## Mathematics Specific Learning Outcomes **GRADE 5**



NUMBER	5.N.6. Demonstrate an understanding of division (1- and 2-digit divisors and up to 4-digit dividends), concretely.	PATTERNS AND RELATIONS	5.SS.3. Demonstrate an understanding volume by ■ selecting and justifying refe
<b>General Outcome</b> Develop number sense.	<ul> <li>bictorially, and symbolically, and interpret remainders by <ul> <li>using personal strategies</li> <li>using the standard algorithm</li> <li>estimating quotients</li> <li>to solve problems.</li> <li>[C, CN, ME, PS]</li> </ul> </li> <li>5.N.7. Demonstrate an understanding of fractions by using concrete and pictorial representations to <ul> <li>create sets of equivalent fractions</li> <li>compare fractions with like and unlike denominators</li> <li>[C, CN, PS, R, V]</li> </ul> </li> <li>5.N.8. Describe and represent decimals (tenths, hundredths, and thousandths), concretely, pictorially, and symbolically.</li> <li>[C, CN, R, V]</li> </ul> <li>5.N.9. Relate decimals to fractions (tenths, hundredths, thousandths).</li> <li>[CN, R, V]</li> <li>5.N.10. Compare and order decimals (tenths, hundredths, thousandths) by using <ul> <li>benchmarks</li> <li>place value</li> <li>equivalent decimals</li> <li>[CN, R, V]</li> </ul> </li> <li>5.N.11. Demonstrate an understanding of addition and subtraction of decimals (to thousandths), concretely, pictorially, and symbolically, by <ul> <li>using personal strategies</li> <li>using the standard algorithms</li> <li>using the standard algorithms</li> <li>using the standard algorithms</li> </ul> </li>	<b>General Outcome</b> Use patterns to describe the world and solve problems.	<ul> <li>for cm<sup>3</sup> or m<sup>3</sup> units</li> <li>estimating volume by using referents for cm<sup>3</sup> or m<sup>3</sup></li> <li>measuring and recording values (cm<sup>3</sup> or m<sup>3</sup>)</li> <li>constructing rectangular profor a given volume [C, CN, ME, PS, R, V]</li> <li>5.SS.4. Demonstrate an understanding capacity by</li> <li>describing the relationship between mL and L</li> <li>selecting and justifying references for mL or L units</li> <li>estimating capacity by usin referents for mL or L</li> <li>measuring and recording capacity or L</li> </ul>
5.N.1. Represent and describe whole numbers to 1 000 000. [C, CN, T, V]		<ul> <li>5.PR.1. Determine the pattern rule to make predictions about subsequent elements.</li> <li>[C, CN, PS, R, V]</li> <li>General Outcome Represent algebraic expressions in multiple</li> </ul>	
<ul> <li>5.N.2. Apply estimation strategies, including</li> <li>front-end rounding</li> <li>compensation</li> <li>compatible numbers</li> <li>in problem solving contexts</li> </ul>			
<ul> <li>5.N.3. Apply mental math strategies to determine multiplication and related division facts to 81 (9 × 9).</li> <li>[C, CN, ME, R, V]</li> <li>Recall of multiplication facts to 81 and related division facts is avagated by the end of Crede 5.</li> </ul>		<ul> <li>ways.</li> <li>5.PR.2. Solve problems involving single-variable (expressed as symbols or letters), one-step equations with whole-number coefficients, and whole-number solutions.</li> <li>[C, CN, PS, R]</li> </ul>	
<ul> <li>5.N.4. Apply mental mathematics strategies for multiplication, such as</li> <li>annexing then adding zeros</li> </ul>		SHAPE AND SPACE	<b>General Outcome</b> Describe the characteristics of 3-D obj and 2-D shapes, and analyze the relat among them.
<ul> <li>halving and doubling</li> <li>using the distributive property</li> <li>[C, ME, R]</li> </ul>		Use direct or indirect measurement to solve problems.	<ul> <li>5.SS.5. Describe and provide example edges and faces of 3-D object sides of 2-D shapes that are <ul> <li>parallel</li> <li>intersecting</li> <li>perpendicular</li> <li>vertical</li> <li>horizontal [C, CN, R, T, V]</li> </ul> </li> <li>5.SS.6. Identify and sort quadrilaterals including <ul> <li>rectangles</li> <li>squares</li> <li>trapezoids</li> <li>parallelograms</li> <li>rhombuses according to their characteristic [C, R, V]</li> </ul> </li> </ul>
<ul> <li>5.N.5. Demonstrate an understanding of multiplication (1- and 2-digit multipliers and up to 4-digit multiplicands), concretely, pictorially, and symbolically, by</li> <li>using personal strategies</li> <li>using the standard algorithm</li> <li>estimating products to solve problems. [C, CN, ME, PS, V]</li> </ul>		<ul> <li>5.SS.1. Design and construct different rectangles given either perimeter or area, or both (whole numbers), and draw conclusions. [C, CN, PS, R, V]</li> <li>5.SS.2. Demonstrate an understanding of measuring length (mm) by</li> <li>selecting and justifying referents for the unit mm</li> <li>modelling and describing the relationship between mm and cm units, and between mm and m units</li> <li>[C, CN, ME, PS, R, V]</li> </ul>	

## Communication Connections [ME] Mental Mathematics and Estimation



## **[PS]** Problem Solving Reasoning Estimation Technology Visualization

General Outcome ig of Describe and analyze position and motion of objects and shapes. erents 5.SS.7. Perform a single transformation (translation, rotation, or reflection) of a 2-D shape and draw and describe /olume the image. [C, CN, T, V] risms 5.SS.8. Identify a single transformation (translation, rotation, or reflection) of 2-D shapes. ng of [C, T, V] erents **STATISTICS AND** PROBABILITY ng General Outcome capacity Collect, display, and analyze data to solve problems. 5.SP.1. Differentiate between first-hand and second-hand data. [C, R, T, V] 5.SP.2. Construct and interpret double bar jects graphs to draw conclusions. tionships [C, PS, R, T, V] es of General Outcome ts, and Use experimental or theoretical probabilities to represent and solve problems involving uncertainty. 5.SP.3. Describe the likelihood of a single outcome occurring, using words such as ■ impossible possible certain [C, CN, PS, R] 5.SP.4. Compare the likelihood of two possible outcomes occurring, using words such as less likely ics. equally likely more likely [C, CN, PS, R]