations.  Build a function that models a relationship between two quantities and from existing functions.  Construct and compare linear, quadratic and exponential models and solve problems. | Rational and Irrational numbers.  Intercepts  Increasing  Decreasing  Relative Maximum and Minimum  Zeros  Vertex  Vertex form  Factored form  Standard form  Piece-wise Function  Domain  Range  Absolute Value Functions | Star Benchmark  Teacher created formative and summative assessment  Ongoing informal assessment  Performance based assessment |  |
| Fourth Quarter | Statistics | Standards 33 - 40 | Represent data with scatter plots, histograms, and box plots  Calculate measures of central tendency  Create and interpret frequency tables  Fit a linear function to a data set using regression with, and without, technology | Histogram  Box plot  Scatter plot  Mean  Median  Mode  Interquartile Range  Data sets  Outliers  Frequency  Regression  Correlation  Causation  Standard Deviation | Star Benchmark  Teacher created formative and summative assessment  Ongoing informal assessment  Performance based assessment |  |