MAJOR TOPICS COVERED IN EACH MATH AREA

The Standards for Mathematical Practice apply throughout each course and, together with the content standards, require that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

GENERAL MATH:
1. Addition, subtraction, multiplication and division of whole numbers, decimals and fractions.
2. Basic perimeter, area and volume formulas.
3. Introduction to percents.
4. Reading of line graphs and bar graphs.
5. Consumer math topics.
6. Introduce solving algebraic equations.
7. Continue to work with signed numbers and graphing concepts.
8. Introduce ratio and proportion concepts.
9. Introduce algebraic word problems using key words.
10. Continue work with geometric shapes.

PRE-ALGEBRA:
1. Review of General Math.
2. Problem solving techniques.
3. Estimation and measurement.
4. Working with basic geometric shapes, area and volume.
5. Working with ratio/proportions/scaled drawings.
6. Using signed numbers and scientific notation.
7. Solving problems using powers and roots.
8. Using formulas and linear equations to solve problems.
9. Projects relating real world applications to specific topics.
10. Continue the development of solving algebraic equations.

ALGEBRA I GENERAL:
1. Review of Pre-Algebra.
2. Solving Algebra Equations
3. Graphing of lines as functions.
4. Solving of basic quadratic equations.
5. Factoring basic types of trinomials.
6. Work with exponents and roots.
7. Percent problems.
8. Basic Algebra word problems.

ALGEBRA I CP:
1. All topics covered in Basic Math.
2. Graphing of lines as functions.
3. Solving of quadratic equations.
4. Factoring different types of trinomials.
5. Work with exponents and roots.
6. Advanced percent problems.
7. Basic Algebra word problems.

MATH I HONORS:
1. All topics covered in Algebra I.
2. Introduce Geometer's Sketchpad
3. Advanced work with exponents and roots.
4. Advanced Algebra I word problems.
5. Solving two equations with two unknowns:
   a. Substitution
   b. Elimination
   c. Graphing
6. Complex numbers
7. Trigonometric concepts.
8. Geometric concepts:
   a. Area and volume problems.
   b. Introduction to proofs.
9. Logarithms and Antilogarithms

GEOMETRY CP:
1. Use of methods used in Algebra I.
2. Work with Geometer's Sketchpad.
3. Learn definitions, concepts and symbols of geometric figures.
4. Learn to use deductive logic to develop two-column proofs of geometric concepts.
5. Understand the Cartesian coordinate system.
6. Understand the characteristics of triangles and polygons.
7. Learn the trigonometric ratios.
8. Learn how to find perimeter and area of plane figures.
9. Learn how to calculate the surface area and volume of rectangular solids, cones, cylinders, spheres, prisms and pyramids.
10. Basic proofs.
11. Abstract thinking required.

MATH II HONORS:
1. Application of advanced algebraic techniques from Math I Honors.
2. Work with Geometer's Sketchpad.
3. Learn definitions, concepts and symbols of geometric figures.
4. Learn about transformations.
5. Learn to use deductive logic to develop two-column proofs of geometric concepts.
6. Understand the Cartesian coordinate system.
7. Understand the characteristics of triangles and polygons.
8. Learn the trigonometric ratios.
9. Learn about probability and data.
10. Learn how to find perimeter and area of plane figures.
11. Learn how to calculate the surface area and volume of rectangular solids, cones, cylinders, spheres, prisms and pyramids.
12. Advanced proofs.
13. Abstract thinking required.