Roger Ludlowe Middle School

# **PRE-ALGEBRA 8**



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Crew 8M

Room 320

# COURSE DESCRIPTION

In the Pre-Algebra 8 course, instructional time should focus on three critical areas: (1) formulating and reasoning about expressions and equations, including modeling an association in bivariate data with a linear equation, and solving linear equations and systems of linear equations; (2) grasping the concept of a function and using functions to describe quantitative relationships; (3) analyzing two- and three-dimensional space and figures using distance, angle, similarity, and congruence, and understanding and applying the Pythagorean Theorem.

### COURSE OBJECTIVES

#### Students should:

- analyze and solve linear equations
- define, evaluate, and compare functions
- use functions to model relationships between quantities
- analyze and solve linear equations and pairs of simultaneous linear equations
- understand congruence and similarity using physical models, transparencies, or geometry software
- understand the connections between proportional relationships, lines, and linear equations
- know that there are numbers that are not rational, and approximate them by rational numbers
- work with radicals and integer exponents
- understand and apply the Pythagorean Theorem
- solve real-world and mathematical problems involving volume of cylinders, cones, and spheres
- investigate patterns of association in bivariate data

# UNITS OF STUDY

- Linear Relationships and Functions
- Systems of Equations
- Congruence and Similarity
- Real Numbers
- Pythagorean Theorem
- Volume
- Patterns in Data

#### GRADING

Summative Assessments:	90%Total (Points Based) May include: Unit, Chapter, and Mid-Chapter Tests; Quizzes; Projects; some District Assessments
Behavioral Characteristics:	10% Total (Points Based) May include: Homework; Participation Quizzes

### MATERIALS

Each day students are expected to bring their math textbook, their math binder with plenty of loose-leaf paper, pencils, a calculator, and a correcting pen to class.

# EXPECTATIONS OF STUDENTS

I expect students to be respectful to all other individuals and property. I expect students to be prepared and on time with appropriate materials and assignments and to be responsible for any missed work. I expect students to be motivated to learn, accept challenges, and put forth their best effort every day in class and every night when doing homework. I also expect students to come to me when they have questions or don't quite grasp a topic. I am always happy to talk to students during class or to schedule extra help sessions. During class time I expect students to follow the rules of the school and of our classroom. I expect students to work together and help each other out (when appropriate).

#### EXTRA HELP

Drop-in extra help is on Mondays and Thursdays from 2:50-3:10. Extra help sessions may also be made by appointment at a mutually convenient time.