

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

SYLLABUS

TEACHER Mrs. Mary E. Lydon

COURSE/GRADE LEVEL Algebra I, Honors, Grade 8

INSTRUCTIONAL MATERIALS

Algebra 1

MAJOR TOPICS*

Expressions, Equations, and Functions

Evaluate Expressions

Apply Order of Operations

Write Expressions, Equations, and Inequalities

Represent Functions as Rules, Tables, and Graphs

Properties of Real Numbers

Use Integers and Rational Numbers

Add, Subtract, Multiply, and Divide of Real Numbers

Apply the Distributive Property

Find Square Roots and Compare Real Numbers

Solving Linear Equations

Solving Equations Using One, Two, or More Steps

Write Ratios and Proportions

Solve Proportions Using Cross Products

Solve Percent Problems

Rewrite Equations and Formulas

Geometry

Perimeter, Circumference, Area

Volume, Surface Area

Graphing Linear Equations and Functions

Plot Points in a Coordinate Plane

Graph Linear Equations

Graph Using Intercepts

Find the Slope and Rate of Change

Graph Using Slope-Intercept Form

Model Direct Variation

Graph Linear Functions

Writing Linear Equations

Write and Use Linear Equations in Slope-Intercept Form

Write Linear Equations in Point-Slope Form and in Standard Form

Write Equations of Parallel and Perpendicular Lines

Fit a Line to Data

Predict with Linear Models
Solving and Graphing Linear Inequalities
Solve Inequalities Using Addition, Subtraction, Multiplication, and Division
Solve Multi-Step Inequalities and Compound Inequalities
Solve Absolute Value Equations and Inequalities
Graphing Linear Inequalities in Two Variables
Solving Systems of Linear Equations and Inequalities
Solve Linear Systems by Graphing, Substitution, Linear Combinations
Solve Systems of Linear Inequalities
Exponents and Exponential Functions
Apply Exponent Properties Involving Products and Quotients
Define and Use Negative and Zero Exponents
Use Scientific Notation
Write and Graph Exponential Growth Functions and Exponential Decay Functions
Polynomials and Factoring
Add, Subtract, and Multiply Polynomials
Factor Special Products of Polynomials
Solve Polynomial Equations in Factored Form
Factor Polynomials Completely

***ASSESSMENT TOOLS**

Portfolios
Rubrics
Open ended questions
Word problems
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 most nights. In general, it is due the following day. If it is complete and on time, it is worth 2 points. If it is late or incomplete, it is worth one point. To be counted late, it must be done the next day after it was due. If it is not done, it is worth 0 points. At the end of the term, a homework average is computed based on the number of points earned divided by the number of possible points.

GRADING POLICY

Quizzes for each chapter are averaged and count as one test grade. Chapter tests count as one test grade. Homework counts as one test grade. Writing assignments are averaged as one test grade. At the end of the term, the final grade is based on an average of the quizzes, tests, homework, and writing assignments.

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.

GENERAL INFORMATION

Each student needs to have his or her text, a notebook and a writing instrument each day. It is also strongly recommended that each student have a scientific calculator. If you are purchasing a new one, a TI-30XIIS (made by Texas Instrument) is the type used in class.

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