

WELCOME TO SIXTH GRADE MATH!

By the end of the year, here is what students should be able to do:

2:1 Ratios and Proportions

- ✓ Understand the concept of a ratio (e.g., for every 2 cups of flour, use 1 cup of sugar).
- ✓ Use unit rates to solve problems (e.g., if 3 lbs of apples cost \$6, how much is 1 lb?).
- ✓ Solve real-world problems involving ratios and rate reasoning.

The Number System



- ✓ Divide fractions by fractions.
- ✓ Add, subtract, multiply, and divide multi-digit decimals.
- ✓ Use the Greatest Common Factor (GCF) and Least Common Multiple (LCM). For example, express $36 + 8$ as $4(9 + 2)$.
- ✓ Understand positive and negative numbers (integers) and their placement on a number line and coordinate plane.

Expressions and Equations



- ✓ Write and evaluate mathematical expressions that use letters (variables) to stand for numbers.
- ✓ Solve one-variable equations (e.g., $x + 5 = 12$).
- ✓ Use variables to represent two quantities that change in relationship to one another (independent and dependent variables).

Statistics and Probability



- ✓ Understand that data can have variability (different answers to the same question).
- ✓ Summarize data sets using Mean (average), Median (middle value), and Range.
- ✓ Display numerical data in plots, such as dot plots, histograms, and box plots.



Geometry

- ✓ Find the area of triangles, quadrilaterals, and other polygons by breaking them into simpler shapes.
- ✓ Calculate the volume of right rectangular prisms with fractional edge lengths.
- ✓ Use "nets" (2D patterns) to find the surface area of 3D shapes.

