

## Math

- **Kindergarten** - We'll review the 6 basic shapes and the numbers 1-10. By the end of the year we expect mastery of the numbers 1-30, simple graphing, understanding of the concept of more and less, ordinal numbers 1-10, copying and producing patterns, counting backwards 10-1, counting on, measuring with nonstandard items (unifix blocks, paper clips, etc.), recognition of the 4 basic coins and their worth, adding and subtracting using manipulatives and telling time by the hour and  $\frac{1}{2}$  hour. Most children will be able to count to 100 and do simple addition and subtraction without manipulatives.
- **First Grade** - The students will develop an understanding of addition, subtraction, geometry, fractions, patterns, numbers to 100 (100<sup>th</sup> day celebration), time, money, and measurement. We accomplish this through the use of manipulatives, drawing pictures, and acting out problems.
- **Second Grade** - Addition and subtraction facts will be studied and mastered in second grade. We also will be learning addition and subtraction with larger numbers both with and without regrouping. Other math skills include money, time, measurement, shapes, beginning fraction, and number patterns. Our goal is to have students develop an awareness of how all of these concepts have real-life application in our everyday lives.
- **Third Grade** - Third graders study place value, money, addition and subtraction with renaming, time, and measurement. Students focus on multiplication and division facts and knowing the fact families. These skills are used in computation. Problem solving strategies are taught and practiced throughout the year. Fractions, decimals, and geometry are introduced.
- **Fourth Grade** – Elementary students are involved in hands-on, minds-on learning as they work to acquire skills in basic math concepts and skills, problem solving, and mathematical reasoning. We begin with a review of place value, rounding, addition and subtraction. We then move on to multiplication and division of large numbers. Students also enjoy learning about graphs and probability, time and money, measurement, fractions, and decimals.
- **Fifth Grade** - In Math classes, the students study the addition/subtraction properties, adding and subtracting whole numbers, decimals, and fractions. We learn the use of and special ways to make circle graphs, line graphs, bar graphs, stem and leaf plots, and double bar graphs. We also multiply whole numbers with 2 to 4 digits. Students learn to divide with 3 digits and 2 digit divisors. With fractions, we learn to add, subtract, multiply, and divide with like and unlike denominators. The students receive an introduction to geometry, measurement and the metric system. Along with each area, the students learn problem solving strategies.

## **Middle School (Sixth, Seventh and Eighth Grades) -**

- **Math 6**

Math 6 builds on basic math learned in the elementary grades and prepares students for the future Pre-Algebra and Algebra classes. Topics and areas covered are:

- Addition and subtraction of whole numbers and decimals
- Multiplication of whole numbers and decimals
- Division of whole numbers
- Division of decimals
- Graphing and statistics
- Measurement (metric and customary)
- Addition and subtraction of fractions
- Multiplication and division of fractions
- Ratio, proportions and probability
- Percents
- Problem solving
- Geometry
- Area and volume
- Positive and negative numbers

- **Math 7**

Math 7 is a continuation of Math 6. The topics are intended to prepare the student for Pre-Algebra classes. Topics and areas covered are:

- Numbers and numeration
- Addition and subtraction of numbers and fractions
- Multiplication and division of numbers and fractions
- Expressions, equations and inequalities
- Probability, statistics and graphing
- Integers
- Number theory
- Measurement
- Geometry
- Percent, ratios, and proportions
- Consumer mathematics
- Perimeter, area and volume

- **Pre-Algebra**

The Pre-Algebra classes focus on basic equation solving and working with variables. Through problem-solving and cumulative skill practice, students learn the following:

- Solving equations and inequalities
- Factors and fractions
- Integers
- Rational numbers
- Ratio, proportion and percent
- Functions and graphing
- Statistics and probability
- Polynomials
- Applying algebra to geometry
- Area and volume

- **Algebra**

Eighth grade Algebra is the most advanced math class offered at the middle school level. Students are challenged to interpret word problems, mathematical statements, and symbols. Major topics and area covered are:

- Inequalities
- Graphing
- Expressions and equations
- Rational numbers: expressions and equations
- Polynomials
- Radicals: expressions and equations
- Relations and functions
- Factoring