

8th Grade Mathematics
Course Description
Mr. Costales (teacher)

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Overview of the Subject

This course will prepare the 8th grade student for high school mathematics. Students will focus on higher level thinking skills, the problem solving process, and learn to use new skills to analyze and solve mathematical equations. This course will give the 8th grade students the foundations necessary for a strong start in high school.

Methods of Instruction

- A/B partners, warm-up, pressing questions, exit ticket, grouping, project based instruction, using manipulative, working on paper or on computer/calculator, real life applications, individual or group problem solving, and games, differentiated instruction (ELL and Sped), reflection notes

Student Performance Goals:

- Use numbers in various forms to solve problems
- Order positive and negative rational numbers
- Use the order of operations to write, evaluate, and simplify numerical expressions
- Use the commutative and distributive properties to write equivalent numerical expressions
- Formulate questions that can be answered through data collection and analysis
- Recognize and use shapes and their properties to make mathematical arguments and to solve problems
- Use the Pythagorean Theorem and properties of special triangles to solve problems
- Investigate the effects of combining one or more transformation of a shape
- Use measurement concept to solve problems
- Use geometric concepts to build understanding of concepts in other areas of math
- Construct tables, graphs, symbolic expressions and verbal description and use them to describe and predict patterns of change in variables
- Connect equations to problem situations
- Solve linear inequalities and simple quadratic equations using symbolic method

Subject Matter Content:

- Functions; Equation of a Line; Inverse functions; Inequalities
- Square Roots, Pythagorean Theorem; coordinates; Slopes; Distance; Areas
- Exponential Growth and Decay; Exponents; Scientific Notation
- Quadratic Functions and Expressions
- Symmetry and transformation
- Equivalent Expressions; Solve Quadratic Equations; Quadratic Formula
- Linear Equations and Linear Inequalities
- Data and Statistics

Textbooks: 8th Grade CMP2 – Variables and Patterns, Moving Straight Ahead, Looking for Pythagoras; Moving Straight Ahead; Samples and Populations; Growing, Growing and Growing; Frog, Fleas and Painted Cubes; The Shapes of Algebra

Other Resources: PIZZAZZ, Navigator, MESA, Internet, United Streaming

Grading

The student's grade will be determined by a percentage of points earned for that marking period.

Grades are based on:

Classroom work (Warm-ups, daily problems) and Homework (packet or ACE in the book) – 30%
Participation (A/B partner, class discussion) – 20%
Projects, Quizzes (Friday and Exit Ticket) and Tests – 30%
Behavior (Big Five) – 20%

Grading Scale:

A- 90-100 %
B- 81-89 %
C- 71-80%
D- 61-70%
E- Below 60%

Ways of Contacting the Teacher (Mr. Costales)

Before Class Starts – 8:00 AM

Any Time after 2:40 PM

Numbers to Call:

Direct phone line: 206-252-7720

School – 206- 252-7700

Email: rcostales@seattleschools.org