

# WNCP B.C. MATHEMATICS AT A GLANCE OVERVIEW – GRADE 1

## Mathematical Processes

C = Communication

PS = Problem Solving

V = Visualization

R = Reasoning

CN = Connections

T = Technology

ME = Mental Mathematics and Estimation

NOTE: Text in *italics* is from the suggested achievement indicators.

<b>STRAND: NUMBER</b>		<b>Mathematical Processes</b>
<b>General Outcome: Develop number sense</b>		
<i>It is expected that students will:</i>		
A1	Say the number sequence, 0 to 100, by: (a) 1s forward and backward between any two given numbers (b) 2s to 20, forward starting at 0 (c) 5s and 10s to 100, forward starting at 0.	C CN ME V
A2	Recognize at a glance, and name familiar arrangements of 1 to 10 objects or dots.	C CN ME V
A3	Demonstrate an understanding of counting by: (a) indicating that the last number said identifies “how many” (b) showing that any set has only one count (c) using the counting on strategy (d) using parts or equal groups to count sets.	C CN ME RV
A4	Represent and describe numbers to 20 concretely, pictorially and symbolically.	C CN V
A5	Compare sets containing up to 20 elements to solve problems using: (a) referents (b) one-to-one correspondence.	C CN ME PS RV
A6	Estimate quantities to 20 by using referents.	C ME PS RV
A7	Demonstrate, concretely and pictorially, how a given number can be represented by a variety of equal groups with and without singles.	C RV
A8	Identify the number, up to 20, that is one more, two more, one less and two less than a given number.	C CN ME RV
A9	Demonstrate an understanding of addition of numbers with answers to 20 and their corresponding subtraction facts, concretely, pictorially and symbolically, by: (a) using familiar and mathematical language to describe additive and subtractive actions from their experience (b) creating & solving problems in context that involve addition & subtraction (c) modelling addition and subtraction using a variety of concrete & visual representations, and recording the process symbolically.	C CN ME PS RV
A10	Communicate and use mental mathematics strategies (memorization not intended) such as: (a) counting on and counting back (b) making 10 (c) doubles (d) using addition to subtract to determine the basic addition facts to 18 and related subtraction facts.	C CN ME PS RV

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<b>STRAND: STATISTICS &amp; PROBABILITY (DATA ANALYSIS)</b> <b>General Outcome: Collect, display and analyze data to solve problems.</b>	Mathematical Processes
No formal instruction for this strand at the grade one level.	

<b>STRAND: PATTERNS AND RELATIONS (PATTERNS)</b> <b>General Outcome: Use patterns to describe the world &amp; solve problems.</b>	Mathematical Processes
<b>B1</b> Demonstrate an understanding of repeating patterns (two to four elements), by: (a) describing (b) reproducing (c) extending (d) creating patterns using manipulatives, diagrams, sounds and actions.	C PS R V
<b>B2</b> Translate repeating patterns from one representation to another.	C R V
<b>STRAND: PATTERNS &amp; RELATIONS (VARIABLES &amp; EQUATIONS)</b> <b>General Outcome: Represent algebraic expressions in multiple ways.</b>	Mathematical Processes
<b>B3</b> Describe equality as a balance and inequality as an imbalance, concretely and pictorially (0 to 20).	C CN R V
<b>B4</b> Record equalities using the equal symbol ( <i>concretely, pictorially and symbolically</i> ).	C CN PS V

<b>STRAND: SHAPE AND SPACE (MEASUREMENT)</b> <b>General Outcome: Use direct or indirect measurement to solve problems.</b>	Mathematical Processes
<b>C1</b> Demonstrate an understanding of measurement as a process of comparing by: (a) identifying attributes that can be compared (b) ordering objects (c) making statements of comparison (d) filling, covering or matching.	C CN PS R V
<b>STRAND: SHAPE AND SPACE (3-D OBJECTS &amp; 2-D SHAPES)</b> <b>General Outcome: Describe the characteristics of 3-D objects and 2-D shapes, and analyze the relationships among them.</b>	Mathematical Processes
<b>C2</b> Sort 3-D objects and 2-D shapes using one attribute, and explain the sorting rule.	C CN R V
<b>C3</b> Replicate composite 2-D shapes and 3-D objects.	CN PS V
<b>C4</b> Compare 2-D shapes to parts of 3-D objects in the environment.	C CN V