Leaps AND Bounds

TOWARD Math Understanding

Correlation to Ontario Curriculum and Grade 5 Resources

Leaps and Bounds 5/6 *is a math intervention resource.*

GRADE 5 Core Resources Correlation with Grade 5 core resources			**INTERVENTION Resources and Expectations** Correlation between *Leaps and Bounds 5/6* and prerequisite expectations from Ontario Grades 3 and 4		
Number: Whole Numbers					
Grade 5 Ontario expectations	***Nelson Mathematics 5***	***Math Path 5***	**Leaps and Bounds 5/6 Topics**	**Grade 4 Ontario expectations**	**Grade 3 Ontario expectations**
B1.1 read, represent, compose, and decompose whole numbers up to and including 100 000, using appropriate tools and strategies, and describe various ways they are used in everyday life	Chapter 2 Getting Started, 2.1, Chapter 2 Curious Math (Lots of Money), 2.2, 2.3, Chapter 2 Curious Math (Easy as 1, 2, 3), 2.6, Chapter 2 Task	1.1, 1.3	**Representing Whole Numbers** *Pathway 1:* Representing Numbers to 100 000 *Pathway 2:* Representing Numbers to 10 000 *Pathway 3:* Representing Numbers to 1000 *Pathway 4:* Multiplying and Dividing by 10s	B1.1 read, represent, compose, and decompose whole numbers up to and including 10 000, using appropriate tools and strategies, and describe various ways they are used in everyday life B1.3 round whole numbers to the nearest ten, hundred, or thousand, in various contexts	B1.1 read, represent, compose, and decompose whole numbers up to and including 1000, using a variety of tools and strategies, and describe various ways they are used in everyday life B1.3 round whole numbers to the nearest ten or hundred, in various contexts B1.4 count to 1000, including by 50s, 100s, and 200s, using a variety of tools and strategies B1.5 use place value when describing and representing multi-digit numbers in a variety of ways, including with base ten materials
B1.2 compare and order whole numbers up to and including 100 000, in various contexts	Chapter 2 Getting Started, 2.4, Chapter 2 Task	1.2	**Comparing Whole Numbers** *Pathway 1:* Comparing Numbers to 100 000	B1.2 compare and order whole numbers up to and including 10 000, in various contexts	B1.2 compare and order whole numbers up to and including 1000, in various contexts

			Pathway 2: Comparing Numbers to 10 000 *Pathway 3:* Comparing Numbers to 1000		
Number: Fractions, Decimals, and Percents				**Number: Fractions and Decimals**	**Number: Fractions**
Grade 5 Ontario expectations	***Nelson Mathematics 5***	***Math Path 5***	**Leaps and Bounds 5/6 Topics**	**Grade 4 Ontario expectations**	**Grade 3 Ontario expectations**
B1.3 represent equivalent fractions from halves to twelfths, including improper fractions and mixed numbers, using appropriate tools, in various contexts	Chapter 12 Getting Started, 12.1, 12.2, 12.4, Chapter 12 Math Game (Target 1), Chapter 12 Task	3.1, 3.2, 3.3, 3.4, 3.5	**Representing Fractions** *Pathway 1:* Improper Fractions: Parts of Sets *Pathway 2:* Improper Fractions: Parts of Wholes *Pathway 3:* Proper Fractions: Parts of Sets *Pathway 4:* Proper Fractions: Parts of Wholes **Comparing Fractions** *Pathway 2:* Equivalent Fractions	B1.4 represent fractions from halves to tenths using drawings, tools, and standard fractional notation, and explain the meanings of the denominator and the numerator	B1.6 use drawings to represent, solve, and compare the results of fair-share problems that involve sharing up to 20 items among 2, 3, 4, 5, 6, 8, and 10 sharers, including problems that result in whole numbers, mixed numbers, and fractional amounts
B1.4 compare and order fractions from halves to twelfths, including improper fractions and mixed numbers, in various contexts	12.3, Chapter 12 Curious Math (Curious Fractions), 12.6, 12.7, Chapter 12 Math Game (Target 1)	3.2, 3.3, 3.4, 3.5	**Comparing Fractions** *Pathway 1:* Fractions More and Less Than 1 *Pathway 2:* Equivalent Fractions *Pathway 3:* Comparing: Same Numerators *Pathway 4:* Comparing: Same Denominators *Pathway 5:* Comparing Fractions to 1/2 and 1	B1.5 use drawings and models to represent, compare, and order fractions representing the individual portions that result from two different fair-share scenarios involving any combination of 2, 3, 4, 5, 6, 8, and 10 sharers B1.6 count to 10 by halves, thirds, fourths, fifths, sixths, eighths, and tenths, with and without the use of tools	B1.7 represent and solve fair-share problems that focus on determining and using equivalent fractions, including problems that involve halves, fourths, and eighths; thirds and sixths; and fifths and tenths
B1.5 read, represent, compare, and order decimal numbers up to hundredths, in various contexts	2.7, 2.8, Chapter 2 Math Game (Decimal Snap), 2.10, 2.11, Chapter 2 Task	5.1, 5.2	**Representing Decimals** *Pathway 2:* Representing Hundredths *Pathway 3:* Representing Tenths **Comparing Decimals**	B1.7 read, represent, compare, and order decimal tenths, in various contexts	

			Pathway 3: Comparing Tenths and Hundredths		
B1.6 round decimal numbers to the nearest tenth, in various contexts	2.9, Chapter 2 Task	5.3		B1.8 round decimal numbers to the nearest whole number, in various contexts	
B1.7 describe relationships and show equivalences among fractions, decimal numbers up to hundredths, and whole number percents, using appropriate tools and drawings, in various contexts	12.5 expectation partially addressed	5.1, 7.1, 7.2, 7.3	**Representing Fractions** *Pathway 3:* Proper Fractions: Parts of Sets *Pathway 4:* Proper Fractions: Parts of Wholes **Representing Decimals** *Pathway 2:* Representing Hundredths *Pathway 3:* Representing Tenths	B1.9 describe relationships and show equivalences among fractions and decimal tenths, in various contexts	
Number: Properties and Relationships					
Grade 5 Ontario expectations	***Nelson Mathematics 5***	***Math Path 5***	**Leaps and Bounds 5/6 Topics**	**Grade 4 Ontario expectations**	**Grade 3 Ontario expectations**
B2.1 use the properties of operations, and the relationships between operations, to solve problems involving whole numbers and decimal numbers, including those requiring more than one operation, and check calculations	Chapter 3 Mental Math (Multiply Numbers by Five), 4.5, 4.8, 6.1, 6.3, 6.5, Chapter 6 Curious Math (Array Multiplication), 6.9, Chapter 6 Task, Chapter 9 Getting Started, Chapter 10 Getting Started expectation partially addressed	2.5, 6.1, 6.2, 6.3, 6.4, 6.5, 6.6	**Multiplying Whole Numbers** *Pathway 3:* Multiplication Fact Strategies **Dividing Whole Numbers** *Pathway 3:* Division Fact Strategies **Relating Situations to Operations** *Pathway 1:* Division Situations *Pathway 2:* Multiplication Situations *Pathway 3:* Subtraction Situations	B2.1 use the properties of operations, and the relationships between addition, subtraction, multiplication, and division, to solve problems involving whole numbers, including those requiring more than one operation, and check calculations	B2.1 use the properties of operations, and the relationships between multiplication and division, to solve problems and check calculations
Number: Math Facts					
Grade 5 Ontario expectations	***Nelson Mathematics 5***	***Math Path 5***	**Leaps and Bounds 5/6 Topics**	**Grade 4 Ontario expectations**	**Grade 3 Ontario expectations**
B2.2 recall and demonstrate multiplication facts from 0 ×	Chapter 6 Getting Started, 6.3, 6.6, 6.7, Chapter 12	2.2	**Multiplying Whole Numbers** *Pathway 3:* Multiplication Fact Strategies	B2.2 recall and demonstrate multiplication facts for 1 × 1	B2.2 recall and demonstrate multiplication facts of 2, 5,

0 to 12 × 12, and related division facts	Mental Math (Multiply by Doubling) expectation partially addressed		**Dividing Whole Numbers** *Pathway 3:* Division Fact Strategies	to 10 × 10, and related division facts	and 10, and related division facts
Number: Mental Math					
Grade 5 Ontario expectations	***Nelson Mathematics 5***	***Math Path 5***	**Leaps and Bounds 5/6 Topics**	**Grade 4 Ontario expectations**	**Grade 3 Ontario expectations**
B2.3 use mental math strategies to multiply whole numbers by 0.1 and 0.01 and estimate sums and differences of decimal numbers up to hundredths, and explain the strategies used	4.6, 4.7, 4.8, 4.9 expectation partially addressed	6.1, 6.2, 6.3, 6.6	**Decimal Computation** *Pathway 4:* Add and Subtract to Hundredths	B2.3 use mental math strategies to multiply whole numbers by 10, 100, and 1000, divide whole numbers by 10, and add and subtract decimal tenths, and explain the strategies used	B2.3 use mental math strategies, including estimation, to add and subtract whole numbers that add up to no more than 1000, and explain the strategies used
Number: Addition and Subtraction					
Grade 5 Ontario expectations	***Nelson Mathematics 5***	***Math Path 5***	**Leaps and Bounds 5/6 Topics**	**Grade 4 Ontario expectations**	**Grade 3 Ontario expectations**
B2.4 represent and solve problems involving the addition and subtraction of whole numbers that add up to no more than 100 000, and of decimal numbers up to hundredths, using appropriate tools, strategies, and algorithms	Chapter 1 Mental Math (Subtracting from Hundreds), Chapter 2 Curious Math (Keep On Doubling), Chapter 2 Mental Math (Adding by Bridging), Chapter 4 Getting Started, 4.1, 4.2, 4.3, 4.4, Chapter 4 Math Game (Calculating Sums and Differences), 4.5, 4.6, 4.7, 4.8, 4.9, Chapter 4 Mental Math (Adding and Subtracting Close to Hundreds),	2.1, 6.1, 6.2	**Adding and Subtracting** *Pathway 1:* Different Number of Digits *Pathway 2:* Same Number of Digits *Pathway 3:* Using Mental Math to Subtract *Pathway 4:* Using Mental Math to Add **Relating Situations to Operations** *Pathway 3:* Subtraction Situations **Decimal Computation** *Pathway 4:* Add and Subtract to Hundredths *Pathway 5:* Add and Subtract Hundredths	B2.4 represent and solve problems involving the addition and subtraction of whole numbers that add up to no more than 10 000 and of decimal tenths, using appropriate tools and strategies, including algorithms	B2.4 demonstrate an understanding of algorithms for adding and subtracting whole numbers by making connections to and describing the way other tools and strategies are used to add and subtract B2.5 represent and solve problems involving the addition and subtraction of whole numbers that add up to no more than 1000, using various tools and algorithms

	Chapter 4 Task, Chapter 13 Math Game (Sixty-Six) expectation partially addressed				
B2.5 add and subtract fractions with like denominators, in various contexts		4.1			
Number: Multiplication and Division					
Grade 5 Ontario expectations	***Nelson Mathematics 5***	***Math Path 5***	**Leaps and Bounds 5/6 Topics**	**Grade 4 Ontario expectations**	**Grade 3 Ontario expectations**
B2.6 represent and solve problems involving the multiplication of two-digit whole numbers by two-digit whole numbers using the area model and using algorithms, and make connections between the two methods	Chapter 2 Mental Math (Multiply Numbers Close to Tens and Hundreds), Chapter 3 Mental Math (Multiply Numbers by Five), Chapter 6 Getting Started, 6.1, 6.2, 6.3, 6.4, 6.5, Chapter 6 Curious Math (Array Multiplication), Chapter 6 Math Game (Rolling Products), 6.9, Chapter 6 Mental Math (Doubling to Multiply by 2, 4, and 8), Chapter 6 Task, Chapter 9 Getting Started, Chapter 9 Mental Math (Front-End Multiplication), Chapter 12	2.3, 2.5	**Multiplying Whole Numbers** *Pathway 1:* Multiplying Two-Digit Numbers *Pathway 2:* Multiplying One-Digit Numbers *Pathway 3:* Multiplication Fact Strategies **Relating Situations to Operations** *Pathway 2:* Multiplication Situations	B2.5 represent and solve problems involving the multiplication of two- or three-digit whole numbers by one-digit whole numbers and by 10, 100, and 1000, using appropriate tools, including arrays	B2.6 represent multiplication of numbers up to 10 × 10 and division up to 100 ÷ 10, using a variety of tools and drawings, including arrays B2.7 represent and solve problems involving multiplication and division, including problems that involve groups of one-half, one-fourth, and one-third, using tools and drawings

	Mental Math (Multiply by Doubling)				
B2.7 represent and solve problems involving the division of three-digit whole numbers by two-digit whole numbers using the area model and using algorithms, and make connections between the two methods, while expressing any remainder appropriately	Chapter 6 Getting Started, 6.6, 6.7, 6.9, Chapter 6 Task, Chapter 10 Getting Started expectation partially addressed	2.4, 2.5	**Dividing Whole Numbers** *Pathway 1:* Dividing Three-Digit Numbers *Pathway 2:* Dividing Two-Digit Numbers *Pathway 3:* Division Fact Strategies **Relating Situations to Operations** *Pathway 1:* Division Situations	B2.6 represent and solve problems involving the division of two- or three-digit whole numbers by one-digit whole numbers, expressing any remainder as a fraction when appropriate, using appropriate tools, including arrays	B2.6 represent multiplication of numbers up to 10 × 10 and division up to 100 ÷ 10, using a variety of tools and drawings, including arrays B2.7 represent and solve problems involving multiplication and division, including problems that involve groups of one-half, one-fourth, and one-third, using tools and drawings
B2.8 multiply and divide one-digit whole numbers by unit fractions, using appropriate tools and drawings		4.2		B2.7 represent the relationship between the repeated addition of a unit fraction and the multiplication of that unit fraction by a whole number, using tools, drawings, and standard fractional notation	B2.8 represent the connection between the numerator of a fraction and the repeated addition of the unit fraction with the same denominator using various tools and drawings, and standard fractional notation
B2.9 represent and create equivalent ratios and rates, using a variety of tools and models, in various contexts		8.1, 8.2, 8.3		B2.8 show simple multiplicative relationships involving whole-number rates, using various tools and drawings	B2.9 use the ratios of 1 to 2, 1 to 5, and 1 to 10 to scale up numbers and to solve problems
Algebra: Patterns					
Grade 5 Ontario expectations	***Nelson Mathematics 5***	***Math Path 5***	**Leaps and Bounds 5/6 Topics**	**Grade 4 Ontario expectations**	**Grade 3 Ontario expectations**
C1.1 identify and describe repeating, growing, and shrinking patterns, including patterns found in real-life contexts	Chapter 1 Getting Started, 1.1, 1.2, 1.3, 1.4, Chapter 1 Curious Math (Adding Squares), Chapter 1 Task, 5.6, Chapter 8 Curious Math	1.2, 5.2, 15.4, 18.1	**Patterns** *Pathway 2:* Growing and Shrinking Patterns *Pathway 3:* Repeating Patterns	C1.1 identify and describe repeating and growing patterns, including patterns found in real-life contexts	C1.1 identify and describe repeating elements and operations in a variety of patterns, including patterns found in real-life contexts

	(Stretching and Shrinking Rectangles), Chapter 14 Getting Started				
C1.2 create and translate growing and shrinking patterns using various representations, including tables of values and graphs	Chapter 1 Getting Started, 1.1, 1.2, 1.3, 1.4, Chapter 1 Curious Math (Adding Squares), 1.5, Chapter 1 Task, 5.6, Chapter 8 Curious Math (Stretching and Shrinking Rectangles), 14.2 expectation partially addressed	18.2	**Patterns** *Pathway 2:* Growing and Shrinking Patterns	C1.2 create and translate repeating and growing patterns using various representations, including tables of values and graphs	C1.2 create and translate patterns that have repeating elements, movements, or operations using various representations, including shapes, numbers, and tables of values
C1.3 determine pattern rules and use them to extend patterns, make and justify predictions, and identify missing elements in repeating, growing, and shrinking patterns	Chapter 1 Getting Started, 1.1, 1.2, 1.3, 1.4, Chapter 1 Curious Math (Adding Squares), 1.5, Chapter 1 Task, Chapter 2 Curious Math (Keep on Doubling), 5.6, Chapter 8 Curious Math (Stretching and Shrinking Rectangles), Chapter 14 Getting Started	18.1	**Patterns** *Pathway 1:* Using Pattern Rules *Pathway 2:* Growing and Shrinking Patterns *Pathway 3:* Repeating Patterns	C1.3 determine pattern rules and use them to extend patterns, make and justify predictions, and identify missing elements in repeating and growing patterns	C1.3 determine pattern rules and use them to extend patterns, make and justify predictions, and identify missing elements in patterns that have repeating elements, movements, or operations
C1.4 create and describe patterns to illustrate relationships among whole numbers and decimal tenths and hundredths	6.1, 6.5, Chapter 6 Curious Math (Array Multiplication), Chapter 6 Mental	6.3, 6.4	**Representing Whole Numbers** *Pathway 1:* Representing Numbers to 100 000 *Pathway 2:* Representing Numbers to 10 000	C1.4 create and describe patterns to illustrate relationships among whole numbers and decimal tenths	C1.4 create and describe patterns to illustrate relationships among whole numbers up to 1000

	Math (Doubling to Multiply by 2, 4, and 8), 9.2 expectation partially addressed		*Pathway 3:* Representing Numbers to 1000		
Algebra: Variables and Expressions				**Algebra: Variables**	
Grade 5 Ontario expectations	***Nelson Mathematics 5***	***Math Path 5***	**Leaps and Bounds 5/6 Topics**	**Grade 4 Ontario expectations**	**Grade 3 Ontario expectations**
C2.1 translate among words, algebraic expressions, and visual representations that describe equivalent relationships	5.5, 8.4 expectation partially addressed	18.3, 18.4		C2.1 identify and use symbols as variables in expressions and equations	C2.1 describe how variables are used, and use them in various contexts as appropriate
C2.2 evaluate algebraic expressions that involve whole numbers	5.5, 8.4 expectation partially addressed	18.5			
Algebra: Equalities and Inequalities					
Grade 5 Ontario expectations	***Nelson Mathematics 5***	***Math Path 5***	**Leaps and Bounds 5/6 Topics**	**Grade 4 Ontario expectations**	**Grade 3 Ontario expectations**
C2.3 solve equations that involve whole numbers up to 100 in various contexts, and verify solutions	Chapter 4 Curious Math (Open Sentences) expectation partially addressed	18.6	**Equality** *Pathway 1:* Using Algebra *Pathway 2:* Solving Equations	C2.2 solve equations that involve whole numbers up to 50 in various contexts, and verify solutions	C2.2 determine whether given sets of addition, subtraction, multiplication, and division expressions are equivalent or not
C2.4 solve inequalities that involve one operation and whole numbers up to 50, and verify and graph the solutions	Chapter 4 Curious Math (Open Sentences) expectation partially addressed	18.7		C2.3 solve inequalities that involve addition and subtraction of whole numbers up to 20, and verify and graph the solutions	C2.3 identify and use equivalent relationships for whole numbers up to 1000, in various contexts
Algebra: Coding					

Grade 5 Ontario expectations	*Nelson Mathematics 5*	*Math Path 5*	Leaps and Bounds 5/6 Topics	Grade 4 Ontario expectations	Grade 3 Ontario expectations
C3.1 solve problems and create computational representations of mathematical situations by writing and executing code, including code that involves conditional statements and other control structures		Coding Toolkit		C3.1 solve problems and create computational representations of mathematical situations by writing and executing code, including code that involves sequential, concurrent, repeating, and nested events	C3.1 solve problems and create computational representations of mathematical situations by writing and executing code, including code that involves sequential, concurrent, and repeating events
C3.2 read and alter existing code, including code that involves conditional statements and other control structures, and describe how changes to the code affect the outcomes		Coding Toolkit		C3.2 read and alter existing code, including code that involves sequential, concurrent, repeating, and nested events, and describe how changes to the code affect the outcomes	C3.2 read and alter existing code, including code that involves sequential, concurrent, and repeating events, and describe how changes to the code affect the outcomes
Data: Data Collection and Organization					
Grade 5 Ontario expectations	***Nelson Mathematics 5***	***Math Path 5***	**Leaps and Bounds 5/6 Topics**	**Grade 4 Ontario expectations**	**Grade 3 Ontario expectations**
D1.1 explain the importance of various sampling techniques for collecting a sample of data that is representative of a population	Chapter 3 Getting Started, 3.1 expectation partially addressed	16.1		D1.1 describe the difference between qualitative and quantitative data, and describe situations where each would be used	D1.1 sort sets of data about people or things according to two and three attributes, using tables and logic diagrams, including Venn, Carroll, and tree diagrams, as appropriate
D1.2 collect data, using appropriate sampling techniques as needed, to answer questions of interest about a population, and organize the data in relative-frequency tables	3.1, Chapter 3 Math Game (Tossing Modes) expectation partially addressed	16.1, 16.2		D1.2 collect data from different primary and secondary sources to answer questions of interest that involve comparing two or more sets of data, and organize the data in frequency tables and stem-and-leaf plots	D1.2 collect data through observations, experiments, and interviews to answer questions of interest that focus on qualitative and quantitative data, and organize the data using frequency tables
Data: Data Visualization					
Grade 5 Ontario expectations	***Nelson Mathematics 5***	***Math Path 5***	**Leaps and Bounds 5/6 Topics**	**Grade 4 Ontario expectations**	**Grade 3 Ontario expectations**

D1.3 select from among a variety of graphs, including stacked-bar graphs, the type of graph best suited to represent various sets of data; display the data in the graphs with proper sources, titles, and labels, and appropriate scales; and justify their choice of graphs	Chapter 3 Getting Started, 3.1, 3.2, 3.4, 3.5, 3.6, Chapter 3 Curious Math (Identifying Mode on a Stem-and-Leaf Plot), Chapter 3 Task expectation partially addressed	16.2, 16.4	**Displaying Data** *Pathway 2:* Data: Using Stem-and-Leaf Plots *Pathway 3:* Data: Using Double Bar Graphs *Pathway 4:* Data: Using Line Plots	D1.3 select from among a variety of graphs, including multiple-bar graphs, the type of graph best suited to represent various sets of data; display the data in the graphs with proper sources, titles, and labels, and appropriate scales; and justify their choice of graphs	D1.3 display sets of data, using many-to-one correspondence, in pictographs and bar graphs with proper sources, titles, and labels, and appropriate scales
D1.4 create an infographic about a data set, representing the data in appropriate ways, including in relative-frequency tables and stacked-bar graphs, and incorporating any other relevant information that helps to tell a story about the data	Chapter 3 Getting Started, 3.1, 3.2, 3.4, 3.5, 3.6, Chapter 3 Curious Math (Identifying Mode on a Stem-and-Leaf Plot), Chapter 3 Task expectation partially addressed	16.3	**Displaying Data** *Pathway 2:* Data: Using Stem-and-Leaf Plots *Pathway 3:* Data: Using Double Bar Graphs *Pathway 4:* Data: Using Line Plots	D1.4 create an infographic about a data set, representing the data in appropriate ways, including in frequency tables, stem-and-leaf plots, and multiple-bar graphs, and incorporating any other relevant information that helps to tell a story about the data	
Data: Data Analysis					
Grade 5 Ontario expectations	***Nelson Mathematics 5***	***Math Path 5***	**Leaps and Bounds 5/6 Topics**	**Grade 4 Ontario expectations**	**Grade 3 Ontario expectations**
D1.5 determine the mean and the median and identify the mode(s), if any, for various data sets involving whole numbers and decimal numbers, and explain what each of these measures indicates about the data	3.8, Chapter 3 Curious Math (Identifying Mode on a Stem-and-Leaf Plot), Chapter 3 Math Game (Tossing Modes) expectation partially addressed	16.4, 16.5	**Summarizing Data** *Pathway 1:* Using the Mean *Pathway 2:* Using the Median and Mode	D1.5 determine the mean and the median and identify the mode(s), if any, for various data sets involving whole numbers, and explain what each of these measures indicates about the data	D1.4 determine the mean and identify the mode(s), if any, for various data sets involving whole numbers, and explain what each of these measures indicates about the data
D1.6 analyse different sets of data presented in various	Chapter 3 Getting Started, 3.1, 3.2,	16.4, 16.5	**Displaying Data**	D1.6 analyse different sets of data presented in various	D1.5 analyse different sets of data presented in various

ways, including in stacked-bar graphs and in misleading graphs, by asking and answering questions about the data, challenging preconceived notions, and drawing conclusions, then make convincing arguments and informed decisions	3.4, 3.5, 3.6, 3.7, Chapter 3 Curious Math (Identifying Mode on a Stem-and-Leaf Plot), Chapter 3 Task		*Pathway 2:* Data: Using Stem-and-Leaf Plots *Pathway 3:* Data: Using Double Bar Graphs *Pathway 4:* Data: Using Line Plots	ways, including in stem-and-leaf plots and multiple-bar graphs, by asking and answering questions about the data and drawing conclusions, then make convincing arguments and informed decisions	ways, including in frequency tables and in graphs with different scales, by asking and answering questions about the data and drawing conclusions, then make convincing arguments and informed decisions
Data: Probability					
Grade 5 Ontario expectations	***Nelson Mathematics 5***	***Math Path 5***	**Leaps and Bounds 5/6 Topics**	**Grade 4 Ontario expectations**	**Grade 3 Ontario expectations**
D2.1 use fractions to express the probability of events happening, represent this probability on a probability line, and use it to make predictions and informed decisions	Chapter 13 Getting Started, 13.1, Chapter 13 Mental Imagery (Creating Spinners), 13.2, 13.3, 13.4, 13.5, 13.6, Chapter 13 Curious Math (Birthday Math), Chapter 13 Task	17.1	**Probability** *Pathway 1:* Probability: Using Numbers *Pathway 2:* Probability: Using Words	D2.1 use mathematical language, including the terms "impossible", unlikely", equally likely", "likely", and "certain", to describe the likelihood of events happening, represent this likelihood on a probability line, and use it to make predictions and informed decisions	D2.1 use mathematical language including the terms "impossible", "unlikely", "equally likely", "likely", and "certain", to describe the likelihood of events happening, and use that likelihood to make predictions and informed decisions
D2.2 determine and compare the theoretical and experimental probabilities of an event happening	Chapter 13 Getting Started, 13.2 expectation partially addressed	17.2	**Probability** *Pathway 1:* Probability: Using Numbers *Pathway 2:* Probability: Using Words	D2.2 make and test predictions about the likelihood that the mean, median, and mode(s) of a data set will be the same for data collected from different populations	D2.2 make and test predictions about the likelihood that the mean and the mode(s) of a data set will be the same for data collected from different populations
Spatial Sense: Geometric Reasoning					
Grade 5 Ontario expectations	***Nelson Mathematics 5***	***Math Path 5***	**Leaps and Bounds 5/6 Topics**	**Grade 4 Ontario expectations**	**Grade 3 Ontario expectations**
E1.1 identify geometric properties of triangles, and construct different types of triangles when given side or angle measurements	Chapter 7 Getting Started, 7.3, 7.4, Chapter 7 Task	13.1, 13.2, 13.3, 14.1	**2-D Shapes** *Pathway 1:* Classifying Triangles	E1.1 identify geometric properties of rectangles, including the number of right angles, parallel and perpendicular sides, and lines of symmetry	E1.1 sort, construct, and identify cubes, prisms, pyramids, cylinders, and cones by comparing their faces, edges, vertices, and angles
E1.2 identify and construct congruent triangles,	Chapter 7 Getting Started, 7,2, 7.3,	13.4, 14.1	**2-D Shapes** *Pathway 1:* Classifying Triangles		E1.2 compose and decompose various

rectangles, and parallelograms	Chapter 7 Curious Math (Diagonal Angles), Chapter 7 Task expectation partially addressed		*Pathway 2:* Classifying Rectangles		structures, and identify the two-dimensional shapes and three-dimensional objects that these structures contain
E1.3 draw top, front, and side views of objects, and match drawings with objects		14.3	**3-D Shapes** *Pathway 3:* Modelling with Solid Shapes		E1.3 identify congruent lengths, angles, and faces of three-dimensional objects by mentally and physically matching them, and determine if the objects are congruent
Spatial Sense: Location and Movement					
Grade 5 Ontario expectations	***Nelson Mathematics 5***	***Math Path 5***	**Leaps and Bounds 5/6 Topics**	**Grade 4 Ontario expectations**	**Grade 3 Ontario expectations**
E1.4 plot and read coordinates in the first quadrant of a Cartesian plane using various scales, and describe the translations that move a point from one coordinate to another	8.7 expectation partially addressed	15.2	**Location and Movement** *Pathway 1:* Using Cardinal Directions on Grids *Pathway 2:* Locating Objects on Grids	E1.2 plot and read coordinates in the first quadrant of a Cartesian plane, and describe the translations that move a point from one coordinate to another	
E1.5 describe and perform translations, reflections, and rotations up to 180° on a grid, and predict the results of these transformations	Chapter 14 Getting Started, 14.1, Chapter 14 Mental Imagery (Rotating Shapes), 14.4, 14.5, 14.6, 14.7, Chapter 14 Task expectation partially addressed	15.1, 15.3	**Transformations** *Pathway 1:* Single Rotations *Pathway 4:* Single Reflections and Translations	E1.3 describe and perform translations and reflections on a grid, and predict the results of these transformations	E1.4 give and follow multistep instructions involving movement from one location to another, including distances and half- and quarter-turns
				Spatial Sense: Mass and Capacity	**Spatial Sense: Length, Mass, and Capacity**

Grade 5 Ontario expectations	*Nelson Mathematics 5*	*Math Path 5*	Leaps and Bounds 5/6 Topics	Grade 4 Ontario expectations	Grade 3 Ontario expectations
					E2.1 use appropriate units of length to estimate, measure, and compare the perimeters of polygons and curved shapes, and construct polygons with a given perimeter E2.2 explain the relationships between millimetres, centimetres, metres, and kilometres as metric units of length, and use benchmarks for these units to estimate lengths
				E2.1 explain the relationships between grams and kilograms as metric units of mass, and between litres and millilitres as metric units of capacity, and use benchmarks for these units to estimate mass and capacity	E2.3 use non-standard units appropriately to estimate, measure, and compare capacity, and explain the effect that overfilling or underfilling, and gaps between units, have on accuracy E2.4 compare, estimate, and measure the mass of various objects, using a pan balance and non-standard units
					E2.5 use various units of different sizes to measure the same attribute of a given item, and demonstrate that even though using different-sized units produces a different count, the size of the attribute remains the same
Spatial Sense: The Metric System					

Grade 5 Ontario expectations	*Nelson Mathematics 5*	*Math Path 5*	Leaps and Bounds 5/6 Topics	Grade 4 Ontario expectations	Grade 3 Ontario expectations
E2.1 use appropriate metric units to estimate and measure length, area, mass, and capacity	Chapter 5 Getting Started, 5.1, 5.2, Chapter 5 Math Game (Close as You Can), 5.4, Chapter 5 Curious Math (Kilometre Study Guide), 5.5, Chapter 5 Mental Imagery (Estimating Distances), Chapter 5 Task, 8.2, 8.3, Chapter 8 Mental Imagery (Dividing Areas), 8.4, 8.5, 8.6, Chapter 8 Task, 11.5, 11.8, 11.9	9.1, 9.2, 9.3, 9.4, 10.1	**Perimeter** *Pathway 3:* Length: Using Standard Units **Area** *Pathway 2:* Using Standard Units of Area **Mass** *Pathway 1:* Mass: Kilograms and Grams *Pathway 2:* Mass: Using One Standard Unit **Volume and Capacity** *Pathway 4:* Capacity: Litres or Millilitres	E2.2 use metric prefixes to describe the relative size of different metric units, and choose appropriate units and tools to measure length, mass, and capacity	
E2.2 solve problems that involve converting larger metric units into smaller ones, and describe the base ten relationships among metric units	5.1,-5.2, Chapter 5 Math Game (Close as You Can),-11.5, 11.8, 11.9 expectation partially addressed	9.1, 9.2, 9.3, 9.4	**Perimeter** *Pathway 3:* Length: Using Standard Units **Area** *Pathway 2:* Using Standard Units of Area **Mass** *Pathway 1:* Mass: Kilograms and Grams *Pathway 2:* Mass: Using One Standard Unit **Volume and Capacity** *Pathway 4:* Capacity: Litres or Millilitres		
				Spatial Sense: Time	
				E2.3 solve problems involving elapsed time by	E2.6 use analog and digital clocks and timers to tell

				applying the relationships between different units of time	time in hours, minutes, and seconds
Spatial Sense: Angles					
Grade 5 Ontario expectations	***Nelson Mathematics 5***	***Math Path 5***	**Leaps and Bounds 5/6 Topics**	**Grade 4 Ontario expectations**	**Grade 3 Ontario expectations**
E2.3 compare angles and determine their relative size by matching them and by measuring them using appropriate non-standard units		12.1	**Angles** *Pathway 2:* Comparing Angles	E2.4 identify angles and classify them as right, straight, acute, or obtuse	
E2.4 explain how protractors work, use them to measure and construct angles up to 180°, and use benchmark angles to estimate the size of other angles	7.2, 7.3, Chapter 7 Curious Math (Diagonal Angles)	12.1, 12.2, 12.3	**Angles** *Pathway 1:* Measuring and Drawing Angles *Pathway 2:* Comparing Angles		
Spatial Sense: Area					
Grade 5 Ontario expectations	***Nelson Mathematics 5***	***Math Path 5***	**Leaps and Bounds 5/6 Topics**	**Grade 4 Ontario expectations**	**Grade 3 Ontario expectations**
E2.5 use the area relationships among rectangles, parallelograms, and triangles to develop the formulas for the area of a parallelogram and the area of a triangle, and solve related problems		11.1, 11.2, 11.3	**Area** *Pathway 1:* Area of a Rectangle *Pathway 2:* Using Standard Units of Area	E2.5 use the row and column structure of an array to measure the areas of rectangles and to show that the area of any rectangle can be found by multiplying its side lengths E2.6 apply the formula for the area of a rectangle to find the unknown measurement when given two of the three	E2.7 compare the areas of two-dimensional shapes by matching, covering, or decomposing and recomposing the shapes, and demonstrate that different shapes can have the same area E2.8 use appropriate non-standard units to measure area, and explain the effect that gaps and overlaps have on accuracy E2.9 use square centimetres (cm2) and square metres (m2) to estimate, measure, and compare the areas of

					various two-dimensional shapes, including those with curved sides
E2.6 show that two-dimensional shapes with the same area can have different perimeters, and solve related problems	8.3	10.1	**Perimeter** *Pathway 1:* Perimeter of a Rectangle **Area** *Pathway 1:* Area of a Rectangle		
Financial Literacy: Money Concepts					
Grade 5 Ontario expectations	***Nelson Mathematics 5***	***Math Path 5***	**Leaps and Bounds 5/6 Topics**	**Grade 4 Ontario expectations**	**Grade 3 Ontario expectations**
F1.1 describe several ways money can be transferred among individuals, organizations, and businesses		16.4		F1.1 identify various methods of payment that can be used to purchase goods and services	F1.1 estimate and calculate the change required for various simple cash transactions involving whole-dollar amounts and amounts of less than one dollar
F1.2 estimate and calculate the cost of transactions involving multiple items priced in dollars and cents, including sales tax, using various strategies		7.4		F1.2 estimate and calculate the cost of transactions involving multiple items priced in whole-dollar amounts, not including sales tax, and the amount of change needed when payment is made in cash, using mental math	
Financial Literacy: Financial Management					
Grade 5 Ontario expectations	***Nelson Mathematics 5***	***Math Path 5***	**Leaps and Bounds 5/6 Topics**	**Grade 4 Ontario expectations**	**Grade 3 Ontario expectations**
F1.3 design sample basic budgets to manage finances for various earning and spending scenarios		6.5, 16.4		F1.3 explain the concepts of spending, saving, earning, investing, and donating, and identify key factors to consider when making basic decisions related to each	
F1.4 explain the concepts of credit and debt, and describe how financial decisions may be impacted by each		6.5, 16.4		F1.4 explain the relationship between spending and saving, and describe how spending and saving	

				behaviours may differ from one person to another	
Financial Literacy: Consumer and Civic Awareness					
Grade 5 Ontario expectations	***Nelson Mathematics 5***	***Math Path 5***	**Leaps and Bounds 5/6 Topics**	**Grade 4 Ontario expectations**	**Grade 3 Ontario expectations**
F1.5 calculate unit rates for various goods and services, and identify which rates offer the best value		8.3		F1.5 describe some ways of determining whether something is reasonably priced and therefore a good purchase	
F1.6 describe the types of taxes that are collected by the different levels of government in Canada, and explain how tax revenue is used to provide services in the community		7.4, 16.4			