

**SCHOOL:** Atlantic Middle School  
**ADDRESS:** 86 Hollis Avenue  
**PHONE #:** 617 – 984 - 8727

## **SYLLABUS**

**TEACHER** Mrs. Deborah A. Madden

**COURSE/GRADE LEVEL** Pre-Algebra, Grade 8, Standard

**INSTRUCTIONAL MATERIALS**

*McDougal Littell Math, Course 3*

### **MAJOR TOPICS\***

Variables and Equations

Interpreting Graphs

Order of Operations

Variable Expressions

Powers and Exponents

Equations and Solutions

Integer Operations

Integers

Add, Subtract, Multiply, and Divide Integers

Number Properties and the Distributive Property

The Coordinate Plane

Solving Equations and Inequalities

One and Two Step Equations

Writing Equations

Geometric Formulas

Solve Inequalities

Factors, Fractions, and Exponents

Factors and Prime Factorization

Greatest Common Factor, Least Common Multiple

Simplify and Compare Fractions

Rules of Exponents, Negative and Zero Exponents

Scientific Notation

Rational Number Operations

Add, Subtract, Multiply, and Divide Rational Numbers

Mean, Median, Mode

Multi-Step Equations and Inequalities

Write and Solve Multi-Step Equations

Solve Equations Using the Distributive Property and Combining Like Terms

Solve Equations Involving Circumference

Solve Multi-Step Inequalities

Ratio, Proportion, and Percent

Ratios, Rates, Proportion

Solve Percent Problems

Rewrite Percents

Find Percent of Change, Percent Applications

Probability

## Polygons and Transformations

- Angles, Triangles, and Polygons
- Translations and Rotations

## Real Numbers and Right Triangles

- Squares, Square Roots
- The Pythagorean Theorem
- Rational and Irrational Numbers

## Measurement, Area, and Volume

- Area of Polygons
- Surface Area of Prisms, Cylinders, Cones, and Spheres
- Volume of Prisms, Cylinders, Cones, and Spheres

## Linear Equations and Graphs

- Relations and Functions
- Scatter Plots
- Equations in Two Variables
- Graphs of Linear Equations and Inequalities
- Slope and Intercepts
- Slope-Intercept Form

## Data Analysis and Probability

- Stem-and-Leaf Plots
- Box-and-Whisker Plots
- Counting Principle, Permutations, Combinations, and Probability

## **\*ASSESSMENT TOOLS**

- Portfolios
- Rubrics
- Open ended questions
- Word problems
- Writing Assignments
- Objective Tests/Quizzes
- FCA'S for long essays
- Homework

**\*See Individual Student Education Plans or 504 Plans for modification where applicable.**

## **HOMEWORK EXPECTATIONS**

Homework is given every night including Fridays and is due the following class day. It is worth one point. All math work must be done in pencil not erasable ink. My homework is posted in the "blackboards" and is on [www.schoolnotes.com](http://www.schoolnotes.com).

## **GRADING POLICY**

**Quizzes, mid-chapter test, test, projects and open ended questions have point values according to the number of examples each have. All quizzes and test can be retaken before school or at home, and the re-take will be averaged with the original. These points along with the homework points will be added together and the percentage of the total will be the student's final grade.**

## **MAKEUP PROCEDURE**

If a student is absent, the student should see me on the day of return to school to receive any make-up work. Arrangements will be made on an individual basis as to when missed tests can be taken. Make-up work is to be done in a reasonable amount of time based on the length of absence.

## **GENERAL INFORMATION**

Each student needs to have his or her text and a pencil each day. It is also strongly recommended that each student have a four function calculator, the cost is about one dollar.

**\* Adjustments may be made in this syllabus to meet student needs.**