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 Next Generation Learning Standards and builds upon the seventh grade concepts previously mastered. This course is more rigorous than previous grades and has a different structure. Therefore, it is normal for grades to fluctuate throughout the school year. 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. In addition, we strive to have students become independent learners who can utilize their resources and guides to develop stronger study skills and make connections to real-life applications.

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
- Use scientific notation
- Solve a variety of algebraic equations
- Translate expressions and equations
- Graph linear equations
- Solve systems of linear equations
- Construct functions
- Use the pythagorean theorem
- Identify angle relationships
- Perform transformations
- Identify differences between congruence and similarity
- Find volume and surface area

- Represent data in a variety of statistical plots

Materials Needed

- Chromebook
- Scientific Calculator (TI-34 MultiView)
- Binder
- Pencil Case
- 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
- MYP Projects
- Assessments

STUDENT/PARENT RESOURCES:

-www.mathisfun.com
-www.ixl.com

Outline developed by: Mathematics Department   *Date: March 2025*