

Mathology 1 Correlation (Number Strand) – British Columbia*

Learning Standards	Mathology Grade 1 Classroom Activity Kit	Mathology Little Books	Pearson Canada K-3 Mathematics Learning Progression
Learning Content and Curricular Competencies			
N1 Number concepts to 20			
<p>N1.1a Counting: Counting on and counting back</p>	<p>Number Cluster 1: Counting</p> <ul style="list-style-type: none"> • 1: Counting to 20* [RA, US, CR] • 2: Counting to 50** [RA, US, CR] • 3: Counting On and Back** [RA, US, CR, ConR] • 5: Counting Consolidation** [RA, US, CR] <p>Additional Connections: *also N1.1c, N1.2, N1.3, N2.4, N2.5, N3.5 **also N1.1c, N2.4, N2.5</p>	<p>On Safari!</p> <ul style="list-style-type: none"> • count sets to 20 • add 1 or 2 <p>Paddling the River</p> <ul style="list-style-type: none"> • count, compare, and order to 20 • compose and decompose to 20 <p>Family Cookout</p> <ul style="list-style-type: none"> • compare and order quantities to 25 • estimate and count to 50 <p>To Scaffold: A Warm, Cozy Nest Lots of Dots! Animals Hide Dan’s Doggy Daycare Acorns for Wilaiya</p>	<p style="background-color: #FFDAB9;">Big Idea: Numbers tell us how many and how much.</p> <p>Applying the principles of counting</p> <ul style="list-style-type: none"> - 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. - Knows that rearranging objects in a set does not change the quantity (i.e., conservation of number). - Uses number patterns to bridge tens when counting forward and backward (e.g., 39, 40, 41).

*codes given to curriculum expectations are for cross-referencing purposes only

<p>N1.1b Counting: Skip-counting by 2 and 5</p>	<p>Number Cluster 4: Skip-Counting</p> <ul style="list-style-type: none"> • 13: Skip-Counting Forward [RA, CR, ConR] • 14: Skip-Counting with Leftovers [RA, CR, ConR] • 15: Skip-Counting Backward [RA, CR, ConR] • 16: Skip-Counting Consolidation [RA, CR, ConR] <p>Number Cluster 8: Financial Literacy</p> <ul style="list-style-type: none"> • 37: Counting Collections* [RA, CR] • 40: Financial Literacy Consolidation** [RA, CR, ConR] <p><i>Link to other strands:</i> Patterning and Algebra Cluster 1: Investigating Repeating Patterns</p> <ul style="list-style-type: none"> • 4: Finding Patterns [RA, US, CR] <p>Additional Connections: *also N4.1, N4.2 **also N4.3, N4.4</p>	<p>On Safari!</p> <ul style="list-style-type: none"> • count sets to 20 • add 1 or 2 <p>Paddling the River</p> <ul style="list-style-type: none"> • count, compare, and order to 20 • compose and decompose to 20 <p>How Many Is Too Many?</p> <ul style="list-style-type: none"> • estimate and group to skip-count to 50 • compare quantities to 50 <p>To Extend: What Would You Rather? Ways to Count</p>	<p>Big Idea: Numbers tell us how many and how much.</p>
			<p>Applying the principles of counting</p> <ul style="list-style-type: none"> - Knows that the last counting word tells “how many “objects in a set (i.e., cardinality). - Fluently skip-counts by factors of 10 (e.g., 2, 5, 10) and multiples of 10 from any given number.
			<p>Big idea: Quantities and numbers can be grouped by or partitioned into equal-sized units.</p>
			<p>Unitizing quantities and comparing units to the whole</p> <ul style="list-style-type: none"> - 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 by 1s or by 5s gives the same result). - Recognizes that, for a given quantity, increasing the number of sets decreases the number of objects in each set.
			<p>Big idea: Quantities and numbers can be grouped by, and partitioned into, units to determine how many or how much</p>
			<p>Developing conceptual meaning of multiplication and division</p> <ul style="list-style-type: none"> - Groups objects in 2s, 5s, and 10s. <p><i>Link to other strands:</i> Representing and generalizing increasing/decreasing patterns</p> <ul style="list-style-type: none"> - Identifies and extends familiar number patterns and makes connections to addition (e.g., skip-counting by 2s, 5s, 10s).

<p>N1.1c Counting: Sequencing numbers to 20</p>	<p>Number Cluster 1: Counting</p> <ul style="list-style-type: none"> • 1: Counting to 20* [RA, US, CR] • 2: Counting to 50** [RA, US, CR] • 3: Counting On and Back** [RA, US, CR, ConR] • 5: Counting Consolidation** [RA, US, CR] <p>Additional Connections: *also N1.1a, N1.2, N1.3, N2.4, N2.5, N3.5 * also N1.1a, N2.4, N2.5</p>	<p>On Safari!</p> <ul style="list-style-type: none"> • count sets to 20 • add 1 or 2 <p>Paddling the River</p> <ul style="list-style-type: none"> • count, compare, and order to 20 • compose and decompose to 20 <p>A Family Cookout</p> <ul style="list-style-type: none"> • compare and order quantities to 25 • estimate and count to 50 <p>To Scaffold: A Warm, Cozy Nest Lots of Dots! Acorns for Wilaiya Spot Check! Let's Play Waltes!</p>	<p>Big Idea: Numbers tell us how many and how much.</p> <p>Applying the principles of counting</p> <ul style="list-style-type: none"> - Says the number name sequence starting with 1 and counting forward. - Says the number name sequence backward from numbers to 10. - Says the number name sequence forward through the teen numbers. - Says the number name sequences forward and backward from a given number.
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<p>N1.1d Counting: Comparing and ordering numbers to 20</p>	<p>Number Cluster 3: Comparing and Ordering</p> <ul style="list-style-type: none"> • 9: Comparing Sets Concretely [RA, US, CR] • 10: Comparing Sets Pictorially [RA, US, CR] • 11: Comparing Numbers to 50 [RA, US, CR] • 12: Comparing and Ordering Consolidation [RA, US, CR] <p><i>Link to other strands:</i> Patterning and Algebra Cluster 3: Equality and Inequality</p> <ul style="list-style-type: none"> • 10: <i>Exploring Sets</i> [RA, CR, ConR] • 11: <i>Making Equal Sets</i> [RA, CR, ConR] 	<p>Padding the River</p> <ul style="list-style-type: none"> • count, compare, and order to 20 • compose and decompose to 20 <p>A Family Cookout (<i>to 50</i>)</p> <ul style="list-style-type: none"> • compare and order quantities to 25 • estimate and count to 50 <p>At the Corn Farm</p> <ul style="list-style-type: none"> • group quantities based on units of 10 • compare and order sets/quantities to 20 <p>How Many is Too Many? (<i>to 50</i>)</p> <ul style="list-style-type: none"> • estimate and group to skip-count to 50 • compare quantities to 50 <p>Nutty and Wolfy</p> <ul style="list-style-type: none"> • explore equality and inequality • compare quantities to 20 <p>To Scaffold: Animals Hide Acorns for Wilaiya</p> <p>To Extend: What Would You Rather?</p>	<p>Big idea: Numbers are related in many ways</p> <p>Comparing and ordering quantities (multitude or magnitude)</p> <ul style="list-style-type: none"> - 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. - Determines how many more/less one quantities is compared to another. - Orders three or more quantities to 20 using sets and/or numerals. <p><i>Link to other strands:</i> <i>Understanding equality and inequality, building on generalized properties of numbers and operations</i> - Creates a set that is more/less or equal to a given set</p>
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<p>N1.1e Counting: Numbers to 20 can be arranged and recognized</p>	<p>Number Cluster 5: Composing and Decomposing</p> <ul style="list-style-type: none"> • 19: Numbers to 20* [RA, US, CR] • 20: Money Amounts** [RA, US, CR] • 21: Equal Groups* [US, CR] • 23: Composing and Decomposing Consolidation** [RA, US, CR] <p>Additional Connections: *also N3.1 **also N3.1, N4.1</p>	<p>Padding the River</p> <ul style="list-style-type: none"> • count, compare, and order to 20 • compose and decompose to 20 <p>At the Corn Farm</p> <ul style="list-style-type: none"> • group quantities based on units of 10 • compare and order sets/quantities to 20 <p>That's 10!</p> <ul style="list-style-type: none"> • add and subtract to 10 • compose and decompose 10 <p>Hockey Time!</p> <ul style="list-style-type: none"> • add and subtract to 20 • compose and decompose to 20 <p>To Scaffold: Dan's Doggy Daycare Let's Play Waltes!</p> <p>To Extend: Family Fun Day</p>	<p>Big Idea: Numbers are related in many ways.</p> <p>Decomposing wholes into parts and composing wholes from parts. - Composes and decomposes quantities to 20.</p>
<p>N1.1f Counting: Subitizing</p>	<p>Number Cluster 2: Spatial Reasoning</p> <ul style="list-style-type: none"> • 6: Subitizing to 10 [RA, CR, ConR] • 8: Spatial Reasoning Consolidation* [RA, US, CR, ConR] <p>Additional Connection: *also N2.3</p>	<p>That's 10!</p> <ul style="list-style-type: none"> • add and subtract to 10 • compose and decompose 10 <p>To Scaffold: Lots of Dots! Spot Check! Time for Games</p>	<p>Big Idea: Numbers tell us how many and how much.</p> <p>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).</p>

<p>N1.1g Counting: Base 10</p>	<p>Number Cluster 6: Early Place Value*</p> <ul style="list-style-type: none"> • 24: Tens and Ones [RA, CR] • 25: Building and Naming Numbers [RA, CR] • 26: Different Representations [RA, CR, ConR] • 27: Early Place Value Consolidation [RA, CR, ConR] <p>Additional Connection: *also N1.1h; activities include numbers to 50</p>	<p>At the Corn Farm</p> <ul style="list-style-type: none"> • group quantities based on units of 10 • compare and order sets/quantities to 20 <p>To Extend: Back to Batoche A Class-full of Projects</p>	<p>Big Idea: Quantities and numbers can be grouped by or partitioned into equal-sized units.</p> <p>Unitizing quantities into ones, tens, and hundreds (place-value concepts).</p> <ul style="list-style-type: none"> - 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.
<p>N1.1h Counting: 10 and some more</p>	<p>Number Cluster 6: Early Place Value*</p> <ul style="list-style-type: none"> • 24: Tens and Ones [RA, CR] • 25: Building and Naming Numbers [RA, CR] • 26: Different Representations [RA, CR, ConR] • 27: Early Place Value Consolidation, [RA, CR, ConR] <p>Additional Connection: *also N1.1g; activities include numbers to 50</p>	<p>At the Corn Farm</p> <ul style="list-style-type: none"> • group quantities based on units of 10 • compare and order sets/quantities to 20 <p>To Extend: Back to Batoche A Class-full of Projects</p>	<p>Big Idea: Quantities and numbers can be grouped by or partitioned into equal-sized units.</p> <p>Unitizing quantities into ones, tens, and hundreds (place-value concepts).</p> <ul style="list-style-type: none"> - 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.

<p>N1.2 Books published by Native Northwest: <i>Learn to Count</i>, by various artists; <i>Counting Wild Bears</i>, by Gryn White; <i>We All Count</i>, by Jason Adair; <i>We All Count</i>, by Julie Flett (nativenorthwest.com) using counting collections made of local materials; counting in different languages; different First Peoples counting systems (e.g., Tsimshian)</p> <p>N1.3 <i>Tlingit Math Book</i> (yukon-ed-show-me-your-math.wikispaces.com/file/detail/Tlingit Math Book.pdf)</p>	<p>Number Cluster 1: Counting*</p> <ul style="list-style-type: none"> • 1: Counting to 20 [RA, US, CR] <p>Additional Connections: *also N1.1a, N1.1c, N1.3, N2.4, N2.5, N3.5</p>	<p>Padding the River</p> <ul style="list-style-type: none"> • count, compare, and order to 20 • compose and decompose to 20 <p>A Family Cookout</p> <ul style="list-style-type: none"> • compare and order quantities to 25 • estimate and count to 50 <p>To Scaffold: Acorns for Wilaiya Let's Play Waltes</p>	<p>Big Idea: Numbers tell us how many and how much.</p> <p>Applying the principles of counting</p> <ul style="list-style-type: none"> - 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. - Knows that rearranging objects in a set does not change the quantity (i.e., conservation of number). - Uses number patterns to bridge tens when counting forward and backward (e.g., 39, 40, 41).
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Learning Standards	Mathology Grade 1 Classroom Activity Kit	Mathology Little Books	Pearson Canada K-3 Mathematics Learning Progression
Learning Content and Curricular Competencies N2 Ways to make 10			
N2.1 Decomposing 10 into parts	Number Cluster 5: Composing and Decomposing* <ul style="list-style-type: none"> 17: Decomposing 10 [RA, US, CR, ConR] 18: Numbers to 10 [RA, US, CR] Additional Connection: *also N2.2	That's 10! <ul style="list-style-type: none"> add and subtract to 10 compose and decompose 10 To Scaffold: Lots of Dots! Dan's Doggy Daycare 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.
N2.2 Numbers to 10 can be arranged and recognized	Number Cluster 5: Composing and Decomposing* <ul style="list-style-type: none"> 17: Decomposing 10 [RA, US, CR, ConR] 18: Numbers to 10 [RA, US, CR] Additional Connection: *also N2.1	That's 10! <ul style="list-style-type: none"> add and subtract to 10 compose and decompose 10 To Scaffold: Lots of Dots! Dan's Doggy Daycare Let's Play Waltes!	Big Idea: Numbers are related in many ways. Decomposing wholes into parts and composing wholes from parts - Decomposes quantities to 10 into parts and remembers the whole.
N2.3 Benchmarks of 10 and 20	Number Cluster 2: Spatial Reasoning <ul style="list-style-type: none"> 7: Estimating Quantities [RA, US, CR, ConR] 8: Spatial Reasoning Consolidation* [RA, US, CR, ConR] Additional Connection: *also N1.1f	A Family Cookout <ul style="list-style-type: none"> compare and order quantities to 25 estimate and count to 50 At the Corn Farm <ul style="list-style-type: none"> group quantities based on units of 10 compare and order sets/quantities to 20 How Many Is Too Many? <ul style="list-style-type: none"> estimate and group to skip-count to 50 compare 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).

<p>N2.4 Traditional First Peoples counting methods involved using fingers to count to 5 and for groups of 5</p> <p>N2.5 Traditional songs/singing and stories</p>	<p>Number Cluster 1: Counting</p> <ul style="list-style-type: none"> • 1: Counting to 20* [RA, US, CR] • 2: Counting to 50** [RA, US, CR] • 3: Counting On and Back** [RA, US, CR, ConR] • 5: Counting Consolidation** [RA, US, CR] <p>Number Cluster 7: Operational Fluency</p> <ul style="list-style-type: none"> • 29: Adding to 20*** [RA, CR, ConR] <p>Additional Connections: *also N1.1a, N1.1c, N1.2, N1.3, N3.5 **also N1.1a, N1.1c ***also N3.1, N3.2</p>	<p>Paddling the River</p> <ul style="list-style-type: none"> • count, compare, and order to 20 • compose and decompose to 20 <p>A Family Cookout</p> <ul style="list-style-type: none"> • compare and order quantities to 25 • estimate and count to 50 <p>At the Corn Farm</p> <ul style="list-style-type: none"> • group quantities based on units of 10 • compare and order sets/quantities to 20 <p>To Scaffold: Acorns for Wilaiya Let's Play Waltes!</p> <p>To Extend: Batch to Batoche</p>	<p>Big Idea: Numbers tell us how many and how much.</p> <p>Applying the principles of counting</p> <ul style="list-style-type: none"> - 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. - Knows that rearranging objects in a set does not change the quantity (i.e., conservation of 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.
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Learning Standards	Mathology Grade 1 Classroom Activity Kit	Mathology Little Books	Pearson Canada K-3 Mathematics Learning Progression
Learning Content and Curricular Competencies N3 Addition and subtraction to 20 (understanding of operation and process)			
N3.1 Decomposing 20 into parts	<p>Number Cluster 5: Composing and Decomposing</p> <ul style="list-style-type: none"> 19: Numbers to 20⁽¹⁾ [RA, US, CR] 20: Money Amounts⁽²⁾ [RA, US, CR] 21: Equal Groups⁽¹⁾ [US, CR] 23: Composing and Decomposing Consolidation⁽²⁾ [RA, US, CR] <p>Number Cluster 7: Operational Fluency</p> <ul style="list-style-type: none"> 29: Adding to 20⁽³⁾ [RA, CR, ConR] 30: Subtracting to 20⁽⁴⁾ [RA, CR, ConR] 31: The Number Line [RA, CR, ConR] 33: Part-Part-Whole⁽⁵⁾ [RA, US, ConR] 34: Solving Story Problems⁽⁶⁾ [RA, US, CR] 35: Operational Fluency Consolidation⁽⁷⁾ [RA, US, CR] <p>Additional Connections: ⁽¹⁾ also N1.1e ⁽²⁾ also N1.1e, N4.1 ⁽³⁾ also N2.4, N2.5, N3.2 ⁽⁴⁾ also N3.2 ⁽⁵⁾ also N3.2, N3.3 ⁽⁶⁾ also N3.3 ⁽⁷⁾ also N3.3, N3.4</p>	<p>Padding the River</p> <ul style="list-style-type: none"> count, compare, and order to 20 compose and decompose to 20 <p>At the Corn Farm</p> <ul style="list-style-type: none"> group quantities based on units of 10 compare and order sets/quantities to 20 <p>Buy 1 – Get 1</p> <ul style="list-style-type: none"> add and subtract to 20 develop addition and subtraction strategies <p>Hockey Time!</p> <ul style="list-style-type: none"> add and subtract to 20 compose and decompose to 20 <p>To Scaffold: Dan’s Doggy Daycare</p> <p>To Extend: Back to Batoche A Class-full of Projects The Money Jar</p>	<p>Big idea: Numbers are related in many ways.</p> <p>Decomposing wholes into parts and composing wholes from parts. - Composes and decomposes quantities to 20.</p> <p>Big Idea: Quantities and numbers can be added and subtracted to determine how many or how much.</p> <p>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).</p>

<p>N3.2 Mental math strategies:</p> <ul style="list-style-type: none"> counting on making 10 doubles 	<p>Number Cluster 7: Operational Fluency</p> <ul style="list-style-type: none"> 28: More or Less [RA, US, CR] 29: Adding to 20* [RA, CR, ConR] 30: Subtracting to 20** [RA, CR, ConR] 32: Doubles [US, CR] 33: Part-Part-Whole*** [RA, US, CR] <p>Additional Connections: *also N2.4, N2.5, N3.1 ** also N3.1 ***also N3.1, N3.3</p>	<p>That's 10! (<i>counting on, making ten</i>)</p> <ul style="list-style-type: none"> add and subtract to 10 compose and decompose 10 <p>Hockey Time! (<i>doubles, counting on, counting back, differences</i>)</p> <ul style="list-style-type: none"> add and subtract to 20 compose and decompose to 20 <p>Cats and Kittens! (<i>counting, known facts, commutative property</i>)</p> <ul style="list-style-type: none"> add and subtract to 20 compare quantities to 20 <p>Buy 1 – Get 1 (<i>doubles, near doubles, counting, known facts</i>)</p> <p>On Safari! (<i>one more, two more, doubling</i>)</p> <ul style="list-style-type: none"> add and subtract to 20 develop addition and subtraction strategies <p>Canada's Oldest Sport (<i>counting on, counting back, doubles, benchmarks</i>)</p> <ul style="list-style-type: none"> add and subtract to 20 compare and order sets to 20 <p>To Extend: Marbles, Alleys, Mibs, and Guli! (<i>doubles, making tens, counting on</i>)</p>	<p>Big Idea: Quantities and numbers can be added and subtracted to determine how many or how much.</p> <p>Developing fluency of addition and subtraction</p> <ul style="list-style-type: none"> 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). <p>Big idea: Numbers are related in many ways.</p> <p>Comparing and ordering quantity (multitude or magnitude)</p> <ul style="list-style-type: none"> Knows what number is one or two more and one or two less than another number.
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<p>N3.3 Addition and subtraction are related</p>	<p>Number Cluster 7: Operational Fluency</p> <ul style="list-style-type: none"> • 33: Part-Part-Whole* [RA, US, CR] • 34: Solving Story Problems** [RA, US, CR] • 35: Operational Fluency Consolidation*** [RA, US, CR] <p>Additional Connections: *also N3.1, N3.2 **also N3.1 ***also N3.1, N3.4</p>	<p>To Extend: A Class-full of Projects</p>	<p>Big Idea: Quantities and numbers can be added and subtracted to determine how many or how much.</p> <p>Developing conceptual meaning of addition and subtraction</p> <ul style="list-style-type: none"> - Models and symbolizes addition and subtraction problem types (i.e., join, separate, part-part-whole, and compare). - Relates addition and subtraction as inverse operations.
<p>N3.4 Whole-class number talks</p>	<p>Number Cluster 7: Operational Fluency</p> <ul style="list-style-type: none"> • 35: Operational Fluency Consolidation* [RA, US, CR] <p>Additional Connections: *also N3.1, N3.3</p>	<p>That's 10!</p> <ul style="list-style-type: none"> • add and subtract to 10 • compose and decompose 10 <p>Hockey Time!</p> <ul style="list-style-type: none"> • add and subtract to 20 • compose and decompose to 20 <p>Cats and Kittens!</p> <ul style="list-style-type: none"> • add and subtract to 20 • compare quantities to 20 <p>Buy 1 – Get 1</p> <ul style="list-style-type: none"> • add and subtract to 20 • develop addition and subtraction strategies <p>Canada's Oldest Sport</p> <ul style="list-style-type: none"> • add and subtract to 20 • compare and order sets to 20 <p>To Extend: Array's Bakery Marbles, Alleys, Mibs, and Guli!</p>	<p>Big Idea: Quantities and numbers can be added and subtracted to determine how many or how much.</p> <p>Developing fluency of addition and subtraction</p> <ul style="list-style-type: none"> - 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).

<p>N3.5 Nature scavenger hunt in Kaska Counting Book (yukon-ed-show-me-your-math.wikispaces.com/file/detail/Kaska Counting Book.pdf)</p>	<p>Number Cluster 1: Counting</p> <ul style="list-style-type: none"> • 1: Counting to 20* [RA, US, CR] <p>Number Cluster 8: Financial Literacy</p> <ul style="list-style-type: none"> • 38: Fair Trades** [RA, CR] <p>Additional Connections: *also N1.1a, N1.1c, N1.2, N1.3, N2.4, N2.5 **also N4.5</p>	<p>To Scaffold:</p> <ul style="list-style-type: none"> • Acorns for Wilaiya 	<p>Big Idea: Numbers tell us how many and how much.</p> <p>Applying the principles of counting</p> <ul style="list-style-type: none"> - 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. - Knows that rearranging objects in a set does not change the quantity (i.e., conservation of 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.
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Learning Standards	Mathology Grade 1 Classroom Activity Kit	Mathology Little Books	Pearson Canada K-3 Mathematics Learning Progression
Learning Content and Curricular Competencies			
N4 Financial Literacy – values of coins and monetary exchanges			
N4.1 Identifying values of coins (nickels, dimes, quarters, loonies, and toonies)	Number Cluster 5: Composing and Decomposing* <ul style="list-style-type: none"> 20: Money Amounts [RA, US, CR] 23: Composing and Decomposing Consolidation [RA, US, CR] Number Cluster 8: Financial Literacy <ul style="list-style-type: none"> 36: Value of Coins [RA, CR] 37: Counting Collections** [RA, CR] Additional Connections: *also N1.1e, N3.1 **also N1.1b, N4.2	To Extend: Family Fun Day (<i>coins and bills</i>) Back to Batoche The Money Jar	No direct correlation.
N4.2 Counting multiples of the same denomination (nickels, dimes, loonies, and toonies)	Number Cluster 8: Financial Literacy <ul style="list-style-type: none"> 37: Counting Collections * [RA, CR] Additional Connections: *also N1.1b, N4.1	To Extend: Family Fun Day (<i>coins and bills</i>) Back to Batoche The Money Jar	Big Idea: Numbers tell us how many and how much. Applying the principles of counting - Fluently skip-counts by factors of 10 (e.g., 2, 5, 10) and multiples of 10 from any given number 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 - Groups objects in 2s, 5s, and 10s.

<p>N4.3 Money is a medium of exchange.</p>	<p>Number Cluster 8: Financial Literacy</p> <ul style="list-style-type: none"> • 40: Financial Literacy Consolidation* [RA, CR, ConR] <p>Additional Connections: *also N1.1b, N4.4</p>	<p>To Extend: Family Fun Day (<i>coins and bills</i>) Back to Batoche The Money Jar</p>	<p>No direct correlation.</p>
<p>N4.4 Role-playing financial transactions (e.g., using coins and whole numbers), integrating the concept of wants and needs</p>	<p>Number Cluster 8: Financial Literacy</p> <ul style="list-style-type: none"> • 39: Wants and Needs [RA, CR] • 40: Financial Literacy Consolidation** [RA, CR, ConR] <p>Additional Connections: *also N1.1b, N4.3</p>	<p>No direct correlation.</p>	<p>No direct correlation.</p>
<p>N4.5 Trade games, with understanding that objects have variable value or worth (shells, beads, furs, tools)</p>	<p>Number Cluster 8: Financial Literacy</p> <ul style="list-style-type: none"> • 38: Fair Trades* [RA, CR] <p>Additional Connection: *also N3.5</p>	<p>No direct correlation.</p>	<p>No direct correlation.</p>

Note: The following activities are not specifically correlated to the British Columbia curriculum learning standards for Grade 1 but may be of interest to teachers in preparing a strong foundation for mathematics:

Activity 4: Ordinal numbers [US, CR, ConR]

Activity 22: Equal Parts [RA, US, CR]

Mathology 1 Correlation (Patterning and Algebra) – British Columbia*

Learning Standards	Mathology Grade 1 Classroom Activity Kit	Mathology Little Books	Pearson Canada K-3 Mathematics Learning Progression
Learning Content and Curricular Competencies P1 Repeating patterns with multiple elements and attributes			
P1.1 Identifying sorting rules	<p>Patterning and Algebra Cluster 1: Investigating Repeating Patterns</p> <ul style="list-style-type: none"> 1: Repeating the Core⁽¹⁾ [RA, US, CR] 5: Investigating Repeating Patterns Consolidation⁽¹⁾ [RA, US, CR] <p><i>Links to Other Strands:</i></p> <p>Geometry Cluster 1: 2-D Shapes</p> <ul style="list-style-type: none"> 1: <i>Sorting Shapes</i>⁽²⁾ [RA, CR, ConR] 2: <i>Identifying Triangles</i>⁽³⁾ [RA, US, CR, ConR] 3: <i>Identifying Rectangles</i>⁽³⁾ [RA, US, CR, ConR] 5: <i>Sorting Rules</i>⁽¹⁾ [RA, US, CR, ConR] 6: <i>2-D Shapes Consolidation</i>⁽²⁾ [RA, US, CR, ConR] <p>Geometry Cluster 2: 3-D Solids</p> <ul style="list-style-type: none"> 7: <i>Exploring 3-D Solids</i>⁽²⁾ [RA, US, CR] 8: <i>Sorting 3-D Solids</i>⁽²⁾ [RA, US, CR] 9: <i>Identifying the Sorting Rule</i>⁽²⁾ [RA, US, CR, ConR] 10: <i>3-D Solids Consolidation</i>⁽²⁾ [RA, US, CR, ConR] <p>Additional Connections: ⁽¹⁾also P1.2, P1.4, G1.1 ⁽²⁾also G1.1 ⁽³⁾also G1.1, G1.2</p>	<p>Midnight and Snowfall</p> <ul style="list-style-type: none"> identify and describe repeating patterns compare and create patterns <p>What Was Here?</p> <ul style="list-style-type: none"> find and describe shapes and solids explore and classify shapes and solids <p>To Scaffold: We Can Bead! The Castle Wall</p>	<p>Big Idea: Regularity and repetition form patterns that can be generalized and predicted mathematically.</p> <p>Identifying, sorting, and classifying attributes and patterns mathematically (e.g., number of sides, shape, size)</p> <ul style="list-style-type: none"> Identifies different attributes of objects (e.g., buttons with different sizes, colours, shapes, number of holes). Identifies variations of an attribute (e.g., buttons can have 0, 2, or 4 holes). 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.

*codes given to learning standards (e.g., P1, P1.1 ...) are for cross-referencing purposes only

<p>P1.2 Repeating patterns with multiple elements/attributes</p>	<p>Patterning and Algebra Cluster 1: Investigating Repeating Patterns</p> <ul style="list-style-type: none"> • 1: Repeating the Core⁽¹⁾ [RA, US, CR] • 2: Representing Patterns⁽²⁾ [RA, US, CR] • 3: Predicting Elements⁽³⁾ [RA, US, CR] • 4: Finding Patterns⁽⁴⁾ [RA, US, CR] • 5: Investigating Repeating Patterns Consolidation⁽¹⁾ [RA, US, CR] <p>Patterning and Algebra Cluster 2: Creating Patterns</p> <ul style="list-style-type: none"> • 6: Extending Patterns [US, CR, ConR] • 7: Translating Patterns⁽⁵⁾ [US, CR, ConR] • 8: Errors and Missing Elements⁽³⁾ [RA, US, CR, ConR] • 9: Creating Patterns Consolidation⁽⁶⁾ [RA, US, CR, ConR] <p>Additional Connections: ⁽¹⁾also P1.2, P1.4, G1.1 ⁽²⁾also P1.4, ⁽³⁾also P1.5, ⁽⁴⁾also P1.6, P1.7, N1.1b ⁽⁵⁾also P1.3, P1.4, D2.2 ⁽⁶⁾also P1.3, P1.4, P1.5</p>	<p>Midnight and Snowfall</p> <ul style="list-style-type: none"> • identify and describe repeating patterns • compare and create patterns <p>To Scaffold: A Lot of Noise We Can Bead!</p> <p>To Extend: Pattern Quest</p>	<p>Big Idea: Regularity and repetition form patterns that can be generalized and predicted mathematically.</p> <p>Identifying, reproducing, extending, and creating patterns that repeat</p> <ul style="list-style-type: none"> • 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. • Recognizes similarities and differences between patterns. • Reproduces, creates, and extends repeating patterns based on copies of the repeating unit (core).
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<p>P1.3 Translating patterns from one representation to another (e.g., an orange blue pattern could be translated to a circle square pattern)</p>	<p>Patterning and Algebra Cluster 2: Creating Patterns</p> <ul style="list-style-type: none"> • 7: Translating Patterns⁽¹⁾ [US, CR, ConR] • 9: Creating Patterns Consolidation⁽²⁾ [RA, US, CR, ConR] <p>Additional Connections: ⁽¹⁾also P1.2, P1.4, D2.2 ⁽²⁾also P1.2, P1.4, P1.5</p>	<p>Midnight and Snowfall</p> <ul style="list-style-type: none"> • identify and describe repeating patterns • compare and create patterns 	<p>Big Idea: Regularity and repetition form patterns that can be generalized and predicted mathematically.</p> <p>Identifying, reproducing, extending, and creating patterns that repeat</p> <ul style="list-style-type: none"> • Represents the same pattern in different ways (i.e., translating to different symbols, objects, sounds, actions).
<p>P1.4 Letter coding of pattern</p>	<p>Patterning and Algebra Cluster 1: Investigating Repeating Patterns</p> <ul style="list-style-type: none"> • 1: Repeating the Core⁽¹⁾ [RA, US, CR] • 2: Representing Patterns⁽²⁾ [RA, US, CR] • 5: Investigating Repeating Patterns Consolidation⁽¹⁾ [RA, US, CR] <p>Patterning and Algebra Cluster 2: Creating Patterns</p> <ul style="list-style-type: none"> • 7: Translating Patterns⁽³⁾ [US, CR, ConR] • 9: Creating Patterns Consolidation⁽⁴⁾ [RA, US, CR, ConR] <p>Additional Connections: ⁽¹⁾also P1.1, P1.2, G1.1 ⁽²⁾also P1.2 ⁽³⁾also P1.2, P1.3, D2.2 ⁽⁴⁾also P1.2, P1.3, P1.5</p>	<p>Midnight and Snowfall</p> <ul style="list-style-type: none"> • identify and describe repeating patterns • compare and create patterns <p>To Scaffold: A Lot of Noise</p>	<p>Big Idea: Regularity and repetition form patterns that can be generalized and predicted mathematically.</p> <p>Identifying, sorting, and classifying attributes and patterns mathematically (e.g., numbers of sides, shape, size)</p> <ul style="list-style-type: none"> • Records and symbolizes attributes in different ways (e.g., using drawings, words, letters). <p>Identifying, reproducing, extending, and creating patterns that repeat</p> <ul style="list-style-type: none"> • Represents the same pattern in different ways (i.e., translating to different symbols, objects, sounds, actions).

<p>P1.5 Predicting an element in repeating patterns using a variety of strategies</p>	<p>Patterning and Algebra Cluster 1: Investigating Repeating Patterns</p> <ul style="list-style-type: none"> • 3: Predicting Elements⁽¹⁾ [RA, US, CR] <p>Patterning and Algebra Cluster 2: Creating Patterns</p> <ul style="list-style-type: none"> • 8: Errors and Missing Elements⁽¹⁾ [RA, US, CR, ConR] • 9: Creating Patterns Consolidation⁽²⁾ [RA, US, CR, ConR] <p>Additional Connections: ⁽¹⁾also P1.2 ⁽²⁾also P1.2, P1.3, P1.4</p>	<p>Midnight and Snowfall</p> <ul style="list-style-type: none"> • identify and describe repeating patterns • compare and create patterns 	<p>Big Idea: Regularity and repetition form patterns that can be generalized and predicted mathematically.</p> <p>Identifying, reproducing, extending, and creating patterns that repeat</p> <ul style="list-style-type: none"> • Predicts missing element(s) and corrects errors in repeating patterns.
<p>P1.6 Patterns using visuals (ten-frames, hundred charts)</p>	<p>Patterning and Algebra Cluster 1: Investigating Repeating Patterns</p> <ul style="list-style-type: none"> • 4: Finding Patterns⁽¹⁾ [RA, US, CR] <p>Additional Connections: ⁽¹⁾also P1.2, P1.7, N1.1b</p>	<p>To Extend: The Best Surprise Pattern Quest</p>	<p>Big Idea: Regularity and repetition form patterns that can be generalized and predicted mathematically.</p> <p>Representing and generalizing increasing/decreasing patterns</p> <ul style="list-style-type: none"> • Identifies and extends familiar number patterns and makes connections to addition (e.g., skip-counting by 2s, 5s, 10s).
<p>P1.7 Investigation numerical patterns (e.g., skip-counting by 2s or 5s on a hundred chart)</p>	<p>Patterning and Algebra Cluster 1: Investigating Repeating Patterns</p> <ul style="list-style-type: none"> • 4: Finding Patterns⁽¹⁾ [RA, US, CR] <p>Additional Connections: ⁽¹⁾also P1.2, P1.6, N1.1b</p>	<p>To Extend: The Best Surprise Pattern Quest</p>	<p>Big Idea: Regularity and repetition form patterns that can be generalized and predicted mathematically.</p> <p>Representing and generalizing increasing/decreasing patterns</p> <ul style="list-style-type: none"> • Identifies and extends familiar number patterns and makes connections to addition (e.g., skip-counting by 2s, 5s, 10s).

P1.8 Beading using 3-5 colours	<i>Link to other strands:</i> Geometry Cluster 4: Symmetry <ul style="list-style-type: none"> 18: Symmetry Consolidation [RA, CR, ConR] 	To Scaffold: 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 <ul style="list-style-type: none"> Reproduces, creates, and extends repeating patterns based on copies of the repeating unit (core).

Learning Standards	Mathology Grade 1 Classroom Activity Kit	Mathology Little Books	Pearson Canada K-3 Mathematics Learning Progression
Learning Content and Curricular Competencies P2 Change in quantity to 20, concretely and verbally			
P2.1 Verbally describing a change in quantity (e.g., I can build 7 and make it 10 by adding 3)	Patterning and Algebra Cluster 3: Equality and Equality <ul style="list-style-type: none"> 11: Making Equal Sets⁽¹⁾ [RA, CR, ConR] Additional Connections: ⁽¹⁾ also P3.1, N1.1d	Nutty and Wolfy <ul style="list-style-type: none"> explore equality and inequality compare quantities to 20 	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 <ul style="list-style-type: none"> 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).

Learning Standards	Mathology Grade 1 Classroom Activity Kit	Mathology Little Books	Pearson Canada K-3 Mathematics Learning Progression
Learning Content and Curricular Competencies P3 Meaning of equality and inequality			
<p>P3.1 Demonstrating and explaining the meaning of equality and inequality</p>	<p>Patterning and Algebra Cluster 3: Equality and Equality</p> <ul style="list-style-type: none"> 10: Exploring Sets⁽¹⁾ [RA, CR, ConR] 11: Making Equal Sets⁽²⁾ [RA, CR, ConR] 12: Using Symbols⁽³⁾ [RA, CR] 13: Equality and Inequality Consolidation⁽³⁾ [RA, CR] <p>Additional Connections: ⁽¹⁾also N1.1d ⁽²⁾also P2.1, N1.1d ⁽³⁾also N3.2</p>	<p>Nutty and Wolfy</p> <ul style="list-style-type: none"> explore equality and inequality compare quantities to 20 	<p>Big Idea: Patterns and relations can be represented with symbols, equations, and expressions.</p> <p>Understanding equality and inequality, building on generalized properties of numbers and operations</p> <ul style="list-style-type: none"> 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).
<p>P3.2 Recording equations symbolically using = and \neq</p>	<p>Patterning and Algebra Cluster 3: Equality and Equality</p> <ul style="list-style-type: none"> 12: Using Symbols⁽¹⁾ [RA, CR] 13: Equality and Inequality Consolidation⁽¹⁾ [RA, CR] <p>Additional Connections: ⁽¹⁾also P3.1</p>	<p>Nutty and Wolfy</p> <ul style="list-style-type: none"> explore equality and inequality compare quantities to 20 <p>To Extend: Kokum’s Bannock</p>	<p>Big Idea: Patterns and relations can be represented with symbols, equations, and expressions.</p> <p>Understanding equality and inequality, building on generalized properties of numbers and operations</p> <ul style="list-style-type: none"> Writes equivalent addition and subtraction equations in different forms (e.g., $8 = 5 + 3$; $3 + 5 = 8$). <p>Using symbols, unknowns, and variables to represent mathematical relations</p> <ul style="list-style-type: none"> 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 (\neq) symbols when comparing expressions.

Mathology 1 Correlation (Measurement) – British Columbia*

Learning Standards	Mathology Grade 1 Classroom Activity Kit	Mathology Little Books	Pearson Canada K-3 Mathematics Learning Progression
Learning Content and Curricular Competencies			
M1 Direct measurement with non-standard units (non-uniform and uniform)			
<p>M1.1 Non-uniform units are not consistent in size (e.g., children’s hands, pencils); uniform units are consistent in size (e.g., interlocking cubes, standard paper clips).</p>	<p>Measurement Cluster 2: Using Uniform Units</p> <ul style="list-style-type: none"> 8: Exploring the Metre⁽¹⁾ [RA, US, CR, ConR] 11: Measuring Length⁽²⁾ [US, ConR] 13: Measuring Area⁽³⁾ [RA, US] 15: Using Uniform Units Consolidation⁽⁴⁾ [RA, CR, ConR] <p>Additional Connections: ⁽¹⁾also M1.3, M1.7, M1.9 ⁽²⁾also M1.3, M1.5, M1.6, M1.8 ⁽³⁾also M1.3, M1.5 ⁽⁴⁾also M1.3, M1.4, M1.5</p>	<p>The Amazing Seed</p> <ul style="list-style-type: none"> estimate and compare attributes estimate and measure using non-standard units <p>Animal Measures</p> <ul style="list-style-type: none"> estimate and measure length compare measures according to length <p>To Extend: Getting Ready for School The Discovery</p>	<p>Big Idea: Many things in our world (e.g., objects, spaces, events) have attributes that can be measured and compared.</p> <p>Selecting and using non-standard units to estimate, measure, and make comparisons</p> <ul style="list-style-type: none"> Understands that units must be the same for measurements to be meaningful (e.g., must use same sized cubes to measure a desk). Selects and uses appropriate non-standard units to estimate, measure, and compare length, area, capacity, and mass. Uses non-standard units as referents to estimate length (e.g., paper clips), area (e.g., square tiles), mass (e.g., cubes), and capacity (e.g., cups).

*codes given to learning standards (e.g., M1, M1.1 ...) are for cross-referencing purposes only

<p>M1.2 Understanding the importance of using a baseline for direct comparison in linear measurement</p>	<p>Measurement Cluster 1: Comparing Objects</p> <ul style="list-style-type: none"> • 1: Comparing Length [RA, CR] <p>Measurement Cluster 2: Using Uniform Units</p> <ul style="list-style-type: none"> • 7: Matching Lengths [RA, CR, ConR] • 9: Using Multiple Units [RA, CR] • 10: A Benchmark of One Metre [RA, CR, ConR] 	<p>The Amazing Seed</p> <ul style="list-style-type: none"> • estimate and compare attributes • estimate and measure using non-standard units <p>Animal Measures</p> <ul style="list-style-type: none"> • estimate and measure length • compare measures according to length <p>To Scaffold: To Be Long The Best in Show</p> <p>To Extend: Getting Ready for School The Discovery</p>	<p>Big Idea: Directly and indirectly comparing and ordering objects with the same measurable attribute.</p> <p>Directly and indirectly comparing and ordering objects with the same measurable attribute</p> <ul style="list-style-type: none"> • 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). <p>Selecting and using non-standard units to estimate, measure, and make comparisons</p> <ul style="list-style-type: none"> • Uses relative language to describe measures (e.g., close/far, tall, taller, tallest).
<p>M1.3 Using multiple copies of a unit</p>	<p>Measurement Cluster 2: Using Uniform Units</p> <ul style="list-style-type: none"> • 8: Exploring the Metre⁽¹⁾ [RA, US, CR, ConR] • 11: Measuring Length⁽²⁾ [US, ConR] • 13: Measuring Area⁽³⁾ [RA, US] • 15: Using Uniform Units Consolidation⁽⁴⁾ [RA, CR, ConR] <p>Additional Connections: ⁽¹⁾also M1.1, M1.7, M1.9 ⁽²⁾also M1.1, M1.5, M1.6, M1.8 ⁽³⁾also M1.1, M1.5 ⁽⁴⁾also M1.1, M1.4, M1.5</p>	<p>The Amazing Seed</p> <ul style="list-style-type: none"> • estimate and compare attributes • estimate and measure using non-standard units <p>Animal Measures</p> <ul style="list-style-type: none"> • estimate and measure length • compare measures according to length <p>To Extend: Getting Ready for School The Discovery</p>	<p>Big Idea: Many things in our world (e.g., objects, spaces, events) have attributes that can be measured and compared.</p> <p>Selecting and using non-standard units to estimate, measure, and make comparisons</p> <ul style="list-style-type: none"> • Understands that units must be the same for measurements to be meaningful (e.g., must use same sized cubes to measure a desk). • Understands that there should be no gaps or overlaps when measuring. • Demonstrates ways to estimate, measure, compare, and order objects by length, area, capacity, and mass with non-standard units by using multiple copies of a unit

<p>M1.4 Iterating a single unit for measuring (e.g., to measure the length of a string with only one cube, a student iterates the cube over and over, keeping track of how many cubes long the string is)</p>	<p>Measurement Cluster 2: Using Uniform Units</p> <ul style="list-style-type: none"> • 12: Iterating the Unit [RA, US] • 15: Using Uniform Units Consolidation⁽¹⁾ [RA, CR, ConR] <p>Additional Connections: ⁽¹⁾also M1.1, M1.3, M1.5</p>	<p>To Extend: Getting Ready for School</p>	<p>Big Idea: Many things in our world (e.g., objects, spaces, events) have attributes that can be measured and compared.</p> <p>Selecting and using non-standard units to estimate, measure, and make comparisons</p> <ul style="list-style-type: none"> • Understands that units must be the same for measurements to be meaningful (e.g., must use same sized cubes to measure a desk). • Understands that there should be no gaps or overlaps when measuring. • Demonstrates ways to estimate, measure, compare, and order objects by length, area, capacity, and mass with non-standard units by iterating a single unit
<p>M1.5 Tiling an area</p>	<p>Measurement Cluster 1: Comparing Objects</p> <ul style="list-style-type: none"> • 5: Comparing Area [RA, CR, ConR] <p>Measurement Cluster 2: Using Uniform Units</p> <ul style="list-style-type: none"> • 13: Measuring Area⁽¹⁾ [RA, US] • 15: Using Uniform Units Consolidation⁽²⁾ [RA, CR, ConR] <p>Additional Connections: ⁽¹⁾also M1.1, M1.3 ⁽²⁾also M1.1, M1.3, M1.4</p>	<p>To Extend: The Discovery</p>	<p>Big Idea: Many things in our world (e.g., objects, spaces, events) have attributes that can be measured and compared.</p> <p>Selecting and using non-standard units to estimate, measure, and make comparisons</p> <ul style="list-style-type: none"> • Selects and uses appropriate non-standard units to estimate, measure, and compare length, area, capacity, and mass. • - Uses non-standard units as referents to estimate length (e.g., paper clips), area (e.g., square tiles), mass (e.g., cubes), and capacity (e.g., cups).

<p>M1.6 Rope knots at intervals</p>	<p>Measurement Cluster 2: Using Uniform Units</p> <ul style="list-style-type: none"> • 11: Measuring Length⁽¹⁾ [US, ConR] <p>Additional Connections: ⁽¹⁾also M1.1, M1.3, M1.5, M1.8</p>	<p>No direct correlation.</p>	<p>Big Idea: Many things in our world (e.g., objects, spaces, events) have attributes that can be measured and compared.</p> <p>Selecting and using non-standard units to estimate, measure, and make comparisons</p> <ul style="list-style-type: none"> • Understands that units must be the same for measurements to be meaningful (e.g., must use same sized cubes to measure a desk). • Uses non-standard units as referents to estimate length (e.g., paper clips), area (e.g., square tiles), mass (e.g., cubes), and capacity (e.g., cups).
<p>M1.7 Using body parts to measure</p>	<p>Measurement Cluster 2: Using Uniform Units</p> <ul style="list-style-type: none"> • 8: Exploring the Metre⁽¹⁾ [RA, US, CR, ConR] <p>Additional Connections: ⁽¹⁾also M1.1, M1.3, M1.9</p>	<p>To Extend: Getting Ready for School The Discovery</p>	<p>Big Idea: Many things in our world (e.g., objects, spaces, events) have attributes that can be measured and compared.</p> <p>Selecting and using non-standard units to estimate, measure, and make comparisons</p> <ul style="list-style-type: none"> • Selects and uses appropriate non-standard units to estimate, measure, and compare length, area, capacity, and mass. • Uses non-standard units as referents to estimate length (e.g., paper clips), area (e.g., square tiles), mass (e.g., cubes), and capacity (e.g., cups).
<p>M1.8 Book: An Anishnaabe Look at Measurement, by Rhonda Hopkins and Robin King-Stonefish (strongnations.com/store/item_display.php?i=3494&f=)</p>	<p>Measurement Cluster 2: Using Uniform Units</p> <ul style="list-style-type: none"> • 11: Measuring Length⁽¹⁾ [US, ConR] <p>Additional Connections: ⁽¹⁾also M1.1, M1.3, M1.5, M1.6</p>	<p>No direct correlation.</p>	<p>Big Idea: Many things in our world (e.g., objects, spaces, events) have attributes that can be measured and compared.</p> <p>Selecting and using non-standard units to estimate, measure, and make comparisons</p> <ul style="list-style-type: none"> • Selects and uses appropriate non-standard units to estimate, measure, and compare length, area, capacity, and mass. • Uses non-standard units as referents to estimate length (e.g., paper clips), area (e.g., square tiles), mass (e.g., cubes), and capacity (e.g., cups).

<p>M1.9 Hand/foot tracing for mitten/moccasin making</p>	<p>Measurement Cluster 2: Using Uniform Units</p> <ul style="list-style-type: none"> 8: Exploring the Metre⁽¹⁾ [RA, US, CR, ConR] <p>Additional Connections: ⁽¹⁾also M1.1, M1.3, M1.7</p>	<p>No direct correlation.</p>	<p>Big Idea: Many things in our world (e.g., objects, spaces, events) have attributes that can be measured and compared.</p> <p>Selecting and using non-standard units to estimate, measure, and make comparisons</p> <ul style="list-style-type: none"> Selects and uses appropriate non-standard units to estimate, measure, and compare length, area, capacity, and mass. Uses non-standard units as referents to estimate length (e.g., paper clips), area (e.g., square tiles), mass (e.g., cubes), and capacity (e.g., cups).
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Note: The following activities are not specifically correlated to the British Columbia curriculum learning standards for Grade 1 but may be of interest to teachers in preparing a strong foundation for mathematics:

Activity 2: Comparing Mass [RA, US, CR]

Activity 3: Comparing Capacity [RA, US, CR]

Activity 4: Making Comparisons [RA, CR, ConR]

Activity 6: Comparing Objects Consolidation [RA, CR, ConR]

Activity 14: Measuring Capacity [RA, US]

Activity 16-20: Time and Temperature [RA, CR, ConR]

Mathology 1 Correlation (Geometry) – British Columbia*

Learning Standards	Mathology Grade 1 Classroom Activity Kit	Mathology Little Books	Pearson Canada K-3 Mathematics Learning Progression
Learning Content and Curricular Competencies			
G1 Comparison of 2D shapes and 3D objects			
<p>G1.1 Sorting 3D objects and 2D shapes using one attribute, and explaining the sorting rule</p>	<p>Geometry Cluster 1: 2-D Shapes</p> <ul style="list-style-type: none"> • 1: Sorting Shapes⁽¹⁾ [RA, CR, ConR] • 2: Identifying Triangles⁽²⁾ [RA, US, CR, ConR] • 3: Identifying Rectangles⁽²⁾ [RA, US, CR, ConR] • 4: Visualizing Shapes [RA, US, CR, ConR] • 5: Sorting Rules⁽¹⁾ [RA, US, CR, ConR] • 6: 2-D Shapes Consolidation⁽¹⁾ [RA, US, CR, ConR] <p>Geometry Cluster 2: 3-D Solids</p> <ul style="list-style-type: none"> • 7: Exploring 3-D Sets⁽¹⁾ [RA, US, CR] • 8: Sorting 3-D Solids⁽¹⁾ [RA, US, CR] • 9: Identifying the Sorting Rule⁽¹⁾ [RA, US, CR, ConR] • 10: 3-D Solids Consolidation⁽¹⁾ [RA, US, CR, ConR] <p><i>Link to other strands:</i> Patterning and Algebra Cluster 1: Investigating Repeating Patterns</p> <ul style="list-style-type: none"> • 1: Repeating the Core⁽³⁾ [RA, US, CR] • 5: Investigating Repeating Patterns Consolidation⁽³⁾ [RA, US, CR] <p>Additional Connections: ⁽¹⁾also P1.1 ⁽²⁾also G1.2, P1.1 ⁽³⁾also P1.1, P1.2, P1.4</p>	<p>What Was Here?</p> <ul style="list-style-type: none"> • find and describe shapes and solids • explore and classify shapes and solids <p>The Tailor Shop</p> <ul style="list-style-type: none"> • transform and describe shapes • describe and compare shapes <p>Memory Book</p> <ul style="list-style-type: none"> • locate and map objects in the environment • investigate 2-D shapes and 3-D solids <p>To Scaffold: Zoom In, Zoom Out The Castle Wall</p> <p>To Extend: I Spy Awesome Buildings</p>	<p>Big Idea: 2-D shapes and 3-D solids can be analyzed and classified in different ways by their attributes.</p> <p>Investigating geometric attributes and properties of 2-D Shapes and 3-D solids</p> <ul style="list-style-type: none"> • 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). <p>Patterning and Algebra Big Idea: Regularity and repetition form patterns that can be generalized and predicted mathematically.</p> <p>Identifying, sorting, and classifying attributes and patterns mathematically (e.g., numbers of sides, shape, size)</p> <ul style="list-style-type: none"> • 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.

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<p>G1.2 Comparing 2D shapes and 3D objects in the environment</p>	<p>Geometry Cluster 1: 2-D Shapes</p> <ul style="list-style-type: none"> • 2: Identifying Triangles⁽¹⁾ [RA, US, CR, ConR] • 3: Identifying Rectangles⁽¹⁾ [RA, US, CR, ConR] <p>Geometry Cluster 3: Geometric Relationships</p> <ul style="list-style-type: none"> • 11: Faces of Solids⁽²⁾ [CR, ConR] <p>Additional Connections: ⁽¹⁾also G1.1, P1.1 ⁽²⁾also G1.5</p>	<p>What Was Here?</p> <ul style="list-style-type: none"> • find and describe shapes and solids • explore and classify shapes and solids <p>To Extend: I Spy Awesome Buildings</p>	<p>Big Idea: 2-D shapes and 3-D solids can be analyzed and classified in different ways by their attributes.</p> <p>Investigating geometric attributes and properties of 2-D Shapes and 3-D solids</p> <ul style="list-style-type: none"> • 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.
<p>G1.4 Describing relative positions, using positional language (e.g., up and down, in and out)</p>	<p>Geometry Cluster 5: Location and Movement</p> <ul style="list-style-type: none"> • 19: Perspective Taking [RA, CR] 	<p>To Scaffold: Zoom In, Zoom Out The Castle Wall The New Nest</p> <p>To Extend: Robo</p>	<p>Big Idea: Objects can be located in space and viewed from multiple perspectives.</p> <p>Locating and mapping objects in space</p> <ul style="list-style-type: none"> • 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).
<p>G1.5 Replicating composite 2D shapes and 3D objects (e.g., putting two triangles together to make a square)</p>	<p>Geometry Cluster 3: Geometric Relationships</p> <ul style="list-style-type: none"> • 11: Faces of Solids⁽¹⁾ [CR, ConR] • 12: Making Designs [CR, ConR] • 13: Covering Outlines [CR, ConR] • 14: Identifying Shapes [CR, ConR] • 15: Geometric Relationships Consolidation [RA, CR, ConR] <p>Additional Connections: ⁽¹⁾also G1.2</p>	<p>The Tailor Shop</p> <ul style="list-style-type: none"> • transform and describe shapes • describe and compare shapes <p>To Scaffold: The Castle Wall</p> <p>To Extend: Sharing Our Stories</p>	<p>Big Idea: 2-D shapes and 3-D solids can be analyzed and classified in different ways by their attributes.</p> <p>Investigating 2-D Shapes, 3-D solids, and their attributes through composition and decomposition</p> <ul style="list-style-type: none"> • 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 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.

Note: The following activities are not specifically correlated to the British Columbia curriculum learning standards for Grade 1 but may be of interest to teachers in preparing a strong foundation for mathematics:

Activity 16: Finding Lines of Symmetry [RA, US, CR]

Activity 17: Creating Symmetrical Designs [RA, US, CR]

Activity 20: Mapping [RA, US, CR, ConR]

Activity 21: Location and Movement Consolidation [RA, US, CR, ConR]

Mathology 1 Correlation (Data Management and Probability) – British Columbia*

Learning Standards	Mathology Grade 1 Classroom Activity Kit	Mathology Little Books	Pearson Canada K-3 Mathematics Learning Progression
Learning Content and Curricular Competencies			
D1 Concrete graphs, using one-to-one correspondence			
<p>D1.1 Creating, describing, and comparing concrete graphs</p>	<p>Data Management and Probability Cluster 1: Data Management</p> <ul style="list-style-type: none"> 1: Interpreting Graphs [RA, CR, ConR] 2: Making Concrete Graphs [RA, CR, ConR] 4: Data Management Consolidation [RA, US, CR] 	<p>Graph It!</p> <ul style="list-style-type: none"> interpret concrete graphs and picture graphs build concrete graphs and picture graphs <p>To Scaffold: Hedge and Hog</p> <p>To Extend: Big Buddy Days Marsh Watch</p>	<p>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.</p> <p>Formulating questions to learn about groups, collections, and events by collecting relevant data</p> <ul style="list-style-type: none"> Formulates questions that can be addressed by counting collections (e.g., How many of us come to school by bus, by car, walking?) and questions that can be addressed through observation (e.g., How many people do/do not use the crosswalk?). <p>Collecting data and organizing it into categories</p> <ul style="list-style-type: none"> Collects data by determining (most) categories in advance (e.g., yes/no; list of choices). Orders categories by frequency (e.g. most to least). Generates data by counting or measuring (e.g., linking cube tower: number of cubes or height). Limited to whole units. <p>Creating graphical displays of collected data</p> <ul style="list-style-type: none"> Creates displays using objects or simple pictographs (may use symbol for data). Organizes display so categories are ordered by frequency. Creates one-to-one displays (e.g., line plot, dot plot, bar graph). Displays data collected in more than one way and describes the differences (e.g., bar graph, pictograph). <p>Reading and interpreting data displays</p> <ul style="list-style-type: none"> Interprets displays by noting how many more/less than other categories. <p>Drawing conclusions by making inferences and justifying decisions based on data collected</p> <ul style="list-style-type: none"> Uses data collected and displayed to answer initial question directly. Poses and answers questions about data collected and displayed.

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Learning Standards	Mathology Grade 1 Classroom Activity Kit	Mathology Little Books	Pearson Canada K-3 Mathematics Learning Progression
Learning Content and Curricular Competencies D2 Likelihood of familiar life events, using comparative language			
D2.1 Using the language of probability (e.g., never, sometimes, always, more likely, less likely)	Data Management and Probability Cluster 2: Probability and Chance <ul style="list-style-type: none"> 5: Likelihood of Events [RA, CR, ConR] 6: Probability and Chance Consolidation [RA, CR, ConR] 	No direct correlation.	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 <ul style="list-style-type: none"> Describes the likelihood of an event (e.g., impossible, unlikely, certain). Makes predictions based on the question, context, and data presented. Lists the possible outcomes of independent events (e.g., tossing coin, rolling number cube, spinning a spinner). Compares the likelihood of two events (e.g., more likely, less likely, equally likely).
D2.2 Cycles (Elder or knowledge keeper to speak about ceremonies and life events)	Patterning and Algebra Cluster 2: Creating Patterns <ul style="list-style-type: none"> 7: Translating Patterns⁽¹⁾ [US, CR, ConR] Additional Connections: ⁽¹⁾ also P1.2, P1.3, P1.4	No direct correlation.	No direct correlation.

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Activity 3: Making Pictographs [RA, US, CR]