

Middle School Guide

One more revision for math section.

March 25, 2010

6th Grade Math

Mathematics

Our sixth-grade mathematics curriculum comprises five strands of instruction: numeracy, geometry, measurement, algebra and patterns, and probability and statistics. We strongly encourage students to work toward taking Algebra I in middle school. Our goal is to prepare you for success with this course. Your learning algebra will open up greater possibilities for you in your study of mathematics and in your college and career pathway. Both the advanced and honors levels are designed to progress students through the middle school curriculum to include completing Algebra 1 for high school credit prior to the ninth grade.

I like math because it is a subject that really tests your skills and is very challenging. ~ Shaniqua

*I thought (math) would be scary, but it's fun.
~ Unknown Middle School Student*

Using real-life applications, student-centered inquiry, calculators, and computers, sixth-grade math students do the following:

- Investigate, develop, and use ratios and proportions to compare data sets.
- Measure and use standard and non-standard units for measurement, and make conversions within a measurement system.
- Investigate applications of symmetry, parallel and perpendicular lines, and views of three-dimensional figures.
- Develop, use and solve linear equations with one variable.
- Describe, predict, analyze and represent various types of data.

7th Grade Math

Mathematics

Our seventh-grade mathematics curriculum comprises five instructional strands: numeracy, geometry, measurement, patterns and algebra, and probability and statistics. Students who meet the prerequisite requirements may be able to take Algebra I for high school credit. We strongly encourage students to work toward taking Algebra I in middle school. Our goal is to prepare you for success with this course. Your learning algebra will open up greater possibilities for you in your study of mathematics and in your college and career pathway. An option to accept high school credit is given at the end of the eighth-grade year. Students will follow the high school exam exemption policy.

Using practical applications, student-centered inquiry, calculators, computers, and videos, seventh-grade math students do the following:

- Explore proportional reasoning and consumer application problems.
- Identify, investigate and use real numbers and operations.
- Identify, investigate, use and apply attributes and properties of geometric figures, and apply formulas for linear measurement, area and volume.

- Investigate, develop, solve and apply linear equations and inequalities.
- Collect, organize and analyze data to make inferences and predictions.

8th Grade Math

Mathematics

Eighth-grade students complete their three-year focus on five mathematical instructional strands: numeracy, geometry, measurement, patterns and algebra, and probability and statistics, and begin to focus on more abstract thinking skills. Students who meet the prerequisite requirements may be able to take Algebra I or Geometry for high school credit. We strongly encourage students to work toward taking Algebra I in middle school. Our goal is to prepare you for success with this course. Your learning algebra will open up greater possibilities for you in your study of mathematics and in your college and career pathway. An option for accepting high school credit is given at the end of the eighth-grade year. Students follow the high school exam exemption policy for these courses.

*I like algebra because it's not about writing or remembering. It's about numbers. ~ Unknown
Middle School Student*

Using appropriate tools and technologies and student-centered inquiry, eighth-grade math students do the following:

- Develop, investigate, solve and apply multi-step equations.
- Collect and graph data using a variety of representations; analyze the data to make inferences and predictions; and in some cases, develop rules to describe the data.
- Use probability to predict and calculate outcomes for data.
- Identify, classify and apply transformations to geometric figures.
- Measure, convert and use standard and non-standard units for measurement, and apply formulas for linear measurement, area and volume.