

**DOBBS FERRY MIDDLE SCHOOL**  
Dobbs Ferry, New York 10522

**COURSE OUTLINE**

**SUBJECT: Mathematics**

**GRADE: 8**

Offered: Full Year

Type of Course: Required unless student is taking Algebra I

**COURSE DESCRIPTION:**

The eighth grade mathematics course focuses on the concepts outlined in the New York State Common Core standards and builds upon the seventh grade concepts previously mastered. The course is broken into the following units: number system, expressions, equations, functions, geometry, probability, and statistics. At the end of the course students will have mastered all the concepts necessary to continue into the ninth grade Algebra I course.

**KEY CONCEPTS:**

- Relationships
- Logic

**ANTICIPATED OUTCOMES:**

*By June of this year, students in this class will be able to:*

- Perform and Understand Laws of Exponents
- Compute Scientific Notation
- Solve a variety of algebraic equations
- Translate expressions and equations
- Graphing Linear Equations and Inequalities
- Systems of Linear Equations
- Construct Functions
- Use the Pythagorean Theorem
- Angle relationships
- Transformations
- Volume and Surface Area of shapes
- Represent data in a variety of statistical plots

### **Materials Needed**

- Agenda Pad
- Chromebook
- Scientific Calculator (TI-30X IIS)
- One Large 3-Ring Binder
- Pencil Case with 3 Holes (to be inserted in binder)
- Binder Dividers
- Loose Leaf Paper
- Graph Paper
- One Folder
- One Ruler
- Highlighters
- Pens (blue or black only)
- Pencils

### **Criteria for Assessment**

Grades will be based on the following:

- Homework
- Tests/Quizzes

### **STUDENT/PARENT RESOURCES:**

- [www.mathisfun.com](http://www.mathisfun.com)
- [www.connected.mcgraw-hill.com](http://www.connected.mcgraw-hill.com)

*Outline developed by: Mathematics Department*

*Date: March 2019*