

Coon Rapids-Bayard Community School District

8th Grade Mathematics

Mrs. Royer

Course Description:

In Grade 8, math focuses 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 Expectations:

The Number System

- Know that there are numbers that are not rational, and approximate them by rational numbers.

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.

Functions

- Define, evaluate, and compare functions.
- Use functions to model relationships between quantities.

Geometry

- Understand congruence and similarity using physical models, transparencies, or geometry software.
- Understand and apply the Pythagorean Theorem.
- Solve real-world and mathematical problems involving volume of cylinders, cones and spheres.

Statistics and Probability

- Investigate patterns of association in bivariate data.

Mathematical Practices

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

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Textbooks and Materials:

Online textbook (pearsonsuccessnet.com) is provided through username and password.

Web tools used extensively, with usernames and passwords provided.

Grading Plan:

Grades are based on the point system- no weighting of any item. There are daily assignments, clicker assignments, projects, tests/quizzes, and labs.

Grading Scale:

A	90-100
B	80-89
C	70-79
D	60-69
F	59 or Below

Course Policies:

Student Work: Students will be expected to complete assignments outside of class time on a regular basis. All students are expected to read class material, think critically and write effectively. Students are expected to use complete sentences, proper grammar and correct spelling in every written performance..

Group Activities: Sometimes, you will be working in groups. Your group will be given cooperative learning activities to complete. You will be expected to be an active member of your group and participation points will be assessed accordingly. You will always be graded as an individual; however your group may earn points together that will lead to a reward.

Absences: If a student is absent, it is HIS/HER responsibility to get the material and assignment from my teacher website.

Class Rules:

- Be prompt
- Be prepared
- Be productive
- Be respectful
- Be a problem solver

Class Materials:

Daily bring your planner, pencil, checking pen, notebook, and a free reading book.