STAFFORD MUNICIPAL SCHOOL DISTRICT
Year at a Glance
SMSD 9th Grade Math

Course Description:

At-a-Glance

The primary focal areas in the 9th grade are proportionality; expressions, equations, relationships, and foundations of functions; and measurement and data. Students use concepts, algorithms, and properties of real numbers to explore mathematical relationships and to describe increasingly complex situations. Students use concepts of proportionality to explore, develop, and communicate mathematical relationships. Students use algebraic thinking to describe how a change in one quantity in a relationship results in a change in the other. Students connect verbal, numeric, graphic, and symbolic representations of relationships, including equations and inequalities. Students begin to develop an understanding of functional relationships. Students use geometric properties and relationships, as well as spatial reasoning, to model and analyze situations and solve problems. Students communicate information about geometric figures or situations by quantifying attributes, generalize procedures from measurement experiences, and use the procedures to solve problems. Students use appropriate statistics, representations of data, and reasoning to draw conclusions, evaluate arguments, and make recommendations. While the use of all types of technology is important, the emphasis on algebra readiness skills necessitates the implementation of graphing technology.

Grading Periods	*Unit Names*
Grading Period 1	Linear expressions, equations and inequalities Introduction to functions
Grading Period 2	Investigation of linear functions and inequalities Application of linear functions
Grading Period 3	Systems of equations and inequalities Laws of exponents, expressions and factoring
Grading Period 4	Quadratic equation, including simplification of numerical radical expressions Investigation and application of quadratic functions
Grading Period 5	Investigation and application of exponential functions Arithmetic and geometric sequences
Grading Period 6	Making connections Cost comparison analysis