

# WNCP B.C. GRADE 5 & 6 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.**

**Use Unit and Cumulative Reviews Selectively**

Grade 5 Prescribed Learning Outcomes	MMS 5 Meets	Exceeds	Grade 6 Prescribed Learning Outcomes	MMS 6 Meets	Exceeds
<b>A1</b> Represent and describe whole numbers to 1 000 000.	<b>Unit 2</b> Lesson 1 uses expanded form instead of expanded notation	<b>Unit 2</b> Lesson 2 prime composite	<b>A1</b> Demonstrate an understanding of place value numbers: (a) greater than one million (b) <b>LESS THAN ONE THOUSANDTH.</b>	<b>Unit 2</b> Launch, Lesson 1 to 3 <b>Unit 4</b> Launch, Lesson 1, World of Work p. 127, Game p. 148, Unit Problem; limited	<b>Unit 2</b> Lesson 6 exponents
<b>A2</b> Use estimation strategies including: (a) front-end rounding (b) compensation (c) compatible numbers in problem-solving contexts	<b>Unit 2</b> Launch, Lessons 3, 5, 10 Lessons 4, 6 review adding and subtracting 3 and 4-digit numbers		<b>A2 SOLVE PROBLEMS INVOLVING LARGE NUMBERS, USING TECHNOLOGY.</b>	Unit 9, Lesson 3 and Unit 2, Lessons 8, 9 and Unit Problem review earlier grade outcomes	<b>Unit 2</b> Lessons 10 to 12 3 digit multipliers, 2 digit divisors
<b>A3</b> Apply mental mathematics strategies and number properties, such as: (a) skip counting from a known fact (b) <b>USING DOUBLING OR HALVING</b> (c) <b>USING PATTERNS IN THE 9S FACTS</b> (d) <b>USING REPEATED DOUBLING OR HALVING</b> to determine ( <i>recall</i> ) answers for basic multiplication facts to 81 and related division facts.	<b>Unit 2</b> Lesson 7, Game p. 50 limit assessment to facts to 81		<b>A3</b> Demonstrate an understanding of factors and multiples ( <i>concretely, pictorially and symbolically</i> ) by: (a) determining multiples & factors of numbers less than 100 (b) identifying prime and composite numbers (c) solving problems involving multiples.	<b>Unit 2</b> Lessons 4, 5, 7, Game p. 57 <b>Unit 5</b> Lesson 3 See MMS 5 Unit 2 Lesson 2	
<b>A4</b> Apply mental mathematics strategies for multiplication, such as: (a) annexing then adding zero (b) halving and doubling (c) using the distributive property.	<b>Unit 2</b> Lessons 8, 9, 13, Unit Problem <b>Unit 10</b> Lesson 1 do not assess factors				
<b>A5</b> Demonstrate an understanding of 2-digit by 2-digit multiplication ( <i>concretely, pictorially and symbolically</i> ) to solve problems.	<b>Unit 2</b> Lessons 9, 11, 13 <b>Unit 10</b> Lesson 1		<b>May be reviewed but do not assess</b>		
<b>A6</b> Demonstrate, with and without concrete materials, an understanding of division (3-digit by 1-digit) and interpret remainders to solve problems.	<b>Unit 2</b> Lesson 12 to 14, Game p. 71, Unit Problem <b>Unit 8</b> Lesson 6 remainders are expressed as fractions, but not decimals		<b>May be reviewed but do not assess</b>		
<b>A7</b> Demonstrate an understanding of fractions using concrete and pictorial representations to: (a) create sets of equivalent fractions (b) compare fractions with like and unlike denominators.	<b>Unit 8</b> Lessons 1, 3, 5, 10, Games p. 271 & 283, Unit Problem (part 1 and 2)	<b>Unit 8</b> Lesson 2, Unit Problem (part 3) mixed numbers	<b>A4</b> Relate improper fractions to mixed numbers ( <i>using models</i> ).	<b>Unit 8</b> Lessons 2, 3, 10 Lesson 1 reviews equivalent fractions; see MMS 5 Unit 8 Lesson 2	<b>Unit 8</b> Technology p. 289 convert mixed numbers
<b>A8</b> <b>DESCRIBE AND REPRESENT DECIMALS (TENTHS, HUNDREDTHS AND THOUSANDTHS) CONCRETELY, PICTORIALY AND SYMBOLICALLY.</b>	See MMS 6 Unit 4 Lessons 2, 3	<b>Unit 4</b> relates decimals (10ths and 100ths) to mixed numbers <b>Unit 8</b> Launch, Lessons 7 to 9, 11, 12 multiply/divide decimals	<b>May be reviewed but do not assess</b>		
<b>A9</b> Relate decimals to fractions ( <b>TO THOUSANDTHS</b> ).	<b>Unit 8:</b> Lesson 4				
<b>A10</b> Compare and order decimals ( <b>TO THOUSANDTHS</b> ) by using: (a) benchmarks (b) <b>PLACE VALUE</b> (c) <b>EQUIVALENT DECIMALS.</b>	<b>Unit 8</b> Lesson 5, Game p. 283 (10ths and 100ths only)				
<b>A11</b> <b>DEMONSTRATE AN UNDERSTANDING OF ADDITION AND SUBTRACTION OF DECIMAL FRACTIONS (LIMITED TO THOUSANDTHS).</b>	Unit 5 Lesson 7, and Unit 6 Lessons 5 and 6 review problem solving with money (grade 4 outcomes)		<b>A8</b> Demonstrate an understanding of multiplication and division of decimals (1-digit whole number multipliers and 1-digit natural number divisors).	<b>Unit 4</b> Lessons 10 to 12, Unit Problem; Lessons 2 to 6 review fractions and decimals See MMS 5 Unit 8 Lessons 8, 9, 11 and 12	<b>Unit 4</b> Lessons 7 to 9, p. 127 multi-digit multipliers and divisors

# WNCP B.C. GRADE 5 & 6 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 (continued)

General Outcome: Develop number sense.

Use Unit and Cumulative Reviews Selectively

Grade 5 Prescribed Learning Outcomes	MMS 5 Meets	Exceeds	Grade 6 Prescribed Learning Outcomes	MMS 6 Meets	Exceeds
<b>May be explored informally but do not assess</b>			<b>A5</b> Demonstrate an understanding of ratio, concretely, pictorially and symbolically.	<b>Unit 8</b> Lessons 7, 8	<b>Unit 8</b> Lesson 9 rates
			<b>A6</b> Demonstrate an understanding of percent (limited to whole numbers), concretely, pictorially and symbolically.	<b>Unit 8</b> Launch, Lessons 4 to 6, Unit Problem	
			<b>A7</b> Demonstrate an understanding of integers, concretely, pictorially and symbolically.	<b>Unit 1</b> Lesson 5 limited	
			<b>A9</b> Explain & apply the order of operations, excluding exponents, with & without technology (limited to whole numbers).	<b>Unit 1</b> Lesson 3 limited	

## STRAND: STATISTICS & PROBABILITY (DATA ANALYSIS)

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

<b>D1</b> DIFFERENTIATE BETWEEN FIRST-HAND & SECOND-HAND DATA.		<b>Unit 5</b> Lessons 4 to 6, frequency tables, line graphs, sample and population	<b>D1</b> Construct, label and interpret line graphs to draw conclusions.	<b>Unit 5</b> Lesson 1 limited <b>Unit 9</b> Unit Problem limited <b>Unit 10</b> Lesson 4 Unit 5 Lesson 5 reviews double bar graphs See MMS 5 Unit 5 Lesson 4	<b>Unit 5</b> Launch, Lessons 2, 4, 6 to 8, Unit Problem median, stem-and-leaf plots, histograms, scatter plots, sample, population <b>Cross Strand</b> p. 404-405 mean, median
<b>D2</b> CONSTRUCT AND INTERPRET DOUBLE BAR GRAPHS TO DRAW CONCLUSIONS.	Unit 5 Launch, Lessons 1 to 3 and Unit Problem review pictographs and bar graphs			Unit 5 Lesson 5 reviews double bar graphs See MMS 5 Unit 5 Lesson 4	
<b>May be explored informally but do not assess</b>			<b>D2</b> SELECT, JUSTIFY AND USE APPROPRIATE METHODS OF COLLECTING DATA, INCLUDING: <b>(a)</b> QUESTIONNAIRES <b>(b)</b> EXPERIMENTS <b>(c)</b> databases <b>(d)</b> ELECTRONIC MEDIA.	<b>Unit 5</b> Technology p. 202 databases only	
			<b>D3</b> Graph collected data & analyze the graph to solve problems.	<b>Unit 10</b> Lesson 4, Unit Problem	

## STRAND: STATISTICS & PROBABILITY (CHANCE AND UNCERTAINTY)

General Outcome: Use experimental or theoretical probabilities to represent & solve problems involving uncertainty.

<b>D3</b> Describe the likelihood of a single outcome occurring using words such as: <b>(a)</b> impossible <b>(b)</b> possible <b>(c)</b> certain.	<b>Unit 11</b> Lesson 1 See MMS3, MMS 4 Unit 11	<b>Unit 11</b> Lessons 3 to 5, Unit Problem probability as a fraction	<b>D4</b> Demonstrate an understanding of probability ( <i>with and without technology</i> ) by: <b>(a)</b> identifying all possible outcomes of a probability experiment <b>(b)</b> differentiating between experimental and theoretical probability <b>(c)</b> determining the theoretical probability of outcomes in a probability experiment <b>(d)</b> determining the experimental probability of outcomes in a probability experiment <b>(e)</b> comparing experimental results with the theoretical probability for an experiment.	<b>Unit 11</b> Launch, Lessons 1, 4, Unit Problem (do not express probability as a fraction or percent) <b>Cross Strand</b> p. 274-275 do not assess drawing nets  See Unit 11 in MMS 3 to 5	<b>Unit 11</b> Lessons 2, 3, 5 express probability as a fraction or percent
<b>D4</b> Compare the likelihood of two possible outcomes occurring using words such as: <b>(a)</b> less likely <b>(b)</b> equally likely <b>(c)</b> more likely.	<b>Unit 11</b> Launch, Lessons 1, 2				
<b>May be explored informally but do not assess</b>					

# WNCP B.C. GRADE 5 & 6 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: PATTERNS AND RELATIONS (PATTERNS)

General Outcome: Use patterns to describe the world and solve problems. Use Unit and Cumulative Reviews Selectively

Grade 5 Prescribed Learning Outcomes	MMS 5 Meets	Exceeds	Grade 6 Prescribed Learning Outcomes	MMS 6 Meets	Exceeds
B1 Determine the pattern rule to make predictions about subsequent elements ( <i>with and without concrete materials</i> ).	Unit 1 Launch, Lessons 1 to 5, Unit Problem Unit 9 Lesson 10 Unit 10 Launch, Lessons 1, 3, 4, Unit Problem Cross Strand p. 2-3, p. 392-393	Unit 10 Lesson 2 line graphs	<b>May be reviewed but do not assess</b>		
<b>May be explored informally but do not assess</b>			B1 Demonstrate an understanding of the relationships within tables of values to solve problems ( <i>concretely, pictorially and symbolically</i> ).	Unit 1 Lessons 1 Unit Problem Unit 7 Lesson 7 Unit 10 Lessons 1 to 4	
<b>May be explored informally but do not assess</b>			B2 Represent and describe patterns and relationships using graphs and tables.	Unit 10 Launch, Lessons 1 to 4, Unit Problem Cross Strand p. 2-3, p. 112-113; Unit 1 Launch, Lesson 2 reviews earlier grade outcomes	Unit 10 Lesson 6 test-taking strategies

## STRAND: PATTERNS & RELATIONS (VARIABLES & EQUATIONS)

General Outcome: Represent algebraic expressions in multiple ways.

B2 SOLVE PROBLEMS INVOLVING SINGLE-VARIABLE, ONE-STEP EQUATIONS WITH WHOLE NUMBER COEFFICIENTS AND WHOLE NUMBER SOLUTIONS.			B3 Represent generalizations arising from number relationships using equations with letter variables.	Unit 6 Lessons 2 to 4 variables in formulas only Unit 10 Lesson 5 limited	Unit 1 Lesson 6 more than one unknown
<b>May be explored informally but do not assess</b>			B4 DEMONSTRATE AND EXPLAIN THE MEANING OF PRESERVATION OF EQUALITY CONCRETELY, PICTORIALY AND SYMBOLICALLY.	Unit 1 Lesson 4, Game p.23 reviews earlier grade outcomes	

## STRAND: SHAPE AND SPACE (MEASUREMENT)

General Outcome: Use direct or indirect measurement to solve problems.

C1 Design and construct different rectangles given either perimeter, or area, or both (whole numbers) and draw conclusions.	Unit 9: Lessons 7, 10, Unit Problem Unit 10 Unit Problem	Unit 9 Lessons 4, 6, 8, 9 perimeter in decimals, circumference	C3 Develop and apply a formula for determining the: (a) perimeter of polygons (b) area of rectangles (c) volume of right rectangular prisms.	Unit 6 Launch, Lessons 1 to 6, Unit Problem Unit 9 Launch, Lessons 2, 4, World of Work p. 342, Game p. 343, Unit Problem; do not assess parallelogram formula Unit 9 Lessons 5 reviews grade 5 outcomes (volume and capacity)	Unit 9 Lessons 1, 6 surface area, tonnes
C2 Demonstrate an understanding of measuring length (mm) by: (a) selecting and justifying referents for the unit mm (b) modelling and describing the relationship between mm and cm units, and between mm and m units.	Unit 9 Launch, Lessons 1, 2 limited; do not assess decimetres and km; Lessons 3 and 5 review gr. 2 & 3 outcomes; see MMS 4 Unit 9 Lessons 2 and 5	Unit 6 Lessons 3, 4, 11, Unit Problem time and distance, line graphs, large masses			
C3 Demonstrate an understanding of volume by: (a) SELECTING & JUSTIFYING REFERENTS FOR CM <sup>3</sup> OR M <sup>3</sup> (b) estimating volume USING REFERENTS FOR CM <sup>3</sup> OR M <sup>3</sup> (c) measuring and recording volume (cm <sup>3</sup> or M <sup>3</sup> ) (d) constructing rectangular prisms for a given volume.	Unit 6 Launch, Lessons 8, 9 See MMS 4 Unit 3 Lesson 11 Unit 6 Lessons 1 and 2 review grade 4 outcomes (24-hour clocks); mg exceed				
C4 Demonstrate an understanding of capacity by: (a) describing the relationship between mL and L (b) selecting and justifying referents for mL or L units (c) estimating capacity by using referents for mL or L (d) measuring and recording capacity (mL or L).	Unit 6 Launch, Lessons 7, 9 limited; see MMS 4 Unit 6 Lesson 6 NOTE: first year for volume and capacity outcomes				
<b>May be reviewed but do not assess</b>					

# WNCP B.C. GRADE 5 & 6 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: SHAPE AND SPACE (MEASUREMENT) (continued)

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

Grade 5 Prescribed Learning Outcomes	MMS 5 Meets	Exceeds	Grade 6 Prescribed Learning Outcomes	MMS 6 Meets	Exceeds
<b>May be explored informally but do not assess</b>			<b>C1</b> Demonstrate an understanding of angles by: (a) <b>IDENTIFYING EXAMPLES OF ANGLES IN THE ENVIRONMENT</b> (b) classifying angles according to their measure (c) estimating the measure of angles using $45^\circ$ , $90^\circ$ <b>AND <math>180^\circ</math></b> as reference angles (d) determining angle measures in degrees (e) drawing / labelling angles when measure specified.	Unit 3 Launch, Lessons 1, 2, 4, 5, Unit Problem  Unit 3 Lesson 8 reviews drawing solids	Unit 3 Lessons 6, 7 similar figures, optical illusions
			<b>C2 DEMONSTRATE THE SUM OF INTERIOR ANGLES IS:</b> (a) $180^\circ$ IN A TRIANGLE (b) $360^\circ$ IN A QUADRILATERAL.		

## 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.

<b>C5</b> Describe and provide examples of edges and <b>FACES</b> of 3-D objects, and sides of 2-D shapes that are: (a) parallel (b) <b>INTERSECTING</b> (c) <b>PERPENDICULAR</b> (d) <b>VERTICAL</b> (e) <b>HORIZONTAL</b> .	Unit 3 Lessons 4, 5 very limited; parallel edges of 3-D objects and sides of 2-D shapes only; Lesson 7 reviews grade 4 outcomes	Unit 3 Launch, Lessons 2, 3, 6, Unit Problem	<b>May be reviewed but do not assess</b>	Unit 3 Lesson 8 reviews drawing solids
<b>C6</b> IDENTIFY AND SORT QUADRILATERALS, ACCORDING TO THEIR ATTRIBUTES, INCLUDING: (a) RECTANGLES (b) SQUARES (c) TRAPEZOIDS (d) PARALLELOGRAMS (e) RHOMBUSES.	Unit 3 Lesson 1 reviews identifying and naming polygons (gr. 3 and 4 outcomes)	Cross Strand p. 108-109 angles, classifying & constructing triangles, planes of symmetry		<b>C4</b> Construct and compare triangles in different orientations including: (a) scalene (b) isosceles (c) equilateral (d) right (e) obtuse (f) acute
Gr. 3 Sort regular and irregular polygons according to the number of sides			<b>C5</b> Describe and compare the sides and angles of regular and irregular polygons.	Unit 7 Lesson 3 limited Lessons 5 and 6 review symmetry
				Unit 7 Lesson 4 similar figures

## STRAND: SHAPE AND SPACE (TRANSFORMATIONS)

General Outcome: Describe and analyze position and motion.

<b>C7</b> Perform a single transformation (translation, rotation or reflection) of a 2-D shape, with and without technology and draw and describe the image.	Unit 7 Lessons 1 to 3 first year for transformation outcomes; see MMS 4 Unit 7	Unit 7 Lessons 5, 7, Unit Problem tessellations, coordinate grids, similar figures	<b>C6</b> Perform a combination of translation(s), rotation(s) and/or reflection(s) of a single 2-D shape, with and without technology, and draw and describe the image.	Unit 7 Launch, Lessons 1, 2, 8, World of Work p. 262
<b>C8</b> Identify a single transformation including a translation, rotation and reflection of 2-D shapes.	Unit 7 Launch, Lessons 1 to 3 Lessons 4 and 6 review line symmetry	Unit 10 Lesson 5 tiling patterns	<b>C7</b> Perform a combination of successive transformations of 2-D shapes to create a design, and identify and describe the transformations.	Unit 7 Lesson 8, Unit Problem
<b>May be explored informally but do not assess</b>		Cross Strand p. 256-257 similar figures	<b>C8</b> IDENTIFY & PLOT POINTS IN THE FIRST QUADRANT OF A CARTESIAN PLANE (WHOLE NUMBER ORDERED PAIRS).	See MMS 5 Unit 7 Lesson 7
			<b>C9</b> Perform and describe single transformations of a 2-D shape in the first quadrant of a Cartesian plane (limited to whole number vertices).	Unit 7 Lessons 1, 2