WNCP B.C. GRADE 2 & 3 AT A GLANCE CORRELATED WITH MATH MAKES SENSE (WESTERN)

NOTE: Text in **UPPERCASE** indicates outcomes that are not met in MATH MAKES SENSE. Text in ***italics*** is from the suggested achievement indicators.

STRAND: NUMBER

General Outcome: Develop number sense.

Gr. 2 Use Student Pages and Investigations Selectively
Gr. 3 Use Unit and Cumulative Reviews Selectively

Grade 2 Prescribed Learning Outcomes	MMS 2 Meets	Exceeds	Grade 3 Prescribed Learning Outcomes	MMS 3 Meets	Exceeds
A1 Say the number sequence from 0 to 100 by: **(a)** 2s, 5s and 10s, forward & BACKWARD, USING STARTING POINTS THAT ARE MULTIPLES OF 2, 5 & 10 **(b)** 10S USING STARTING POINTS FROM 1 TO 9 **(c)** 2s starting from 1.	**Unit 2** Lesson 3 (to 50 only) **Unit 3** Lesson 6 money amounts to 1 dollar	**Unit 2:** Lessons 9, 10 starting points are not multiples;100+	**A1** Say number sequence forward & backward from 0 to 1000 by: **(a)** 5s, 10s or 100s using any starting point **(b)** 3S USING MULTIPLES OF 3 STARTING POINTS **(c)** 4S USING MULTIPLES OF 4 STARTING POINTS **(b)** 25s using starting points that are multiples of 25.	**Unit 1** Lessons 2, 3, 9 **Unit 6** Lessons 5, 6 (money) have student say the number sequence when assessing	
A2 Demonstrate if a number (up to 100) is even or odd.	**Unit 2** Lesson 6 limited Lesson 9 student page 46 only		**May be reviewed but do not assess**		
A3 DESCRIBE ORDER OR RELATIVE POSITION USING ORDINAL NUMBERS (1ST TO 10TH).	See MMS 1 Unit 3 Lesson 2.				
A4 Represent and describe numbers to 100, concretely, pictorially and symbolically.	**Unit 2** Launch, Lessons 1, 2, 11 **Unit 3** Lesson 6, 7 **Unit 7** Launch, Lessons 2 to 5, 7; see MMS 1 Unit 3 Lessons 5 and 6 (money)		**A2** Represent and describe numbers to 1000 concretely, pictorially and symbolically.	**Unit 1** Lessons 4 to 6, 9, 11, 13, Unit Problem; reading /and writing number words to 1000 is limited	
A5 Compare and order numbers up to 100.	**Unit 2** Lessons 3, 8		**A3** Compare and order numbers to 1000.	**Unit 1** Lessons 4, 5, 7, 10	
A6 Estimate quantities to 100 using referents.	**Unit 2** Lessons 2, 7, 11 See MMS 1 Unit 7 Lesson 2 and Unit 10 Lesson 3		**A4** Estimate quantities less than 1000 using referents.	**Unit 1** Lessons 4, 5, 13 **Unit 6** Lesson 6 (money) do not assess decimal notation **Cross Strand**: 142-143	**Unit 1** Lesson 14 rounding
A7 Illustrate, concretely and pictorially, the meaning of place value for numerals to 100.	**Unit 7** Lesson 1 limited See MMS 1 Unit 10		**A5** Illustrate, concretely and pictorially, the meaning of place value for numerals to 1000.	**Unit 1** Lessons 5, 6, 8, 11, 12, Unit Problem	
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.	**Unit 2** Lessons 6, 7, 9 (limited) Front-ending is another name for adding from left to right	
			A7 Describe and apply mental mathematics 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.	**Unit 2** Lessons 6, 8, 9 (limited) some alternate strategies are included	
			A8 APPLY ESTIMATION STRATEGIES TO PREDICT SUMS AND DIFFERENCES OF TWO 2-DIGIT NUMERALS IN A PROBLEM-SOLVING CONTEXT.	Strategies could be applied to problems involving 2-digit numerals in Unit 2	**Unit 2** Lesson 10 uses 3-digit numerals

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STRAND: NUMBER (continued)

General Outcome: Develop number sense.

Gr. 2 Use Student Pages and Investigations Selectively
Gr. 3 Use Unit and Cumulative Reviews Selectively

Grade 2 Prescribed Learning Outcomes	MMS 2 Meets	Exceeds	Grade 3 Prescribed Learning Outcomes	MMS 3 Meets	Exceeds
A9 Demonstrate an understanding of addition (limited to 1 and 2-digit numerals) with answers to 100 & 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 THE ORDER IN WHICH NUMBERS ARE ADDED DOES NOT AFFECT THE SUM **(d)** EXPLAINING THE ORDER IN WHICH NUMBERS ARE SUBTRACTED MAY AFFECT THE DIFFERENCE.	**Unit 4** Lessons 2 to 8 **Unit 7** Lessons 2 to 7 supplement with additional activities involving *missing addends and minuends;* Units 4 and 7 should be taught in conjunction		**A9** Demonstrate an understanding of addition and subtraction of numbers with answers to 1000 (limited to 1, 2 and 3-digit numerals) by: **(a)** using personal strategies for adding & subtracting with and without the support of manipulatives **(b)** creating and solving problems in contexts that involve addition and subtraction of numbers concretely, pictorially and symbolically.	**Unit 1** Launch **Unit 2** Lessons 6, 11 to 14, Unit Problem **Unit 6** Lesson 7(money) do not assess decimal notation when solving money problems	
A10 Apply mental mathematics strategies, such as: **(a)** using doubles **(b)** making 10 **(c)** ONE MORE, ONE LESS **(d)** TWO MORE, TWO LESS **(e)** building on a known double **(f)** addition for subtraction to determine basic addition facts to 18 and related subtraction facts.	**Unit 2** Lesson 4 to 6, 11 **Unit 4** Launch, Lesson 1		**A10** Apply mental mathematics strategies and number properties, such as: **(a)** using doubles **(b)** making 10 **(c)** using commutative property **(d)** property of 0 **(e)** thinking addition for subtraction to recall basic addition facts to 18 and related subtraction facts.	**Unit 2** Launch, Lessons 1 to 5 **Unit 5** Lesson 7 strategy (a) limited to *doubles plus one;* include *doubles take away one, doubles plus 2 and doubles take away 2*	
May be explored informally but do not assess		**Unit 10** multiplication, division and fractions	**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 & recording the process symbolically **(d)** RELATING MULTIPLICATION TO REPEATED ADDITION **(e)** RELATING MULTIPLICATION TO DIVISION.	**Unit 4** Launch, Lessons 1 to 3, 5 to 8, 12, Unit Problem assess facts to 5 x 5; explore multiplying by 0 and 1 but do not assess properties; explore multiplication tables and charts *Recall of facts not intended*	**Unit 4** Lesson 4 multiplying by 10
			A12 Demonstrate an understanding of division by: **(a)** representing and explaining division using equal sharing and equal grouping **(b)** creating and solving problems in context that involve equal sharing and 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 mult. facts up to 5 x 5).	**Unit 4** Lessons 8, 9, 11, 12, Unit Problem **Cross Strand:** 2-3 limit assessment to facts related to multiplication up to 5 x 5	**Unit 4** Lesson 10 dividing by 2, 5 and 10
			A13 Demonstrate an understanding of fractions *(concretely or pictorially)* by: **(a)** explaining a fraction represents a part of whole **(b)** describing situations in which fractions are used **(c)** COMPARING FRACTIONS OF SAME WHOLE WITH LIKE DENOMINATORS.	**Unit 8** Launch, Lessons1, 2, 5, Unit Problem (part 1 only) terms denominator and numerator need to be introduced	**Unit 8** Lessons 3, 4, 6, 7, Unit Problem (part 2 to 4) fractions of a set; mixed numbers

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STRAND: STATISTICS & PROBABILITY (DATA ANALYSIS)

Gr. 2 Use Student Pages and Investigations Selectively

General Outcome: Collect, display and analyze data to solve problems.

Gr. 3 Use Unit and Cumulative Reviews Selectively

Grade 2 Prescribed Learning Outcomes	MMS 2 Meets	Exceeds	Grade 3 Prescribed Learning Outcomes	MMS 3 Meets	Exceeds
D1 GATHER AND RECORD DATA ABOUT SELF AND OTHERS TO ANSWER QUESTIONS.	see MMS 1 Unit 5 Launch, Lessons 3, 4, 6.	**Unit 5** All Lessons probability, bar graphs probability outcomes begin in gr. 5	**D1** Collect first-hand data and organize it to answer questions using: **(a)** tally marks **(b)** LINE PLOTS **(c)** charts **(d)** lists	**Unit 5** Launch, Lessons 3, 6, 8, 9 Unit Problem	
D2 CONSTRUCT AND INTERPRET CONCRETE GRAPHS AND PICTOGRAPHS TO SOLVE PROBLEMS.	see MMS 1 Unit 5 Lessons 1, 2, 6.		**D2** Construct, label and interpret bar graphs to solve problems. NOTE: pictographs are included at the grade 2 and 4 levels	**Unit 5** Launch, Lessons 3, 6, 9, Unit Problem Lesson 1 reviews sorting by 2 attributes	**Unit 5** Lessons 2, 4, 5 circle graphs 3 attributes; pictographs

Probability (outcomes begin in grade 5) **Unit 11**

STRAND: PATTERNS AND RELATIONS (PATTERNS)

General Outcome: Use patterns to describe the world and solve problems.

B1 Demonstrate an understanding of repeating patterns (three to FIVE elements) by: **(a)** describing **(b)** extending **(c)** comparing **(d)** creating patterns using manipulatives, diagrams, sounds, and actions.	**Unit 1** Launch, Lessons 2 to 5 provide additional activities with 5 elements		**May be reviewed but do not assess**		
B2 DEMONSTRATE UNDERSTANDING OF INCREASING PATTERNS BY: **(a)** DESCRIBING **(b)** REPRODUCING **(c)** EXTENDING **(d)** CREATING PATTERNS USING MANIPULATIVES, DIAGRAMS, SOUNDS AND ACTIONS (NUMBERS TO 100).	increasing patterns are limited to counting patterns in Unit 2		**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).	**Unit 1** Launch , Lessons 1 to 3, 9 counting patterns only **Unit 10** Launch, Lessons 1, 3, 4 limited; increasing patterns are referred to as growth patterns	**Unit 10** Lesson 2 patterns in tables (gr. 4 outcome)
May be explored informally but do not assess			**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).	**Unit 1** Lessons 2, 3 limited to counting patterns to 100 only; Unit 10 Lessons 5 to 7, Technology p. 395, Unit Problem review repeating patterns	

STRAND: PATTERNS & RELATIONS (VARIABLES & EQUATIONS)

General Outcome: Represent algebraic expressions in multiple ways.

B3 DEMONSTRATE AND EXPLAIN THE MEANING OF EQUALITY AND INEQUALITY BY USING MANIPULATIVES AND DIAGRAMS (0 TO 100).			**May be reveiwed but do not assess**		
B4 RECORD EQUALITIES AND INEQUALITIES SYMBOLICALLY USING THE EQUAL SYMBOL OR THE NOT EQUAL SYMBOL.					
May be explored informally but do not assess			**B3** SOLVE ONE-STEP ADDITION AND SUBTRACTION EQUATIONS INVOLVING SYMBOLS REPRESENTING AN UNKNOWN NUMBER *(USING MANIPULATIVES)*.	no direct instructional activities other than those featuring missing addends	

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STRAND: SHAPE AND SPACE (MEASUREMENT)

Gr. 2 Use Student Pages and Investigations Selectively

General Outcome: Use direct or indirect measurement to solve problems. Gr. 3 Use Unit and Cumulative Reviews Selectively

Grade 2 Prescribed Learning Outcomes	MMS 2 Meets	Exceeds	Grade 3 Prescribed Learning Outcomes	MMS 3 Meets	Exceeds
C1 Relate the number of days to a week and the number of months to a year in a problem-solving context.	**Unit 3** Lesson 4 limited temperature can be integrated with science	**Unit 3** Launch, Lessons 1 to 3, 5, 8 telling time, money, temperature	**C1** RELATE PASSAGE OF TIME TO COMMON ACTIVITIES USING NON- STANDARD AND STANDARD UNITS (MINUTES, HOURS, DAYS, WEEKS, MONTHS, YEARS).		**Unit 6** Lessons 2, 3, Unit Problem telling time
			C2 Relate NUMBER OF SECONDS TO A MINUTE, MINUTES TO AN HOUR, days to a month in a problem-solving context.	**Unit 6** Lesson 1 (limited)	
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).	**Unit 8** Lesson 1 **Unit 11** Lesson 5; see MMS 1 Unit 8 Lessons 4, 7 (part 2)		**C4** Demonstrate understanding of measuring mass (g, kg) by: **(a)** selecting & justifying referents for the units g & kg **(b)** modelling and describing the relationship between g & kg units **(c)** estimating mass using referents **(d)** measuring and recording mass.	**Unit 6** Lessons 12, 13 limited	**Unit 6** Launch, Lessons 2 to 4, 8 to 11 time, temperature add and subtract money, capacity **Unit 9** Lesson 3, 6 to 9, Unit Problem km, area no separate money outcomes; use to meet number outcomes
C3 Compare and order objects by length, height, distance around and mass (weight) using non-standard units, and make statements of comparison.	**Unit 8** Lesson 1 **Unit 11** Launch, Lessons 4, 5, 6 (part 2); see MMS 1 Unit 8 Lessons 2, 4, 5, 7 (part 2).	**Unit 11** Lessons 1 to 3, 6 (part 1) capacity			
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).	**Unit 8** Launch; see MMS 1 Unit 8 Lessons 2, 4	**Unit 8** Lessons 2 to 9 cm, m, area	**C3** Demonstrate understanding of measuring length(cm, m) by: **(a)** selecting & justifying referents for the units cm & m **(b)** modelling and describing the relationship between cm & m units **(c)** estimating length using referents **(d)** measuring and recording length, width and height.	**Unit 5** Lesson 8 **Unit 9** Launch, Lessons 1, 2 **Cross Strand:** 300	
C5 DEMONSTRATE THAT CHANGING THE ORIENTATION OF AN OBJECT DOES NOT ALTER MEASUREMENTS OF ITS ATTRIBUTES.			**May be reviewed but do not assess**		
May be explored informally but do not assess			**C5** Demonstrate understanding of perimeter of regular and irregular shapes by: **(a)** estimating perimeter using referents for cm or m. **(b)** measuring and recording perimeter (cm and m) **(c)** constructing different shapes for a given perimeter (cm, m) to demonstrate that many shapes are possible for a perimeter.	**Unit 9** Launch, Lessons 4, 5, **Cross Strand:** 2-3, 422 (do not assess area) integrate Lesson 4 (temperature) with science	

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.

C6 Sort 2-D shapes and 3-D objects using two attributes, and explain the sorting rule.	**Unit 1** Launch, Lesson 1 limited	**Unit 6, 9** 3-D and 2-D naming polygons; prisms; sorting according to faces, edges, vertices; symmetry	**May be reviewed but do not assess**		**Unit 3** Launch, Lessons 2, 5, 7, 10, 11, Unit Problem, Connects and Practices in Lessons 1, 3, 4, 6 parallel sides, angles, congruency, trapezoids, parallelograms
C7 DESCRIBE, COMPARE, 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.	**Unit 3** Lessons 8, 9 limited; Launch and Unit Problem do not assess outcomes C6 & C7	
C8 DESCRIBE, COMPARE, CONSTRUCT 2-D SHAPES INCLUDING: **(a)** TRIANGLES **(b)** SQUARES **(c)** RECTANGLES **(d)** CIRCLES.			**C7** Sort regular and irregular polygons according to the number of sides: **(a)** triangles **(b)** quadrilaterals **(c)** pentagons **(d)** hexagons **(e)** octagons.	**Unit 3:** Explores & Show and Shares in Lessons 1, 3, 4, 6 Connects & Practices exceed	
C9 IDENTIFY 2-D SHAPES AS PARTS OF 3-D OBJECTS IN THE ENVIRONMENT.			**May be reviewed but do not assess**		

Motion Geometry (outcomes begin in grade 5) **Unit 7**