

# Mathematics

## Pre-Algebra 7

*Year-long course offered to 7th graders on three levels concepts, standard, and accelerated.*

In this course students will investigate the multiple representations of numbers and work towards mastery of the computation of those numbers. Students will also learn how to solve many forms of linear equations and inequalities, including proportions and problems that require the application of percent. Connections between algebra, geometry, and data analysis will be examined throughout the year. In order to improve their abilities to communicate about mathematics, students will apply these pre-algebra topics to real-life problems as they learn problem-solving techniques. Students will also connect mathematics to technology through the introduction to graphing on computers and the use of spreadsheets.

## Algebra Fundamentals 8

*Year-long course offered to 8th graders on two levels concepts and standard.*

This is an algebra course that covers aspects of geometry, trigonometry, probability, and statistics. Students will learn a variety of methods to solve basic and complex linear equations, linear inequalities, systems of linear equations, and how to graph these functions. Students will apply these topics to real-life situations as they learn problem-solving techniques. Students will use technology for math games, instructional videos, introduction to graphing on computers and the use of spreadsheets.

## Algebra I

*Year-long accelerated course*

This is an algebra course that covers aspects of geometry, trigonometry, probability, and statistics. Students will learn a variety of methods to solve basic and complex linear equations, linear inequalities, systems of linear equations, and how to graph these functions. Students will apply these topics to real-life situations as they learn problem-solving techniques. In addition to these topics, students in Algebra I will cover additional concepts including performing operations on polynomials, factoring polynomials, graphing quadratic equations, using the Quadratic Formula and performing operations on rational expressions. Students will use technology for math games, instructional videos, introduction to graphing on computers and the use of spreadsheets.