

Robert C. Parker School
Curriculum Summary
Grades 6/7/8
Mathematics

Our math program emphasizes deep understanding of concepts. We use the Connected Math Project (CMP) text as a basis for study. CMP helps students and teachers develop understanding of important mathematical concepts, skills, procedures, and ways of thinking and reasoning, in number, geometry, measurement, algebra, probability and statistics.* We accelerate the program so that students are prepared to take the NY State Regents Exam in Integrated Algebra in June of the eighth grade year. Hands-on projects that extend mathematical concepts are interspersed throughout the year.

Math 6

The primary goal for sixth graders is to increase the student's number sense. Having the ability to manipulate numbers and understand what they represent facilitates problem solving. Word problems become more complex, often involving more than one-step. Connections are made throughout the year to both algebra and geometry. Students are introduced to the use of variables. Students are held more accountable for definitions and detailed knowledge of geometric properties. Students study a larger and more in-depth geometry unit introducing congruent triangles and transformations.

Text: Connected Math for 7th grade

Math 7

Students continue to increase their number sense with algebraic concepts in mind. Word problems become much more complex. Mathematical concepts and definitions are given using variables. By the end of the school year students are capable of using variables in algebraic expressions and solving two-step equations.

Text: Connected Math for 8th grade

Grades 6 and 7 participate in teams in a week-long integrated STEM (science, technology, engineering, and math) experience, culminating in project presentations. Examples: Bridge Challenge and Space Tourism Rocketry

Math 8 Algebra

The school year generally begins with units on Vocabulary and Properties. Students then begin to build upon their algebraic skills from Math 7. Students work through multi-step word problems using variables with "let" statements to form equations. Slope-intercept is used to graph linear equations and inequalities in the coordinate plane. Students study quadratic equations, radical expressions, polynomials, and exponential growth.

Eighth graders take the Regents Exam in Integrated Algebra in June.

*More on CMP <http://connectedmath.msu.edu/>

The Overarching Goal of CMP:

All students should be able to reason and communicate proficiently in mathematics. They should have knowledge of and skill in the use of the vocabulary, forms of representation, materials, tools, techniques, and intellectual methods of the discipline of mathematics, including the ability to define and solve problems with reason, insight, inventiveness and proficiency.