Leaps and Bounds 1/2
Correlation to Ontario Curriculum and Grade 1 Classroom Resources

GRADE 1 Core Resources Correlation with Grade 1 Ontario core resources			**INTERVENTION Resources and Expectations** Correlation between *Leaps and Bounds 1/2* and prerequisite expectations from Ontario Kindergarten	
Number Sense and Numeration: Quantity Relationships				
Grade 1 Ontario expectations	***Nelson Mathematics 1***	***Math Makes Sense 1***	***Leaps and Bounds 1/2* Topics**	**Kindergarten Ontario expectations**
– represent, compare, and order whole numbers to 50, using a variety of tools (e.g., connecting cubes, ten frames, base ten materials, number lines, hundreds charts) and contexts (e.g., real-life experiences, number stories)	Chapter 2: Lessons 1, 2, 3, 4, 6, 7, 8, 9, 10, 11, Chapter Task Chapter 8: Lessons 1, 2, 3, 4, 5, 6, 7, 8, 10, 11, Chapter Task	Unit 2: Lessons 3, 4, 5, 6, 7, 8, 10, 11 Unit 4: Lesson 1 Unit 10: Lessons 3, 4, 6, 7	**Topic 2: Representing Whole Numbers** *Subtopic:* Modelling Whole Numbers *Subtopic:* Subitizing *Subtopic:* Reading and Writing Numbers **Topic 3: Comparing Whole Numbers** *Subtopic:* Comparing Sets *Subtopic:* Comparing Numbers	– investigate some concepts of quantity through identifying and comparing sets with more, fewer, or the same number of objects (e.g., find out which of two cups contains more or fewer beans, using counters
– demonstrate, using concrete materials, the concept of conservation of number (e.g., 5 counters represent the number 5, regardless whether they are close together or far apart)	Chapter 2: Lessons 1, 2, 3, 6 Chapter 8: Lessons 1, 7, 8, 10	Unit 2: Lessons 1, 3, 4, 6, 7, 11	**Topic 1: Counting** *Subtopic:* Counting Sets	– compare two sets of objects that have the same number of items, one set having the items spread out, and recognize that both sets have the same quantity [concept of conservation] – recognize that the last count represents the actual number of objects in the set [concept of cardinality] – compare five beans with five blocks, and recognize that the number 5 represents the same quantity regardless of the different materials [concept of abstraction])

– relate numbers to the anchors of 5 and 10 (e.g., 7 is 2 more than 5 and 3 less than 10)	Chapter 2: Lessons 3, 6, 7, 9, 11, Chapter Task Chapter 6: Lesson 3 Chapter 8: Lessons 1, 7, 8, 9, 10, 11, Chapter Task Chapter 12: Lessons 3, 7, Chapter Task	Unit 2: Lessons 6, 7, 8, 11 Unit 7: Lesson 2 Unit 10: Lessons 2, 3, 4, 7	**Topic 1: Counting** *Subtopic:* Counting Sets **Topic 2: Representing Whole Numbers** *Subtopic:* Modelling Whole Numbers *Subtopic:* Subitizing *Subtopic:* Estimating Quantities **Topic 3: Comparing Whole Numbers** *Subtopic:* Comparing Numbers	– investigate the ideas of more, less, and the same, using five and ten frames – demonstrate an understanding of number relationships for numbers from 0 to 10, through investigation (e.g., initially: show smaller quantities using anchors of five and ten, such as their fingers or manipulatives; eventually: show quantities to 10, using such tools as five and ten frames and manipulatives) – recognize some quantities without having to count, using a variety of tools (e.g., dominoes, dot plates, dice, number of fingers) or strategies (e.g., composing and decomposing numbers, subitizing)
– read and print in words whole numbers to ten, using meaningful contexts (e.g., storybooks, posters)	Chapter 2: Lesson 4	Unit 2: Lessons 1, 3, 5, 11	**Topic 2: Representing Whole Numbers** *Subtopic:* Reading and Writing Numbers	– use, read, and represent whole numbers to 10 in a variety of meaningful contexts (e.g., use a hundreds chart; use magnetic and sandpaper numerals; put the house number on a house built at the block centre; find and recognize numbers in the environment; use magnetic numerals to represent the number of objects in a set; write numerals on imaginary bills at the restaurant at the dramatic play centre)
– compose and decompose numbers up to 20 in a variety of ways, using concrete materials (e.g., 7 can be decomposed using connecting cubes into 6 and 1, or 5 and 2, or 4 and 3)	Chapter 2: Lessons 2, 3, 6, 7 Chapter 4: Lessons 3, 7 Chapter 6: Lessons 3, 4, 5 Chapter 10: Lesson 7 Chapter 12: Lessons 3, 4, 7, Chapter Task	Unit 2: Lessons 4, 8, 10, 11 Unit 4: Lessons 1, 3, 7 Unit 7: Lesson 2	**Topic 2: Representing Whole Numbers** *Subtopic:* Modelling Whole Numbers *Subtopic:* Reading and Writing Numbers **Topic 4: Adding** *Subtopic:* Decomposing and Recomposing	– investigate and develop strategies for composing and decomposing quantities to 10 (e.g., use manipulatives or “shake and spill” activities; initially: to represent the quantity of 8, the child may first count from 1 through to 8 using his or her fingers; later, the child may put up one hand, count from 1 to 5 using each finger, pause, and then continue to

			Topic 5: Subtracting *Subtopic:* Decomposing	count to 8 using three more fingers; eventually: the child may put up all five fingers of one hand at once and simply say "Five", then count on, using three more fingers and saying "Six, seven, eight. There are eight.")
– identify and describe various coins (i.e., penny, nickel, dime, quarter, $1 coin, $2 coin), using coin manipulatives or drawings, and state their value (e.g., the value of a penny is one cent; the value of a toonie is two dollars) – represent money amounts to 20¢, through investigation using coin manipulatives	Chapter 8: Lessons 3, 11 Chapter 10: Lessons 6, 7, 8, Chapter Task Chapter 12: Lessons 1, 4, 5, Chapter Task	Unit 3: Lessons 5, 6, 7, 8	**Topic 4: Adding** *Subtopic:* Part-Part-Whole	– explore different Canadian coins, using coin manipulatives (e.g., role-play the purchasing of items at the store at the dramatic play centre; determine which coin will purchase more – a loonie or a quarter)
– estimate the number of objects in a set, and check by counting (e.g., "I guessed that there were 20 cubes in the pile. I counted them and there were only 17 cubes. 17 is close to 20.")	Chapter 2: Lesson 2 Chapter 8: Lessons 1, 2, 4, 7, 8	Unit 2: Lessons 9, 11 Unit 7: Lesson 2 Unit 10: Lessons 3, 7	**Topic 2: Representing Whole Numbers** *Subtopic:* Estimating Quantities	– begin to use information to estimate the number in a small set (e.g., apply knowledge of quantity, use a common referent such as a five frame)
– divide whole objects into parts and identify and describe, through investigation, equal-sized parts of the whole, using fractional names (e.g., halves; [fourths or quarters])	Chapter 9: Lesson 6 Chapter 11: Lessons 6, 8, 10	Unit 9: Lessons 6, 8		
Number Sense and Numeration: Counting				
Grade 1 Ontario expectations	***Nelson Mathematics 1***	***Math Makes Sense 1***	***Leaps and Bounds 1/2* Topics**	**Kindergarten Ontario expectations**
– demonstrate, using concrete materials, the concept of one-to-one correspondence between number and objects	Chapter 2: Lessons 1, 2, 3, 4, 6, 7, 9, 10, 11 Chapter 8: Lessons 1, 2, 4, 7, 8, 9, 10, 11,	Unit 2: Lessons 1, 3, 4, 5, 6, 7, 8, 9, 11 Unit 7: Lessons 1, 2, 3 Unit 10: Lessons 2, 3,	**Topic 1: Counting** *Subtopic:* Counting Sets **Topic 3: Comparing Whole Numbers**	– demonstrate understanding of the counting concepts of stable order (that is, the concept that the counting sequence is always the same – 1 is

when counting	Chapter Task	7	*Subtopic:* Comparing Sets	always followed by 2, 2 by 3, and so on) and of order irrelevance (that is, the concept that the number of objects in a set will be the same regardless of which object is used to begin the counting) – begin to make use of one-to-one correspondence in counting objects and matching groups of objects (e.g., one napkin for each of the people at the table)
– count forward by 1's, 2's, 5's, and 10's to 100, using a variety of tools and strategies (e.g., move with steps; skip count on a number line; place counters on a hundreds chart; connect cubes to show equal groups; count groups of pennies, nickels, or dimes)	Chapter 2: Lessons 1, 4, 6, 7, 8, 9, 10, 11, Chapter Task Chapter 6: Lesson 2 Chapter 8: Lessons 1, 2, 3, 4, 5, 6, 7, 8, 11, Chapter Task Chapter 10: Lesson 7 Chapter 12: Lesson 1 Chapter 14: Lessons 2, 4, 5, 6	Unit 2: Lessons 1, 3, 5, 9 Unit 3: Lessons 6, 8, 9 Unit 7: Lessons 1, 2, 3, 4, 5, 9 Unit 10: Lessons 1, 3, 4, 7	**Topic 1: Counting** *Subtopic:* Counting Sets *Subtopic:* Counting Forwards by 1 *Subtopic:* Skip Counting	– investigate the idea that quantity is greater when counting forwards and less when counting backwards (e.g., use manipulatives to create a quantity number line; move along a number line; move around on a hundreds carpet; play simple games on number-line game boards; build a structure using blocks, and describe what happens as blocks are added or removed)
– count backwards by 1's from 20 and any number less than 20 (e.g., count backwards from 18 to 11), with and without the use of concrete materials and number lines	Chapter 6: Lesson 2 Chapter 12: Lesson 1	Unit 2: Lesson 5	**Topic 1: Counting** *Subtopic:* Counting Backwards by 1	– investigate the idea that quantity is greater when counting forwards and less when counting backwards (e.g., use manipulatives to create a quantity number line; move along a number line; move around on a hundreds carpet; play simple games on number-line game boards; build a structure using blocks, and describe what happens as blocks are added or removed)
– count backwards from 20 by 2's and 5's, using a variety of tools (e.g., number lines, hundreds charts)			**Topic 1: Counting** *Subtopic:* Counting Backwards by 1 *Subtopic:* Skip Counting	
– use ordinal numbers to thirty-	Chapter 2: Lesson 5,	Unit 3: Lesson 2		– use ordinal numbers in a variety of

first in meaningful contexts (e.g., identify the days of the month on a calendar)	Chapter Task			everyday contexts (e.g., line up toys and manipulatives, and identify the first, second, and so on; after reading a book, respond to the teacher's questions about who was the first or third person to come in the door; identify the first, seventh, or tenth person to arrive at school or in the group)
Number Sense and Numeration: Operational Sense				
Grade 1 Ontario expectations	***Nelson Mathematics 1***	***Math Makes Sense 1***	***Leaps and Bounds 1/2* Topics**	**Kindergarten Ontario expectations**
– solve a variety of problems involving the addition and subtraction of whole numbers to 20, using concrete materials and drawings (e.g., pictures, number lines)	Chapter 4: Lessons 1, 2, 3, 4, 5, 6, 7, Chapter Task Chapter 6: Lessons 1, 2, 3, 4, 5, 6, Chapter Task Chapter 10: Lesson 8, Chapter Task Chapter 12: Lessons 1, 2, 3, 4, 5, 6, 7, 8, Chapter Task	Unit 4: Lessons 2, 3, 4, 5, 6, 7 Unit 7: Lessons 6, 7, 8, 9 Unit 10: Lessons 5, 6, 7	**Topic 4: Adding** *Subtopic:* Decomposing and Recomposing *Subtopic:* Counting On *Subtopic:* Joining *Subtopic:* Part-Part-Whole **Topic 5: Subtracting** *Subtopic:* Decomposing *Subtopic:* Counting Back *Subtopic:* Separating *Subtopic:* Comparing *Subtopic:* Relating Addition and Subtraction	– investigate addition and subtraction in everyday activities through the use of manipulatives (e.g., interlocking cubes), visual models (e.g., a number line, tally marks, a hundreds carpet), or oral exploration (e.g., dramatizing of songs)
– solve problems involving the addition and subtraction of single-digit whole numbers, using a variety of mental strategies (e.g., one more than, one less than, counting on, counting back, doubles)	Chapter 4: Lesson 7 Chapter 6: Lessons 2, 3, 6, Chapter Task Chapter 12: Lessons 1, 2, 3, 5, 6, 7, 8, Chapter Task	Unit 4: Lesson 4 Unit 7: Lessons 6, 9 Unit 10: Lessons 5, 6, 7	**Topic 4: Adding** *Subtopic:* Counting On *Subtopic:* Joining *Subtopic:* Part-Part-Whole **Topic 5: Subtracting** *Subtopic:* Counting Back *Subtopic:* Comparing *Subtopic:* Relating Addition and Subtraction	– investigate addition and subtraction in everyday activities through the use of manipulatives (e.g., interlocking cubes), visual models (e.g., a number line, tally marks, a hundreds carpet), or oral exploration (e.g., dramatizing of songs)
– add and subtract money amounts to 10¢, using coin	Chapter 10: Lessons 7, 8, Chapter Task			

manipulatives and drawings	Chapter 12: Lessons.1, 4, 5, Chapter Task			
Measurement: Attributes, Units, and Measurement Sense				
Grade 1 Ontario expectations	***Nelson Mathematics 1***	***Math Makes Sense 1***	***Leaps and Bounds 1/2* Topics**	**Kindergarten Ontario expectations**
– demonstrate an understanding of the use of non-standard units of the same size (e.g., straws, index cards) for measuring	Chapter 5: Lessons 3, 4, 5, 6, Chapter Task 8.10 Chapter 9: Lessons 3, 5, Chapter Task Chapter 10, Lesson 2 Chapter 11: Lessons 1, 2, 3, Chapter Task	Unit 8: Lessons 2, 3, 4, 6, 7	**Topic 9: Length and Area** *Subtopic:* Measuring Length with Non-standard Units	– compare and order two or more objects according to an appropriate measure (e.g., length, mass, area, temperature, capacity), and use measurement terms (e.g., hot/cold for temperature, small/medium/large for capacity, longer/shorter or thicker/thinner for length) – demonstrate, through investigation, an awareness of the use of different measurement tools for measuring different things (e.g., a balance is used for measuring mass, a tape measure for measuring length, a sandglass for measuring time) – demonstrate awareness of non-standard measuring devices (e.g., feet, hand spans, string, or cubes to measure length; hand claps to measure time; scoops of water or sand to measure capacity) and strategies for using them (e.g., place common objects end to end; use cubes to plan the length of a road at the sand table or the block centre; measure the distance between the classroom and the water fountain in number of footsteps)
– estimate, measure (i.e., by placing nonstandard units repeatedly, without overlaps or gaps), and record lengths, heights, and distances (e.g., a	Chapter 5: Lessons 3, 4, 5, 6, Chapter Task	Unit 8: Lessons 2, 3, 4, 5, 7	**Topic 9: Length and Area** *Subtopic:* Measuring Length with Non-standard Units	

book is about 10 paper clips wide; a pencil is about 3 toothpicks long)				
– construct, using a variety of strategies, tools for measuring lengths, heights, and distances in non-standard units (e.g., footprints on cash register tape or on connecting cubes)	Chapter 5: Lessons 4, 5	Unit 8: Lessons 2, 5, 7	**Topic 9: Length and Area** *Subtopic:* Comparing Length *Subtopic:* Measuring Length with Non-standard Units	– demonstrate, through investigation, a beginning understanding of the use of non-standard units of the same size (e.g., straws, paper clips)
– estimate, measure (i.e., by minimizing overlaps and gaps), and describe area, through investigation using non-standard units (e.g., "It took about 15 index cards to cover my desk, with only a little bit of space left over.")	Chapter 8: Lesson 10 Chapter 11: Lessons 1, 2, 3, Chapter Task	Unit 8: Lessons 6, 7	**Topic 9: Length and Area** *Subtopic:* Comparing Area	– compare and order two or more objects according to an appropriate measure (e.g., length, mass, area, temperature, capacity), and use measurement terms (e.g., hot/cold for temperature, small/medium/large for capacity, longer/shorter or thicker/thinner for length)
– estimate, measure, and describe the capacity and/or mass of an object, through investigation using non-standard units (e.g., "My journal has the same mass as 13 pencils." "The juice can has the same capacity as 4 pop cans.")	Chapter 9: Lessons 3, 5, Chapter Task	Unit 11: Lessons 1, 2, 3, 4, 5, 6	**Topic 10: Mass and Capacity** *Subtopic:* Comparing Mass *Subtopic:* Comparing Capacity	– compare and order two or more objects according to an appropriate measure (e.g., length, mass, area, temperature, capacity), and use measurement terms (e.g., hot/cold for temperature, small/medium/large for capacity, longer/shorter or thicker/thinner for length) – demonstrate, through investigation, an awareness of the use of different measurement tools for measuring different things (e.g., a balance is used for measuring mass, a tape measure for measuring length, a sandglass for measuring time) – demonstrate awareness of non-standard measuring devices (e.g., feet, hand spans, string, or cubes to measure length; hand claps to measure time;

				scoops of water or sand to measure capacity) and strategies for using them (e.g., place common objects end to end; use cubes to plan the length of a road at the sand table or the block centre; measure the distance between the classroom and the water fountain in number of footsteps)
– estimate, measure, and describe the passage of time, through investigation using nonstandard units (e.g., number of sleeps; number of claps; number of flips of a sand timer)	Chapter 10: Lesson 2	Unit 3: Lessons 3, 8		– demonstrate, through investigation, an awareness of the use of different measurement tools for measuring different things (e.g., a balance is used for measuring mass, a tape measure for measuring length, a sandglass for measuring time) – demonstrate awareness of non-standard measuring devices (e.g., feet, hand spans, string, or cubes to measure length; hand claps to measure time; scoops of water or sand to measure capacity) and strategies for using them (e.g., place common objects end to end; use cubes to plan the length of a road at the sand table or the block centre; measure the distance between the classroom and the water fountain in number of footsteps)
– read demonstration digital and analogue clocks, and use them to identify benchmark times (e.g., times for breakfast, lunch, dinner; the start and end of school; bedtime) and to tell and write time to the hour and half-hour in everyday settings	Chapter 10: Lessons 2, 3, 4, 5, Chapter Task	Unit 3: Lessons 4, 8 Unit 9: Lesson 7		
– name the months of the year in order, and read the date on	Chapter 2: Lesson 8, Chapter Task	Unit 3: Lessons 2, 8 Unit 5: Lesson 3		

a calendar	Chapter 10: Lesson 1			
– relate temperature to experiences of the seasons (e.g., "In winter, we can skate because it's cold enough for there to be ice.")	Chapter 13: Lesson 2	Unit 3: Lessons 1, 8		– compare and order two or more objects according to an appropriate measure (e.g., length, mass, area, temperature, capacity), and use measurement terms (e.g., hot/cold for temperature, small/medium/large for capacity, longer/shorter or thicker/thinner for length)
Measurement: Measurement Relationships				
Grade 1 Ontario expectations	***Nelson Mathematics 1***	***Math Makes Sense 1***	***Leaps and Bounds 1/2* Topics**	**Kindergarten Ontario expectations**
– compare two or three objects using measurable attributes (e.g., length, height, width, area, temperature, mass, capacity), and describe the objects using relative terms (e.g., taller, heavier, faster, bigger, warmer; "If I put an eraser, a pencil, and a metre stick beside each other, I can see that the eraser is shortest and the metre stick is longest.")	Chapter 5: Lessons 1, 2, 3, 4, 5 ,Chapter Task Chapter 9: Lessons 1, 3, 4, 5, Chapter Task Chapter 11: Lessons 1, 2, 3, Chapter Task	Unit 3: Lessons 1, 8 Unit 8: Lessons 1, 3, 5, 6, 7 Unit 11: Lessons 1, 2, 3, 4, 5, 6	**Topic 9: Length and Area** *Subtopic:* Comparing Length *Subtopic:* Measuring Length with Non-standard Units *Subtopic:* Comparing Area **Topic 10: Mass and Capacity** *Subtopic:* Comparing Mass *Subtopic:* Comparing Capacity	
– compare and order objects by their linear measurements, using the same non-standard unit	Chapter 5: Lessons 3, 4, 5, Chapter Task	Unit 8: Lessons 3, 5, 7	**Topic 9: Length and Area** *Subtopic:* Measuring Length with Non-standard Units	
– use the metre as a benchmark for measuring length, and compare the metre with non-standard units				
– describe, through investigation using concrete	Chapter 5: Lessons 5, 6, Chapter Task	Unit 8: Lessons 4, 7	**Topic 9: Length and Area** *Subtopic:* Measuring	

materials, the relationship between the size of a unit and the number of units needed to measure length			Length with Non-standard Units *Subtopic:* Comparing Area	
Geometry and Spatial Sense: Geometric Properties				
Grade 1 Ontario expectations	***Nelson Mathematics 1***	***Math Makes Sense 1***	***Leaps and Bounds 1/2* Topics**	**Kindergarten Ontario expectations**
– identify and describe common two-dimensional shapes (e.g., circles, triangles, rectangles, squares) and sort and classify them by their attributes (e.g., colour; size; texture; number of sides), using concrete materials and pictorial representations (e.g.,"I put all the triangles in one group. Some are long and skinny, and some are short and fat, but they all have three sides.")	Chapter 7: Lessons 5, 6, 7, 8, Chapter Task Chapter 11: Lessons 1, 6, 7, Chapter Task	Unit 6: Lessons 3, 6 Unit 9: Lessons 1, 2, 3, 4, 8	**Topic 8: 2-D Shapes** *Subtopic:* Describing and Sorting 2-D Shapes *Subtopic:* Building with 2-D Shapes	– explore, sort, and compare traditional and non-traditional two-dimensional shapes and three-dimensional figures (e.g., compare equilateral triangles with triangles that are not equilateral; sort different sizes of boxes, attribute blocks, pattern blocks, a variety of triangles, shapes with three curved sides, objects that create an open shape with three lines) – identify and describe, using common geometric terms, two-dimensional shapes (e.g., triangle) and three-dimensional figures (e.g., cone) through investigations with concrete materials
– trace and identify the two-dimensional faces of three-dimensional figures, using concrete models (e.g., "I can see squares on the cube.")	Chapter 7: Lessons 2, 3, 4, 5, 8, Chapter Task		**Topic 7: 3-D Objects** *Subtopic:* Describing and Sorting 3-D Objects *Subtopic:* Building with 3-D Objects **Topic 8: 2-D Shapes** *Subtopic:* Describing and Sorting 2-D Shapes	– investigate the relationship between two-dimensional shapes and three-dimensional figures in objects that they have made
– identify and describe common three-dimensional figures (e.g., cubes, cones, cylinders, spheres, rectangular prisms) and sort and classify them by their attributes (e.g., colour; size; texture; number	Chapter 7: Lessons 1, 2, 3, 4, 8, Chapter Task	Unit 6: Lessons 1, 2, 5, 6	**Topic 7: 3-D Objects** *Subtopic:* Describing and Sorting 3-D Objects *Subtopic:* Building with 3-D Objects	– build three-dimensional structures using a variety of materials, and begin to recognize the three-dimensional figures that the structure contains

and shape of faces), using concrete materials and pictorial representations (e.g., "I put the cones and the cylinders in the same group because they all have circles on them.")				
– describe similarities and differences between an everyday object and a three-dimensional figure (e.g., "A water bottle looks like a cylinder, except the bottle gets thinner at the top.")	Chapter 7: Lessons 1, 2, 3, 4, 8, Chapter Task	Unit 6: Lessons 1, 2, 6	**Topic 7: 3-D Objects** *Subtopic:* Describing and Sorting 3-D Objects *Subtopic:* Building with 3-D Objects	
– locate shapes in the environment that have symmetry, and describe the symmetry	Chapter 11: Lesson 10	Unit 9: Lessons 5, 8	**Topic 7: 3-D Objects** *Subtopic:* Describing Positions	
Geometry and Spatial Sense: Geometric Relationships				
Grade 1 Ontario expectations	***Nelson Mathematics 1***	***Math Makes Sense 1***	***Leaps and Bounds 1/2* Topics**	**Kindergarten Ontario expectations**
– compose patterns, pictures, and designs, using common two-dimensional shapes	Chapter 11: Lessons 6, 7, Chapter Task	Unit 6: Lessons 3, 6	**Topic 6: Repeating Patterns** *Subtopic:* Identifying and Describing Patterns **Topic 8: 2-D Shapes** *Subtopic:* Building with 2-D Shapes	– compose pictures and build designs, shapes, and patterns in two-dimensional shapes, and decompose two-dimensional shapes into smaller shapes, using various tools or strategies (e.g., sand at the sand table, stickers, geoboards, pattern blocks, a computer program)
– cover outline puzzles with two-dimensional shapes (e.g., pattern blocks, tangrams)	Chapter 11: Lesson 7	Unit 9: Lessons 4, 8	**Topic 8: 2-D Shapes** *Subtopic:* Building with 2-D Shapes	– compose pictures and build designs, shapes, and patterns in two-dimensional shapes, and decompose two-dimensional shapes into smaller shapes, using various tools or strategies (e.g., sand at the sand table, stickers, geoboards, pattern blocks, a computer program)
– identify and describe shapes	Chapter 11: Lessons 6,	Unit 6: Lessons 3, 6	**Topic 8: 2-D Shapes**	– compose pictures and build designs,

within other shapes (e.g., shapes within a geometric design)	7, Chapter Task	Unit 9: Lessons 4, 8	*Subtopic:* Building with 2-D Shapes	shapes, and patterns in two-dimensional shapes, and decompose two-dimensional shapes into smaller shapes, using various tools or strategies (e.g., sand at the sand table, stickers, geoboards, pattern blocks, a computer program)
– build three-dimensional structures using concrete materials, and describe the two-dimensional shapes the structures contain	Chapter 7: Lesson 4, Chapter Task	Unit 6: Lessons 1, 2, 5, 6	**Topic 7: 3-D Objects** *Subtopic:* Building with 3-D Objects	– build three-dimensional structures using a variety of materials, and begin to recognize the three-dimensional figures that the structure contains
Geometry and Spatial Sense: Location and Movement				
Grade 1 Ontario expectations	***Nelson Mathematics 1***	***Math Makes Sense 1***	***Leaps and Bounds 1/2* Topics**	**Kindergarten Ontario expectations**
– describe the relative locations of objects or people using positional language (e.g., over, under, above, below, in front of, behind, inside, outside, beside, between, along) – describe the relative locations of objects on concrete maps created in the classroom	Chapter 11: Lessons 4, 5	Unit 6: Lessons 4, 5, 6	**Topic 7: 3-D Objects** *Subtopic:* Describing Positions	– demonstrate an understanding of basic spatial relationships and movements (e.g., use above/below, near/far, in/out; use these words while retelling a story)
- create symmetrical designs and pictures, using concrete materials (e.g., pattern blocks, connecting cubes, paper for folding), and describe the relative locations of the parts	Chapter 11: Lessons 8, 9, 10, Chapter Task	Unit 9: Lessons 5, 8		
Patterning and Algebra: Patterns and Relationships				
Grade 1 Ontario expectations	***Nelson Mathematics 1***	***Math Makes Sense 1***	***Leaps and Bounds 1/2* Topics**	**Kindergarten Ontario expectations**
– identify, describe, and extend, through investigation,	Chapter 1: Lessons 4, 5, 6, 7, Chapter Task	Unit 1: Lessons 4, 6	**Topic 6: Repeating Patterns**	– identify, extend, reproduce, and create repeating patterns through

geometric repeating patterns involving one attribute (e.g., colour, size, shape, thickness, orientation)	Chapter 14: Lesson 1, Chapter Task		*Subtopic:* Identifying and Describing Patterns *Subtopic:* Extending Patterns	investigation, using a variety of materials (e.g., attribute materials, pattern blocks, a hundreds chart, toys, bottle tops, buttons, toothpicks) and actions (e.g., physical actions such as clapping, jumping, tapping) – identify and describe informally the repeating nature of patterns in everyday contexts (e.g., patterns in nature, clothing, floor tiles, literature, schedules), using oral expressions (e.g.,"goes before", "goes after","morning, noon, and night", "the four seasons") and gestures (e.g., pointing, nodding)
– identify and extend, through investigation, numeric repeating patterns (e.g., 1, 2, 3, 1, 2, 3, 1, 2, 3, …)	Chapter 1: Lesson 6			– identify, extend, reproduce, and create repeating patterns through investigation, using a variety of materials (e.g., attribute materials, pattern blocks, a hundreds chart, toys, bottle tops, buttons, toothpicks) and actions (e.g., physical actions such as clapping, jumping, tapping)
– describe numeric repeating patterns in a hundreds chart	Chapter 8: Lessons 4, 5, 6 Chapter 14: Lesson 6	Unit 10: Lesson 1		
– identify a rule for a repeating pattern (e.g., "We're lining up boy, girl, boy, girl, boy, girl.")	Chapter 1: Lessons 4, 5, 6, 7, Chapter Task Chapter 14: Lesson 1, Chapter Task	Unit 1: Lessons 3, 4, 5, 6	**Topic 6: Repeating Patterns** *Subtopic:* Identifying and Describing Patterns *Subtopic:* Extending Patterns	– identify and describe informally the repeating nature of patterns in everyday contexts (e.g., patterns in nature, clothing, floor tiles, literature, schedules), using oral expressions (e.g.,"goes before", "goes after","morning, noon, and night", "the four seasons") and gestures (e.g., pointing, nodding)
– create a repeating pattern involving one attribute (e.g.,	Chapter 1: Lessons 4, 6, 7, Chapter Task	Unit 1: Lessons 3, 4, 5, 6	**Topic 6: Repeating Patterns**	– identify, extend, reproduce, and create repeating patterns through

colour, size, shape, sound)			*Subtopic:* Creating Patterns	investigation, using a variety of materials (e.g., attribute materials, pattern blocks, a hundreds chart, toys, bottle tops, buttons, toothpicks) and actions (e.g., physical actions such as clapping, jumping, tapping)
– represent a given repeating pattern in a variety of ways (e.g., pictures, actions, colours, sounds, numbers, letters)	Chapter 1: Lessons 6, 7, Chapter Task Chapter 14: Lesson 1	Unit 1: Lessons 3, 6	**Topic 6: Repeating Patterns** *Subtopic:* Identifying and Describing Patterns *Subtopic:* Extending Patterns *Subtopic:* Creating Patterns	– identify, extend, reproduce, and create repeating patterns through investigation, using a variety of materials (e.g., attribute materials, pattern blocks, a hundreds chart, toys, bottle tops, buttons, toothpicks) and actions (e.g., physical actions such as clapping, jumping, tapping)
Patterning and Algebra: Expressions and Equality				
Grade 1 Ontario expectations	***Nelson Mathematics 1***	***Math Makes Sense 1***	***Leaps and Bounds 1/2* Topics**	**Kindergarten Ontario expectations**
– create a set in which the number of objects is greater than, less than, or equal to the number of objects in a given set	Chapter 2: Lesson 2 Chapter 8: Lesson 9	Unit 2: Lessons 4, 11	**Topic 3: Comparing Whole Numbers** *Subtopic:* Comparing Sets *Subtopic:* Comparing Numbers	
– demonstrate examples of equality, through investigation, using a “balance” model	Chapter 4: Lessons 3, 7 Chapter 6: Lessons 3, 5 Chapter 12: Lesson 3	Unit 4: Lesson 1	**Topic 3: Comparing Whole Numbers** *Subtopic:* Comparing Numbers **Topic 4: Adding** *Subtopic:* Decomposing and Recomposing **Topic 5: Subtracting** *Subtopic:* Decomposing *Subtopic:* Comparing	
– determine, through investigation using a “balance”	Chapter 4: Lessons 3, 7 Chapter 6: Lessons 3, 5	Unit 4: Lesson 1	**Topic 5: Subtracting** *Subtopic:* Comparing	

model and whole numbers to 10, the number of identical objects that must be added or subtracted to establish equality	Chapter 12: Lesson 3			
Data Management and Probability: Collection and Organization of Data				
Grade 1 Ontario expectations	***Nelson Mathematics 1***	***Math Makes Sense 1***	***Leaps and Bounds 1/2* Topics**	**Kindergarten Ontario expectations**
– demonstrate an ability to organize objects into categories by sorting and classifying objects using one attribute (e.g., colour, size), and by describing informal sorting experiences (e.g., helping to put away groceries)	Chapter 1: Lessons 1, 2, 3, 4, 6 Chapter 3: Lessons 1, 2, 3, 5, 6 Chapter 7: Lessons 2, 6 Chapter 10: Lesson 6	Unit 1: Lessons 1, 2 Unit 5: Lessons 1, 2 Unit 6: Lesson 2 Unit 9: Lessons 2, 3	**Topic 7: 3-D Objects** *Subtopic:* Describing and Sorting 3-D Objects **Topic 8: 2-D Shapes** *Subtopic:* Describing and Sorting 2-D Shapes **Topic 11: Sorting and Displaying Data** *Subtopic:* Sorting	– sort, classify, and compare objects and describe the attributes used (e.g., initially: sort them into piles or collections on the basis of a common attribute; eventually: state the rule they used to sort, classify, or compare)
– collect and organize primary data (e.g., data collected by the class) that is categorical (i.e., that can be organized into categories based on qualities such as colour or hobby), and display the data using one-to-one correspondence, prepared templates of concrete graphs and pictographs (with titles and labels), and a variety of recording methods (e.g., arranging objects, placing stickers, drawing pictures, making tally marks)	Chapter 3: Lessons 1, 2, 4, 5, 7, 8, Chapter Task Chapter 10: Lesson 4 5.3, 5.5 Chapter 13: Lessons 2, 3, 4, 5, 6, Chapter Task	Unit 5: Lessons 1, 2, 3, 4	**Topic 11: Sorting and Displaying Data** *Subtopic:* Sorting *Subtopic:* Creating and Interpreting Graphs	– collect objects or data and make representations of their observations, using concrete graphs (e.g., conduct simple surveys and use graphs to represent the data collected from questions posed; use a variety of graphs, such as graphs using people to represent things, bar graphs, pictographs; use tally charts)
Data Management and Probability: Data Relationships				
Grade 1 Ontario expectations	***Nelson Mathematics 1***	***Math Makes Sense 1***	***Leaps and Bounds 1/2* Topics**	**Kindergarten Ontario expectations**
– read primary data presented in concrete graphs and pictographs, and describe the	Chapter 3: Lessons 1, 2, 3, 4, 5, 6 Chapter 10: Lesson 4	Unit 5: Lessons 1, 2, 3, 4, 6	**Topic 11: Sorting and Displaying Data** *Subtopic:* Creating and	

data using comparative language (e.g., more students chose summer than winter as their single favourite season)			Interpreting Graphs	
– pose and answer questions about collected data	Chapter 3: Lessons 1, 2, 3, 4, 5, 6, 7, 8, Chapter Task Chapter 10: Lessons 4, 6 Chapter 13: Lessons 2, 3, 4, 5, 6, Chapter Task	Unit 5: Lessons 1, 2, 3, 4, 6	**Topic 11: Sorting and Displaying Data** *Subtopic:* Creating and Interpreting Graphs	– respond to and pose questions about data collection and graphs
Data Management and Probability: Probability				
Grade 1 Ontario expectations	***Nelson Mathematics 1***	***Math Makes Sense 1***	***Leaps and Bounds 1/2* Topics**	**Kindergarten Ontario expectations**
– describe the likelihood that everyday events will occur, using mathematical language (i.e., impossible, unlikely, less likely, more likely, certain) (e.g., "It's unlikely that I will win the contest shown on the cereal box.")	Chapter 13: Lessons 1, 2, 5, Chapter Task	Unit 5: Lesson 5		– use mathematical language in informal discussions to describe probability (e.g., chance, never, sometimes, always)