

Mathematics

Our program is designed to actively engage students in mathematical reasoning to solve complex mathematical problems. It is developmental in nature, moving from concrete, hands-on experiences to abstract work.

In Pre K, children are exposed to the basic math elements of size, number, grouping, patterns, sorting, length, weight, height, classification and shape recognition. Math materials are used daily, as well as group activities that further expose children to math concepts.

In kindergarten to grade five, students use *Investigations in Number, Data, and Space*, a math program developed with the rigorous standards developed by the National Council of Teachers of Mathematics. It is designed to help all elementary children understand the fundamental ideas underlying number and arithmetic, geometry, data, measurement, and algebraic thinking. Mathematics content in *Investigations* includes computational fluency with whole number operations, the structure of the base ten number system, the meaning of fractions, representing and describing data, examining 2D and 3D shapes, measuring, and change over time. Students are encouraged to reason mathematically, develop problem-solving strategies, and represent their thinking using models, diagrams, and graphs.

In grades six through eight, students use *Connected Math*, a mathematics curriculum that helps students develop understanding of important concepts, skills, procedures, and ways of thinking and reasoning in number, geometry, measurement, algebra, probability, and statistics.

Middle school students who are ready to take on the challenge can attend weekly math seminars to that lead toward the Math A and Math B Regents exams.