WNCP B.C. GRADE 2 & 3 MATHEMATICS AT A GLANCE

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

STRAND: NUMBER
GENERAL OUTCOME: Develop number sense.

Grade 2 Prescribed Learning Outcomes	Grade 3 Prescribed Learning Outcomes
A1 Say the number sequence from 0 to 100 by: **(a)** 2s, 5s and 10s, forward and backward, using starting points that are multiples of 2, 5 and 10 respectively **(b)** 10s using starting points from 1 to 9 **(c)** 2s starting from 1.	**A1** Say the number sequence forward and backward from 0 to 1000 by: **(a)** 5s, 10s or 100s using any starting point **(b)** 3s using starting points that are multiples of 3 **(c)** 4s using starting points that are multiples of 4 **(d)** 25s using starting points that are multiples of 25.
A2 Demonstrate if a number (up to 100) is even or odd *(concretely, pictorially and symbolically).*	**May be reviewed but do not assess**
A3 Describe order or relative position using ordinal numbers (1st to 10th).	
A4 Represent and describe numbers to 100, concretely, pictorially & symbolically.	**A2** Represent and describe numbers to 1000 concretely, pictorially and symbolically.
A5 Compare and order numbers up to 100.	**A3** Compare and order numbers to 1000.
A6 Estimate quantities to 100 using referents.	**A4** Estimate quantities less than 1000 using referents.
A7 Illustrate, concretely and pictorially, the meaning of place value for numerals to 100.	**A5** Illustrate, concretely and pictorially, the meaning of place value for numerals to 1000.
A8 Demonstrate and explain the effect of adding zero to or subtracting zero from any number.	**May be reviewed but do not assess**
May be explored informally, but do not assess	**A6** Describe and apply mental mathematics strategies for adding two 2-digit numerals such as: **(a)** adding from left to right **(b)** taking one addend to the nearest multiple of ten then compensating **(c)** using doubles.
	A7 Describe & apply mental strategies for subtracting two 2-digit numerals such as: **(a)** taking the subtrahend to the nearest multiple of ten then compensating **(b)** thinking of addition **(c)** using doubles.
	A8 Apply estimation strategies to predict sums and differences of two 2-digit numerals in a problem-solving context.

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STRAND: NUMBER (continued)

Grade 2 Prescribed Learning Outcomes	Grade 3 Prescribed Learning Outcomes
A9 Demonstrate an understanding of addition (limited to 1 and 2-digit numerals) with answers to 100 and the corresponding subtraction by: (a) using personal strategies for adding and subtracting with and without the support of manipulatives (b) creating and solving problems that involve addition and subtraction (c) explaining that the order in which numbers are added does not affect the sum (d) explaining that the order in which numbers are subtracted may affect the difference.	**A9** Demonstrate an understanding of addition & subtraction of numbers with answers to 1000 (limited to 1, 2 and 3-digit numerals) by: (a) using personal strategies for adding and subtracting with & without manipulatives (b) creating and solving problems in context that involve addition and subtraction of numbers concretely, pictorially and symbolically.
A10 Apply mental mathematics strategies such as: (a) using doubles (b) making 10 (c) one more, one less (d) two more, two less (e) addition for subtraction. to determine basic addition facts to 18 and the related subtraction facts.	**A10** Apply mental mathematics strategies and number properties such as: (a) using doubles (b) making 10 (c) using the commutative property (d) using the property of zero (e) thinking addition for subtraction to recall basic addition facts to 18and related subtraction facts,
	A11 Demonstrate an understanding of multiplication to 5×5 by: (a) representing and explaining multiplication using equal grouping and arrays (b) creating and solving problems in context that involve multiplication (c) modelling multiplication using concrete and visual representations and recording the process symbolically (d) relating multiplication to repeated addition (e) relating multiplication to division. ***(**MEMORIZATION NOT INTENDED**)***
May be explored informally but do not assess	**A12** Demonstrate an understanding of division by: (a) representing & explaining division using equal sharing & equal grouping (b) creating & solving problems in context that involve equal sharing & equal grouping (c) modelling equal sharing and equal grouping using concrete and visual representations, and recording the process symbolically (d) relating division to repeated subtraction (e) relating division to multiplication (limited to division related to multiplication facts up to 5 x 5)..
	A13 Demonstrate an understanding of fractions by: (a) explaining that a fraction represents a part of a whole (b) describing situations in which fractions are used (c) comparing fractions of the same whole with like denominators.

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STRAND: STATISTICS & PROBABILITY (DATA ANALYSIS)
General Outcome: Collect, display and analyze data to solve problems.

Grade 2 Prescribed Learning Outcomes	Grade 3 Prescribed Learning Outcomes
D1 Gather and record data about self and others to answer questions.	**D1** Collect first-hand data and organize it to answer questions using: **(a)** tally marks **(b)** line plots **(c)** charts **d)** lists.
D2 Construct and interpret concrete graphs and pictographs to solve problem.	**D2** Construct, label and interpret bar graphs to solve problems.

STRAND: PATTERNS AND RELATIONS (PATTERNS)
General Outcome: Use patterns to describe the world and solve problems.

B1 Demonstrate an understanding of repeating patterns (3 to 5 elements) by: **(a)** describing **(b)** extending **(c)** comparing **(d)** creating patterns using manipulatives, diagrams, sounds and actions.	**B1** Demonstrate an understanding of increasing patterns by: **(a)** describing **(b)** extending **(c)** comparing **(d)** creating patterns using manipulatives, diagrams, sounds and actions (numbers to 1000).
B2 Demonstrate an understanding of increasing pattern by: **(a)** describing **(b)** reproducing **(c)** extending **(d)** creating patterns using manipulatives, diagrams, sounds & actions (numbers to 100)	**B2** Demonstrate an understanding of decreasing patterns by: **(a)** describing **(b)** extending **(c)** comparing **(d)** creating patterns using manipulatives, diagrams, sounds and actions (numbers to 1000).

STRAND: PATTERNS & RELATIONS (VARIABLES & EQUATIONS)
General Outcome: Represent algebraic expressions in multiple ways.

B3 Demonstrate and explain the meaning of inequality by using manipulatives and diagrams (0 to 100).	**May be reviewed but do not assess**
B4 Record equalities and inequalities symbolically using the equal symbol or the not equal symbol *(with concrete representations)*.	
May be explored informally but do not assess	**B3** Solve one-step addition and subtraction equations involving symbols representing an unknown number *(using manipulatives)*.

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WNCP B.C. GRADE 2 & 3 MATHEMATICS AT A GLANCE

STRAND: SHAPE AND SPACE (MEASUREMENT)
General Outcome: Use direct or indirect measurement to solve problems.

Grade 2 Prescribed Learning Outcomes	Grade 3 Prescribed Learning Outcomes
C1 Relate the number of days to a week and the number of months to a year in a problem-solving context.	**C1** Relate the passage of time to common activities using non-standard and standard units (minutes, hours, days, weeks, months and years).
	C2 Relate the number of seconds to a minute, the number of minutes to an hour and the number of days to a month in a problem-solving context.

C2 Relate the size of a unit of measure to the number of units (limited to non-standard units) used to measure length and mass (weight).	**C4** Demonstrate an understanding of measuring mass (g and kg) by:
	  (a) selecting and justifying referents for the units g and kg
	  (b) modelling and describing the relationship between the units g and kg
	  (c) estimating mass using referents
	  (d) measuring and recording mass.

C3 Compare and order objects by length, height, distance around and mass (weight) using non-standard units, and make statements of comparison.	

C4 Measure length to the nearest non-standard unit by:
  (a) using multiple copies of a unit
  (b) using a single copy of a unit (iteration process).
	C3 Demonstrate an understanding of measuring length (cm and m) by:
	  (a) selecting and justifying referents for the units cm and m
	  (b) modelling and describing the relationship between the units cm and m
	  (c) estimating length using referents
	  (d) measuring and recording length, width and height.

C5 Demonstrate that changing the orientation of an object does not alter the measurements of its attributes.	**May be reviewed but do not assess**

May be explored informally but do not assess	**C5** Demonstrate an understanding of perimeter of regular & irregular shapes by:
	  (a) estimating perimeter using referents for centimetre or metre
	  (b) measuring and recording perimeter (cm and m)
	  (c) constructing different shapes for a given perimeter (cm and m) to demonstrate that many shapes are possible for a perimeter.

STRAND: SHAPE AND SPACE (3-D OBJECTS & 2-D SHAPES)
General Outcome: Describe the characteristics of 3-D objects and 2-D shapes, and analyze the relationships among them.

Grade 2	Grade 3
C6 Sort 2-D shapes & 3-D objects using two attributes, and explain the sorting rule.	**May be reviewed but do not assess**
C7 Describe, compare, and construct 3-D objects including: **(a)** cubes **(b)** spheres **(c)** cones **(d)** cylinders **(e)** pyramids.	**C6** Describe 3-D objects according to the shape of the faces, and the number of edges and vertices.

C8 Describe, compare, and construct 2-D shapes including:
  (a) triangle   **(b)** squares   **(c)** rectangles   **(d)** circles.
	C7 Sort regular and irregular polygons according to number of sides including:
	  (a) triangles **(b)** quadrilaterals **(c)** pentagons **(d)** hexagons **(e)** octagons.

C9 Identify 2-D shapes as parts of 3-D objects in the environment.	**May be reviewed but do not assess**