PRMS Mathematics Eighth Grade Course Descriptions

<u>Math 8</u>

Math 8 is an intermediate course in which students will develop a foundation of algebraic skills. The course content includes, but is not limited to:

- Real numbers
- Solving equations and inequalities
- Introduction to functions
- Graphing linear functions
- Introduction to systems of linear equations
- Exponents
- Transformations
- Geometry and measurement
- Data analysis and probability
- Problem solving

Algebra 8, Part 1

Algebra 8, Part 1 is the first part of a two-year Algebra 1 sequence. Students will explore and develop an understanding of algebraic concepts. The course content includes, but is not limited to:

- Variables, function patterns, and graphs
- Real numbers
- Solving equations and inequalities
- Functions
- Linear equations and their graphs
- Problem solving

Algebra 8

Algebra 8 is a course emphasizing the development and understanding of algebraic skills and their use with respect to generalization, application and problem solving. The course content includes, but is not limited to:

- Variables, function patterns, and graphs
- Real numbers
- Solving equations and inequalities
- Functions
- Linear equations and their graphs
- Systems of equations and inequalities
- Exponents and exponential functions
- Polynomials and factoring
- Quadratic equations and functions
- Data analysis and probability
- Problem solving

Algebra 8 (Accelerated)

Algebra 8 (Accelerated) is a fast-paced course with a strong emphasis placed upon the development and understanding of algebraic skills and their use with respect to generalization, application and problem solving. The course content includes, but is not limited to:

- Variables, function patterns and graphs
- Real numbers
- Solving equations and inequalities
- Functions
- Linear equations and their graphs
- Systems of equations and inequalities
- Exponents and exponential functions
- Polynomials and factoring
- Quadratic equations and functions
- Rational expressions and functions
- Radical expressions and equations
- Data analysis and probability
- Problem solving

<u>Algebra II</u>

Algebra II will provide students with in-depth instruction at an accelerated pace. It is a comprehensive study of advanced mathematical concepts. In Algebra II, the properties of the real number system as developed in Algebra I are reinforced and the additional properties of the complex number system are developed. Algebra II will use the graphing calculator as a tool to delve deeper into real world application problems that require the interpretation of various algebraic and trigonometric functions as well as statistical analysis. The course will focus on improving students' ability to identify and model given information, determine most efficient mathematical solution methods, solve for unknowns and interpret solutions in the context of the problem.