Leaps and Bounds Quebec Correlation Cycle 2 Elementary

Curriculum Expectations Elementary Cycle 2	INTERVENTION Resources and Expectations from Previous Cycle	
Progression of Learning Essential Knowledge Expectations (Elementary 3 and Elementary 4)	***Correlation Leaps and Bounds and knowledge expectations***	***Progression of Learning Essential Knowledge Expectations Elementary Cycle 1 (Elementary 1 and Elementary 2)***
Arithmetic: Understanding and Writing Numbers		
A. Natural Numbers		
Counts natural numbers up to 100 000 forward and backwards	Leaps and Bounds 5/6: Representing Whole Numbers *Pathway 1*: Representing Numbers to 100 000 *Pathway 2*: Representing Numbers to 10 000 *Pathway 3*: Representing Numbers to 1000 Leaps and Bounds 3/4: Representing Whole Numbers *Pathway 1*: Representing Numbers to 1000 *Pathway 2*: Representing Numbers to 100 *Pathway 3*: Representing Numbers to 20 Leaps and Bounds 3/4: Skip Counting *Pathway 1*: Skip Counting to 1000 *Pathway 2*: Skip Counting to 100 *Pathway 3*: Skip Counting to 20	Counts forward from a given number Counts natural numbers up to 1000 forward and backwards
Skip counts (e.g. by twos) natural numbers up to 100 000 forward and backwards		Skip counts (e.g. by twos) natural numbers up to 1000 forward and backwards
Counts a collection of up to 100 000 by grouping or regrouping		Counts a collection from a given number Counts a collection of up to 1000 by grouping or regrouping
Counts a pre-grouped collection of up to 100 000		
Reads and writes any natural number up to 100 000		Reads and writes any natural number up to 1000
Represents natural numbers in different ways or associates a number with a set of objects or drawings; in particular can exchange apparent, non-accessible groupings, using structured materials (e.g. base ten blocks, number tables) for groups of up to 100 000		Represents natural numbers in different ways or associates a number with a set of objects or drawings; in particular can exchange apparent, accessible groupings, using objects, drawings or unstructured materials (e.g. tokens, nesting cubes, etc.) for groups of up to 1000
Composes and decomposes a natural number up to 100 000 in a variety of ways (e.g. 123 = 100 + 23 123 = 100 + 20 + 3 123 = 50 + 50 + 20 + 3 123 = 2 X 50 + 30 − 7 123 = 2 X 60 + 3		Composes and decomposes a natural number up to 1000 in a variety of ways (e.g. 123 = 100 + 23 123 = 100 + 20 + 3 123 = 50 + 50 + 20 + 3 123 = 2 X 50 + 30 − 7 123 = 2 X 60 + 3
Identifies equivalent expressions for numbers up to 100 000 (e.g. 52 = 40 + 12, 25 + 27 = 40 + 12, 52 = 104 ÷ 2)		Identifies equivalent expressions for numbers up to 1000 (e.g. 52 = 40 + 12, 25 + 27 = 40 + 12, 52 = 104 ÷ 2)
Compares natural numbers up to 100 000	Leaps and Bounds 5/6 : Comparing Whole Numbers *Pathway 1*: Comparing Numbers to 100 000 *Pathway 2*: Comparing Numbers to 10 000 *Pathway 3*: Comparing Numbers to 1000 Leaps and Bounds 3/4: Comparing Whole Numbers *Pathway 1*: Comparing and Ordering to 1000 *Pathway 2*: Comparing and Ordering to 100 *Pathway 3*: Comparing and Ordering to 20	Compares natural numbers up to 1000
Arranges natural numbers up to 100 000 in increasing or decreasing order		Arranges natural numbers up to 1000 in increasing or decreasing order
Describes number patterns, using his/her own words and appropriate mathematical vocabulary (e.g. even numbers, odd numbers, square numbers, triangular numbers, prime numbers, composite numbers) for numbers up to 100 000		Describes number patterns, using his/her own words and appropriate mathematical vocabulary (e.g. even numbers, odd numbers, square numbers, triangular numbers, prime numbers, composite numbers) for numbers up to 1000

Locates natural numbers up to 100 000 using different visual aids (e.g. hundreds chart, number strip, number line)	Leaps and Bounds 5/6 : Comparing Whole Numbers *Pathway 1*: Comparing Numbers to 100 000 *Pathway 2*: Comparing Numbers to 10 000 *Pathway 3*: Comparing Numbers to 1000 Leaps and Bounds 3/4: Comparing Whole Numbers *Pathway 1*: Comparing and Ordering to 1000 *Pathway 2*: Comparing and Ordering to 100 *Pathway 3*: Comparing and Ordering to 20	Locates natural numbers up to 1000 using different visual aids (e.g. hundreds chart, number strip, number line)
Identifies properties such as square, prime or composite numbers of natural numbers up to 100 000		Identifies properties such as even or odd numbers for natural numbers up to 1000
Classifies natural numbers up to 100 000 in various ways, based on their properties (e.g. even numbers, composite numbers)		Classifies natural numbers up to 1000 in various ways, based on their properties (e.g. even numbers, composite numbers)
Approximates a collection of up to 100 000, using objects or drawings (e.g. estimate, round up/down to a given value)		Approximates a collection of up to 1000, using objects or drawings (e.g. estimate, round up/down to a given value)
B. Fractions (using objects or drawings)		
Matches a fraction to part of a whole (congruent or equivalent parts) or part of a group of objects, and vice versa Distinguishes a numerator from a denominator Reads and writes a fraction Compares a fraction to 0, 1/2 or 1	Leaps and Bounds 3/4: Fractions *Pathway 1*: Fractions as part of a set *Pathway 2*: Fractions as parts of Wholes *Pathway 3*: Halves Leaps and Bounds 5/6 : Representing Fractions *Pathway 3: Proper fractions: Parts of Sets* *Pathway 4: Proper fractions: Parts of Wholes* Leaps and Bounds 5/6 : Comparing Fractions *Pathway 5: Comparing Fractions to ½ and 1*	Identifies fractions (half, one third, one quarter) related to everyday items (using objects or drawings)
C. Decimals		
Represents decimals up to the hundredths place in a variety of ways (using objects or drawings) Identifies equivalent representations (using objects or drawings) of expressions to the hundredths place Reads and writes numbers written in decimal notation up to the hundredths place Understands the role of the decimal point Composes and decomposes a decimal written in decimal notation up to the hundredths place Recognizes equivalent expressions up to the hundredths place (e.g. 12 tenths is equivalent to 1 unit and 2 tenths; 0.5 is equivalent to 0.50)	Leaps and Bounds 5/6: Representing Decimals *Pathway 2: Representing Hundredths* *Pathway 3: Representing Tenths* Leaps and Bounds 5/6: Comparing Decimals *Pathway 3: Comparing Tenths and Hundredths*	

Locates decimals up to the hundredths place between two consecutive natural numbers on a number line		
Compares two decimals up to the hundredths place		
Approximates decimal numbers to the hundredths place (e.g. estimates, rounds to a given value, truncates decimal places)		
Arranges decimals up to the hundredths place in increasing or decreasing order		
Matches fraction to its decimal number up to the hundredths place		

Arithmetic: Meaning of operations involving numbers		
A. Natural Numbers		
Determines the operation(s) to perform in a given situation	Leaps and Bounds 5/6: Relating Situations to Operations *Pathway 1*: Division Situations *Pathway 2*: Multiplication Situations *Pathway 3*: Subtraction Situations	
Uses objects, diagrams or equations to represent the different meanings of addition and subtraction, in particular for adding, taking away, uniting and comparing natural numbers up to 100 000	Leaps and Bounds 5/6: Adding and Subtracting *Pathway 1*: Different Numbers of Digits *Pathway 2*: Same Number of Digits *Pathway 3*: Using Mental Math to Subtract Pathway 4: Using Mental Math to Add Leaps and Bounds 3/4: Adding Whole Numbers *Pathway 1*: Adding Three-Digit Numbers *Pathway 2*: Adding Two-Digit Numbers *Pathway 3*: Adding One-Digit Numbers Leaps and Bounds 3/4: Subtracting Whole Numbers *Pathway 1*: Subtracting Three-Digit Numbers *Pathway 2*: Subtracting Two-Digit Numbers *Pathway 3*: Subtracting One-Digit Numbers	Uses objects, diagrams or equations to represent the different meanings of addition and subtraction, in particular for adding, taking away, uniting and comparing natural numbers up to 1000
Uses objects, diagrams or equations to represent the different meanings of addition and subtraction, in particular the composition of additions and subtractions of natural numbers up to 100 000		

Uses objects, diagrams or equations to represent the different meanings of multiplication and division, in particular rectangular arrays, repeated addition, Cartesian product, area, volume, repeated subtraction, sharing, number of times x goes into y, and comparisons (using objects, diagrams or equations) for natural numbers up to 100 000.	Leaps and Bounds 5/6: Multiplying Whole Numbers *Pathway 1*: Multiplying Two-Digit Numbers *Pathway 2*: Multiplying by One-Digit Numbers *Pathway 3*: Multiplication Fact Strategies Leaps and Bounds 5/6: Dividing Whole Numbers *Pathway 1*: Dividing Three-Digit Numbers *Pathway 2*: Dividing Two-Digit Numbers *Pathway 3*: Division Fact Strategies	Uses objects, diagrams or equations to represent the different meanings of multiplication and division, in particular rectangular arrays, repeated addition, Cartesian product, area, volume, repeated subtraction, sharing, number of times x goes into y (using objects, diagrams or equations) for natural numbers up to 1000.
Establishes equality relations between numerical expressions (e.g. 3 + 2 = 6 – 1) for natural numbers up to 100 000	Leaps and Bounds 3/4: Equality *Pathway 1*: Equality: Using Numbers to 100 *Pathway 2*: Equality: Using Numbers to 20	Establishes equality relations between numerical expressions (e.g. 3 + 2 = 6 – 1) for natural numbers up to 1000
Determines numerical equivalencies using relationships between operations (the four operations), the commutative property of addition and multiplication and the associative property for natural numbers up to 100 000.		Determines numerical equivalencies using relationships between operations (addition and subtraction) and the commutative property of addition
B. Decimals		
Uses objects, diagrams or equations to represent the different meanings of addition and subtraction, in particular for adding, taking away, uniting and comparing of decimal numbers up to the hundredths place.	Leaps and Bounds 5/6: Decimal Computation *Pathway 4*: Add and Subtract to Hundredths *Pathway 5*: Add and Subtract to Tenths and Hundredths	
Uses objects, diagrams or equations to represent the different meanings of addition and subtraction, in particular the composition of additions and subtractions of decimal numbers up to the hundredths place.		
Uses objects, diagrams or equations to represent the different meanings of multiplication and division, in particular rectangular arrays, repeated addition, Cartesian product, area, volume, repeated subtraction, sharing, number of times x goes into y, and comparisons (using objects, diagrams or equations) for decimal numbers up to the hundredths place.	Leaps and Bounds 5/6: Decimal Computation *Pathway 1*: Multiply and Divide by 10 or by 100	
Determines numerical equivalencies using relationships between operations (the four operations), the commutative property of addition and multiplication and the associative property for decimal numbers up to the hundredths place.		

Arithmetic: Meaning of operations involving numbers		
A. Natural Numbers		
Uses conventional processes to determine the sum of two natural numbers of up to four digits Uses conventional processes to determine the difference between two natural numbers of up to four digits whose result is greater than 0	Leaps and Bounds 5/6: Adding and Subtracting *Pathway 1*: Different Numbers of Digits *Pathway 2*: Same Number of Digits *Pathway 3*: Using Mental Math to Subtract Pathway 4: Using Mental Math to Add Leaps and Bounds 3/4: Adding Whole Numbers *Pathway 1*: Adding Three-Digit Numbers *Pathway 2*: Adding Two-Digit Numbers *Pathway 3*: Adding One-Digit Numbers Leaps and Bounds 3/4: Subtracting Whole Numbers *Pathway 1*: Subtracting Three-Digit Numbers *Pathway 2*: Subtracting Two-Digit Numbers *Pathway 3*: Subtracting One-Digit Numbers Leaps and Bounds 3/4: Mental Math *Pathway 1*: Compensating *Pathway 2*: Regrouping *Pathway 3*: Relating to 5 or 10	Approximates the result of an addition or subtraction involving natural numbers Builds a repertoire of memorized addition and subtraction facts Builds a memory of addition facts (0 + 0 to 10 + 10) and the corresponding subtraction facts, using objects, drawings, charts or tables Develops various strategies that promote mastery of number facts and relates them to the properties of addition Masters all addition facts (0 + 0 to 10 + 10) and the corresponding subtraction facts Develops processes for mental computation Uses his/her own processes to determine the sum or difference of two natural numbers less than 1000 Develops processes for written computation (addition and subtraction) Uses his/her own processes as well as objects and drawings to determine the sum or difference of two natural numbers less than 1000
		Determines the missing term in an equation (relationships between operations): a + b = □, a + □ = c, □ + b = c, a – b = □, a – □ = c, □ – b = c
Builds a memory of multiplication facts (0 X 0 to 10 X 10) and the corresponding division facts, using objects, drawings, charts or tables	Leaps and Bounds 5/6: Multiplying Whole Numbers *Pathway 3*: Multiplication Fact Strategies Leaps and Bounds 5/6: Dividing Whole Numbers *Pathway 3*: Division Fact Strategies	
Uses his/her own processes as well as materials and drawings to determine the product or quotient of a three-digit natural number and a one-digit natural number, expresses the remainder of a division as a fraction, depending on the context	Leaps and Bounds 5/6: Multiplying Whole Numbers *Pathway 1*: Multiplying Two-Digit Numbers *Pathway 2*: Multiplying by One-Digit Numbers *Pathway 3*: Multiplication Fact Strategies Leaps and Bounds 5/6: Dividing Whole Numbers *Pathway 1*: Dividing Three-Digit Numbers *Pathway 2*: Dividing Two-Digit Numbers *Pathway 3*: Division Fact Strategies	

	Leaps and Bounds 3/4: Patterns *Pathway 1*: Growing and Shrinking Patterns *Pathway 2*: Repeating Patterns	Using his/her own words and mathematical language to describe non-numerical patterns (e.g. series of colours, shapes, sounds, gestures) Using his/her own words and mathematical language to describe numerical patterns (e.g. number rhymes, tables and charts)
C. Decimals		
Develops processes for written computation adds and subtracts decimals whose result does not go beyond the second decimal place	Leaps and Bounds 5/6: Decimal Computation *Pathway 4*: Add and Subtract to Hundredths *Pathway 5*: Add and Subtract to Tenths and Hundredths	

Geometry		
A. Space		
Locates objects in a plane	Leaps and Bounds 5/6: Movement and Location *Pathway 2*: Locating Objects on Grids Leaps and Bounds 3/4: Movement and Location *Pathway 1*: Moving on a Grid *Pathway 2*: Using Positional Language	Gets his/her bearings and locates objects in space (spatial relationships)
Locates objects on an axis (based on the types of numbers studied) from 0.01 to 100 000		Locates objects on an axis (based on the types of numbers studied) from 0 to 1000
Locates points in the first quadrant of a Cartesian plane		
B. Solids		
Describes prisms and pyramids in terms of faces, vertices and edges	Leaps and Bounds 3/4: 3-D Shapes *Pathway 1*: Describing 3-D Shapes *Pathway 2*: Building 3-D Shapes	Compares objects or parts of objects in the environment with solids (e.g. spheres, cones, cubes, cylinders, prisms, pyramids) Compares and constructs solids (e.g. spheres, cones, cubes, cylinders, prisms, pyramids) Identifies the main solids (e.g. spheres, cones, cubes, cylinders, prisms, pyramids) Identifies and represents the different faces of a prism or pyramid
Classifies prisms and pyramids		
Constructs a net of a prism or pyramid	Leaps and Bounds 5/6: 3-D Shapes *Pathway 1*: Modelling with Nets *Pathway 2*: Modelling with Skeletons *Pathway 3*: Modelling with Solid Shapes	
Matches the net of: ▪ a prism to the corresponding prism and vice versa ▪ a pyramid to the corresponding pyramid and vice versa		
C. Plane Figures		
Describes convex and nonconvex polygons	Leaps and Bounds 3/4: 2-D Shapes *Pathway 1*: Describing 2-D Shapes *Pathway 2*: Building 2-D Shapes	Compares and constructs figures made with closed curved lines or closed straight lines Identifies plane figures (square, rectangle, triangle, rhombus and circle) Describes plane figures (square, rectangle, triangle and rhombus)

Identifies and constructs parallel lines and perpendicular lines		
Describes quadrilaterals (e.g. parallel segments, perpendicular segments, right angles, acute angles, obtuse angles)		
Classifies quadrilaterals	Leaps and Bounds 5/6: 2-D Shapes *Pathway 1*: Classifying Quadrilaterals	
D. Frieze Patterns and Tessellations		
Observes and produces patterns using geometric figures		Identifies congruent figures
Observes and produces frieze patterns and tessellations using reflections	Leaps and Bounds 5/6: 2-D Shapes *Pathway 3*: Line of Symmetry Leaps and Bounds 5/6: Transformations *Pathway 2*: Multiple Reflections *Pathway 3:* Multiple Translations *Pathway 4:* Single Reflections and Translations	

Measurement		
A. Lengths		
Estimates and measures the dimensions of an object using conventional units: meter, decimeter, centimeter and millimeter	Leaps and Bounds 3/4: Length *Pathway 1*: Length: Standard Units *Pathway 2*: Length: Non-standard Units	Compares lengths Constructs rulers Estimates and measures the dimensions of an object using unconventional units Estimates and measures the dimensions of an object using conventional units: metre, decimetre and centimetre
Establishes relationships between units of measure for length: meter, decimeter, centimeter and millimeter		
Calculates the perimeter of plane figures	Leaps and Bounds 5/6: Length *Pathway 1*: Perimeter of a Rectangle *Pathway 2*: Perimeter: Using Standard Units *Pathway 3*: Length: Using Standard Units	
B. Surface Areas		
Estimates and measures surface area using unconventional units	Leaps and Bounds 3/4: Area *Pathway 1*: Area: Using Strategies *Pathway 2*: Area: Using Whole Units	
C. Volumes		
Estimates and measures volume using unconventional units		
D. Angles		
Compares angles: Angle, right angle, acute angle, obtuse angle	Leaps and Bounds 5/6: Angles *Pathway 2*: Comparing Angles	

G. Time		
Estimates and measures time using conventional units (daily cycle, weekly cycle, yearly cycle)	Leaps and Bounds 5/6: Time *Pathway 1*: Using Elapsed Time *Pathway 2*: Reading a Clock Leaps and Bounds 3/4: Time *Pathway 1*: Reading a Clock *Pathway 2*: Using Standard Units *Pathway 3*: Using non-standard units	Recognizes the vocabulary and symbols related time: day, hour, minute, second, h, min, s, representation of time: 3 h, 3 h 25 min, 03:25, 3:25 a.m.

Statistics		
Interprets data using a table, a bar graph, a pictograph and a broken-line graph	Leaps and Bounds 5/6: Displaying Data *Pathway 1*: Using Broken-Line Graphs *Pathway 4*: Using Line Plots Leaps and Bounds 3/4: Displaying Data *Pathway 1*: Many-to-One Correspondence *Pathway 2*: One-to-One Correspondence *Pathway 3*: Concrete and Picture Graphs	Interprets data using a table, a bar graph and a pictograph
Displays data using a table, a bar graph, a pictograph and a broken-line graph		Displays data using a table, a bar graph and a pictograph

Probability		
Recognizes the vocabulary related to probability: chance, random experiment, enumeration, tree diagram, certain outcome, possible outcome, impossible outcome, event, likely, just as likely, more likely, less likely, event probability	Leaps and Bounds 5/6: Probability *Pathway 1*: Probability: Using Numbers *Pathway 2*: Probability: Using Words	Enumerates possible outcomes of a simple random experiment