B.C. GRADE 4 AT A GLANCE CORRELATED WITH MATH MAKES SENSE (WNCP)

STRAND: NUMBER

General Outcome: Develop number sense.

Grade 4 Prescribed Learning Outcomes	MMS 4 (WNCP)	Additional Notes
A1 Represent and describe whole numbers to 10 000 pictorially and symbolically.	**Unit 2** Lesson 1	
A2 Compare and order numbers to 10 000.	**Unit 2** Lessons 2, 3 **Unit 2** Problem	NOTE: Students may not be familiar with the terms "divisible" and "multiples" (Unit 2, Lesson 3 questions 6, 7) as outcomes involving these concepts are introduced in a later grade
A3 Demonstrate an understanding of addition of numbers with answers to 10 000 and their corresponding subtractions (limited to 3 and 4-digit numerals) by: **(a)** using personal strategies for adding and subtracting **(b)** estimating sums and differences **(c)** solving problems involving addition and subtraction.	**Unit 2** Launch **Unit 2** Lessons 4, 5, 6, 7, 8, 9, 10, 11, 12, 13 **Unit 2** Problem	
A4 Explain the properties of 0 and 1 for multiplication, and the properties of 1 for division.	**Unit 3** Lesson 2	
A5 Describe and apply mental mathematics strategies, such as: **(a)** skip counting from a known fact **(b)** using doubling or halving **(c)** using doubling or halving and adding or subtracting one more group **(d)** using patterns in the 9s facts **(e)** using repeated doubling to determine basic multiplication facts up to 9 x 9 and related division facts.	**Unit 1** Lesson 5 **Unit 3** Launch **Unit 3** Lessons 1, 2, 3 ,4, 5 Game p. 101 **Unit 3** Lessons 7, 8, 9, 10 **Unit 3** Problem	
A6 Demonstrate an understanding of multiplication (2 or 3-digit by 1- digit) to solve problems by: **(a)** using personal strategies with & without concrete materials **(b)** using arrays to represent multiplication **(c)** connecting concrete representations to symbolic representations **(d)** estimating products.	**Unit 8** Launch **Unit 8** Lessons 1, 2, 3, 5, 6, 7 **Unit 8** Problem	

B.C. GRADE 4 AT A GLANCE CORRELATED WITH MATH MAKES SENSE (WNCP)

STRAND: NUMBER (continued)
General Outcome: Develop number sense.

Grade 4 Prescribed Learning Outcomes	MMS 4 (WNCP)	Additional Notes
A7 Demonstrate an understanding of division (1-digit divisor and up to 2-digit dividend) to solve problems by: **(a)** using personal strategies with and without concrete materials **(b)** estimating quotients **(c)** relating division to multiplication.	**Unit 3** Lessons 7, 8, 9, 10 **Unit 3** Problem **Unit 8** Lessons 8, 9, 10, 11 Game p. 311 **Unit 8** Problem	
A8 Demonstrate an understanding of fractions less than or equal to one by using concrete and pictorial representations to: **(a)** name and record fractions for the parts of a whole or a set **(b)** compare and order fractions **(c)** model and explain that for different wholes, two identical fractions may not represent the same quantity **(d)** provide examples where fractions are used.	**Unit 5** Launch **Unit 5** Lessons 1, 2, 3, 4, 5, 6, 7, 8 **Unit 5** Problem	NOTE: If you have omitted Lesson 13 (see note for A11) , you may wish to omit or modify the Corn Cob Toss and the Duck Waddle in the Unit 5 Problem
A9 Describe and represent decimals (tenths and hundredths) concretely, pictorially and symbolically.	**Unit 5** Lessons 9, 10, 11	
A10 Relate decimals to fractions (to hundredths).	**Unit 5** Lessons 9, 10	
A11 Demonstrate an understanding of addition and subtraction of decimals(limited to 100ths) by: **(a)** using compatible numbers **(b)** estimating sums and differences **(c)** using mental math strategies to solve problems.	**Unit 5** Lessons 12, 13, 14	NOTE: When assessing addition and subtraction of decimals, the focus should be on contexts that involve money if using amounts greater that 1. You may wish to omit Lesson 13 as it exceeds the outcome in some contexts (see Achievement Indicators in IRP)

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

Grade 4 Prescribed Learning Outcomes	MMS 4 (WNCP)	Additional Notes
D1 Demonstrate an understanding of many-to-one correspondence.	**Unit 7** Launch **Unit 7** Lessons 1, 2, 3, 4 **Unit 7** Problem	
D2 Construct and interpret pictographs and bar graphs involving many-to-one correspondence to draw conclusions.	**Unit 7** Launch **Unit 7** Lessons 1,2 3, 4 **Unit 7** Problem	NOTE: Lesson 5 reviews grade 2 outcomes

B.C. GRADE 4 AT A GLANCE CORRELATED WITH MATH MAKES SENSE (WNCP)

NOTE: 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.

Grade 4 Prescribed Learning Outcomes	MMS 4 (WNCP)	Additional Notes
B1 Identify and describe patterns found in tables and charts, including a multiplication chart.	**Unit 1** Launch **Unit 1** Lessons 1, 2, 3 **Unit 1** Problem **Unit 3** Lessons 3, 5 **Unit 8** Lesson 6, 7	
B2 Reproduce a pattern shown in a table or chart using concrete materials.	**Unit 1** Lessons 2, 3	
B3 Represent and describe patterns and relationships using charts and tables to solve problems.	Investigation p. 2-3 **Unit 1** Lessons 1, 2, 3 **Unit 1** Problem **Unit 3** Lesson 6 **Unit 8** Lesson 4	
B4 Identify and explain mathematical relationships using charts and diagrams to solve problems.	Investigation p. 2-3 **Unit 2** Lesson 3 **Unit 6** Lesson 1 Investigation p. 316-317	NOTE: Students may not be familiar with the term "multiples" (Unit 8 Investigation p. 316-317) as outcomes involving this concept are introduced in a later grade

STRAND: PATTERNS & RELATIONS (VARIABLES & EQUATIONS)

General Outcome: Represent algebraic expressions in multiple ways.

B5 Express a given problem as an equation in which a symbol is used to represent an unknown number*(concretely, pictorially or symbolically).*	**Unit 1** Lessons 4, 5 **Unit 1** Problem	
B6 Solve one-step equations involving a symbol to represent an unknown number *(using manipulatives).*	**Unit 1** Lessons 4, 5, 6 **Unit 1** Problem **Unit 2** Lesson 2	NOTE: Lesson 6 exceeds the outcome since more than one symbol is used to represent unknown numbers in a single equation (see Achievement Indicators in IRP). Game on page 25 reviews grade 2 outcomes

B.C. GRADE 4 AT A GLANCE CORRELATED WITH MATH MAKES SENSE (WNCP)

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

STRAND: SHAPE AND SPACE (MEASUREMENT)

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

Grade 4 Prescribed Learning Outcomes	MMS 4 (WNCP)	Additional Notes
C1 Read and record time using digital and analog clocks, including 24-hour clocks.	**Unit 4** Launch **Unit 4** Lessons 2, 3, 4, 5, 6	
C2 Read and record calendar dates in a variety of formats.	**Unit 4** Lesson 1	
C3 Demonstrate an understanding of area of regular and irregular 2-D shapes by: **(a)** recognizing area is measured in square units **(b)** selecting & justifying referents for cm^2 or m^2 **(c)** estimating area using referents for cm^2 or m^2 **(d)** determining and recording area (cm^2 or m^2) **(e)** constructing different rectangles for a given area (cm^2 or m^2) in order to demonstrate that many rectangles may have the same area.	**Unit 3** Game p. 101 **Unit 4** Lessons 7, 8, 9, 10, 11, 12, 13 **Unit 4** Problem Investigation p. 170-171	

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 Describe and construct rectangular and triangular prisms.	**Unit 6** Launch **Unit 6** Lessons 1, 2, 3, 4	

STRAND: SHAPE AND SPACE (TRANSFORMATIONS)

General Outcome: Describe and analyze position and motion.

C5 Demonstrate an understanding of line symmetry *(with and without manipulatives)* by: **(a)** identifying symmetrical 2-d shapes **(b)** creating symmetrical 2-d shapes **(c)** drawing one or more lines of symmetry in a 2-D shape.	**Unit 6** Lessons 5, 6, 7 Game p. 245 **Unit 6** Problem	