Math 5

Patters and Relations

- Determine the pattern rule to make predictions about subsequent elements.
- Express a given problem as an equation in which a letter variable is used to represent an unknown number (limited to whole numbers).
- Solve problems involving single-variable, one-step equations with whole number coefficients and whole number solutions.

Subtopic

Shape and Space

- Identify 90º angles
- Design and construct different rectangles, given either perimeter or area, or both (whole numbers), and make generalizations
- Demonstrate an understanding of measuring length (mm) by:

  selecting and justifying referents for the unit mm
  modelling and describing the relationship between mm and cm units, and between mm and m units
- selecting and justifying referents for cm3 or m3 units
  estimating volume, using referents for cm3 or m3
  measuring and recording volume (cm3 or m3)
  constructing right rectangular prisms for a given volume.
- Demonstrate an understanding of capacity by:

  describing the relationship between mL and L
  selecting and justifying referents for mL or L units
  estimating capacity, using referents for mL or L
  measuring and recording capacity (mL or L).
- Describe and provide examples of edges and faces of 3-D objects, and sides of 2-D shapes that are:

  parallel
  intersecting
  perpendicular
  vertical
  horizontal.
- Identify and sort quadrilaterals, including:

  rectangles
  squares
  trapezoids
  parallelograms
  rhombuses
  according to their attributes
- Identify and describe a single transformation, including a translation, rotation and reflection of 2-D shapes.
- Perform, concretely, a single transformation (translation, rotation or reflection) of a 2-D shape, and draw the image.

Number Sense

- Represent and describe whole numbers to 1 000 000.
- Use estimation strategies in problem-solving contexts.
- Apply mental mathematics strategies and number properties in order to understand and recall basic multiplication facts (multiplication tables) to 81 and related division facts.
- Apply mental mathematics strategies for multiplication.
- Demonstrate, with and without concrete materials, an understanding of multiplication (2-digit by 2-digit) to solve problems
- Demonstrate, with and without concrete materials, an understanding of division (3-digit by 1-digit), and interpret remainders to solve problems
- Demonstrate an understanding of fractions by using concrete, pictorial and symbolic representations to:

  create sets of equivalent fractions
  compare fractions with like and unlike denominators
- Describe and represent decimals (tenths, hundredths, thousandths), concretely, pictorially and symbolically
- Relate decimals to fractions and fractions to decimals (to thousandths).
- Compare and order decimals (to thousandths) by using:

  benchmarks
  place value
  equivalent decimals.
- Demonstrate an understanding of addition and subtraction of decimals (limited to thousandths).

Stats and Probability

- Differentiate between first-hand and second-hand data
- Construct and interpret double bar graphs to draw conclusions.
- Describe the likelihood of a single outcome occurring, using words such as:

  impossible
  possible
  certain.
- Compare the likelihood of two possible outcomes occurring, using words such as:

  less likely
  equally likely
  more likely.