

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

## SYLLABUS

**TEACHER:** Ms. Thao Nguyen-Ippolito  
**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

*Add, Subtract, Multiply, and Divide Integers*  
*Number of Properties and 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 Factorizations*  
*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 Distributive Property and Combining Like Terms*  
*Solve Equations Involving Circumference*  
*Solve Multi-Step Inequalities*

### Ratios, Proportions, and Percents

*Ratios, Rates, Proportions*  
*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 and Circles*  
*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*

Topics are not necessarily listed in the order they will be taught.

## **\*ASSESSMENT TOOLS**

*Rubrics*  
*Objective Tests/Quizzes*  
*Portfolios*  
*Projects*  
*Exemplars*  
*Group-Work*  
*Notebook Test*  
*Take Home Test*  
*Journal Entries*  
*Class Participation/Preparations*  
*Homework*

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

## **HOMEWORK EXPECTATIONS**

*Students will find homework and other assignments in the Weekly Calendar. The calendar will be distributed to students at the beginning of the week. Homework is assigned almost everyday and due on the following day. It will not be accepted late except due to absences. Homework will be graded based on completion not accuracy and as follows:*

4	-	<i>Complete, Well-Done</i>
3	-	<i><math>\frac{3}{4}</math> Complete, Good Effort</i>
2	-	<i><math>\frac{1}{2}</math> Done, Fair</i>
1	-	<i><math>\frac{1}{4}</math> Done, Little Effort</i>
0	-	<i>Not Passed In, No-Effort</i>

## **GRADING POLICY**

Each term, your grade will be distributed in the following way:

- 5% *Attendance/Participation/Organizing Notebook*
- 10% *Preparation (Homework and Bringing Materials Needed)*
- 15% *Quizzes (4-5)*
- 20% *Projects (1-2)*
- 30% *Tests/Exams (3-4)*
- 20% *Exemplars/Open Response Questions (1-2)*

## **MAKEUP PROCEDURE**

*It is a student's responsibility to obtain any missed work due to absences. Arrangements should be discussed with the teacher for dates and times. Also, all students are encouraged to retake any quizzes or tests given within one week. This must be done before or after school only and with the teacher's approval. The final score will be the average of the first original quiz/test and the retaken quiz/test.*

## **GENERAL INFORMATION**

*All math work is to be done in pencil only, erasable ink is not acceptable.*

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