



St. Mel's Catholic School

MATHEMATICS STANDARDS

Grade Three

Number Sense

1.0 Place Value

- 1.1 Count, read, and write whole numbers to 10,000.
- 1.2 Compare and order whole numbers to 10,000.
- 1.3 Identify the place value for each digit in numbers to 10,000.
- 1.4 Round off numbers to 10,000 to the nearest ten, hundred, and thousand.
- 1.5 Use expanded notation to represent numbers (e.g., $3,206 = 3,000 + 200 + 6$).

2.0 Computation

- 2.1 Find the sum or difference of two whole numbers between 0 and 10,000.
- 2.2 Memorize multiplication tables from 1 to 10.
- 2.3 Use the inverse relationship of multiplication and division to compute and check results.
- 2.4 Solve multiplication problems when multiplying by one-digit numbers.
- 2.5 Solve division problems when dividing by a one-digit number with no remainder.
- 2.6 Understand the special properties of 0 and 1 in multiplication and division.
- 2.7 Determine the unit cost when given the total cost and number of units.
- 2.8 Solve problems that require two or more of the skills mentioned above.

3.0 Fractions and Decimals

- 3.1 Compare equivalent fractions using drawings or concrete materials.
- 3.2 Add and subtract simple fractions.
- 3.3 Solve problems involving addition, subtraction, multiplication, and division of money amounts.
- 3.4 Understand that fractions and decimals are two different representations of the same concept (e.g., 50 cents is $\frac{1}{2}$ of a dollar).

Algebra and Functions

1.0 Number Sentences

- 1.1 Represent relationships of quantities in the form of mathematical expressions, equations, or inequalities.
- 1.2 Solve problems involving numeric equations or inequalities.
- 1.3 Select the appropriate operation to make an expression true (e.g., $4 \times 3 = 12$).
- 1.4 Express simple unit conversions in symbolic form (e.g., in. = ___ feet \times 12).
- 1.5 Recognize and use the commutative and associative properties of multiplication (e.g., if $5 \times 7 \times 3 = 105$, then what is $7 \times 3 \times 5$?).

2.0 Functional Relationships

- 2.1 Solve simple problems involving a functional relationship between two quantities (e.g., find the total cost of multiple items given the cost per unit).
- 2.2 Extend and recognize a linear pattern.

Measurement and Geometry



St. Mel's Catholic School

1.0 Measurement

- 1.1 Choose the appropriate tools and units (metric and U.S.) and estimating and measuring the length, liquid volume, and weight/mass of given objects.
- 1.2 Estimate or determine the area and volume of solid figures by covering them with squares or by counting the number of cubes that would fill them.
- 1.3 Find the perimeter of a polygon with integer sides.
- 1.4 Carry out simple unit conversions within a system of measurement (e.g., centimeters and meters, hours and minutes).

2.0 Geometry

- 2.1 Identify, describe, and classify polygons.
- 2.2 Identify attributes of triangles (e.g., two equal sides for the isosceles triangle).
- 2.3 Identify attributes of quadrilaterals (e.g., parallel sides for the parallelogram, right angles for the rectangle).
- 2.4 Identify right angles in geometric figures or in appropriate objects and determine whether other angles are greater or less than a right angle.
- 2.5 Identify, describe, and classify common three-dimensional geometric objects (e.g., cube, rectangular solid, sphere, prism, pyramid, cone, cylinder).
- 2.6 Identify common solid objects that are the components needed to make a more complex solid object.

Statistics, Data Analysis, and Probability

1.0 Data

- 1.1 Identify whether common events are certain, likely, unlikely, or improbable.
- 1.2 Record the possible outcomes for a simple event (e.g., tossing a coin) and systematically keeping track of the outcomes when the event is repeated many times.
- 1.3 Summarize and display the results of probability experiments in a clear and organized way (e.g., using a bar graph).
- 1.4 Use the results of probability experiments to predict future events.

Mathematical Reasoning

1.0 Make Decisions about a Problem

- 1.1 Analyze problems by identifying relationships, distinguishing relevant from irrelevant information, sequencing and prioritizing information, and observing patterns.
- 1.2 Determine when and how to break a problem into simpler parts.

2.0 Solve Problems, Justify Reasoning

- 2.1 Use estimation to verify the reasonableness of calculated results.
- 2.2 Apply strategies and results from simpler problems to more complex problems.
- 2.3 Use a variety of methods (e.g., words, numbers, symbols) to explain mathematical reasoning.
- 2.4 Express the solution clearly and logically.
- 2.5 Indicate the relative advantages of exact and approximate solutions to problems.



St. Mel's Catholic School

2.6 Make precise calculations and check the validity of the results.

3.0 Make Connections

3.1 Evaluate the reasonableness of the solution.

3.2 Note the method of deriving the solution and demonstrate a conceptual understanding of the derivation by solving similar problems.

3.3 Develop generalizations of the results obtained and apply them in other circumstances.