Time/Month	Standard(s)	Content	Skills
September (Week 2) -October (Week 1) 14 days	N-Q.1 A-CED.2 A-SSE.1 A-SSE.2 A-SSE.3 A-REI.1 A-CED.1	Unit 1: Foundations of Algebra	- Application of Rates and Patterns to solve Problems - Variables - Expressions:evaluate an expressions, justify equivalent expressions, translate words to expressions - Application of the Properties of real numbers - Exponents
October (Week 2) - (Week 4) 16 days	A-REI.1 A-REI.3 A-SSE.3 A-CED.1 A-CED.3	Unit 2: Linear Expressions, Equations and Inequalities	- Solving multi step linear equations - Justifying the steps for solving equations - Solve multi step inequality and compound inequalities - Interpreting the the solution to an Equation or Inequality - Use interval notation to represent the solution - Modeling with equations or inequalities
October (week 5) - November (week 2) 9 days	F-IF.1 F-IF.2 F-IF.4 F-IF.6 F-IF.7 N-Q.1	Unit 3: Functions	- Identify/Define a Function - Identify Domain and Range - Use Function Notation in context - Evaluate a Function for given domain - Graph functions, identify itercepts, maxima, minima - Exploring the features of a function with the graphing calculator - Calculate and interpret Average rate of change over specified time interval - Relate Domain and range to the graph of a function, interpret in context
November (week 3) - December (week 1) 16 days	A-CED.2 A-CED.3 A.SSE.1 A-REI.10 A-REI.12 F-IF.3 F-IF.4 F-IF.5 F-IF.6 F-IF.7 F-LE.1 F-LE.2	Unit 4: Linear Functions and Arithmetic Sequence	- Create an equation in two or more variables to represent a relationship - Graph equation on coordinate plane with appropriate labels and scales - Use dimensional analysis for unit conversion - Construct linear and exponential functions - Represent constraints of a of a function - Interpret key features of an absolute Value or Step Function - Understand the graph of an equation in two variables - Understand that the arithmetic sequence is a linear function

	F-LE.5 F-BF.1 N-Q.1 N-Q.2		
December (Week 2) - (Week 4) 14 days	A-CED.2 A-CED.3 A-REI.5 A-REI.6 A-REI.10 A-REI.11 A-REI.12	Unit 5: Systems of Linear Equations and Inequalities	- Solve a system of equations by graphing, substitution, or elimination - Properties of a system of equations and their solutions - Modeling a system of equations
January (week 1) - (week 3) 12 days	A-SSE.1 A-SSE.3 A-CED.1 A-CED.2 A-CED.3 F-IF. 3 F-IF.5 F-IF.6 F-BF.1 F-LE.1 F-LE.2 F-LE.5 N-Q.2	Unit 6: Exponents, Exponents, and More Exponents	- Simplifying Expressions with Exponents - Applying the properties of exponents - Exponential Growth - Exponential Functions - Percent Increase and Decrease - Write exponential Models based on growth and decay - Compare Linear functions to Exponential Functions - Geometric sequence
January (week 4) - February (Week 1) 12 days	A-APR.1 A.SSE.1 A-SSE.2	Unit 7: Polynomials	- Adding and Subtracting Polynomial - Distributive Property - Multiplying Polynomials - Factoring Polynomials - Factoring Special cases: Conjugates and perfect squares - Factoring
February (Week 2) - (Week 4) 10 days	A-CED.3 F-IF.4 F-IF.7 F-IF.8 F-IF.9	Unit 8: Quadratic Functions and their Algebra	- Represent constraints of a function with equations or Inequalities - Interpret key features of a function - Graph functions - The shifted form of the parabola

	F-BF.3 A-SSE. 3 A-APR.3 A-REI.4		- Completing the square to write the equation in vertex form - Identifying or calculating Zeroes of a function - Zero Product property
March (week 1) - (week 3) 11 days	N-RN.3 I-IF.1 F-IF.1 F-IF.6 F-IF.7 F-BF.3 A-SSE.1 A-SSE.3 A-REI.4	Unit 9: Roots and Irrational Numbers	- Evaluate square roots, - Simplify square roots - Identify Irrational numbers - Operations with rational and irrational - Square root function- graphing in the shifted form - Solve Quadratics using inverse operations - Calculate the zeroes of a quadratic using completing the square - The Quadratic Formula - Calculate the cube root of a number `
March (week 4) - April (week 3) 12 days	N-Q.1 N-Q.2 S-ID.1 S-ID.2 S-ID.3 S-ID.5 S-ID.6 S-ID.7 S-ID.8 S-ID.9	Unit 10: Statistics	- Plot data on real number line with dot plots, histograms, and box plots - Interpret differences in shape, center, and spread in the contest of the data accounting for outliers - Measures of central tendency - Variation within the data set - Use two way frequency tables to summarize categorical - Plot data in a Scatter Plot interpret the slope and y- intercept for the line of best fit - Use graphing calculator to calculate linear regression
April (week 4) - May (week 2)	N-Q.2 N-Q.3 F-IF.1 F-IF.5 F-IF.6 F-IF.7 F-BF..3 A-CED.3 F-LE.1 S-ID.6	Unit 11: A final look at Functions and Modeling	Transforming Functions Horizontal stretching of functions Discrete Functions Compare linear and Exponential models Step functions Piecewise Linear Functions Quadratic models Limits of the models

May (week 3) - June (weeek 2)			Regents review