
BIG HOLLOW SCHOOL DISTRICT



CURRICULUM MAP

GRADE 7 / 8 - Math - Algebra

2025-2026

Curriculum Blurp

As standards shift to prepare students for college and careers, the importance of focus, coherence, and rigor continues to grow. Big Ideas Math: Modeling Real Life emphasizes a narrower and deeper curriculum, ensuring students spend their time on the major topics of each grade. The program was developed around coherent progressions from Kindergarten through eighth grade, guaranteeing students develop and progress their foundational skills through the grades while maintaining a strong focus on the major topics. Big Ideas Math: Modeling Real Life uses a balance of procedural fluency, conceptual understanding, and real-life applications. Students develop conceptual understanding in every Exploration, continue that development in the Lessons while gaining procedural fluency during the Concepts and Skills Examples, and then tie it all together with Modeling Real Life Examples. Every set of Exercises reflects this balance, giving students the rigorous practice they need to be college- and career-ready.

Content Core Practices

1. Make sense of problems and persevere in solving them.

- Multiple representations are presented to help students move from concrete to representative and into abstract thinking.
- Modeling Real Life Examples and PROBLEM-SOLVING exercises encourage students to use problem-solving strategies, such as drawing a diagram, making a table, and solving a simpler problem. They also use a formal problem-solving plan: understand the problem, make a plan, and solve and check.

2. Reason abstractly and quantitatively.

- Visual problem-solving models help students create a coherent representation of the problem.
- Explorations allow students to investigate concepts to understand the REASONING behind the rules.
- Questions ask students to explain and justify their REASONING.
- Questions encourage students to apply NUMBER SENSE and formulate consistent and appropriate REASONING.

3. Construct viable arguments and critique the reasoning of others.

- Explorations help students make conjectures, use LOGIC, and CONSTRUCT ARGUMENTS to support their conjectures.
- Exercises, such as YOU BE THE TEACHER; DIFFERENT WORDS, SAME QUESTION; and WHICH ONE DOESN'T BELONG?, provide students the opportunity to critique the reasoning of others.

4. Model with mathematics.

- Real-life situations are translated into diagrams, tables, equations, and graphs to help students analyze relations and to draw conclusions.
- Real-life problems are provided to help students apply the mathematics they are learning to everyday life. • MODELING REAL LIFE examples and exercises help students see that math is used across content areas, other disciplines, and in their own experiences. 5 Use appropriate tools strategically.
- Graphic Organizers support the thought process of what, when, and how to solve problems.
- A variety of tools, such as number lines and graph paper, manipulatives, and digital tools, are available as students CHOOSE TOOLS and begin USING TOOLS to solve problems.

6. Attend to precision.

- PRECISION exercises encourage students to formulate consistent and appropriate reasoning.
- Cooperative learning opportunities support precise communication.

7. Look for and make use of structure.

- Learning Targets and Success Criteria at the start of each chapter and section help students understand what they are going to learn.
- Explorations provide students the opportunity to see PATTERNS and STRUCTURE in mathematics.
- Real-life problems help students use the STRUCTURE of mathematics to break down and solve more difficult problems. 8 Look for and express regularity in repeated reasoning.
- Opportunities are provided to help students make generalizations through REPEATED REASONING.
- Students are continually encouraged to check for reasonableness in their solutions.

Connection to Standards Based Grading

Teachers at Big Hollow have worked to unpack and understand more deeply the learning targets that align with our goals of students grasping key mathematical concepts. Through this work teachers have prioritized standards, created learning targets, and developed proficiency scales aligned with each prioritized standard. This work enables learning to be more visible for student learning and allows students to be reflective learners. By students engaging in reflective practice they will be able to more accurately determine where they are in relation to the learning journey and develop goals to continue to improve their mastery of skills. These proficiency scales are linked below, as well as on our Teaching and Learning page. This is the “rubric” teachers use to report final grades.

Grade 7 / 8 - Algebra Scope & Sequence

Unit	Standards	Trimester/Time Frame	Proficiency Scales
Unit 1: Linear Equations	A.CED.1 Create equations and inequalities in one variable and use them to solve problems. Include equations arising from linear and quadratic functions, and simple rational and exponential functions A.CED.4 Rearrange formulas to highlight a quantity of interest, using the same reasoning as in solving equations A.REI.1 Explain each step in solving a simple equation as following from the equality of numbers asserted at the previous step, starting from the assumption that the original equation has a solution. Construct a viable argument to justify a solution method. A.REI.3 Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters.	Trimester 1 11 days	A.CED.1 A.REI.3
Unit 2: Solving Linear Equations	A.CED.1 Create equations and inequalities in one variable and use them to solve problems. Include equations arising from linear and quadratic functions, and simple rational and exponential functions. A.REI.3 Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters.	Trimester 1 11 Days	A.CED.1 A.REI.3
Unit 3: Graphing Linear Functions	A.CED.2 Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales. F.IF.1 Understand that a function from one set (called the domain) to another set (called the range) assigns to each element of the domain exactly one element of the range. If f is a function and x is an element of its domain, then $f(x)$ denotes the output of f	Trimester 1 13 Days	A.CED.2

	corresponding to the input x. The graph of f is the graph of the equation $y = f(x)$. F.IF.7a Graph linear and quadratic functions and show intercepts, maxima, and minima. A.REI.D.10 Understand that the graph of an equation in two variables is the set of all its solutions plotted in the coordinate plane, often forming a curve (which could be a line). F.IF.5 Relate the domain of a function to its graph and, where applicable, to the quantitative relationship it describes. F.LE.A.1b Recognize situations in which one quantity changes at a constant rate per unit interval relative to another. F.IF.4 For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. F.IF.9 Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions).		
Unit 4: Writing Linear Functions	F.LE.A.2 Construct linear and exponential functions, including arithmetic and geometric sequences, given a graph, a description of a relationship, or two input-output pairs (include reading these from a table). A.CED.2 Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales. F.BF.A.1a Determine an explicit expression, a recursive process, or steps for calculation from a context. F.BF.A.1b Combine standard function types using arithmetic operations. S.ID.B.6a Fit a function to the data; use functions fitted to data to solve problems in the context of the data. Use given functions or choose a function suggested by the context. Emphasize linear, quadratic, and exponential models.	Trimester 1+2 13 days	F.LE.A.2

	S.ID.B.6b Informally assess the fit of a function by plotting and analyzing residuals. S.ID.B.6c Fit a linear function for a scatter plot that suggests a linear association. S.ID.7 Interpret the slope (rate of change) and the intercept (constant term) of a linear model in the context of the data. S.ID.8 Compute (using technology) and interpret the correlation coefficient of a linear fit. S.ID.9 Distinguish between correlation and causation.		
Unit 5: Solving Linear Systems of Equations	A.CED.3 Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or non-viable options in a modeling context. A.REI.5 Prove that, given a system of two equations in two variables, replacing one equation by the sum of that equation and a multiple of the other produces a system with the same solutions. A.REI.6 Solve systems of linear equations exactly and approximately (e.g., with graphs), focusing on pairs of linear equations in two variables. A.REI.12 Graph the solutions to a linear inequality in two variables as a half-plane (excluding the boundary in the case of a strict inequality), and graph the solution set to a system of linear inequalities in two variables as the intersection of the corresponding half-planes.	Trimester 2 14 Days	A.CED.3 A.REI.12
Unit 6: Exponential Functions and Sequences	A.CED.1 Graph the solutions to a linear inequality in two variables as a half-plane (excluding the boundary in the case of a strict inequality), and graph the solution set to a system of linear inequalities in two variables as the intersection of the corresponding half-planes. A.CED.2 Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales. F.IF.4 For a function that models a relationship between two	Trimester 2 16 Days	A.CED.1

	quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. F.BF.B.3 Identify the effect on the graph of replacing $f(x)$ by $f(x) + k$, $k f(x)$, $f(kx)$, and $f(x + k)$ for specific values of k (both positive and negative); find the value of k given the graphs. Experiment with cases and illustrate an explanation of the effects on the graph using technology. Include recognizing even and odd functions from their graphs and algebraic expressions for them. F.LE.A.1a Prove that linear functions grow by equal differences over equal intervals, and that exponential functions grow by equal factors over equal intervals. N.RN.1 Explain how the definition of the meaning of rational exponents follows from extending the properties of integer exponents to those values, allowing for a notation for radicals in terms of rational exponents. N.RN.2 Rewrite expressions involving radicals and rational exponents using the properties of exponents. F.IF.3 Recognize that sequences are functions, sometimes defined recursively, whose domain is a subset of the integers. F.LE.A.2 Construct linear and exponential functions, including arithmetic and geometric sequences, given a graph, a description of a relationship, or two input-output pairs (include reading these from a table).		
Unit 7: Polynomial Equations and Factoring	A.APR.1 Understand that polynomials form a system analogous to the integers, namely, they are closed under the operations of addition, subtraction, and multiplication; add, subtract, and multiply polynomials. A.SSE.2 Use the structure of an expression to identify ways to rewrite it. A.SSE.4 Derive the formula for the sum of a finite geometric series (when the common ratio is not 1), and use the formula to solve problems. For example, calculate mortgage payments.	Trimester 2 18 Days	A.APR.1 A.SSE.2

	S.REI.4b Solve quadratic equations by inspection (e.g., for $x^2 = 49$), taking square roots, completing the square, the quadratic formula and factoring, as appropriate to the initial form of the equation. Recognize when the quadratic formula gives complex solutions and write them as $a \pm bi$ for real numbers		
Unit 8: Graphing Quadratic Functions	A.CED.2 Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales. F.IF.7a Graph linear and quadratic functions and show intercepts, maxima, and minima. F.BF.B.3 Identify the effect on the graph of replacing $f(x)$ by $f(x) + k$, $k f(x)$, $f(kx)$, and $f(x + k)$ for specific values of k (both positive and negative); find the value of k given the graphs. Experiment with cases and illustrate an explanation of the effects on the graph using technology. Include recognizing even and odd functions from their graphs and algebraic expressions for them. F.IF.9 Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). F.IF.6 Calculate and interpret the average rate of change of a function (presented symbolically or as a table) over a specified interval. Estimate the rate of change from a graph. F.IF.4 For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. Key features include: intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; end behavior; and periodicity. F.IF.8a Use the process of factoring and completing the square in a quadratic function to show zeros, extreme values, and symmetry of the graph, and interpret these in terms of a context. F.LE.3 Observe using graphs and tables that a quantity increasing	Trimester 3 15 Days	A.CED.2 (Quadratic) F.IF.7a

	exponentially eventually exceeds a quantity increasing linearly, quadratically, or (more generally) as a polynomial function. A.SSE.3a Factor a quadratic expression to reveal the zeros of the function it defines. F.BF.1 Determine an explicit expression, a recursive process, or steps for calculation from a context.		
Unit 9: Solving Quadratic Equations	A.CED.1 Create equations and inequalities in one variable and use them to solve problems. Include equations arising from linear and quadratic functions, and simple rational and exponential functions. N.RN.3 Use the process of factoring and completing the square in a quadratic function to show zeros, extreme values, and symmetry of the graph, and interpret these in terms of a context. A.REI.11 Explain why the x-coordinates of the points where the graphs of the equations $y = f(x)$ and $y = g(x)$ intersect are the solutions of the equation $f(x) = g(x)$; find the solutions approximately, e.g., using technology to graph the functions, make tables of values, or find successive approximations. Include cases where $f(x)$ and/or $g(x)$ are linear, polynomial, rational, absolute value, exponential, and logarithmic functions. A.SSE.3b Complete the square in a quadratic expression to reveal the maximum or minimum value of the function it defines. A.REI.4a Use the method of completing the square to transform any quadratic equation in x into an equation of the form $(x - p)^2 = q$ that has the same solutions. Derive the quadratic formula from this form. A.REI.4b Solve quadratic equations by inspection (e.g., for $x^2 = 49$), taking square roots, completing the square, the quadratic formula and factoring, as appropriate to the initial form of the equation. Recognize when the quadratic formula gives complex solutions and write them as $a \pm bi$ for real numbers a and b. F.IF.8a Use the process of factoring and completing the square in a quadratic function to show zeros, extreme values, and symmetry of	Trimester 3 15 Days	A.CED.1 (Quadratic)

Unit 1: Solving Linear Equations
Approximate Time Frame: 3 weeks

DESIRED RESULTS		
Content Standards:	Essential Questions:	Essential Vocabulary:
Priority Standards: A.CED.1 - Create equations in one variable and use them to solve problems A.REI.3 - Solve linear equations in one variable, including equations with coefficients represented by letters	How can you use rules of equality to find unknown values?	Absolute value, equations, equivalent equations, formula, identity, linear equation, extraneous solution, literal equation, solution of an equation
Supporting Standards: A.CED.4 A.REI.1		
Acquisition		
Knowledge and Understanding:	Skills:	
<i>Students will know and understand...</i> • solving linear equations	<i>Students will be skilled at (be able to do)...</i> • solve simple and multi-step equations. • describe how to solve equations. • analyze the measurements used to solve a problem and judge the level of accuracy appropriate for the solution. • apply equation-solving techniques to solve real-life problems.	
Assessments		
☐ Pre-Assessment ☒ Checks for Understanding	☒ Summative Assessment ☐ Performance-Based Task	

Unit 2: Solving Linear Inequalities

Approximate Time Frame: 3 weeks

DESIRED RESULTS		
Content Standards:	Essential Questions:	Essential Vocabulary:
Priority Standards: A.CED.1 - Create inequalities in one variable and use them to solve problems A.REI.3 - Solve linear inequalities in one variable, including equations with coefficients represented by letters	How can inequalities help us describe and solve real-world situations with a range of possible solutions?	Inequality, absolute value inequality, compound inequality, equivalent inequality, graph of inequality, solution of inequality, solution set
Supporting Standards:		
Acquisition		
Knowledge and Understanding:	Skills:	
Students will know and understand... solving linear inequalities.	Students will be skilled at (be able to do)... - solve simple and multi-step inequalities. - describe how to solve inequalities. - compare and contrast solving inequalities with solving equations. - apply techniques for solving inequalities to solve real-life applications.	
Assessments		
☐ Pre-Assessment ☒ Checks for Understanding	☒ Summative Assessment ☐ Performance-Based Task	

Unit 3: Graphing Linear Functions

Approximate Time Frame: 4 weeks

DESIRED RESULTS		
Content Standards:	Essential Questions:	Essential Vocabulary:
Priority Standards: A.CED.2 - Create (linear) equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales.	How can we use equations with two or more variables to model the connections between different quantities in the world around us, and what can their graphs tell us about these relationships?	Absolute value function, constant function, continuous domain, dependent variable, discrete domain, domain, end behavior, function, function notation, horizontal shrink, horizontal stretch, independent variable, linear function, nonlinear function, parent function, range of function, reflection, relation, rise, run, slope, slope-intercept form, standard form, transformation, translation, vertex, vertical shrink, vertical stretch, x-intercept, y-intercept
Supporting Standards: F.IF.1 F.IF.7a A.REI.10 F.IF.5 A.LEI.1b F.IF.4 F.IF.9		
Acquisition		
Knowledge and Understanding:	Skills:	
<i>Students will know and understand...</i> graphing linear functions.	<i>Students will be skilled at (be able to do)...</i> - identify the graph of a linear function. - graph linear functions written in different forms. - describe the characteristics of a function. - explain how a transformation affects the graph of a linear function	

Assessments	
☐ Pre-Assessment ☒ Checks for Understanding	☒ Summative Assessment ☐ Performance-Based Task

Unit 4: Writing Linear Functions
Approximate Time Frame: 3 weeks

DESIRED RESULTS		
Content Standards:	Essential Questions:	Essential Vocabulary:
Priority Standards: F.LE.A.2 - Construct linear functions, including arithmetic sequences, given a graph, a description of a relationship, or two input-output pairs (including reading these from a table)	In what various ways can we represent linear relationships, and how do these representations help us understand and predict patterns of change?	Arithmetic sequence, causation, common difference, correlation, correlation coefficient, extrapolation, interpolation, line of best fit, line of fit, linear model linear regression, parallel lines, perpendicular lines, piecewise function, point-slope form, residual, scatterplot, sequence, step function
Supporting Standards: A.CED.2 F.BF.A.1a F.LE.A.1b S.ID.B.6a S.ID.B.6b S.ID.B.6c S.ID.7 S.ID.8 S.ID.9		
Acquisition		
Knowledge and Understanding:	Skills:	
<i>Students will know and understand...</i> • writing linear functions.	<i>Students will be skilled at (be able to do)...</i> • determine the slope given ordered pairs, a graph, or a context. • write the equation of a line in different forms. • interpret scatter plots and analyze lines of fit. • write a function that represents an arithmetic sequence to solve a real-life problem	

Assessments	
☐ Pre-Assessment ☒ Checks for Understanding	☒ Summative Assessment ☐ Performance-Based Task

Unit 5: Solving Systems of Linear Equations

Approximate Time Frame: 3 weeks

DESIRED RESULTS												
Content Standards:	Essential Questions:	Essential Vocabulary:										
Priority Standards: A.CED.A.3 - Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or nonviable options in a modeling context. A.REI.D.12 - Graph the solutions to a linear inequality in two variables as a half-plane (excluding the boundary in the case of a strict inequality), and graph the solution to a system of linear inequalities in two variables as the intersection of the corresponding half-planes.	How can equations and inequalities define boundaries and explore solution sets for real-world scenarios, and how do their graphical representations illustrate these possibilities?	Graph of a linear inequality, graph of a system of linear inequalities, linear inequality, solution of a linear inequality, solution of a system of linear equations, solution of a system of linear inequalities, system of linear equations, system of linear inequalities										
Supporting Standards: A.REI.5 A.REI.6			Acquisition			Knowledge and Understanding:	Skills:		<i>Students will know and understand...</i> ● solving systems of linear equations.	<i>Students will be skilled at (be able to do)...</i> ● identify a system of linear equations. ● describe different methods for solving systems of linear equations. ● analyze systems of linear equations and decide what solution method is most efficient. ● predict whether a system of linear equations has one solution, no solution, or infinitely many solutions.		Assessments
Acquisition												
Knowledge and Understanding:	Skills:											
<i>Students will know and understand...</i> ● solving systems of linear equations.	<i>Students will be skilled at (be able to do)...</i> ● identify a system of linear equations. ● describe different methods for solving systems of linear equations. ● analyze systems of linear equations and decide what solution method is most efficient. ● predict whether a system of linear equations has one solution, no solution, or infinitely many solutions.											
Assessments												

☐ Pre-Assessment

☒ Checks for Understanding

☒ Summative Assessment

☐ Performance-Based Task

Unit 6: Exponential Functions and Sequences

Approximate Time Frame: 4 weeks

DESIRED RESULTS		
Content Standards:	Essential Questions:	Essential Vocabulary:
Priority Standards: A.CED.1 - Create equations (exponential) and inequalities in one variable and use them to solve problems	How can we use exponential equations and inequalities to model and solve problems where quantities change rapidly?	Asymptote, common ratio, compound interest, explicit rule, exponential decay, exponential decay function, exponential equation, exponential function, exponential growth, exponential growth function, geometric sequence, index of a radical, nth root, radical, recursive rule
Supporting Standards: A.CED.2 F.IF.4 F.BF.B.3 F.LE.A.1a N.RN.1 N.RN.2 F.IF.3 F.LE.A.2		
Acquisition		
Knowledge and Understanding:	Skills:	
<i>Students will know and understand...</i> exponential functions and sequences	<i>Students will be skilled at (be able to do)...</i> - identify and use properties of exponents - model exponential functions - solve exponential functions - write an explicit and recursive rule for a geometric sequence	
Assessments		

☐ Pre-Assessment

☒ Checks for Understanding

☒ Summative Assessment

☐ Performance-Based Task

Unit 7: Polynomial Equations and Factoring

Approximate Time Frame: 4 weeks

DESIRED RESULTS															
Content Standards:	Essential Questions:	Essential Vocabulary:													
Priority Standards: A.APR.A.1 - Understand that polynomials form a system analogous to the integers, namely, they are closed under the operations of addition, subtraction, and multiplication; add, subtract, and multiply polynomials. A.SSE.A.2 - Use the structure of an expression to identify ways to rewrite it. For example see x^4-y^4 as $(x^2)^2-(y^2)^2$, thus recognizing it as a difference of squares that can be factored as $(x^2-y^2)(x^2+y^2)$.	In what ways can we manipulate and analyze polynomial expressions and equations to reveal hidden relationships and solve problems in various contexts?	Binomial, closed, degree of monomial, degree of polynomial, factored completely, factored form, factoring by grouping, FOIL method, leading coefficient, monomial, polynomial, repeated roots, roots, standard form of a polynomial, trinomial, zero-product property													
Supporting Standards: S.REI.4b A.SSE.3a			Acquisition			Knowledge and Understanding:	Skills:		<i>Students will know and understand...</i> polynomial equations and factoring	<i>Students will be skilled at (be able to do)...</i> - classify polynomials by degree and number of terms - add, subtract, and multiply polynomials - solve polynomial equations - factor polynomials and use factoring to solve real life problems		Assessments			☐ Pre-Assessment ☒ Checks for Understanding
Acquisition															
Knowledge and Understanding:	Skills:														
<i>Students will know and understand...</i> polynomial equations and factoring	<i>Students will be skilled at (be able to do)...</i> - classify polynomials by degree and number of terms - add, subtract, and multiply polynomials - solve polynomial equations - factor polynomials and use factoring to solve real life problems														
Assessments															
☐ Pre-Assessment ☒ Checks for Understanding	☒ Summative Assessment ☐ Performance-Based Task														

Unit 8: Graphing Quadratic Functions

Approximate Time Frame: 3 weeks

DESIRED RESULTS		
Content Standards:	Essential Questions:	Essential Vocabulary:
Priority Standards: A.F.IF.7a - Graph linear and quadratic functions and show intercepts, maxima, and minima.	How can visually representing linear and quadratic relationships through graphs reveal key characteristics like intercepts, maximums, and minimums, and what do these features tell us about the real-world situations they might model?	Average rate of change, axis of symmetry, even function, intercept form, maximum value, minimum value, odd function, parabola, quadratic function, vertex form of a quadratic function, vertex of a parabola, zero of a function
Supporting Standards: A.CED.2 (Quadratic) F.BF.B.3 F.IF.9 F.IF.6 F.IF.4 F.IF.8a F.LE.3 A.SSE.3a F.BF.1		
Acquisition		
Knowledge and Understanding:	Skills:	
<i>Students will know and understand...</i> graphing quadratic functions	<i>Students will be skilled at (be able to do)...</i> - identify characteristics of quadratic functions - describe how to graph quadratic functions in different forms - use intercept form to find zeros of functions - choose an appropriate function to model data	
Assessments		

- ☐ Pre-Assessment
- ☒ Checks for Understanding

- ☒ Summative Assessment
- ☐ Performance-Based Task

Unit 9: Solving Quadratic Equations

Approximate Time Frame: 3 weeks

DESIRED RESULTS		
Content Standards:	Essential Questions:	Essential Vocabulary:
Priority Standards: A.CED.1 - Create (quadratic) equations and inequalities in one variable and use them to solve problems	How can we model real-world situations using quadratic equations, and what can the solutions tell us about the problem?	Completing the square, conjugates, discriminate, like radicals, quadratic equation, quadratic formula, radical expression, rationalizing the denominator, simplest form of a radical, systems of nonlinear equations
Supporting Standards: N.RN.3 A.REI.11 A.SSE3b A.REI.4a A.REI.4b F.IF.8a		
Acquisition		
Knowledge and Understanding:	Skills:	
<i>Students will know and understand...</i> • solving quadratic functions	<i>Students will be skilled at (be able to do)...</i> • simplify expressions using properties of radicals • describe different methods for solving quadratic equations • solve quadratic equations • solve systems of nonlinear equations graphically and algebraically	
Assessments		
☐ Pre-Assessment ☒ Checks for Understanding	☒ Summative Assessment ☐ Performance-Based Task	

Unit 10: Radical Functions and Equations

Approximate Time Frame: 2 weeks

DESIRED RESULTS		
Content Standards:	Essential Questions:	Essential Vocabulary:
Priority Standards N/A	How can solving rational and radical equations lead to extraneous solutions, and what strategies can we use to identify and eliminate them?	Cube root function, inverse function, inverse relation, radical equation, radical function, square root function
Supporting Standards: A.REI.A.2 F.IF.7b F.IF.4 F.IF.6 F.IF.9 A.CED.2 (square and cubed root) A.CED.1 (square and cubed root)		
Acquisition		
Knowledge and Understanding:	Skills:	
<i>Students will know and understand...</i> radical functions and equations	<i>Students will be skilled at (be able to do)...</i> - identify the domain and range of radical functions - graph square root and cube root functions - solve radical equations - find inverses of relations and functions	
Assessments		
☐ Pre-Assessment ☒ Checks for Understanding	☐ Summative Assessment ☐ Performance-Based Task	

Unit 11: Data Analysis and Displays

Approximate Time Frame: 3 weeks

DESIRED RESULTS		
Content Standards:	Essential Questions:	Essential Vocabulary:
Priority Standards: N/A	How can we choose and use the most appropriate data display to clearly represent and interpret real-world situations?	Box-and-whisker plot, categorical data, conditional relative frequency, data transformation, five-number summary, interquartile range, joint frequency, joint relative frequency, marginal frequency, marginal relative frequency, mean, measure of center, measure of variation, median, misleading graph, mode, outlier, qualitative data, quantitative data, quartiles, range of data set, standard deviation, two-way table
Supporting Standards: S.ID.3 S.ID.1 S.ID.2 S.ID.5		
Acquisition		
Knowledge and Understanding:	Skills:	
<i>Students will know and understand...</i> data	<i>Students will be skilled at (be able to do)...</i> - interpret data displays. - describe the shapes of data distributions. - represent data in different ways. - analyze data.	

Assessments	
☐ Pre-Assessment ☒ Checks for Understanding	☐ Summative Assessment ☐ Performance-Based Task