Burke Middle School Mathematics

Math teachers at Burke know that every student can succeed in mathematics. Middle school math teachers make each course accessible and appropriately challenging. Because they also teach high school math, they have a keen sense of the knowledge base, skill set and studentship necessary to achieve success in both curriculums. The Burke math program is student-centered and challenging and fosters curiosity about and interest in mathematics.

6th Grade Math
All sixth graders take the same math course. We focus on refinement of arithmetic skills, problem solving, introduction of variables, development of facility with the language of mathematics and the broad understanding of math as a way of approaching problems. There is a wide range of maturity and background among 6th grade students – we work to ensure that math is accessible to all of them while maintaining high expectations of the students.

7th Grade Math
Differentiated streams in math begin in 7th grade. Based on 6th grade performance, students take Math 7 (a traditional Pre-algebra course) or Math 7 with Advanced Concepts. Each course contains the same core ideas and concludes with an introduction to linear equations. Both classes are a good preparation for Algebra 1. The most successful students in each course are placed into Algebra 1 in 8th grade.

8th Grade Math
8th graders take either Introduction to Algebra or Algebra 1. Introduction to Algebra revisits and reinforces many of the core concepts of Pre-algebra and introduces many seminal ideas of Algebra 1. These include systems of equations, rules of exponents and simplification of radicals. We also cover distribution and monomial factoring, solving by taking roots, exponential growth and quadratic behavior. Students completing Introduction to Algebra have proved to be very well prepared for Algebra 1 in high school. 8th graders in Algebra 1 have strong computational skills, proven studentship and have the ability to handle the abstraction of algebra. The path beginning with Algebra 1 in eighth grade normally culminates in Calculus in twelfth grade.

Whatever their original placement, students at Burke may cross streams of instruction in a number of ways. Some students who begin Algebra in 9th grade take summer Geometry in order to ensure placement in an upper level math course (Calculus or Statistics) by senior year. Similarly, students who experience frustration in their later placements (say Algebra 2 with Trigonometry) are easily moved to more gently paced options (Algebra 2 or Intermediate Algebra 2) to allow them to achieve success.

(Please turn over for curriculum summary)