Mathology 1 Correlation (Number) – Ontario

Overall Expectation **A1. Social-Emotional Learning (SEL) Skills and the Mathematical Processes**
Mathology provides teachers with a flexible framework to support the development of students' Social-Emotional Learning: ○ By using diverse resources that represent a variety of students in real-world contexts, students can see themselves and others while positively engaging in mathematics ○ By providing differentiated support that allows students to cope with challenges, start at a level that works for them, and build from there ○ By providing students with opportunities to learn by way of different approaches, through the use of digital (e.g., virtual tools) and print resources (e.g., laminated student cards and math mats), allowing students to reveal their mathematical thinking in a risk-free environment. ○ By providing students with a variety of learning opportunities (small group, pair, whole class), to work collaboratively on math problems, share their own thinking, and listen to the thinking of others ○ By including a variety of voices (built by and for Canadian learners) and opportunities to support local contexts (modifiable resources)

Curriculum Expectations 2020	**Mathology Grade 1 Activity Kit**	**Mathology Little Books**	**Pearson Canada K-3 Mathematics Learning Progression**
Overall Expectation **B1. Number Sense:** demonstrate an understanding of numbers and make connections to the way numbers are used in everyday life			
Specific Expectation **Whole Numbers**			
B1.1 read and represent whole numbers up to and including 50, and describe various ways they are used in everyday life	**Number Cluster 1: Counting** 1: Counting to 20 2: Counting to 50 3: Counting On and Back 4: Ordinal Numbers 5: Counting Consolidation **Number Cluster 6: Early Place Value** 27: Tens and Ones	A Family Cookout At the Corn Farm How Many Is Too Many? Nutty and Wolfy Cats and Kittens Paddling the River **To Scaffold:** Animals Hide Acorns for Wilaiya A Warm, Cozy Nest	**Big idea: Numbers are related in many ways.** **Comparing and ordering quantities (multitude or magnitude)** - Uses ordinal number names (e.g., first, second, third). **Recognizing and writing numerals** - Names, writes, and matches numerals to numbers and quantities to 10. - Names, writes, and matches two-digit numerals to quantities.

		Dan's Doggy Daycare On Safari Lots of Dots **To Extend:** What Would You Rather?	
B1.2 compose and decompose whole numbers up to and including 50, using a variety of tools and strategies, in various contexts	**Number Cluster 5: Composing and Decomposing** 17: Decomposing 10 18: Numbers to 10 19: Numbers to 20 20: Decomposing 50 21: Money Amounts 26: Composing and Decomposing Consolidation **Number Cluster 6: Early Place Value** 28: Building and Naming Numbers	Paddling the River At the Corn Farm Family Fun Day That's 10! Hockey Time! Back to Batoche **To Scaffold:** Dan's Doggy Daycare Lots of Dots! Let's Play Waltes!	**Big Idea: Numbers are related in many ways.** **Decomposing wholes into parts and composing wholes from parts** - Decomposes/composes quantities to 5. - Decomposes quantities to 10 into parts and remembers the whole. - Composes and decomposes quantities to 20.
B1.3 compare and order whole numbers up to and including 50, in various contexts	**Number Cluster 3: Comparing and Ordering** 9: Comparing Sets Concretely 10: Comparing Sets Pictorially 11: Comparing Numbers to 50 12: Comparing and Ordering Consolidation **Number Cluster 6: Early Place Value** 27: Tens and Ones 28: Building and Naming Numbers 29: Different Representations 30: Early Place Value Consolidation *Link to other strands:* ***Patterning and Algebra Cluster 3: Equality and Inequality*** *10: Exploring Sets* *11: Making Equal Sets*	A Family Cookout At the Corn Farm How Many Is Too Many? Nutty and Wolfy Paddling the River Canada's Oldest Sport **To Scaffold:** Animals Hide Acorns for Wilaiya Dan's Doggy Daycare Spot Check! Let's Play Waltes! On Safari **To Extend:** What Would You Rather? The Great Dogsled Race Back to Batoche A Class-full of Projects	**Big idea: Numbers are related in many ways.** **Comparing and ordering quantities (multitude or magnitude)** - Perceptually compares quantities to determine more/less or equal quantities. - Knows that each successive number is one more than the previous number (i.e., hierarchical inclusion). - Compares (i.e., more/less/equal) and orders quantities to 10). - Adds/removes object(s) to make a set equal to a given set. - Compares and orders quantities and written numbers using benchmarks. - Orders three or more quantities to 20 using sets and/or numerals. **Big Idea: Quantities and numbers can be grouped by or partitioned into equal-sized units.** - Bundles quantities into tens and ones. - Writes, reads, composes, and decomposes two-digit numbers as units of tens and leftover ones.

			Link to other strands: *Understanding equality and inequality, building on generalized properties of numbers and operations* *- Creates a set that is more/less or equal to a given set*
B1.4 estimate the number of objects in collections of up to 50 and verify their estimates by counting	**Number Cluster 2: Spatial Reasoning** 6: Subitizing to 10 7: Estimating Quantities 8: Spatial Reasoning Consolidation	A Family Cookout At the Corn Farm How Many Is Too Many? **To Scaffold:** Acorns for Wilaiya Lots of Dots! Spot Check! Time for Games **To Extend:** What Would You Rather? Ways to Count Family Fun Day	**Big Idea: Numbers are related in many ways.** **Estimating quantities and numbers** - Estimates small quantities of objects (to 10) of the same size. - Uses relevant benchmarks to compare and estimate quantities (e.g., more/less than 10; multiples of ten). - Uses relevant benchmarks (e.g., multiples of 10) to compare and estimate quantities
B1.5 count to 50 by 1s, 2s, 5s, and 10s, using a variety of tools and strategies	**Number Cluster 1: Counting** 1: Counting to 20 2: Counting to 50 3: Counting On and Back 4: Ordinal Numbers 5: Counting Consolidation **Number Cluster 4: Skip-Counting** 13: Skip-Counting Forward 14: Skip-Counting with Leftovers 15: Skip-Counting Backward 16: Skip-Counting Consolidation **Number Cluster 8: Financial Literacy** 44: Counting Collections 47: Financial Literacy: Consolidation	On Safari! Paddling the River A Family Cookout How Many Is Too Many? **To Scaffold:** A Warm, Cozy Nest Let's Play Waltes! Animals Hide Dan's Doggy Daycare Acorns for Wilaiya Lots of Dots **To Extend:** What Would You Rather? Ways to Count Array's Bakery Family Fun Day Marbles, Alleys, Mibs, Guli! A Class-full of Projects The Money Jar Kokum's Bannock Back to Batoche	**Big Idea: Numbers tell us how many and how much** **Applying the principles of counting (number sequence)** - Says the number name sequence starting with 1 and counting forward. - Coordinates number words with counting actions, saying one word for each object (i.e., one-to-one correspondence/tagging). - Says the number name sequence backward from numbers to 10. - Knows that the last counting word tells "how many "objects in a set (i.e., cardinality). - Says the number name sequence forward through the teen numbers. - Says the number name sequences forward and backward from a given number. - Uses number patterns to bridge tens when counting forward and backward (e.g., 39, 40, 41). - Fluently skip-counts by factors of 10 (e.g., 2, 5, 10) and multiples of 10 from any given number.

Specific Expectation **Fractions**			
B1.6 use drawings to represent and solve fair-share problems that involve 2 and 4 sharers, respectively, and have remainders of 1 or 2	**Number Cluster 5: Composing and Decomposing** 22: Equal Groups 23: Equal Parts 24: Sharing Equally	How Many Is Too Many? **To Extend:** The Best Birthday Family Fun Day	**Big Idea: Quantities and numbers can be grouped by or partitioned into equal-sized units.** **Unitizing quantities and comparing units to the whole** - Partitions wholes into equal-sized units and identifies the number of units and the size of, or quantity in, each unit. **Partitioning quantities to form fractions** - Partitions wholes into equal-sized parts to make fair shares or equal groups. **Big Idea: Quantities and numbers can be grouped by, and partitioned into, units to determine how many or how much.** **Developing conceptual meaning of multiplication and division** - Models and solves equal sharing problems to 10.
B1.7 recognize that one half and two fourths of the same whole are equal, in fair-sharing contexts	**Number Cluster 5: Composing and Decomposing** 23: Equal Parts 25: Comparing and Ordering Unit Fractions 26: Composing and Decomposing Consolidation	The Best Birthday	**Big Idea: Quantities and numbers can be grouped by or partitioned into equal-sized units.** **Partitioning quantities to form fractions** - Visually compares fraction sizes and names fractional amounts informally (e.g., halves). - Partitions wholes into equal-sized parts to make fair shares or equal groups. - Partitions wholes (e.g., intervals, sets) into equal parts and names the unit fractions. - Relates the size of parts to the number of equal parts in a whole (e.g., a whole cut into 2 equal pieces has larger parts than a whole cut into 3 equal pieces). - Compares unit fractions to determine relative size.
B1.8 use drawings to compare and order unit fractions representing the individual portions that	**Number Cluster 5: Composing and Decomposing** 25: Comparing and Ordering Unit Fractions	The Best Birthday	**Big Idea: Quantities and numbers can be grouped by or partitioned into equal-sized units.**

result when a whole is shared by different numbers of sharers, up to a maximum of 10	26: Composing and Decomposing Consolidation		**Partitioning quantities to form fractions** - Visually compares fraction sizes and names fractional amounts informally (e.g., halves). - Relates the size of parts to the number of equal parts in a whole (e.g., a whole cut into 2 equal pieces has larger parts than a whole cut into 3 equal pieces). - Compares unit fractions to determine relative size.
Overall Expectation **B2. Operations:** use knowledge of numbers and operations to solve mathematical problems encountered in everyday life			
Specific Expectation **Properties and Relationships**			
B2.1 use the properties of addition and subtraction, and the relationship between addition and subtraction, to solve problems and check calculations	**Number Cluster 7: Operational Fluency** 31: More or Less 33: Adding to 20 34: Subtracting to 50 35: The Number Line 36: Doubles 37: Part-Part-Whole 39: Solving Story Problems	That's 10! Hockey Time! Cats and Kittens! Buy 1 – Get 1 Canada's Oldest Sport On Safari! **To Scaffold** Acorns for Wilaiya **To Extend:** Marbles, Alleys, Mibs, and Guli! The Money Jar The Great Dogsled Race Array's Bakery	**Big Idea: Quantities and numbers can be added and subtracted to determine how many or how much.** **Developing conceptual meaning of addition and subtraction** - Models add-to and take-from situations with quantities to 10. - Uses symbols and equations to represent addition and subtraction situations. - Models and symbolizes addition and subtraction problem types (i.e., join, separate, part-part-whole, and compare). - Relates addition and subtraction as inverse operations. - Uses properties of addition and subtraction to solve problems (e.g., adding or subtracting 0, commutativity of addition).
Specific Expectation **Math Facts**			
B2.2 recall and demonstrate addition facts for numbers up to 10, and related subtraction facts	**Number Cluster 7: Operational Fluency** 31: More or Less 40: Adding and Subtracting to 50	That's 10! Hockey Time! On Safari! Canada's Oldest Sport	**Big Idea: Quantities and numbers can be added and subtracted to determine how many or how much.** **Developing fluency of addition and subtraction computation** - Fluently adds and subtracts within 5. - Fluently adds and subtracts with quantities to 10.

			- Fluently recalls complements to 10 (e.g., 6 + 4; 7 + 3). - Extends known sums and differences to solve other equations (e.g., using 5 + 5 to add 5 + 6).
Specific Expectation **Mental Math**			
B2.3 use mental math strategies, including estimation, to add and subtract whole numbers that add up to no more than 20, and explain the strategies used	**Number Cluster 7: Operational Fluency** 31: More or Less 33: Adding to 20 34: Subtracting to 50 35: The Number Line Revised 2020) 36: Doubles 37: Part-Part-Whole	That's 10! Hockey Time! Cats and Kittens! Buy 1 – Get 1 On Safari! Canada's Oldest Sport **To Extend:** Marbles, Alleys, Mibs, and Guli! The Money Jar The Great Dogsled Race Array's Bakery	**Big Idea: Numbers are related in many ways.** **Comparing and ordering quantities (multitude or magnitude)** - Knows what number is one or two more and one or two less than another number. **Big Idea: Quantities and numbers can be added and subtracted to determine how many or how much.** **Developing fluency of addition and subtraction** - Fluently adds and subtracts within 5. - Fluently adds and subtracts with quantities to 10. - Fluently recalls complements to 10 (e.g., 6 + 4; 7 + 3). - Extends known sums and differences to solve other equations (e.g., using 5 + 5 to add 5 + 6). - Develops efficient mental math strategies and algorithms to solve equations with multi-digit numbers. - Estimates sums and differences of multi-digit numbers.
B2.4 use objects, diagrams, and equations to represent, describe, and solve situations involving addition and subtraction of whole numbers that add up to no more than 50	**Number Cluster 7: Operational Fluency** 33: Adding to 20 34: Subtracting to 50 35: The Number Line 36: Doubles 37: Part-Part-Whole 39: Solving Story Problems 40: Adding and Subtracting to 50 41: Operational Fluency Consolidation	That's 10! Hockey Time! Cats and Kittens! Buy 1 – Get 1 On Safari! Canada's Oldest Sport **To Extend:** Marbles, Alleys, Mibs, and Guli! The Money Jar The Great Dogsled Race Array's Bakery	**Big Idea: Quantities and numbers can be added and subtracted to determine how many or how much.** **Developing conceptual meaning of addition and subtraction** - Models add-to and take-from situations with quantities to 10. - Uses symbols and equations to represent addition and subtraction situations. - Models and symbolizes addition and subtraction problem types (i.e., join, separate, part-part-whole, and compare). - Relates addition and subtraction as inverse operations.

			- Uses properties of addition and subtraction to solve problems (e.g., adding or subtracting 0, commutativity of addition). **Developing fluency of addition and subtraction computation** - Develops efficient mental strategies and algorithms to solve equations with multi-digit numbers.
			Big idea: Numbers are related in many ways.
			Comparing and ordering quantities (multitude or magnitude) - Knows what number is one or two more and one or two less than another number.
Specific Expectation **Multiplication and Division**			
B2.5 represent and solve equal-group problems where the total number of items is no more than 10, including problems in which each group is a half, using tools and drawings	**Number Cluster 5: Composing and Decomposing** 22: Equal Groups 24: Sharing Equally 26: Composing and Decomposing Consolidation	How Many Is Too Many? **To Extend:** Family Fun Day The Best Birthday	**Big Idea: Quantities and numbers can be grouped by or partitioned into equal-sized units.**
			Unitizing quantities and comparing units to the whole - Partitions whole into equal-sized units and identifies the number of units and the size of, or quantity in, each unit. - Partitioning quantities to form fractions - Partitions wholes into equal-sized parts to make fair shares or equal groups. - Partitions wholes (e.g., intervals, sets) into equal parts and names the unit fractions.
			Big Idea: Quantities and numbers can be grouped by, and partitioned into, units to determine how many or how much
			Developing conceptual meaning of multiplication and division - Models and solves equal sharing problems to 10. - Groups objects in 2s, 5s, and 10s.

Mathology 1 Correlation (Patterning and Algebra) – Ontario

Curriculum Expectations 2020	Mathology Grade 1 Activity Kit	Mathology Little Books	Pearson Canada K-3 Mathematics Learning Progression
Overall Expectation **C1. Patterns and Relationships: identify, describe, extend, create, and make predictions about a variety of patterns, including those found in real-life contexts**			
Specific Expectation **Patterns**			
C1.1 identify and describe the regularities in a variety of patterns, including patterns found in real-life contexts	**Patterning and Algebra Cluster 1: Investigating Repeating Patterns** 1: Repeating the Core 2: Representing Patterns 3: Predicting Elements 4: Finding Patterns 5: Investigating Repeating Patterns Consolidation	Midnight and Snowfall **To Scaffold:** A Lot of Noise We Can Bead!	**Big Idea: Regularity and repetition form patterns that can be generalized and predicted mathematically.** **Identifying, reproducing, extending, and creating patterns that repeat** - Identifies and reproduces repeating patterns by matching elements involving sounds, actions, shapes, objects, etc. - Distinguishes between repeating and non-repeating sequences. - Identifies the repeating unit (core) of a pattern.
C1.2 create and translate patterns using movements, sounds, objects, shapes, letters, and numbers	**Patterning and Algebra Cluster 2: Creating Patterns** 6: Extending Patterns 7: Translating Patterns 9: Creating Patterns Consolidation	Midnight and Snowfall **To Scaffold:** A Lot of Noise We Can Bead!	**Big Idea: Regularity and repetition form patterns that can be generalized and predicted mathematically.** **Identifying, reproducing, extending, and creating patterns that repeat** - Reproduces, creates, and extends repeating patterns based on copies of the repeating unit (core). - Represents the same pattern in different ways (i.e., translating to different symbols, objects, sounds, actions).

C1.3 determine pattern rules and use them to extend patterns, make and justify predictions, and identify missing elements in patterns	**Patterning and Algebra Cluster 1: Investigating Repeating Patterns** 1: Repeating the Core 3: Predicting Elements 4: Finding Patterns **Patterning and Algebra Cluster 2: Creating Patterns** 6: Extending Patterns 8: Errors and Missing Elements	Midnight and Snowfall **To Scaffold:** A Lot of Noise We Can Bead!	**Big Idea: Regularity and repetition form patterns that can be generalized and predicted mathematically.** **Identifying, reproducing, extending, and creating patterns that repeat** - Extends repeating patterns. - Identifies the repeating unit (core) of a pattern. - Reproduces, creates, and extends repeating patterns based on copies of the repeating unit (core).
C1.4 create and describe patterns to illustrate relationships among whole numbers up to 50	**Patterning and Algebra Cluster 1: Investigating Repeating Patterns** 4: Finding Patterns	Midnight and Snowfall	**Big Idea: Regularity and repetition form patterns that can be generalized and predicted mathematically.** **Identifying, reproducing, extending, and creating patterns that repeat** - Reproduces, creates, and extends repeating patterns based on copies of the repeating unit (core).

Overall Expectation **C2. Equations and Inequalities:** demonstrate an understanding of variables, expressions, equalities, and inequalities, and apply this understanding in various contexts			
Specific Expectation **Variables**			
C2.1 identify quantities that can change and quantities that always remain the same in real-life contexts	*Link to other strands:* ***Number Cluster 5: Composing and Decomposing*** *21: Money Amounts* ***Number Cluster 8: Financial Literacy*** *42: Value of Coins* ***Measurement Cluster 2: Time*** *9: Relating to Seasons* *10: The Calendar* *11: Time Consolidation*	Nutty and Wolfy	
Specific Expectation **Equalities and Inequalities**			
C2.2 determine whether given pairs of addition and subtraction expressions are equivalent or not	**Patterning and Algebra Cluster 3: Equality and Inequality** 10: Exploring Sets 11: Making Equal Sets 12: Using Symbols 13: Equality and Inequality Consolidation	Nutty and Wolfy **To Extend:** Kokum's Bannock	**Big Idea: Quantities and numbers can be added and subtracted to determine how many or how much** **Developing conceptual meaning of addition and subtraction** - Uses symbols and equations to represent addition and subtraction situations. **Big Idea: Patterns and relations can be represented with symbols, equations, and expressions.** **Understanding equality and inequality, building on generalized properties of numbers and operations** - Compares sets to determine more/less or equal. - Creates a set that is more/less or equal to a given set. **Understanding equality and inequality, building on generalized properties of numbers and operations**

			- Writes equivalent addition and subtraction equations in different forms (e.g., 8 = 5 + 3; 3 = 5 = 8). - Records different expressions of the same quantity as equalities (e.g., 2 + 4 = 5 + 1). **Using symbols, unknowns, and variables to represent mathematical relations** - Understands and uses the equal (=) and not equal (≠) symbols when comparing expression.
C2.3 identify and use equivalent relationships for whole numbers up to 50, in various contexts .	**Patterning and Algebra Cluster 3: Equality and Inequality** 11: Making Equal Sets *Link to other strands:* ***Number Cluster 5: Composing and Decomposing*** *20: Decomposing 50*	Nutty and Wolfy **To Extend:** Kokum's Bannock	
Overall Expectation **C3. Coding:** solve problems and create computational representations of mathematical situations using coding concepts and skills			
Specification Expectation **Coding Skills**			
C3.1 solve problems and create computational representations of mathematical situations by writing and executing code, including code that involves sequential events	*Link to other strands:* ***Geometry Cluster 4: Coding, Location, and Movement*** *19: Exploring Coding* *20: Coding on a Grid* *21: Number Codes* *22: Coding, Location, and Movement Consolidation*		
C3.2 read and alter existing code, including code that involves sequential events, and describe how changes to the code affect the outcomes	*Link to other strands:* ***Geometry Cluster 4: Coding, Location, and Movement*** *21: Number Codes* *22: Coding, Location, and Movement Consolidation*		

Overall Expectation **C4. Mathematical Modelling:** apply the process of mathematical modelling to represent, analyse, make predictions, and provide insight into real-life situations			
This overall expectation has no specific expectations. Mathematical modelling is an iterative and interconnected process that is applied to various contexts, allowing students to bring in learning from other strands. Students' demonstration of the process of mathematical modelling, as they apply concepts and skills learned in other strands, is assessed and evaluated.	**Patterning and Algebra** **Cluster 2: Creating Patterns** 7: Translating Patterns 9: Creating Patterns Consolidation **Patterning and Algebra Cluster 3: Equality and Inequality** 12: Using Symbols *Link to other strands:* ***Number Cluster 3: Comparing and Ordering*** *10: Comparing Sets Pictorially* ***Number Cluster 4: Skip-Counting*** *14: Skip-Counting with Leftovers* ***Number Cluster 5: Composing and Decomposing*** *19: Numbers to 20* *20: Decomposing 50* *21: Money Amounts* ***Number Cluster 6: Early Place Value*** *29: Different Representations* *30: Early Place Value Consolidation* ***Number Cluster 7: Operational Fluency*** *39: Solving Story Problems* *41: Operational Fluency Consolidation* ***Number Cluster 8: Financial Literacy*** *44: Counting Collections* *47: Financial Literacy Consolidation* ***Data Management and Probability*** ***Cluster 1: Data Management*** *3: Making Concrete Graphs* *5: Data Management Consolidation*	A Family Cookout How Many is Too Many Buy 1-Get 1 The Money Jar The Amazing Seed Graph It!	

	Data Management and Probability Cluster 2: Probability and Chance *7: Making and Testing Predictions* ***Geometry Cluster 3: Symmetry*** *16: Symmetry Consolidation*		

Mathology 1 Correlation (Data Management and Probability) – Ontario

Curriculum Expectations 2020	Mathology Grade 1 Activity Kit	Mathology Little Books	Pearson Canada K-3 Mathematics Learning Progression
Overall Expectation **D1. Data Literacy:** manage, analyse, and use data to make convincing arguments and informed decisions, in various contexts drawn from real life			
Specific Expectation **Data Collection and Organization**			
D1.1 sort sets of data about people or things according to one attribute, and describe the rules used for sorting	**Data Management and Probability Cluster 1: Data Management** 2: Interpreting Graphs *Link to other strands:* ***Geometry Cluster 1: 2-D Shapes*** *1: Sorting Shapes* *5: Sorting Rules* *6: 2-D Shapes Consolidation*	What Was Here? The Tailor Shop Memory Book **To Scaffold:** Zoom In, Zoom Out!	**Big Idea: Regularity and repetition form patterns that can be generalized and predicted mathematically.** **Identifying, sorting, and classifying attributes and patterns mathematically (e.g., number of sides, shape, size)** - Sorts a set of objects in different ways using a single attribute (e.g., buttons sorted by the number of holes or by shape). - Identifies the sorting rule used to sort sets.
D1.2 collect data through observations, experiments, or interviews to answer questions of interest that focus on a single piece of information, record the data using methods of their choice; and organize the data in tally tables	**Data Management and Probability Cluster 1: Data Management** 3: Making Concrete Graphs 4: Making Pictographs 5: Data Management Consolidation	Graph It! **To Extend:** Marsh Watch Big Buddy Days	**Big Idea: Formulating questions, collecting data, and consolidating data in visual and graphical displays help us understand, predict, and interpret situations that involve uncertainty, variability, and randomness.** **Collecting data and organizing them into categories** - Collects data from simple surveys concretely (e.g., shoes, popsicle sticks) or using simple records (e.g., check marks, tallies). - Generates data by counting or measuring (e.g., linking cube tower: number of cubes or height). Limited to whole units

Specific Expectation **Data Visualization**			
D1.3 display sets of data, using one-to-one correspondence, in concrete graphs and pictographs with proper sources, titles, and labels	**Data Management and Probability Cluster 1: Data Management** 3: Making Concrete Graphs 4: Making Pictographs 5: Data Management Consolidation	Graph It! **To Scaffold:** Hedge and Hog **To Extend:** Big Buddy Days	**Big Idea: Formulating questions, collecting data, and consolidating data in visual and graphical displays help us understand, predict, and interpret situations that involve uncertainty, variability, and randomness.** **Creating graphical displays of collected data** - Creates displays by arranging concrete data or with simple picture graphs (using actual objects or images). - Creates displays using objects or simple pictographs (may use symbol for data).
Specific Expectation **Data Analysis**			
D1.4 order categories of data from greatest to least frequency for various data sets displayed in tally tables, concrete graphs, and pictographs	**Data Management and Probability Cluster 1: Data Management** 2: Interpreting Graph	Canada's Oldest Sport	**Big Idea: Formulating questions, collecting data, and consolidating data in visual and graphical displays help us understand, predict, and interpret situations that involve uncertainty, variability, and randomness.** **Collecting data and organizing them into categories** - Orders categories by frequency.
D1.5 analyze different sets of data presented in various ways, including in tally tables, concrete graphs, and pictographs, by asking and answering questions about the data and drawing conclusions, then make convincing arguments and informed decisions	**Data Management and Probability Cluster 1: Data Management** 2: Interpreting Graphs 3: Making Concrete Graphs 4: Making Pictographs 5: Data Management Consolidation	Graph It! Canada's Oldest Sport **To Scaffold:** Hedge and Hog **To Extend:** Big Buddy Days Marsh Watch	**Big Idea: Formulating questions, collecting data, and consolidating data in visual and graphical displays help us understand, predict, and interpret situations that involve uncertainty, variability, and randomness.** **Reading and interpreting data displays** - Determines the most frequent response/outcome on the data display. - Interprets displays by noting outcomes that are more/less/same. - Interprets displays by noting how many more/less than other categories. **Drawing conclusions by making inferences and justifying decisions based on data collected** - Uses data collected and displayed to answer initial question directly.

			- Poses and answers questions about data collected and displayed.

Overall Expectation **D2. Probability:** describe the likelihood that events will happen and use that information to make predictions.			
Specific Expectation **Probability**			
D2.1 use mathematical language, including the terms “impossible”, “possible”, and “certain”, to describe the likelihood of events happening, and use that likelihood to make predictions and informed decisions	**Data Management and Probability Cluster 2: Probability and Chance** 6: Likelihood of Events 8: Probability and Chance Consolidation		**Big Idea: Formulating questions, collecting data, and consolidating data in visual and graphical displays help us understand, predict, and interpret situations that involve uncertainty, variability, and randomness.** **Using the language of chance to describe and predict events** - Describes the likelihood of an event (e.g., impossible, unlikely, certain). - Makes predictions based on the question, context, and data presented. - Compares the likelihood of two events (e.g., more likely, less likely, equally likely).
D2.2 make and test predictions about the likelihood that the categories in a data set will have the same frequencies in data collected from a different population of the same size	**Data Management and Probability Cluster 2: Probability and Chance** 7: Making and Testing Predictions		**Big Idea: Formulating questions, collecting data, and consolidating data in visual and graphical displays help us understand, predict, and interpret situations that involve uncertainty, variability, and randomness.** **Using the language of chance to describe and predict events** - Makes predictions based on the question, context, and data presented.

Mathology 1 Correlation (Geometry and Measurement) – Ontario

Curriculum Expectations 2020	Mathology Grade 1 Activity Kit	Mathology Little Books	Pearson Canada K-3 Mathematics Learning Progression
Overall Expectation **E1. Geometric and Spatial Reasoning:** describe and represent shape, location, and movement by applying geometric properties and spatial relationships in order to navigate the world around them			
Specific Expectation **Geometric Reasoning**			
E1.1 sort three-dimensional objects and two-dimensional shapes according to one attribute at a time, and identify the sorting rule being used	**Geometry Cluster 1: 2-D Shapes** 1: Sorting Shapes 2: Identifying Triangles 3: Identifying Rectangles 4: Visualizing Shapes 5: Sorting Rules 6: 2-D Shapes Consolidation **Geometry Cluster 2: 3-D Solids** 7: Exploring 3-D Solids 9: Sorting 3-D Solids 10: Identify the Sorting Rule 12: 3-D Solids Consolidation	What Was Here? The Tailor Shop Memory Book **To Scaffold:** Zoom In, Zoom Out! The Castle Wall **To Extend:** I Spy Awesome Buildings	**Big Idea: 2-D shapes and 3-D solids can be analyzed and classified in different ways by their attributes.** **Investigating geometric properties and properties of 2-D shapes and 3-D solids** - Explores and makes distinctions among different geometric attributes of 2-D shapes and 3-D solids (e.g., sides, edges, corners, surfaces, open/closed). - Recognizes, matches, and names familiar 2-D shapes (e.g., circle, triangle, square, rectangle) and 3-D solids (e.g., cube, cone). - Compares 2-D shapes and 3-D solids to find the similarities and differences. - Analyzes geometric attributes of 2-D shapes and 3-D solids (e.g., number of sides/edges, faces, corners). **Big Idea: Regularity and repetition form patterns that can be generalized and predicted mathematically.** **Identifying, sorting, and classifying attributes and patterns mathematically (e.g., number of sides, shape, size)**

			- Sorts a set of objects in different ways using a single attribute (e.g., buttons sorted by the number of holes or by shape). - Identifies the sorting rule used to sort sets.
E1.2 construct three-dimensional objects, and identify two-dimensional shapes contained within structures and objects	**Geometry Cluster 2: 3-D Solids** 8: Faces of Solids 11: Constructing Solids and Skeletons	What Was Here? Memory Book **To Scaffold:** The Castle Wall **To Extend:** I Spy Awesome Buildings	**Big Idea: 2-D shapes and 3-D solids can be analyzed and classified in different ways by their attributes.** **Investigating geometric properties and properties of 2-D shapes and 3-D solids** - Explores and makes distinctions among different geometric attributes of 2-D shapes and 3-D solids (e.g., sides, edges, corners, surfaces, open/closed). - Recognizes, matches, and names familiar 2-D shapes (e.g., circle, triangle, square, rectangle) and 3-D solids (e.g., cube, cone). - Compares 2-D shapes and 3-D solids to find the similarities and differences. - Identifies 2-D shapes in 3-D objects in the environment. - Analyzes geometric attributes of 2-D shapes and 3-D solids (e.g., number of sides/edges, faces, corners). - Constructs and compares 2-D shapes and 3-D solids with given attributes (e.g., number of vertices, faces).
E1.3 construct and describe two-dimensional shapes and three-dimensional objects that have matching halves.	**Geometry Cluster 2: 3-D Shapes** 11: Constructing Solids and Skeletons **Geometry Cluster 3: Symmetry** 13: Finding Lines of Symmetry 15: Building Symmetrical Solids 16: Symmetry Consolidation		**Big Idea: 2-D shapes and 3-D solids can be analyzed and classified in different ways by their attributes.** **Investigating geometric properties and properties of 2-D shapes and 3-D solids** - Constructs and compares 2-D shapes and 3-D solids with given attributes (e.g., number of vertices, faces).

Specific Expectation **Location and Movement**			
E1.4 describe the relative locations of objects or people, using positional language	**Geometry Cluster 4: Coding, Location, and Movement** 17: Perspective Taking 18: Mapping 22: Coding, Location, and Movement Consolidation	Memory Book **To Scaffold:** Zoom In, Zoom Out! The Castle Wall The New Nest **To Extend:** Robo	**Big idea: Objects can be located in space and viewed from multiple perspectives.** **Locating and mapping objects in space** - Uses positional language and gesture to describe locations and movement, and give simple directions (e.g., in, on, around, right, left). - Uses relative positions to describe the location and order of objects (e.g., between, beside, next, before).
E1.5 give and follow directions for moving from one location to another	**Geometry Cluster 4: Coding, Location, and Movement** 18: Mapping 22: Coding, Location, and Movement Consolidation	Memory Book **To Scaffold:** Zoom In, Zoom Out! The New Nest **To Extend:** Robo	**Big idea: Objects can be located in space and viewed from multiple perspectives.** **Locating and mapping objects in space** - Locates objects in environment (e.g., playground) by interpreting a map.
Overall Expectation **E2. Measurement:** compare, estimate, and determine measurements in various contexts			
Specific Expectation **Attributes**			
E2.1 identify measurable attributes of two-dimensional shapes and three-dimensional objects, including length, area, mass, capacity, and angle	**Geometry Cluster 2: 3-D Solids** 7: Exploring 3-D Solids 12: 3-D Solids Consolidation **Measurement Cluster 1: Comparing Objects** 1: Identifying Attributes 2: Comparing Length 4: Comparing Mass 5: Comparing Capacity 6: Making Comparisons 7: Comparing Area 8: Comparing Objects Consolidation	The Amazing Seed **To Scaffold:** To Be Long The Best in Show	**Big idea: Many things in our world (e.g., objects, spaces, events) have attributes that can be measured and compared.** **Understanding attributes that can be measured** - Explores measurement of visible attributes (e.g., length, capacity, area) and non-visible attributes (e.g., mass, time, temperature). - Uses language to describe attributes (e.g., long, tall, short, wide, heavy).
E2.2 compare several everyday objects and order them according to length, area, mass, and capacity	**Measurement Cluster 1: Comparing Objects** 2: Comparing Length 4: Comparing Mass 5: Comparing Capacity	The Amazing Seed **To Scaffold:**	**Big idea: Many things in our world (e.g., objects, spaces, events) have attributes that can be measured and compared.** **Understanding attributes that can be measured**

	6: Making Comparisons 7: Comparing Area 8: Comparing Objects Consolidation	To Be Long The Best in Show	- Uses language to describe attributes (e.g., long, tall, short, wide, heavy). **Directly and indirectly comparing and ordering objects with the same measurable attribute** - Directly compares and orders objects by length (e.g., by aligning ends), mass (e.g., using a balance scale), and area (e.g., by covering). - Uses relative attributes to compare and order (e.g., longer/longest, taller/tallest, shorter/shortest).
Specific Expectation **Time**			
E2.3 read the date on a calendar, and use a calendar to identify days, weeks, months, holidays, and seasons	**Measurement Cluster 2: Time** 9: Relating to Seasons 10: The Calendar *Link to other strands:* ***Number Cluster 1: Counting*** *4: Ordinal Numbers*		**Big idea: Many things in our world (e.g., objects, spaces, events) have attributes that can be measured and compared.** Understanding attributes that can be measured - Explores measurement of visible attributes (e.g., length, capacity, area) and non-visible attributes (e.g., mass, time, temperature).

Mathology 1 Correlation (Financial Literacy) – Ontario

Curriculum Expectations 2020	Mathology Grade 1 Activity Kit	Mathology Little Books	Pearson Canada K-3 Mathematics Learning Progression
Overall Expectation **F1. Money and Finances:** demonstrate an understanding of the value of Canadian currency			
Specific Expectations **Money Concepts**			
F1.1 identify the various Canadian coins up to 50¢ and coins and bills up to $50, and compare their values	**Number Cluster 5: Composing and Decomposing** 21: Money Amounts **Number Cluster 8: Financial Literacy** 42: Value of Coins 43: Value of Bills 44: Counting Collections 47: Financial Literacy Consolidation	Buy 1-Get 1 **To Extend:** Family Fun Day Back to Batoche	**Big Idea: Numbers tell us how many and how much.** **Big Idea: Numbers are related in many ways.**