

Sacred Heart School
Grade 5 Course Syllabi

Mathematics
Grade 5

Diane Maleno
malenod@sacredheartgroton.org
(860) 445-0611

Course Description: The purpose of the fifth grade mathematics program is to provide step-by-step instruction in mathematical concepts.

Course Content: Topics covered in the math curriculum are place value, estimation, multiplication and division with three digits, fractions, factoring, decimals, geometry, measurement, metric system, percentages, and ratios.

General Course Objectives:

Math Facts/Place value:

The student will:

- Understand place value to the millions.
- Round numbers to tens, hundreds, thousands, millions.
- Estimate.

Numeration and Number Theory:

The student will:

- Identify prime and composite numbers.
- Identify factors and greatest common factor (GCF).
- Identify multiples and lowest common denominator (LCD).

Whole Number Computation and Estimation:

The student will:

- Estimate sums and differences.
- Multiply and divide whole numbers.
- Compare and order numbers of 3 or more digits.
- Use appropriate terms for commutative, associative, and distributive properties.
- Solve problems using basic operations.
- Use long division for 2 digit divisors.
- Multiply/divide with 3 digits or more.
- Estimate products and quotients.

Fractions:

The student will:

- Order and compare fractional parts.
- Use correct terminology (numerator, denominator, reciprocal, etc.).
- Identify and write equivalent fractions.
- Add/subtract fractions.
- Relate fractions to decimals.
- Solve problems using fractions, mixed numbers.
- Multiply/divide fractions, mixed numbers.

Decimals:

The student will:

- Understand concept of tenths, hundredths, thousandths.
- Read and write decimals.
- Add, subtract, multiply, divide decimals.

Geometry:

The student will:

- Use correct terms for geometric figures.
- Identify and measure angles.
- Calculate perimeters, areas of various figures.
- Identify point, ray, line segment, line.
- Identify intersecting, parallel and perpendicular lines, and right angles.

Measurement:

The student will:

- Know time equivalency for day, week, month, decade, and century.
- Use time calculation in problem solving.
- Read temperature measurement in Celsius scale.
- Make change using bills and coins.
- Use money calculations in problem solving.
- Use various measures in problem solving.
- Estimate and measure using standard units (ft., lb., gal.).
- Identify appropriate units/tools for measuring specific objects (weight, size, capacity).
- Estimate and measure using metric units (cm., liter, gram).
- Measure, calculate weight, volume (capacity) of various objects.
- Convert, compare, compute common units within the same measurement system.

Statistics, Data Collection, and Graphs:

The student will:

- Create graphs or charts of information.
- Explore meaning of graphs by making identifications, comparisons, predictions.
- Collect, organize, and interpret pictograph/bar graph.
- Use a variety of tables, graphs, and charts to formulate information.

- Read and interpret diagrams and timelines.

Algebra:

The student will:

- Use and understand the language of logic (if, then, since, because, all, some, etc.)
- Use letters in multiplication and division statements; solve.
- Use the greater than, less than, and equal to signs for comparing numbers.

Course Materials: Pearson Envision textbook (2009), manipulatives.

Instructional Strategies: Whole class instruction, Small group instruction, Individual instruction, Peer tutoring, SMART Board presentation

Assessment: Teacher observation, Class participation, Completion of worksheets, Assessment skill sheets, tests/quizzes, Homework.