

Mathology 1 Correlation (Number Strand) – Nova Scotia

Specific Curriculum	Mathology Grade 1 Classroom	Mathology Little Books	Pearson Canada K-3 Mathematics Learning
Outcomes	Activity Kit		Progression
N01 Students will be expected to say the number sequence by • 1s, forward and backward between any two given numbers, 0 to 100 • 2s to 20, forward starting at 0 • 5s to 100, forward starting at 0, using a hundred chart or a number line • 10s to 100, forward starting at 0, using a hundred chart or a number line	Number Cluster 1: Counting 1: Counting to 20 2: Counting to 50 Number Cluster 4: Skip- Counting* 13: Skip-Counting Forward 14: Skip-Counting with Leftovers 16: Skip-Counting Consolidation Link to other strands: Patterning and Algebra Cluster 1: Investigating Repeating Patterns 4: Finding Patterns *also N03 and N07; activities include numbers to 50	 On Safari! Paddling the River (to 20) How Many Is Too Many To Scaffold: A Warm, Cozy Nest Let's Play Waltes! To Extend: What Would You Rather? Ways to Count 	 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 objects (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. Link to other strands: Representing and generalizing increasing/decreasing patterns Identifies and extends familiar number patterns and makes connections to addition (e.g., skip-counting by 2s, 5s, 10s).



NO2 Students will be expected to recognize, at a glance, and name the quantity represented by familiar arrangements of 1 to 10 objects or dots.	Number Cluster 2: Spatial Reasoning	 Paddling the River That's 10! To Scaffold: Lots of Dots! Acorns for Wilaiya Spot Check! 	Big Idea: Numbers tell us how many and how much. Recognizing quantities by subitizing Instantly recognizes quantities to 5 (i.e., perceptual subitizing). Uses grouping (e.g., arrays of dots) to determine quantity without counting by ones (i.e., conceptual subitizing).
NO3 Students will be expected to demonstrate an understanding of counting to 20 by • indicating that the last number said identifies "how many" • showing that any set has only one count • using the counting-on strategy	Number Cluster 1: Counting 3: Counting On and Back 5: Counting Consolidation Number Cluster 4: Skip Counting* 13: Skip-Counting Forward 14: Skip-Counting with Leftovers 16: Skip-Counting Consolidation *also N01 and N07	 How Many is Too Many? To Scaffold: Acorns for Wilaiya Let's Play Waltes! To Extend: Ways to Count 	Big Idea: Numbers tell us how many and how much. Applying the principles of counting Knows that the last counting word tells "how many" objects in a set (i.e., cardinality). Knows that rearranging objects in a set does not change the quantity (i.e., conservation of number). Big Idea: Quantities and numbers can be grouped by or partitioned into equal-sized units. Unitizing quantities and comparing units to the whole Partitions and skip-counts by equal-sized units and recognizes that the results will be the same when counted by ones (e.g., counting a set by 1s or by 5s gives the same result).



N04 Students will be expected to represent and partition numbers to 20.

Number Cluster 5: Composing and Decomposing

- 17: Decomposing 10
- 18: Numbers to 10
- 19: Numbers to 20
- 23: Composing and Decomposing Consolidation

Number Cluster 6: Early Place Value*

- 24: Tens and Ones
- 25: Building and Naming Numbers
- 26: Different Representations
- 27: Early Place Value Consolidation

*also N07; activities include numbers to 50

- That's 10!
- Canada's Oldest Sport

To Scaffold:

Dan's Doggy Daycare

To Extend:

- Back to Batoche
- A Class-full of Projects
- The Money Jar

Big Idea: Numbers tell us how many and how much.

Applying the principles of counting

 Creates a set to match a verbal number or written numeral.

Recognizing and writing numerals

- Names, writes, and matches numerals to numbers and quantities to 10.
- Names, writes, and matches two-digit numerals to quantities.

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.
- Decomposes/composes quantities to 20.

Big Idea: Quantities and numbers can be grouped by or partitioned into equal-sized units.

Unitizing quantities into ones, tens, and hundreds (place-value concepts)

 Composes teen numbers from units of ten and ones and decomposes teen numbers into units of ten with leftover ones.



N05 Students will be expected to compare sets containing up to 20 objects to solve problems using referents and one-to-one correspondence.	Number Cluster 3: Comparing and Ordering 9: Comparing Sets Concretely 10: Comparing Sets Pictorially 12: Comparing and Ordering 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? (sets to 50) Nutty and Wolfy To Scaffold: Animals Hide Acorns for Wilaiya To Extend: What Would You Rather? Kokum's Bannock 	 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. 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
N06 Students will be expected to estimate quantities to 20 by using referents.	Number Cluster 2: Spatial Reasoning 7: Estimating Quantities 8: Spatial Reasoning Consolidation* *also N02	 A Family Cookout (quantities to 50) At the Corn Farm (sets/quantities to 20) How Many is Too Many? (quantities to 50) To Scaffold: Acorns for Wilaiya 	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).



N07 Students will be expected to demonstrate an understanding of conservation of number for up to 20 objects.	Number Cluster 4: Skip-Counting* 13: Skip-Counting Forward 14: Skip-Counting with Leftovers 16: Skip-Counting Consolidation Number Cluster 5: Composing and Decomposing 21: Equal Groups 23:Composing and Decomposing Consolidation Number Cluster 6: Early Place Value** 24: Tens and Ones 25: Building and Naming Numbers	 A Family Cookout How Many is Too Many? To Extend: Ways to Count Marbles, Alleys, Mibs, and Guli! 	 Big Idea: Numbers tell us how many and how much. Applying the principles of counting Knows that rearranging objects in a set does not change the quantity (i.e., conservation of number). Big Idea: Quantities and numbers can be grouped by or partitioned into equal-sized units. Unitizing quantities into ones, tens, and hundreds (place-value concepts) Composes teen numbers from units of ten and ones and decomposes teen numbers into units of ten with leftover ones. Bundles quantities into tens and ones. Writes, reads, composes, and decomposes two-digit numbers as units of tens and leftover ones. Unitizing quantities and comparing units to the whole. Partitions into and skip-counts by equal-sized units and recognizes that the results will be the same when counted by ones (e.g., counting a set
	27: Early Place Value Consolidation *also N01 and N03; activities include numbers to 50 **also N04; activities include numbers to 50		by 1s or by 5s gives the same result). 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.
NO8 Students will be expected to identify the number, up to 20, that is one more, two more, one less, and two less than a given number.	Number Cluster 7: Operational Fluency • 28: More or Less* *also N10	 On Safari! Paddling the River How Many is Too Many? To Scaffold: Animals Hide 	Big idea: Numbers are related in many ways. Comparing and ordering quantity (multitude or magnitude) Knows what number is one or two more and one or two less than another number.



N09 Students will be expected to demonstrate an understanding of the addition of two single-digit numbers and the corresponding subtraction, concretely, pictorially, and symbolically in join, separate, equalize/compare, and partpart-whole situations.

Number Cluster 7: Operational Fluency

- 29: Adding to 20
- 31: The Number Line
- 33: Part-Part-Whole
- 34: Solving Story Problems
- 35: Operational Fluency Consolidation

- That's 10! (to 10)
- Hockey Time
- Cats and Kittens
- Buy 1 Get 1
- Canada's Oldest Sport

To Extend:

- Marbles, Alleys, Mibs, and Guli
- The Money Jar
- The Great Dogsled Race

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-partwhole, and compare).



N10 Students will be expected to use and describe strategies to determine sums and differences using manipulatives and visual aids. Strategies include

- counting on or counting back
- one more or one less
- making ten
- doubles
- near doubles

Number Cluster 7: Operational Fluency

- 28: More or Less*
- 29: Adding to 20**
- 30: Subtracting to 20
- 32: Doubles
- 33: Part-Part-Whole**

*also N08

**also N09

- On Safari! (one more, two more, doubling)
- That's 10! (counting on, making ten)
- Hockey Time! (doubles, counting on, counting back, differences)
- Cats and Kittens! (counting, known facts, commutative property)
- Buy 1 Get 1 (doubles, near doubles, counting, known facts)
- Canada's Oldest Sport (counting on, counting back, doubles, benchmarks)

To Scaffold:

• Animals Hide (one more, two more)

To Extend:

 Marbles, Alleys, Mibs, and Guli! (doubles, making tens, counting on)

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 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).
- Fluently adds and subtracts with quantities to 20

Big idea: Numbers are related in many ways.

Comparing and ordering quantity (multitude or magnitude)

 Knows what number is one or two more and one or two less than another number.





Mathology 1 Correlation (Patterns and Relations) – Nova Scotia

Learning Outcomes	Mathology Grade 1 Classroom Activity Kit	Mathology Little Books	Pearson Canada K-3 Mathematics Learning Progression
PR01 Students will be expected to demonstrate an understanding of repeating patterns (two to four elements) by describing, reproducing, extending, and creating patterns using manipulatives, diagrams, sounds, and actions.	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 Patterning and Algebra Cluster 2: Creating Patterns 6: Extending Patterns 8: Errors and Missing Elements 9: Creating Patterns Consolidation* *also PRO2 **also NO1	 Midnight and Snowfall To Scaffold: A Lot of Noise We Can Bead! To Extend: Pattern Quest 	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 Extends repeating patterns. Distinguishes between repeating and non-repeating sequences. Identifies the repeating unit (core) of a pattern. Predicts missing element(s) and corrects errors in repeating patterns. Recognizes similarities and differences between patterns. Reproduces, creates, and extends repeating patterns based on copies of the repeating unit (core).



PR02 Students will be expected to translate repeating patterns from one presentation to another.	Patterning and Algebra Cluster 1: Investigating Repeating Patterns • 2: Representing Patterns* Patterning and Algebra Cluster 2: Creating Patterns • 7: Translating Patterns • 9: Creating Patterns Consolidation* *also PR01	 Midnight and Snowfall To Scaffold: A Lot of Noise 	Big Idea: Regularity and repetition form patterns that can be generalized and predicted mathematically. Identifying, sorting, and classifying attributes and patterns mathematically (e.g., numbers of sides, shape, size) • Records and symbolizes attributes in different ways (e.g., using drawings, words, letters). Identifying, reproducing, extending, and creating patterns that repeat • Represents the same pattern in different ways (i.e., translating to different symbols, objects, sounds, actions).
PR03 Students will be expected to describe equality as a balance an inequality as an imbalance, concretely and pictorially (0 to 20).	Patterning and Algebra Cluster 3: Equality and Equality 10: Exploring Sets* 11: Making Equal Sets* 13: Equality and Inequality Consolidation** *also N05 **also PR04	 Nutty and Wolfy That's 10! To Extend: Kokum's Bannock 	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. Models and describes equality (balance; the same as) and inequality (imbalance; not the same as).
PR04 Students will be expected to record equalities using the equal symbol.	Patterning and Algebra Cluster 3: Equality and Equality 12: Using Symbols 13: Equality and Inequality Consolidation* *also PR03	 Nutty and Wolfy To Extend: Kokum's Bannock Family Fun Day Array's Bakery 	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. Writes equivalent addition and subtraction equations in different forms (e.g., 8 = 5 + 3; 3 + 5 = 8). Using symbols, unknowns, and variables to represent mathematical relations Uses the equal (=) symbol in equations and knows its meaning (i.e., equivalent; is the same as). Understands and uses the equal (=) and not equal (≠) symbols when comparing expressions.





Mathology 1 Correlation (Measurement) – Nova Scotia

Learning Outcomes	Mathology Grade 1 Classroom	Mathology Little Books	Pearson Canada K-3 Mathematics Learning Progression
M01 Students will be expected to demonstrate an understanding of measurement as a process of comparing by • identifying attributes that can be compared • ordering objects • making statements of comparison • filling, covering, or matching	Activity Kit Measurement Cluster 1: Comparing Objects 1: Comparing Length 2: Comparing Mass 3: Comparing Capacity 4: Making Comparisons 5: Comparing Area 6: Comparing Objects Consolidation	 The Amazing Seed Animal Measures To Scaffold: To Be Long The Best in Show To Extend: Getting Ready for School The Discovery 	Progression 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). Understands that some things have more than one attribute that can be measured (e.g., an object can have both length and mass).
			 Understands conservation of length (e.g., a string is the same length when straight and not straight), capacity (e.g., two differently shaped containers may hold the same amount), and area (e.g., two surfaces of different shapes can have the same area).
			 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). Compares objects indirectly by using an intermediary object. Uses relative attributes to compare and order (e.g., longer/longest, taller/tallest, shorter/shortest).





Mathology 1 Correlation (Geometry) – Nova Scotia

Learning Outcomes	Mathology Grade 1 Classroom Activity Kit	Mathology Little Books	Pearson Canada K-3 Mathematics Learning Progression
G01 Students will be expected to sort 3-D objects and 2-D shapes using one attributes and explain the sorting rule.	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 8: Sorting 3-D Solids 9: Identifying the Sorting Rule 10: 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 	Patterning and Algebra Big Idea: Regularity and repetition form patterns that can be generalized and predicted mathematically. Identifying, sorting, and classifying attributes and patterns mathematically (e.g., numbers 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. Big Idea: 2-D shapes and 3-D solids can be analyzed and classified in different ways by their attributes. Investigating geometric attributes and properties of 2-D Shapes and 3-D solids • 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).



G02 Students will be expected to replicate composite 2-D shapes and 3-D objects.	Geometry Cluster 3: Geometric Relationships 11: Faces of Solids* 12: Making Designs 13: Covering Outlines 14: Identifying Shapes 15: Geometric Relationships Consolidation *also G03	 The Tailor Shop To Scaffold: The Castle Wall To Extend: Sharing Our Stories 	 Big idea: 2-D shapes and 3-D solids can be analyzed and classified in different ways by their attributes. Investigating 2-D shapes, 3-D solids, and their attributes through composition and decomposition Models and draws 2-D shapes and 3-D solids from component parts. Constructs composite pictures or structures with 2-D shapes and 3-D solids. Constructs and identifies new 2-D shapes and 3-D solids as a composite of other 2-D shapes and 3-D solids. Decomposes and 2-D shapes and 3-D solids into other known 2-D shapes and 3-D solids. Completes a picture outline with shapes in more than one way
G03 Students will be expected to identify 2-D shapes in 3-D objects.	Geometry Cluster 2: 3-D Solids11: Faces of Solids**also G02	 What Was Here? Memory Book 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 Recognizes 2-D shapes and 3-D solids embedded in other images or objects. Identifies 2-D shapes in 3-D objects in the environment.



Note: The following activities are not specifically correlated to the Nova Scotia learning outcomes for Grade 1 but may be of interest to teachers in preparing a strong foundation for mathematics:

Number Activity 4: Ordinal Numbers

Number Activity 11: Comparing Numbers to 50

Number Activity 15: Skip-Counting Backward

Number Activity 20: Money Amounts

Number Activity 22: Equal Parts (introduction to fractions)

Number Activities 36 – 40: Financial Literacy

Geometry Cluster 4 Activities 16-18: Symmetry

Geometry Cluster 5 Activities 19-21: Location and Movement

Measurement Cluster 2 Activities 7-14: Using Uniform Units

Measurement Cluster 3 Activities 15-21: Time and Temperature

Data Management and Probability Cluster 1 Activities 1-4: Data Management

Data Management and Probability Cluster 2 Activities 5-6: Probability and Chance

