Unit 1

Relationships between Quantities and Expressions

**N.RN.2:** Rewrite expressions involving radicals

**N.RN.3:** Understand and explain the properties of rational and irrational numbers

**N.Q.1:** Use units of measure to understand problems (Conversions)

**N.Q.2:** Define the appropriate quantities for descriptive modeling

**N.Q.3:** Level of Accuracy

**SSE.1:** Interpret parts of an expression that represent a quantity in terms of its context

**APR.1:** Add, subtract, and multiple polynomials

Unit 2

Reasoning with Linear Equations and Inequalities

**A.CED.1L:** Create linear equations and inequalities in one variable and use them to solve problems

**A.CED.2L:** Create and graph linear equations in 2 or more variables to represent relationships

**A.CED.3:** Represent and evaluate constraints by equations and inequalities as well as systems

**A.CED.4L:** Rearrange linear formulas to solve for a variable

**A.REI.1:** Justify steps of equations using algebraic properties

**A.REI.3:** Solve linear equations and inequalities in 1 variable

**A.REI.5:** Show and explain the elimination method

**A.REI.6:** Solve systems of equations

**A.REI.10&11:** Graph and solve linear equations

**A.REI.12:** Graph the solution set of a linear inequality

**F.BF.1L:** Write a function that describes a relationship between two quantities (explicit and recursive)

**F.BF.2L:** Write arithmetic sequences, use them to model situations, and translate between the two forms

**F.IF.1-3L:** Understanding a function and function notation

**F.IF.4&5L:** Understand the key characteristics of a function

**F.IF.6L:** Calculate average rate of change

**IF.9L:** Compare properties of 2 functions represented in different ways

Unit 3

Modeling and Analyzing Quadratic Functions

**A.SSE.2:** Use the structure of an expression to rewrite it in different forms

**SSE.3:** Write expressions in equivalent forms to solve problems

**F.BF.1Q:** Write a function that describes a relationship between two quantities (explicit and recursive)

**F.BF.2Q:** Write arithmetic sequences, use them to model situations, and translate between the two forms

**A.CED.1Q:** Create quadratic equations and inequalities in one variable and use them to solve problems

**A.CED.2Q:** Create and graph quadratic equations in 2 or more variables to represent relationships

**A.CED.4Q:** Rearrange quadratic formulas to solve for a variable

**A.REI.4:** Solve quadratic equations in one variable

**F.BF.3Q:** Identify the effect on the graph and include recognizing even and odd functions

**F.IF.1-3Q:** Understanding a function and function notation

**F.IF.4&5Q:** Understand the key characteristics of a function

**F.IF.6Q:** Calculate average rate of change

**F.IF.8:** Write a function defined by an expression in different forms

**F.IF.9Q:** Compare properties of 2 functions represented in different ways

Unit 4

Modeling and Analyzing Exponential Functions

**A.CED.1E:** Create exponential equations and inequalities in one variable and use them to solve problems

**A.CED.2E:** Create and graph exponential equations in 2 or more variables to represent relationships

**F.BF.1E**: Write a function that describes a relationship between two quantities (explicit and recursive)

**F.BF.2E:** Write arithmetic sequences, use them to model situations, and translate between the two forms

**F.BF.3E:** Identify the effect on the graph and include recognizing even and odd functions

**F.IF.1-3E:** Understanding a function and function notation

**F.IF.4&5E:** Understand the key characteristics of a function

**F.IF.6E:** Calculate average rate of change

**IF.9E:** Compare properties of 2 functions represented in different ways

Unit 5

Comparing and Contrasting Functions

**F.LE.1:** Distinguish between situations that can be modeled with linear or exponential functions

**F.LE.5:** Interpret the parameters of a linear and exponential function in terms of context

**F.BF.3:** Identify the effect on the graphs

**F.IF.1-3:** Understanding and compare a function and function notation

**F.IF.4&5:** Understand the key characteristics of a function

**F.IF.6:** Calculate average rate of change

**IF.9:** Compare properties of 2 functions represented in different ways

Unit 6

Describing Data

**S.ID.1:** Represent data with plots on a real number line

**S.ID.2:** Use statistics appropriate to the shape of the data to compare center and spread of 2 or more different data sets

**S.ID.3:** Interpret differences in shape, center, and spread, accounting for effects of outliers

**S.ID.5:** Summarize categorical data for 2 categories in two-way frequency tables

**S.ID.6:** Represent and describe data on 2 quantitative variables on a scatter plot

**S.ID.7:** Interpret slope and intercept in the context of the data

**S.ID.8:** Compute (using technology) and interpret the correlation coefficient “r”

**S.ID.9:** Distinguish between correlation and causation