

St. Raphael the Archangel

Standard Math

6th Grade 2017-2018

Learning Goals- Students will:

Ratios and Proportional Relationships

- 1. Define, identify, write, and demonstrate and understanding of rates and ratios.**
- 2. Use ratio and rate reasoning to solve real-world and mathematical problems. (unit rate/unit price)**

The Number System/Rational Numbers

- 1. Add and subtract positive decimals.**
- 2. Add and subtract positive fractions and mixed numbers.**
- 3. Add integers.**
- 4. Compare rational numbers. (positive and negative numbers, fractions, decimals, and absolute value)**
- 5. Convert numbers between fractions, decimals, and percent.**
- 6. Divide positive decimals.**
- 7. Graph rational numbers (positive and negative numbers, fractions, decimals, and absolute value) on a number line.**
- 8. Identify the greatest common factor.**
- 9. Identify the least common multiple.**
- 10. Multiply and divide positive fractions and mixed numbers.**
- 11. Multiply and divide integers.**
- 12. Multiply positive decimals.**
- 13. Order rational numbers. (positive and negative numbers, fractions, decimals, and absolute value)**
- 14. Subtract integers.**

Expressions, Equations, and Inequalities

- 1. Apply the properties of real numbers to an expression in order to create an equivalent expression.**
- 2. Evaluate expressions in which letters stand for numbers.**
- 3. Give possible solutions to simple inequalities and graph on a number line.**
- 4. Read and write expressions.**
- 5. Read and write simple inequalities.**

6. Use order of operations to solve expressions.
- 7.

Geometry

1. Calculate the area of irregular figures.
2. Calculate the area of triangles.
3. Calculate the perimeter of regular and irregular polygons.
4. Calculate the surface area of a three-dimensional figure (excluding cylinders).
5. Calculate the area of quadrilaterals.
6. Calculate the volume of rectangular and triangular prisms.
7. Draw a polygon in a coordinate plane when given the coordinates.
8. Graph ordered pairs on a coordinate plane.
9. Identify and describe the components of three-dimensional figures.
10. Identify and name angles and recognize adjacent, vertical, congruent, supplementary, and complementary angles.
11. Identify and name intersecting, parallel, and skew lines.
12. Identify and name lines, points, and planes.

Statistics and Probability

1. Create and interpret bar graphs.
2. Create and interpret frequency tables and stem and leaf plots.
3. Create and interpret line graphs.
4. Define probability and determine simple probability for single events.
5. Summarize information provided by a set of numerical data (mean, median, mode, range).