## Grade Five Outcomes

## Number ( N )

1. Represent and describe whole numbers to 1000000.
2. Use estimation strategies, including: front-end rounding; compensation; compatible numbers in problem-solving contexts.
3. Apply mental mathematics strategies and number properties, such as: skip counting from a known fact; using doubling or halving; using patterns in the 9s facts; using repeated doubling or halving to determine answers for basic multiplication facts to 81 and related division facts.
4. Apply mental mathematics strategies for multiplication, such as: annexing then adding zero; halving and doubling; using the distributive property.
5. Demonstrate an understanding of multiplication (2-digit by 2-digit) to solve problems.
6. Demonstrate, with and without concrete materials, an understanding of division (3-digit by 1digit) and interpret remainders to solve problems.
7. Demonstrate an understanding of fractions by using concrete and pictorial representations to: create sets of equivalent fractions; compare fractions with like and unlike denominators.
8. Describe and represent decimals (tenths, hundredths, thousandths) concretely, pictorially and symbolically.
9. Relate decimals to fractions (to thousandths).
10. Compare and order decimals (to thousandths), by using: benchmarks; place value; equivalent decimals.
11. Demonstrate an understanding of addition and subtraction of decimals (limited to thousandths).

## Patterns \& Relations (PR)

(Patterns)

1. Determine the pattern rule to make predictions about subsequent elements.
(Variables and Equations)
2. Solve problems involving single-variable, one-step equations with whole number coefficients and whole number solutions.

## Shape and Space (SS)

## (Measurement)

1. Design and construct different rectangles given either perimeter or area, or both (whole numbers) and draw conclusions.
2. Demonstrate an understanding of measuring length (mm).
3. Demonstrate an understanding of volume by: selecting and justifying referents for $\mathrm{cm}^{3}$ or $\mathrm{m}^{3}$ units; estimating volume by using referents for $\mathrm{cm}^{3}$ or $\mathrm{m}^{3}$; measuring and recording volume $\left(\mathrm{cm}^{3}\right.$ or $\left.\mathrm{m}^{3}\right)$; constructing rectangular prisms for a given volume.
4. Demonstrate an understanding of capacity by: describing the relationship between mL and L ; selecting and justifying referents for mL or L units; estimating capacity by using referents for mL or L ; measuring and recording capacity ( mL or L ).
(3-D Objects and 2-D Shapes)
5. 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.
6. Identify and sort quadrilaterals, including: rectangles; squares; trapezoids; parallelograms; rhombuses according to their attributes.

## (Transformations)

7. Perform a single transformation (translation, rotation or reflection) of a 2-D shape, (with and without technology) and draw and describe the image.
8. Identify a single transformation including a translation, a rotation and a reflection of 2-D shapes.
Statistics and Probability (SP)

## (Data Analysis)

1. Differentiate between first-hand and second-hand data.
2. Construct and interpret double bar graphs to draw conclusions.
(Chance and Uncertainty)
3. Describe the likelihood of a single outcome occurring using words, such as: impossible; possible; certain.
4. Compare the likelihood of two possible outcomes occurring using words, such as: less likely; equally likely; more likely.
