B.C. GRADE 6 & 7 AT A GLANCE CORRELATED WITH MATH MAKES SENSE (6 Western/ 7 WNCP)

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.

Grade 6 Use Unit and Cumulative Reviews Selectively

Grade 6 Prescribed Learning Outcomes	MMS 6 Western Meets	Exceeds	Grade 7 Prescribed Learning Outcomes	MMS 7 Meets (WNCP)
A1 Demonstrate an understanding of place value for numbers: **(a)** greater than one million **(b)** LESS THAN ONE THOUSANDTH.	**Unit 2** Launch, Lesson 1 to 3 **Unit 4** Launch, Lesson 1, World of Work p. 127, Game p. 148, Unit Problem; limited	**Unit 2** Lesson 6 exponents	**May be reviewed but do not assess**	
A2 SOLVE PROBLEMS INVOLVING LARGE NUMBERS, USING TECHNOLOGY.	Unit 9, Lesson 3 and Unit 2, Lessons 8, 9 and Unit Problem review earlier grade outcomes			
A3 Demonstrate an understanding of factors and multiples *(concretely, pictorially and symbolically)* by: **(a)** determining multiples & factors of numbers less than 100 **(b)** identifying prime and composite numbers **(c)** solving problems involving multiples.	**Unit 2** Lessons 4, 5, 7, Game p. 57 **Unit 5** Lesson 3 See MMS 5 Unit 2 Lesson 2	**Unit 2** Lessons 10 to 12 3 digit multipliers, 2 digit divisors		
May be explored informally but do not assess			**A1** Determine and explain why a number is divisible by 2, 3, 4, 5, 6, 8, 9 or 10 and why a number cannot be divided by 0.	**Unit 1:** 1.1, 1.2 Investigation p. 174-175
A4 Relate improper fractions to mixed numbers *(using models)*.	**Unit 8** Lessons 2, 3, 10 Lesson 1 reviews equivalent fractions See MMS 5 Unit 8 Lesson 2	**Unit 8** Technology p. 289 convert mixed numbers	**A7** Compare and order positive fractions, positive decimals (to 1000ths) and whole numbers, by using: **(a)** benchmarks **(b)** place value **(c)** equivalent fractions and /or decimals	**Unit 3:** 3.2, 3.7 **Unit 5** Reading & Writing in Math p. 211-212
May be explored informally but do not assess			**A4** Demonstrate an understanding of the relationship between positive repeating decimals and positive fractions, and positive terminating decimals and positive fractions.	**Unit 3:** 3.1
			A5 Demonstrate an understanding of adding and subtracting positive fractions and mixed numbers, with like and unlike denominators, concretely, pictorially and symbolically (limited to positive sums and differences).	**Unit 5:** 5.1 to 5.7 World of Work p. 209 Reading & Writing in Math p. 211 **Unit 5** Problem
A5 Demonstrate an understanding of ratio, concretely, pictorially and symbolically.	**Unit 8** Lessons 7, 8	**Unit 8** Lesson 9 rates	**May be reviewed but do not assess**	
A6 Demonstrate an understanding of percent (limited to whole numbers), concretely, pictorially and symbolically.	**Unit 8** Launch, Lessons 4 to 6, Unit Problem		**A3** Solve problems involving percent from 1% to 100%.	**Unit 3:** 3.7, 3.8 World of Work p. 117 **Unit 3** Problem
A7 Demonstrate an understanding of integers, concretely, pictorially and symbolically.	**Unit 1** Lesson 5 limited		**A6** Demonstrate an understanding of addition and subtraction of integers, concretely, pictorially and symbolically.	**Unit 2:** 2.1, 2.2, 2.3, 2.4, 2.5 Reading & Writing in Math p. 76-77 **Unit 2** Problem **Unit 8** Investigation p. 340-341
A8 Demonstrate an understanding of multiplication and division of decimals (1-digit whole number multipliers and 1-digit natural number divisors).	**Unit 4** Lessons 10 to 12, Unit Problem; Lessons 2 to 6 review fractions and decimals	**Unit 4** Lessons 7 to 9, World of Work p. 127 multi-digit multipliers and divisors	**A2** Demonstrate an understanding of the addition, subtraction, multiplication and division of decimals (for more than 1-digit divisors or 2-digit multipliers, the use of technology is expected) to solve problems.	**Unit 3:** 3.3, 3.4, 3.5, 3.6 Reading & Writing in Math p. 118-119
A9 Explain and apply the order of operations, excluding exponents, with and without technology (limited to whole numbers).	**Unit 1** Lesson 3 limited		**May be reviewed but do not assess**	

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STRAND: STATISTICS & PROBABILITY (DATA ANALYSIS)

General Outcome: Collect, display and analyze data to solve problems. Grade 6 Use Unit and Cumulative Reviews Selectively

Grade 6 Prescribed Learning Outcomes	MMS 6 Western Meets	Exceeds	Grade 7 Prescribed Learning Outcomes	MMS 7 Meets (WNCP)
D1 Construct, label and interpret line graphs to draw conclusions.	**Unit 5** Lesson 1 limited **Unit 9** Unit Problem limited **Unit 10** Lesson 4 Unit 5 Lesson 5 reviews double bar graphs See MMS 5 Unit 5 Lessons 4	**Unit 5** Launch, Lessons 4, 6 to 8, Unit Problem stem-and-leaf plots, histograms, scatter plots, sample, population	**D3** Construct, label and interpret circle graphs to solve problems.	**Unit 4:** 4.6, 4.7 Technology p. 165 Reading & Writing in Math p. 290-291
D2 SELECT, JUSTIFY AND USE APPROPRIATE METHODS OF COLLECTING DATA, INCLUDING: **(a)** QUESTIONNAIRES **(b)** EXPERIMENTS **(c)** databases **(d)** ELECTRONIC MEDIA.	**Unit 5** Technology p. 202 databases only		**May be reviewed but do not assess**	
D3 Graph collected data and analyze the graph to solve problems.	**Unit 10** Lesson 4, Unit Problem			
May be explored informally but do not assess		**Unit 5** Lesson 2 median **Cross Strand** p. 404-405 median, mean	**D1** Demonstrate an understanding of central tendency and range by: **(a)** determining the measures of central tendency (mean, median, mode) and range **(b)** determining the most appropriate measures of central tendency to report findings.	**Unit 7:** 7.1, 7.2, 7.4 Technology p. 276-277 Reading & Writing in Math p. 290-291
			D2 Determine the effect on the mean, median and mode when an outlier is included in a data set.	**Unit 7:** 7.3 Technology p. 276-277 Reading & Writing in Math p. 290-291

STRAND: STATISTICS & PROBABILITY (CHANCE AND UNCERTAINTY)

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

D4 Demonstrate an understanding of probability *(with and without technology)* by: **(a)** identifying all possible outcomes of a probability experiment **(b)** differentiating between experimental & theoretical probability **(c)** determining the theoretical probability of outcomes in a probability experiment **(d)** determining the experimental probability of outcomes in a probability experiment **(e)** comparing experimental results with the theoretical probability for an experiment.	**Unit 11** Launch, Lessons 1, 4, Unit Problem (do not express probability as a fraction or percent) **Cross Strand** p. 274-275 do not assess drawing nets See Unit 11 in MMS 3 to 5	**Unit 11** Lessons 2, 3, 5 express probability as a fraction or percent	**D4** Express probabilities as ratios, fractions and percents.	**Unit 7:** 7.5 Reading & Writing in Math p. 290-291
			D5 Identify the sample space (where the combined sample space has 36 or fewer elements) for a probability experiment involving two independent events.	**Unit 7:** 7.6 **Unit 7** Problem Reading & Writing in Math p. 290-291
			D6 Conduct a probability experiment to compare the theoretical probability (determined using a tree diagram, table or other graphic organizer) and experimental probability of two independent events *(with and without technology)*.	**Unit 7:** 7.6 Game p. 289 **Unit 7** Problem Reading & Writing in Math p. 290-291 **Unit 8** Investigation p. 340-341

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STRAND: PATTERNS AND RELATIONS (PATTERNS)

General Outcome: Use patterns to describe the world and solve problems. Grade 6 Use Unit and Cumulative Reviews Selectively

Grade 6 Prescribed Learning Outcomes	MMS 6 Western Meets	Exceeds	Grade 7 Prescribed Learning Outcomes	MMS 7 Meets (WNCP)
B1 Demonstrate an understanding of the relationships within tables of values to solve problems *(concretely, pictorially and symbolically)*.	**Unit 1** Lesson 1 Unit Problem **Unit 7** Lesson 7 **Unit 10** Lessons 1 to 4		**May be reviewed but do not assess**	
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 Lesson 2 reviews	**Unit 10** Lesson 6 test-taking strategies		
May be explored informally but do not assess			**B1** Demonstrate an understanding of oral and written patterns and their equivalent linear relations.	**Unit 1:** 1.3, 1.4, 1.5 **Unit 1** Problem
			B2 Create a table of values from a linear relation, graph the table of values and analyze the graph to draw conclusions to solve problems.	**Unit 1:** 1.5, 1.6 **Unit 1** Problem

STRAND: PATTERNS & RELATIONS (VARIABLES & EQUATIONS)

General Outcome: Represent algebraic expressions in multiple ways.

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 4, Game p.23 reviews earlier grade outcomes	**Unit 1** Lesson 6 more than one unknown	**B5** Evaluate an expression given the value of the variable(s).	**Unit 1:** 1.3, 1.4, 1.5 **Unit 6** Problem
B4 DEMONSTRATE AND EXPLAIN THE MEANING OF PRESERVATION OF EQUALITY CONCRETELY, PICTORIALLY AND SYMBOLICALLY.			**B3** Demonstrate and explain the meaning of preservation of equality by: **(a)** modeling preservation of equality concretely, pictorially, and symbolically **(b)** applying preservation of equality to solve equations.	**Unit 6:** 6.2, 6.3, 6.4, 6.5
May be explored informally but do not assess			**B4** Explain the difference between an expression and an equation.	**Unit 1:** 1.6, 1.7
			B6 Model and solve problems that can be represented by one-step linear equations of the form $x + a = b$, concretely, pictorially and symbolically, where a and b are integers.	**Unit 6:** 6.3, 6.5
			B7 Model and solve problems that can be represented by linear equations of the form: $ax + b = c$ $ax = b$ $\frac{x}{a} = b \quad a \neq 0$ concretely, pictorially and symbolically, where a, b and c are whole numbers.	**Unit 1:** 1.8 **Unit 1** Problem **Unit 6:** 6.1, 6.2, 6.4, 6.5

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STRAND: SHAPE AND SPACE (MEASUREMENT)

General Outcome: Use direct or indirect measurement to solve problems. Grade 6 Use Unit and Cumulative Reviews Selectively

Grade 6 Prescribed Learning Outcomes	MMS 6 Western Meets	Exceeds	Grade 7 Prescribed Learning Outcomes	MMS 7 Meets (WNCP)
C1 Demonstrate an understanding of angles by: **(a)** IDENTIFYING EXAMPLES OF ANGLES IN THE ENVIRONMENT **(b)** classifying angles according to their measure **(c)** estimating the measure of angles using 45°, 90° AND 180° as reference angles **(d)** determining angle measures in degrees **(e)** drawing & labelling angles when the measure is 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	**C1** Demonstrate an understanding of circles by: **(a)** describing the relationships among radius, diameter and circumference of circles **(b)** relating circumference to pi **(c)** determining the sum of the central angles **(d)** constructing circles with a given radius or diameter **(e)** solving problems involving the radii, diameters and circumferences of circles.	**Unit 4:** 4.1, 4.2, 4.7 Game p. 153 **Unit 4** Problem
C2 DEMONSTRATE THAT THE SUM OF INTERIOR ANGLES IS: **(a)** 180° IN A TRIANGLE **(b)** 360° IN A QUADRILATERAL.			**May be reviewed but do not assess**	
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** All lessons **Unit 9** Launch, Lessons 2, 4, World of Work p. 342, Game p. 343, Unit Problem; do not assess parallelogram formula Lesson 5 reviews grade 5 outcomes (volume and capacity).	**Unit 9** Lessons 1, 6 surface area, tonnes	**C2** Develop and apply a formula for determining the area of: **(a)** triangles **(b)** parallelograms **(c)** circles.	**Unit 4:** 4.3, 4.4, 4.5 Game p. 153 **Unit 4** Problem

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.

C4 Construct and compare triangles in different orientations including: **(a)** scalene **(b)** isosceles **(c)** equilateral **(d)** right **(e)** obtuse **(f)** acute.	**Unit 3** Lesson 3 limited See MMS 5 Unit 3 Launch, Lesson 2, Unit Problem		**May be reviewed but do not assess**	
May be explored informally but do not assess			**C3** Perform geometric constructions including: **(a)** perpendicular and **(b)** parallel line segments **(c)** perpendicular and **(d)** angle bisectors.	**Unit 8:** 8.1, 8.2, 8.3, 8.4 **Unit 8** Problem
C5 Describe and compare the sides and angles of regular and irregular polygons.	**Unit 7** Lesson 3 limited Unit 7, Lessons 5 and 6 review symmetry	**Unit 7** Lesson 4 similar figures	**May be reviewed but do not assess**	

STRAND: SHAPE AND SPACE (TRANSFORMATIONS)

General Outcome: Describe and analyze position and motion.

C6 Perform a combination of translation(s), rotation(s) and/or reflection(s) on 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		**May be reviewed but do not assess**	
C7 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			
C8 IDENTIFY AND PLOT POINTS IN THE FIRST QUADRANT OF A CARTESIAN PLANE USING WHOLE NUMBER ORDERED PAIRS.	See MMS 5 Unit 7 Lesson 7		**C4** Identify and plot points in the four quadrants of a Cartesian plane using integral ordered pairs.	**Unit 8:** 8.5, 8.6, 8.7 Technology p. 330-331 **Unit 8** Problem
C9 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 .		**C5** Perform and describe transformations (translations, rotations or reflections) of a 2-D shape in all 4 quadrants of a Cartesian plane (limited to integral number vertices).	**Unit 8:** 8.6, 8.7 Technology p. 330-331 **Unit 8** Problem