

**Broad Meadows Middle School**  
**50 Calvin Road**  
**617-984-8723**

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**COURSE SYLLABUS**

**TEACHER:**

Mrs. Amy Malone

**COURSE/GRADE LEVEL:**

Grade 8 Pre-Algebra

**INSTRUCTIONAL MATERIALS:**

*MATH Course 3: McDougal Littell*, Connected Mathematics, Manipulatives

**MAJOR TOPICS:**

**I. Exploring Patterns**

- Number Patterns and Operations
- Powers and Square Roots
- Order of Operations
- Variables in Expressions
- Tables and Graphs
- Patterns in Geometry and Technology

**II. Investigations in Algebra**

- The Distributive Property
- Combining like Terms
- One-Step Equations
- Model Verbal Expressions and Sentences
- Problem Solving Using Equations
- Simple Inequalities

**III. Integers**

- Integers and Absolute Value
- Adding and Subtracting Integers
- Multiplying and Dividing Integers
- Problem Solving Using Integers
- Patterns in the Coordinate Plane

**IV. The Language of Algebra**

- Solve Two-Step and Multi-Step Equations
- Solve Equations Using the Distributive Property
- Solve Problems with Two or More Step Equations
- Use Formulas from Geometry to Solve Problems

**V. Number Theory**

- Divisibility Tests, Factors and Primes
- Greatest Common Factor and Least Common Multiple
- Rational Numbers and Decimals
- Powers and Exponents, Negative and Zero Exponents
- Scientific Notation

**VI. Geometry**

- Perimeter, Area, Circumference
- Surface Area of prisms and Cylinders

Volume of Prisms, Cylinders, Pyramids, Cones and Spheres

## **VII. Proportion, Percent and Probability**

Write Decimals as Percents and Percents as Decimals  
Write Fractions as Percents and Percents as Fractions  
Find a Percent of a Number  
Problem Solving with Percent  
Rates, Ratios, and Proportions  
Solving Problems with Proportions  
Solve Three Types of Percent Problems with Proportions  
Find Percent of Increase and Decrease, Discount, Commission

## **VIII. Real Numbers and Inequalities**

Squares, Square Roots, and the Pythagorean Theorem  
Solve and Graph Inequalities  
The Triangle Inequality

### **ASSESSMENT TOOLS**

Group and Individual Projects	Notebooks
Interdisciplinary activities	Word Problem Sets
Quizzes	Tests
Homework	

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

### **HOMEWORK EXPECTATIONS**

Homework is given almost every night and is usually due the following day. Homework grades are based on completion not accuracy and are given as follows:

3 = complete and on-time	1 = complete and more than one day late
2 = complete and one day late	0 = missed assignment

### **GRADING POLICY**

At the end of the term, final grades are computed as follows:

Tests	45%
Quizzes	45%
Homework	10%
Notebook	Counts as one quiz grade
Projects	Count as one quiz grade
Supply Check	Counts as one quiz grade
Participation	Counts as one quiz grade

### **SUPPLY CHECKS**

Students must bring the following materials to class every day. On any given day (at least twice during a term), there will be a supply check that counts as a quiz grade:

textbook	notebook
agenda book	pencil (pen does not count)
math folder	scientific calculator (TI-30X-IIS recommended)

### **MAKEUP PROCEDURE**

If a student is absent, please see me upon return for assignments. Arrangements will be made to reschedule missed quizzes, tests and presentations. Make-up work is to be done in a reasonable amount of time based on the length of absence.