

Mathology Grade 1 Correlation (Number) - Alberta

Materials referenced from other grades can be found in related Mathology Activity Kits and in mathology.ca

Organizing Idea:

Quantity is measured with numbers that enable counting, labelling, comparing, and operating.

Guiding Question: How can quantity be communicated? Learning Outcome: Students interpret and explain quantity to 100. Grade 1 Mathology.ca and/or Activity Kit **Knowledge Understanding Skills & Procedures** (Suggested ways to align with 2022 curriculum) **Mathology Little Books Number Cluster 1: Counting** A numeral is a symbol Quantity is expressed Represent quantities A Family Cookout or group of symbols in words and using words, numerals, (Addresses numbers to 50.) 1: Counting to 20 used to represent a numerals based on objects, or pictures. 2: Counting to 50 number. *Link to other grades:* patterns. Grade 2 **Number Cluster 6: Early Place Value** Ways to Count (Addresses The absence of Quantity in the world 24: Tens and Ones (Currently to 50; Provide base ten quantity is is represented in numbers to 100.) blocks to 100.) represented by 0. multiple ways. 25: Building and Naming Numbers 26: Different Representations (Currently to 50; Include numbers 50-100 on Line Master 69.) 27: Consolidation (Currently to 50; Provide numbers to 100.) Identify a quantity of 0 **Number Cluster 1: Counting** in familiar situations. 3: Counting On and Back (Discuss where 0 might be along the bunny's path.)



Countings 1 1 1	Facility and the second	Court with 1 400	Number Chatanta Countin	
Counting can begin at any number.	Each number counted includes all previous	Count within 100, forward by 1s, starting	Number Cluster 1: Counting	
any number.	numbers (counting	at any number,	1: Counting to 20	
Counting more than	principle: hierarchical	according to the	2: Counting to 50	
one object at a time is	inclusion).	counting principles.	3: Counting On and Back (Currently to 50; Remove	
called skip counting.			numbers from Line Master 8C to count forward to	
	A quantity can be		100.)	
	determined by		5: Consolidation (Currently to 50; Include numbers to	
	counting more than		100.)	
	one object in a set at			
	a time.		Material from other grades:	
			Grade 2 Number Cluster 1: Counting	
			1: Bridging Tens (Currently up to 100)	
			Optional:	
			Number Cluster 8: Financial Literacy	
			36: Value of Coins (Use Student Card 36B to count by 1s.)	
			37: Counting Collections (Use Student Card 37A to skip	
			count by 1s.)	
		Count backward from	Number Cluster 1: Counting	
		20 to 0 by 1s.	3: Counting On and Back (Currently back from 50;	
			Remove Line Master 9C.)	
		Skip count to 100,	Number Cluster 4: Skip-Counting	How Many is too Many?
		forward by 5s and 10s,		How wany is too wany:
		starting at 0.	13: Skip-Counting Forward (Currently to 50; Have	Link to other grades:
			students use Hundred chart to skip-count to 100.)	Grade 2
			16: Consolidation (Currently to 50; Provide additional	Ways to Count
			linking cubes to 100.)	Family Fun Day
			Optional:	
			Number Cluster 8: Financial Literacy	
			36: Value of Coins (Use Student Card 36A to skip count	
			by 5s and 10s.)	
			37: Counting Collections (Use Student Card 37B to skip	
			count by 5s and 10s.)	



		Skip count to 20, forward by 2s, starting at 0.	Number Cluster 4: Skip-Counting 13: Skip-Counting Forward (Use side B.) 16: Consolidation (Currently to 50; Only provide 20 cubes when skip-counting by 2s.) Optional: Number Cluster 8: Financial Literacy 36: Value of Coins (Use Student Card 36B to skip count by 2s.) 37: Counting Collections (Use Student Card 37A to skip count by 2s.)	On Safari!
Sharing involves partitioning a quantity into a certain number of groups. Grouping involves partitioning a quantity into groups of a certain size.	Quantity can be partitioned by sharing or grouping.	Partition a set of objects by sharing and grouping. Demonstrate conservation of number when sharing or grouping.	Number Cluster 5: Composing and Decomposing 21: Equal Groups Number Cluster 5: Composing and Decomposing 21: Equal Groups	
Familiar arrangements of small quantities facilitate subitizing.	A quantity can be perceived as the composition of smaller quantities.	Recognize quantities to 10.	Number Cluster 2: Spatial Reasoning 6: Subitizing to 10 8: Consolidation (Use side B.) Number Cluster 7: Operational Fluency New Lesson to Come: Complements of 10	
Comparisons of quantity can be described by using word such as • equal • not equal • less • more	Two quantities are equal when there is the same number of objects in both sets. Equality is a balance between two quantities.	Investigate equal and unequal quantities, including using a balance model. Identify numbers that are one more, two more, one less, and two less than a given number.	Patterning Cluster 3: Equality and Inequality 10: Exploring Sets 11: Making Equal Sets 12: Using Symbols 13: Consolidation Number Cluster 7: Operational Fluency 31: More or Less	Nutty and Wolfy Link to other grades: <u>Grade 2</u> Kokum's Bannock



Equality can be modelled using a	Represent a quantity relative to another,	Number Cluster 3: Comparing and Ordering	Paddling the River (Addresses numbers to
balance.	including symbolically.	New Lesson to Come: Comparing Sets Concretely 10: Comparing Sets Pictorially (Currently to 20)	20.)
The equal sign, =, is used to show equality between two quantities.		 11: Comparing Sets Pictorially (Currently to 20) 11: Comparing Numbers to 50 (Provide additional craft sticks to 100.) 12: Consolidation (Currently to 50; Provide additional craft sticks to 100.) 	(Addresses numbers to 20.) Nutty and Wolfy (Addresses numbers to
The unequal sign, ≠, is used to show that two quantities are not equal.		Number Cluster 6: Early Place Value 28: More or Less (Currently to 40)	20.)



Guiding Question: How can addition and subtraction provide perspectives of number? Learning Outcome: Students examine addition and subtraction within 20. Skills & Grade 1 Mathology.ca and/or Activity Kit (Suggested ways to align with 2022 curriculum) **Mathology Little Books** Knowledge **Understanding Procedures** Quantities can be Addition and That's 10! (Addresses Visualize quantities **Number Cluster 2: Spatial Reasoning** numbers to 10.) composed or subtraction are between 10 and 20 6: Subitizing to 10 decomposed to model a processes that as compositions of Paddling the River 8: Consolidation (Use side B.) 10 and another Hockey Time! change in quantity. describe the composition and quantity. Addition can be applied in decomposition Model addition and **Number Cluster 7: Operational Fluency** various contexts, of quantity. subtraction within 29: Adding to 20 including 20 in various ways, 30: Subtracting 20 combining parts including with a 31: The Number Line to find the whole balance. 33: Part-Part-Whole increasing an Relate addition and **Number Cluster 5: Composing and Decomposing** existing quantity subtraction to 17: Decomposing 10 Subtraction can be various contexts 18: Numbers to 10 applied in various involving 19: Numbers to 20 contexts, including composition or comparing two decomposition of quantities quantity. taking away one quantity from another finding a part of a whole Addition and subtraction can be modelled using a balance. Strategies are meaningful Addition and Investigate addition **Number Cluster 5: Composing and Decomposing** That's 10! and subtraction steps taken to solve Hockey Time! subtraction are 19: Numbers to 20 problems. opposite (inverse) Canada's Oldest Sport strategies. mathematical **Number Cluster 7: Operational Fluency** operations. 32: Doubles



Addition and subtraction	Add and subtract	Number Cluster 5: Composing and Decomposing	Buy 1—Get 1
strategies include	within 20.	19: Numbers to 20	Hockey Time!
			Cats and Kittens!
• counting on		Number Cluster 7: Operational Fluency	Canada's Oldest Sport
counting back		29: Adding to 20	
decomposition		30: Subtracting 20	
compensationmaking tens		31: The Number Line	
• making tens		33: Part-Part-Whole	
Sums and differences can		35: Consolidation	
be expressed symbolically			
using the addition sign, +,		Link to other grades:	
the subtraction sign, -,		Grade 2 Number Cluster 7: Operational Fluency	
and the equal sign, =.		34: Fluency with 20	
The order in which two	Check differences	Number Cluster 7: Operational Fluency	Buy 1—Get 1
quantities are added does	and sums using	29: Adding to 20	Canada's Oldest Sport
not affect the sum	inverse operations.	30: Subtracting 20	Cats and Kittens!
(commutative property).		31: The Number Line	Hockey Time!
		32: Doubles	
The order in which two		33: Part-Part-Whole	
quantities are subtracted		34: Solving Story Problems	
affects the difference.		35: Consolidation	
Addition of 0 to any	Determine a	Number Cluster 7: Operational Fluency	
number, or subtraction of	missing quantity in	33: Part-Part-Whole	
0 from any number,	a sum or	34: Solving Story Problems	
results in the same	difference, within	35: Consolidation	
number (zero property).	20, in a variety of ways.		
A mainaina accambitoria -	Express addition	Number Cluster 7: Operational Fluency	
A missing quantity in a sum or difference can be	and subtraction	31: The Number Line	
represented in different	symbolically.	33: Part-Part-Whole	
ways, including		34: Solving Story Problems	
		35: Consolidation	
		33. Consolidation	



 a + b = □ a + □ = c □ + b = c e - f = □ e - □ = g □ - f = g 		Solve problems using addition and subtraction.	Number Cluster 7: Operational Fluency 34: Solving Story Problems 35: Consolidation	
Addition and subtraction number facts represent part-part-whole relationships.	Addition number facts have related subtraction number facts.	Identify patterns in addition and subtraction, including patterns in addition tables.	Number Cluster 7: Operational Fluency New Lesson to Come: Exploring Properties	
Fact families are groups of related addition and subtraction number facts.		Recognize families of related addition and subtraction number facts.	Number Cluster 7: Operational Fluency 33: Part-Part-Whole (Discuss how fact families can help find the unknown part or whole.) 34: Solving Story Problems	
		Recall addition number facts, with addends to 10, and related subtraction number facts.	Number Cluster 7: Operational Fluency New Lesson to Come: Complements of 10	That's 10!



Guiding Question: In what ways can parts and wholes be related? **Learning Outcome:** Students examine one-half as a part-whole relationship. Skills & Grade 1 Mathology.ca and/or Activity Kit Knowledge (Suggested ways to align with 2022 curriculum) **Mathology Little Books Understanding Procedures** One-half can be one of Identify one-half in New Lesson to Come: Exploring Halves *Link to other grades:* In a quantity two equal groups or partitioned into familiar situations. Grade 2 one of two equal two equal groups, The Best Birthday pieces. each group New Lesson to Come: Exploring Halves Link to other grades: Partition an even represents oneset of objects into Grade 2 half of the whole two equal groups, The Best Birthday quantity. limited to sets of 10 or less. In a shape or Partition a shape or New Lesson to Come: Exploring Halves object partitioned object into two into two identical equal pieces. pieces, each piece Describe one of New Lesson to Come: Exploring Halves represents onetwo equal groups half of the whole. or pieces as onehalf. Verify that the two New Lesson to Come: Exploring Halves halves of one whole group, shape, or object are the same size.





Mathology Grade 1 Correlation (Geometry) - Alberta

Organizing Idea:

Shapes are defined and related by geometric attributes.

Guiding Question: In what ways can shape be characterized? **Learning Outcome:** Students interpret shape in two and three dimensions. Skills & Grade 1 Mathology.ca and/or Activity Kit (Suggested ways to align with 2022 curriculum) **Mathology Little Books** Knowledge **Understanding Procedures** Familiar two-dimensional **Geometry Cluster 1: 2-D Shapes** Memory Book A shape can be Identify familiar shapes in various What Was Here? shapes include modelled in 2: Identifying Triangles various sizes and sizes and 3: Identifying Rectangles orientations. orientations. *Link to other grades:* squares 4: Visualizing Shapes Kindergarten circles A shape is The Castle Wall rectangles **Geometry Cluster 2: 3-D Solids** symmetrical if it triangles 7: 3-D Solids can be decomposed into 11: Face of Solids Familiar three-dimensional matching halves. 14: Identifying Shapes shapes include Model two-Link to other grades: dimensional Grade 2 Geometry Cluster 1: 2-D Shapes cubes shapes. prisms 3: Constructing 2-D Shapes cylinders (Currently includes triangles; Have students also construct spheres squares, rectangles, and circles.) pyramids Sort shapes **Geometry Cluster 1: 2-D Shapes** What Was Here? cones according to one 1: Sorting Shapes attribute and 5: Sorting Rules describe the sorting 6: Consolidation rule.



A composite shape is			Geometry Cluster 2: 3-D Solids	
composed of two or			8: Sorting 3-D Solids	
more shapes.			9: Identifying the Sorting Rule	
A line of summer stars			10: Consolidation	
A line of symmetry indicates the division	Compose	and	Geometry Cluster 3: Geometric Relationships	The Tailor Shop
between the matching	decompos	se two- or	New Lesson to Come: Constructing Solids and Skeletons	·
halves of a symmetrical	three-dim		12: Making Designs	
shape.	composite	e shapes.	13: Covering Outlines	
			15: Consolidation	
			Link to other grades:	
			Grade 2 Geometry Cluster 1: 2-D Shapes	
			3: Constructing 2-D Shapes	
			Grade 2 Geometry Cluster 3: Geometric Relationships	
			11: Making Shapes	
			12: Building with Solids	
	Identify fa	miliar	Geometry Cluster 3: Geometric Relationships	The Tailor Shop
	shapes wi	thin two-	New Lesson to Come: Constructing Solids and Skeletons	What Was Here?
	or three-		14: Identifying Shapes	Memory Book
	dimension			
	composite	e shapes.	Link to other grades:	Link to other grades:
			Grade 2 Geometry Cluster 3: Geometric Relationships	<u>Kindergarten</u> The Castle Wall
			11: Making Shapes	Zoom In, Zoom Out
			12: Building with Solids	20011111, 200111 040
	Investigat	e	Geometry Cluster 4: Symmetry	The Tailor Shop
	_	symmetry of two-	16: Finding Lines of Symmetry	
	symmetry		10. I maing times of Symmetry	
	dimension	nal shapes	17: Creating Symmetrical Designs	
	dimension by folding	nal shapes gand		
	dimension	nal shapes gand	17: Creating Symmetrical Designs	
	dimension by folding	nal shapes gand	17: Creating Symmetrical Designs	
	dimension by folding	nal shapes gand	17: Creating Symmetrical Designs 18: Consolidation	





Mathology Grade 1 Correlation (Measurement) - Alberta

Organizing Idea:

Attributes such as length, area, volume, and angle are quantified by measurement.

Guiding Question: In what ways can length provide perspectives of size? **Learning Outcome:** Students relate length to the understanding of size. Grade 1 Mathology.ca and/or Activity Kit **Skills & Procedures** (Suggested ways to align with 2022 curriculum) **Mathology Little Books** Knowledge Understanding **Measurement Cluster 2: Using Uniform Units** Size may refer to the Length is a Recognize the height, Animal Measures length of an object, measurable width, or depth of an The Amazing Seed 7: Matching Lengths including attribute that object as lengths in various. describes the orientations. *Link to other grades:* height amount of fixed Kindergarten width space between The Best in Show depth the end points of an object. A length does not need to be a straight Length remains line. the same if an object is The length between repositioned but any two points in may be named space is called distance. differently. Familiar contexts of Compare and order objects **Measurement Cluster 1: Comparing Objects** Animals Measures distance include according to length. 1: Comparing Length distance **Measurement Cluster 2: Using Uniform Units** between 7: Matching Lengths objects or Describe distance in New Lesson to Come: Exploring Distance people familiar contexts.



 distance between objects on the land distance between home and school distance between towns or cities 				
Indirect comparison is useful when objects are fixed in place or difficult to move. Comparisons of size can be described by using words such as higher wider deeper	The size of two objects can be compared indirectly with a third object.	Compare the length, area, or capacity of two objects directly or indirectly using a third object.	Measurement Cluster 1: Comparing Objects 1: Comparing Length 3: Comparing Capacity 4: Making Comparisons (Currently addresses length & capacity; Remove mass and incorporate areas; Provide opportunities for students to measure indirectly using a third object.) 5: Comparing Area 6: Consolidation Measurement Cluster 2: Using Uniform Units 7: Matching Lengths	Animals Measures The Amazing Seed Link to other grades: Kindergarten To Be Long
		Order objects according to length, area, or capacity.	Measurement Cluster 1: Comparing Objects 1: Comparing Length 3: Comparing Capacity 4: Making Comparisons 5: Comparing Area 6: Consolidation Measurement Cluster 2: Using Uniform Units 7: Matching Lengths	The Amazing Seed





Mathology Grade 1 Correlation (Patterns) – Alberta

Organizing Idea:

Awareness of patterns supports problem solving in various situations.

Guiding Question: W	Guiding Question: What can patterns communicate?					
Learning Outcome: S	Students examine patte	ern in cycles.				
			Grade 1 Mathology.ca and/or Activity Kit			
Knowledge	Understanding	Skills & Procedures	(Suggested ways to align with 2022 curriculum)	Mathology Little Books		
A cycle can express	A pattern that	Recognize cycles	New Lesson to Come: Investigating Cycles			
repetition of events	appears to repeat	encountered in daily				
or experiences.	may not repeat in the	routines and nature.				
	same way forever.	Investigate cycles	New Lesson to Come: Investigating Cycles			
Cycles include		found in nature that				
 seasons 	A cycle is a repeating	inform First Nations,				
day/night	pattern that repeats	Métis, or Inuit				
life cycles	in the same way	practices.				
 calendars 	forever.	Identify the pattern	New Lesson to Come: Identify and Describe Pattern in	Midnight and Snowfall		
		core, up to four	Cycles			
		elements, in a cycle.				
The same pattern can						
be represented with		Identify a missing	New Lesson to Come: Identify and Describe Pattern in	Midnight and Snowfall		
different elements.		element in a repeating	Cycles			
		pattern or cycle.				
A pattern core is a						
sequence of one or						
more elements that		Describe change and	New Lesson to Come: Identify and Describe Pattern in			
repeats as a unit.		constancy in repeating	Cycles			
		patterns and cycles.				
		l	<u>I</u>			



Create different	New Lesson to Come: Create and Extend Pattern in	Midnight and Snowfall
representations of the	Cycles	
same repeating		
pattern or cycle,		
limited to a pattern		
core of up to four		
elements.		
Extend a sequence of	New Lesson to Come: Create and Extend Pattern in	Midnight and Snowfall
elements in various	Cycles	
ways to create		
repeating patterns.		







Mathology Grade 1 Correlation (Time) – Alberta

Organizing Idea:

Duration is described and quantified by time.

Guiding Question: How can time characterize change? Learning Outcome: Students explain time in relation to cycles.					
Knowledge	Understanding	Skills & Procedures	Grade 1 Mathology.ca and/or Activity Kit (Suggested ways to align with 2022 curriculum)	Mathology Little Books	
Time can be perceived through observable change.	Time is an experience of change.	Describe cycles of time encountered in daily routines and nature.	Measurement Cluster 3: Time and Temperature 16: Ordering Events 19: Relating to Seasons		
First Nations, Métis, and Inuit experience time	Time can be perceived as a cycle.	Describe observable changes that indicate a cycle of time.	Measurement Cluster 2: Time 9: Relating to Seasons		
through sequences and cycles in nature, including cycles of seasons.		Relate cycles of seasons to First Nations, Métis, or Inuit practices.	New Lesson to Come: Cycles in Seasons		
Cycles from a calendar include days of the week and months of the year.		Identify cycles from a calendar.	Optional: 20: The Calendar New Lesson to Come: Cycles in the Calendar		





Mathology Grade 1 Correlation (Statistics) – Alberta

Organizing Idea:

The science of collecting, analyzing, visualizing, and interpreting data can inform understanding and decision making.

Guiding Question:	How can data be us	sed to answer questions abo	ut the world?	
Learning Outcome	: Students investiga	te and represent data.		
Knowledge	Understanding	Skills & Procedures	Grade 1 Mathology.ca and/or Activity Kit (Suggested ways to align with 2022 curriculum)	Mathology Little Books
Data can be collected information.	Data can be answers to questions.	Share wonderings about people, things, events, or experiences.	New Lesson to Come: Data in our World	
		Gather data by sharing answers to questions.	Data Management Cluster 1: Data Management 2: Making Concrete Graphs 3: Making Pictographs	Graph It!
A graph is a visual representation of data.	Data can be represented in a graph.	Collaborate to construct a concrete graph using data collected in the learning environment.	Data Management Cluster 1: Data Management 2: Making Concrete Graphs 4: Consolidation	Graph It!
A graph can represent data by using objects, pictures, or numbers.		Create a pictograph from a concrete graph.	Data Management Cluster 1: Data Management 3: Making Pictographs 4: Consolidation	Graph It!





Mathology Grade 1 Correlation (Financial Literacy) - Alberta

Organizing Idea:

Informed financial decision making contributes to the well-being of individuals, groups, and communities.

Guiding Question: In what ways can money be used? Learning Outcome: Students explore money and how it is used for everyday living. Grade 1 Mathology.ca and/or Activity Kit Skills & (Suggested ways to align with 2022 curriculum) Knowledge **Understanding Procedures Mathology Little Books** Canadian money comes in Money can be Explore the value **Number Cluster 8: Financial Literacy** many forms, such as used to exchange of Canadian coins 36: Value of Coins for goods and and bills. New Lesson to Come: Value of Bills coins services. bills • debit cards Money has value • credit cards and purpose in everyday living. **Number Cluster 8: Financial Literacy** Sort Canadian Canadian coins and bills come coins and bills. 36: Value of Coins in different denominations, Money has New Lesson to Come: Value of Bills such as unique features Identify goods New Lesson to Come: Goods and Services nickels to represent its and services that value. dimes can be quarters exchanged for loonies money. toonies • \$5 • \$10 • \$20 • \$50 • \$100



Images on Canadian coins and		
bills include		
• wildlife		
• sports		
• boats		
• emblems		
historic figures		
Money can be		
• shared		
• earned		
• saved		
• spent		
• borrowed		
Goods are things that are		
made and produced and can		
be touched, such as		
• toys		
• cars		
• clothing		
• electronics		
• books		
Services are things individuals		
do for others, such as		
health services		
• personal services		
entertainment		
• restaurants		
 recreational activities 		

