

SCHOOL: Broad Meadows Middle School
ADDRESS: 50 Calvin Road
PHONE #: 617-984-8723

SYLLABUS

TEACHER Elva Hazelton

COURSE/GRADE LEVEL Algebra 1, Honors, Grade 8

INSTRUCTIONAL MATERIALS

McDougal Littell Algebra 1, *Connected Math Series*, *Exemplar* Open Response Questions

MAJOR TOPICS*

I. Connections to Algebra

- Numbers and Number Operations
- Variables in Algebra
- Exponents and Powers
- Order of Operations
- Equations and Inequalities

II. Rules of Algebra

- Addition and Subtraction of Real Numbers
- Multiplication and Division of Real Numbers
- The Distributive Property
- Rates and Ratios

III. Solving Linear Equations

- Solving Equations Using One Transformation
- Solving Equations Using One, Two, or More Transformations

IV. Geometry

- Perimeter, Circumference, Area
- Volume, Surface Area

V. Graphing Linear Equations

- Graphing Linear Equations in One Variable
- Graphing Linear Equations in Two Variables
- Quick Graphs Using Intercepts
- The Slope of a Line
- Quick Graphs Using Slope-Intercept Form

VI. Powers and Exponents

- Multiplication Properties of Exponents
- Negative and Zero Exponents
- Division Properties of Exponents
- Scientific Notation
- Problem Solving and Scientific Notation
- Problem Solving: Compound Interest and Exponential Growth
- Exponential Growth and Decay

VII. Quadratic Equations

- Square Roots and the Pythagorean Theorem
- Solving Quadratic Equations by Finding Square Roots
- Graphs of Quadratic Equations
- The Quadratic Formula

Problem Solving Using the Discriminant

VIII. Polynomials and Factoring

Adding, Subtracting, and Multiplying Polynomials

Factoring Special Products and Quadratic Trinomials

Solving Quadratic Equations by Factoring and Completing the Square

***ASSESSMENT TOOLS**

Rubrics

Projects

Notebooks

Interdisciplinary activities

Open ended questions

Word problems

Co-operative learning projects

Objective Tests/Quizzes

Essays

Presentations

FCA'S for long essays

Attendance

Mid-Year and Final Exams

Homework

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

HOMEWORK EXPECTATIONS

Homework is given most nights. The homework is usually due the following day. It is graded on completion not accuracy. On time assignments are worth 3 points. One day late or incomplete is worth 2 points. Just answers or completed in pen is worth 1 point. Not done is worth 0 points. The students have one day to change their grade if they scored a 2, 1, or 0. At the end of the term, a homework average is computed based on the number of points earned divided by the possible number of points. This average replaces the lowest quiz grade in that the term. Homework is also completed in the notebook. The problem, any work needed, and the answer clearly written in pencil is expected with every assignment. Notebooks are a test grade.

GRADING POLICY

Each test counts as two test grades, homework replaces the lowest quiz score and counts as part of the notebook grade, writing assignments or projects are averaged as one test grade, quizzes are averaged to two test grades, one for each half of the term. At the end of the term, the final grade is based on the average of tests (30%), quizzes (25%), homework (10%), notebook (15%), projects and writing assignments 20%).

MAKEUP PROCEDURE

Students are given, five, (5) school days to make up work from when they are absent. The student may either see myself, or look on the white board in the class for the work missed. Arrangements will be made at the time of their return as to when missed tests can be taken after school.

GENERAL INFORMATION

Students need to have a notebook, text, agenda book, pencil and calculator for class each day. The Calculator of choice is the TI 30xIIs

Three of the four projects listed below are assigned in class, one each, in terms, two, three, and four.

--Creating a house floor plan

-- Math-a-thon

--Tetrahedron

-- Patterns

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