



Grade 8 Math

(Resource Room)
School Year 2011-2012

Mrs. Amy Carter
207-728-3371 x109
amycarter@madawaskaschools.org

Course Description:

This course is designed to provide instruction on basic math skills and operations. Students will develop and strengthen a strong number sense and relate mathematical concepts to everyday situations. All mathematical skills presented throughout this course correlate to the National Council of Teachers of Mathematics and the Common Core Standards. Instruction is geared to the individual learner's needs and programming goals.

Text book: *Basic Math Skills*

Required Materials:

- Student must bring the following to every class:
 - Binder
 - Pencil
 - Correcting pen
 - Math textbook
 - Homework planner

Grading:

- 40% Homework/Class work
- 30% Test/Quizzes
- 30% Class Participation/Effort

Course Expectations:

- All students will come to class prepared and on time
- Respect will be shown to peers, teachers, and learning at all times
- Absent work is to be collected by the student on the first day of their return to school (orange ASSIST sheet in working folder)

Curriculum:

Quarter 1:

Number and Operations

- Identify the place value of a digit in a number up to 100,000,000
- Read and write numbers in word, standard and expanded form
- Round numbers up to 1,000,000
- Compute with whole numbers
 - Find products of whole numbers with 1,2, and 3 digits
 - Divide whole numbers by 1 and 2 digit divisors with and without remainders
 - Fluently demonstrate multiplication facts up to 12
- Apply the order of operations to problems involving multiple operations and know the meaning of exponents
- Identify and express the meaning of commutative, associative and distributive properties

Graphs

- Read and construct pictographs, bar graphs, double bar graphs, line graphs and circle graphs
- Identify the meaning of mode, range, median and mean of a given set of data
- Recognize, redraw and correct a misleading graph
- Choose and construct the most appropriate graph to support data

Quarter 2:

Measurement

- Convert among units of liquids (quarts, ounces, pints, and gallons)
- Convert among units of weights (pounds, ounces and tons)
- Convert among units of linear measurement (feet, yards, inches and miles)

Number Theory

Students will be able to:

- Identify, recognize and note the difference of prime and composite numbers
- Use multiplication and factor trees to find the factors of a whole number
- Determine if numbers are divisible by 2, 3, 4, 5, 7, 9, or 10
- Find the least common multiple for pairs of numbers
- Find the greatest common factor for pairs of numbers

Quarter 3:

Fractions

- Compare and simplify fractions
- Rename mixed numbers and improper fractions
- Multiply and divide fractions and mixed numbers
- Add and subtract with like and unlike denominators

Decimals

- Read and write decimals through the ten-thousandths place
- Compare, order and round decimals to the nearest tenth, hundredth, and thousandth
- Add and subtracts decimals presented in either horizontal or vertical form
- Multiply and divide decimals
- Identify and use the repeating symbol for decimals that repeat
- Show relationship between fractions, decimals and percents

Quarter 4:

Geometry

- Identify an angle as acute, right, obtuse, or straight
- Identify supplementary and complementary angles
- Use a protractor to measure and construct angles
- Name triangles by looking at angles and sides
- Name solid figures by looking at faces, vertices, and edges
- Determine the area of triangles and parallelograms
- Find the volume of a rectangular and triangular prism

Introduction to Algebra

- Find the opposite of a given integer
- Add positive and negative integers and understand the concept of absolute value
- Solve variables in algebraic expressions and sentences