# Bill Reed Middle School 8th Grade Math 3

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### Course Outline:

Expressions and Equations Work with radicals and integer exponents. Understand the connections between proportional relationships, lines, and linear equations. Analyze and solve linear equations and pairs of simultaneous linear equations.	The Number System Know that there are numbers that are not rational, and approximate them by rational numbers. 10  Functions Use functions to model relationships between quantities. 11	Geometry o Solve real-world and mathematical problems involving volume of cylinders, cones, and spheres.
Functions Define, evaluate, and compare functions. Geometry	Statistics and Probability Investigate patterns of association in bivariate data.12	
Understand and apply the Pythagorean Theorem. Understand congruence and similarity using physical models, transparencies, or geometry software.		

## Depth Opportunities:

EE 5, 7, 8; F 2; G 7

10 Work with the number system in this grade is intimately related to work with radicals, and both of these may be connected to the Pythagorean Theorem as well as to volume problems, e.g., in which a cube has known volume but unknown edge lengths.

11 The work in this cluster involves functions for modeling linear relationships and a rate of change/initial value, which supports work with proportional relationships and setting up linear equations.

12 Looking for patterns in scatterplots and using linear models to describe data are directly connected to the work in the Expressions and Equations clusters. Together, these represent a connection to the Standard for Mathematical Practice Model with mathematics.

### General Rules:

Students need to be on time, prepared, respectful and responsible.

### Preparation for Class:

Students are responsible to show up at class with a dry erase marker, and a pen or pencil plus any assignment work given in class.

Standard Based Grading: (Use Parent Portal to access student scores.) Students will receive scores on their report cards to indicate their mastery of the standards being taught:

= exceeding grade level, 3 meeting grade level, 2 progressing towards grade level, 1 = insufficient progress towards grade level, 1 = insufficient evidence, and 1 = missing