

# Sacred Heart School

## Course Syllabus

**Class Subject:** Grade 6 Mathematics

**Teacher Information:** Kathleen Ward, wardk@sacredheartgroton.org

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**Course Description:** Mathematics is important in school and throughout life. The ability to use math skills in the process of high-level thinking and problem solving situations is critical for students in their future. Through the study of number operations, data analysis, measurement, geometry, and algebra students will be able to apply these abilities in a way to benefit our community and the world.

### **General Course Objectives:**

#### Number Operations:

Students will:

- Estimate sums, differences, products, and quotients
- Add, Subtract, Multiply, and Divide whole numbers
- Round numbers to thousands and millions
- Understand concepts of tenths, hundredths, thousandths
- Read and write decimals, fractions, and mixed numbers
- Use correct math terminology such as numerator, denominator, reciprocal, product, factor etc.
- Use estimation to determine a reasonable answer
- Round factors to estimate products
- Mentally multiply and divide with multiples of 10
- Identify a missing element in a repeating pattern

#### Date Analysis:

Students will:

- Create a drawing or diagram to clarify information
- Use Venn Diagrams to collect and sort information
- Explain orally and in written form the process followed to arrive at a solution
- Create and read correctly tables, charts, and graphs to solve problems
- Read and interpret diagrams and timelines

- Explore the concept of average or mean

**Measurement:**

Students will:

- Estimate and measure using Customary and Metric Units
- Recognize relationships between various measures
- Use time calculation in problem solving
- Read temperatures in Celsius and Fahrenheit scales
- Use money calculations in problem solving
- Know the total value and characteristics of bills and coins
- Make change using bills and coins

**Geometry:**

Students will:

- Compare, contrast three-dimensional shapes
- Identify and measure angles
- Calculate perimeter and area of various figures
- Identify point, ray, line segment, line, intersecting/parallel/perpendicular lines, and right angles

**Algebra:**

Students will:

- Model a problem situation using numbers and/or letters
- Use letters in addition, subtraction, multiplication, and division statements and solve

**Instructional Strategies:** Include but are not limited to the following. Lecture, Discussions/Questioning, Viewing/Listening/Answering, Problem Finding/Solving, Data Collection, Collaborative Learning Groups, Independent Learning, Computer Applications

**Assessments:** Class Discussions, Teacher Observation, Class Work, Homework, Tests/Quizzes, Projects/Oral Presentations

**Materials:** EnVision Math - Grade 6 Supplemental Materials, Teacher Generated Materials