



Algebra: Language for a Changing World

Common Core State Standards High School Mathematics Correlation

Each of the five units reflects aspects of the standards listed.

Unit 1: VARIABLES

N-Q.1: Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays.

N-Q.2: Define appropriate quantities for the purpose of descriptive modeling.

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.

F-IF.2: Use function notation, evaluate functions for inputs in their domains, and interpret statements that use function notation in terms of a context.

F-IF.5: Relate the domain of a function to its graph and, where applicable, to the quantitative relationship it describes.

Unit 2: REPRESENTING RELATIONSHIPS: TABLES AND GRAPHS

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.

F-IF.2: Use function notation, evaluate functions for inputs in their domains, and interpret statements that use function notation in terms of a context.

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 3: REPRESENTING RELATIONSHIPS: SYMBOLIC FORM

A-CED.2: Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales.

A-REI.2: 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.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.

F-IF.2: Use function notation, evaluate functions for inputs in their domains, and interpret statements that use function notation in terms of a context.

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.7: Graph functions expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases.

F-BF.1: Write a function that describes a relationship between two quantities.

Unit 4: RULES FOR SYMBOLIC FORM

A-SSE.1: Interpret expressions that represent a quantity in terms of its context.

A-SSE.2: Use the structure of an expression to identify ways to rewrite it.

A-SSE.3: Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression.

F-IF.2: Use function notation, evaluate functions for inputs in their domains, and interpret statements that use function notation in terms of a context.

F-IF.8: Write a function defined by an expression in different but equivalent forms to reveal and explain different properties of the function.

Unit 5: CONNECTIONS AMONG TABLES, GRAPHS AND SYMBOLIC FORMS

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.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.9: Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions).

F-BF.1: Write a function that describes a relationship between two quantities.

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

F-LE.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).

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

S-ID.7: Interpret the slope (rate of change) and the intercept (constant term) of a linear model in the context of the data.