### Math Little Books for Alberta Curriculum

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<u>Alberta Curriculum & Mathology Correlations and Line Masters</u>
<u>Mathematics Progressions</u> - Big Ideas and Conceptual Threads
<u>Indigenous Connections</u>

### **Number Strand**

Grade	Learning Outcome	Title	Math Focus	Big Ideas	Conceptual Threads
К	KN1 Children Investigate quantities to 10 KN1.1, KN1.2, KN1.3	A Warm, Cozy Nest  Teacher Guide  Blackline	Count sets to 5  Recognize numerals to 5	Numbers tell us how many and how much.	Recalling number names  Applying counting to any set of objects  Recognizing and writing numerals
К	KN1 Children Investigate quantities to 10 KN1.1, KN1.2, KN1.3  KN2 Children Interpret compositions of quantities within 10 KN2	Lots of Dots  Teacher Guide  Blackline	Subitize and count sets to 10  Compose and decompose to 10	Numbers tell us how many and how much.  Numbers are related in many ways.	Recalling number names  Applying counting to any set of objects  Subitizing quantities  Decomposing wholes into parts and composing wholes from parts

К	KN1 Children Investigate quantities to 10 KN1.2	Animals Hide  Teacher Guide  Blackline	Count sets to 10  Compare quantities to 10	Numbers tell us how many and how much.  Numbers are related in many ways.	Recalling number names  Applying counting to any set of objects  Comparing quantities of multitude or magnitude
K	KN1 Children Investigate quantities to 10 KN1.2, KN1.4  KN2 Children Interpret compositions of quantities within 10 KN2	Dan's Doggy Daycare  Teacher Guide  Blackline	Count and compare sets to 10  Compose and decompose 10	Numbers tell us how many and how much.  Numbers are related in many ways.	Recalling number names  Applying counting to any set of objects  Comparing quantities of multitude or magnitude  Decomposing wholes into parts and composing wholes from parts
K	KN1 Children Investigate quantities to 10 KN1.2, KN1.4	Acorns for Wilaiya  Teacher Guide  Blackline	Count sets to 10  Compare sets to 10  Indigenous Connections:  • Understanding our interconnectedness with land and nature  • The importance of family and elders	Numbers tell us how many and how much.  Numbers are related in many ways.	Recalling number names  Recognizing and writing numerals  Applying counting to any set of objects  Comparing quantities of multitude or magnitude

К	KN1 Children Investigate quantities to 10 KN1.4  KN2 Children Interpret compositions of quantities within 10 KN2	Spot Check!  Teacher Guide  Blackline	Compare quantities to 10  Count sets to 10	Numbers are related in many ways.  Numbers tell us how many and how much.	Comparing quantities of multitude or magnitude  Recalling number names  Applying counting to any set of objects Subitizing quantities
К	KN1 Children Investigate quantities to 10 KN1.4	Time for Games  Teacher Guide  Blackline	Compare quantities to 10  Count sets to 10	Numbers are related in many ways.  Numbers tell us how many and how much.	Comparing quantities of multitude or magnitude  Recalling number names  Applying counting to any set of objects  Ordering and sequencing quantities and numbers
K	KN1 Children Investigate quantities to 10 KN1.4  KN2 Children Interpret compositions of quantities within 10 KN2	Let's Play Waltes!  Teacher Guide  Blackline	Count and compare to 10  Compose and decompose to 10  Indigenous Connections:  Learning our histories from elders  Games reflect the resources we had in our communities	Numbers are related in many ways.  Numbers tell us how many and how much.	Comparing quantities of multitude or magnitude  Recalling number names  Applying counting to any set of objects  Decomposing wholes into parts and composing wholes from parts

1	1N1 Children Interpret and explain quantities to 100 1N1.1	A Family Cookout (numbers to 50)  Teacher Guide  Blackline masters	Compare and order quantities to 25  Estimate and count to 50  Indigenous Connections:  • The importance of giving thanks to Mother Earth  • The importance of generosity	Numbers are related in many ways.  Numbers tell us how many and how much.	Comparing quantities of multitude or magnitude  Ordering and sequencing quantities and numbers  Recalling number names  Applying counting to any set of objects  Estimating quantities and numbers
1	1N1 Children Interpret and explain quantities to 100 1N1.1, 1N1.2	Ways to Count (numbers to 100)  Teacher Guide  Blackline masters	Counts objects (to 100)  Estimates and compares quantities (to 100)	Numbers tell us how many and how much.	Recalling number names  Applying counting to any set of objects  Comparing quantities of multitude or magnitude  Estimating quantities and numbers
1	1N1 Children Interpret and explain quantities to 100 1N1.2, N1.5, N2.2	Cats and Kittens (numbers to 20)  Teacher Guide  Blackline masters	Add and subtract to 20 Compare quantities to 20	Quantities and numbers can be added and subtracted to determine how many and how much.  Numbers are related in many ways.	Developing conceptual meaning of addition and subtraction  Developing fluency of addition and subtraction computation  Comparing quantities of multitude or magnitude
1	1N1 Children Interpret and explain quantities to 100 1N1.2	How Many is Too Many?  Teacher Guide  Blackline masters	Estimate, and group to skip-count to 50  Compare quantities to 50	Quantities and numbers can be grouped by or partitioned into units.  Numbers are related in many ways.	Recalling number names  Estimating quantities and numbers  Unitizing quantities and comparing units to the whole  Comparing quantities of multitude or magnitude

1	1N1 Children Interpret and explain quantities to 100 1N1.2	Family Fun Day (numbers to 100)  Teacher Guide  Blackline masters	Estimates and partitions quantities to skip count to 100  Composes and decomposes to 100	Quantities and numbers can be grouped by or partitioned into units.  Numbers are related in many ways.	Estimating quantities and numbers  Unitizing quantities and comparing units to the whole  Decomposing wholes into parts and composing wholes from parts
1	1N1 Children Interpret and explain quantities to 100 1N1.2	On Safari  Teacher Guide  Blackline masters	Count sets to 20 Add 1 or 2	Numbers tell us how many and how much.  Numbers are related in many ways.	Recalling number names  Applying counting to any set of objects  Ordering and sequencing quantities and numbers
1	1N1 Children Interpret and explain quantities to 100 1N1.3, 1N1.4				
1	1N1 Children Interpret and explain quantities to 100 1N1.5	Nutty and Wolfy (numbers to 20)  Teacher Guide  Blackline masters	Describes equality as balance and inequality as imbalance  Explores how two equations can equal the same quantity  Uses the equal symbol in equations and knows its meaning	Algebraic symbols and expressions allow us to represent relations and solve problems.	Understanding equality and inequality is founded on generalized properties of numbers and operations  Uses symbols, unknowns, and variables to represent mathematical relations

1	1N1 Children Interpret and explain quantities to 100 1N1.5	Kokum's Bannock  Teacher Guide  Blackline masters	Model and describe equality and inequality  Explore properties of addition and subtraction  Indigenous Connections:  • Learning with elders and community members passes down important teachings  • Experiential learning is frequently a way young ones learn from elders and community members	Patterns and relations can be represented with symbols, equations, and expressions.	Understanding Equality and Inequality, Building on Generalized Properties of Numbers and Operations
1	1N1 Children Interpret and explain quantities to 100 1N1.5  1N2Students examine addition and subtraction within 20 1N2.1, 1N2.3	Paddling the River (Numbers to 20)  Teacher Guide  Blackline masters	Count, compare, and order to 20  Compose and decompose to 20	Numbers are related in many ways.  Numbers tell us how many and how much.	Comparing quantities of multitude or magnitude  Recalling number names  Applying counting to any set of objects  Decomposing wholes into parts and composing wholes from parts
1	1N2Students examine addition and subtraction within 20 1N2.1. 1N2.2, 1N2.3	That's 10!  Teacher Guide  Blackline masters	Add and subtract to 10  Compose and decompose 10	Quantities and numbers can be added and subtracted to determine how many and how much.  Numbers are related in many ways.	Developing conceptual meaning of addition and subtraction  Decomposing wholes into parts and composing wholes from parts

1	1N2Students examine addition and subtraction within 20 1N2.1, 1N2.2	Hockey Time!  Teacher Guide  Blackline masters	Add and subtract to 20  Compose and decompose to 20	Quantities and numbers can be added and subtracted to determine how many and how much.  Numbers are related in many ways.	Developing conceptual meaning of addition and subtraction  Developing fluency of addition and subtraction computation  Decomposing wholes into parts and composing wholes from parts
1	1N2Students examine addition and subtraction within 20 1N2.2	Canada's Oldest Sport  Teacher Guide  Blackline masters	Add and subtract to 20  Compare and order sets to 20  Indigenous Connections:  Recognizing the contributions of Indigenous peoples is important Engaging in activities that relate directly to one's culture builds a strong sense of personal and cultural identity	Quantities and numbers can be added and subtracted to determine how many and how much.  Numbers are related in many ways.	Developing conceptual meaning of addition and subtraction  Developing fluency of addition and subtraction computation  Ordering and sequencing quantities and numbers  Comparing quantities of multitude or magnitude
1	1N2Students examine addition and subtraction within 20 1N2.2	Buy 1, Get 1  Teacher Guide  Blackline masters	Add and subtract to 20  Develop addition and subtraction strategies	Quantities and numbers can be added and subtracted to determine how many and how much.	Developing conceptual meaning of addition and subtraction  Developing fluency of addition and subtraction computation
1	1N3 Students examine one-half as a part-whole relationship 1N1	The Best Birthday  Teacher Guide  Blackline masters	Partitions quantities to make fractions  Partitions quantities to skip count	Quantities and numbers can be grouped by or partitioned into units.	Partitioning quantities to form fractions  Unitizing quantities and comparing units to the whole

2	2N1Students analyze quantity to 1000 2N1.1, 2N1.2, 2N1.4, 2N1.5  2N2Students investigate addition and subtraction to 100 2N2.1	Ways to Count (numbers to 100)  Teacher Guide  Blackline masters	Counts objects (to 100)  Estimates and compares quantities (to 100)	Numbers tell us how many and how much.	Recalling number names  Applying counting to any set of objects  Comparing quantities of multitude or magnitude  Estimating quantities and numbers
2	2N1Students analyze quantity to 1000 2N1.2, 2N1.4, 2N1.5  2N2Students investigate addition and subtraction to 100 2N2.1, 2N2.2	Family Fun Day (numbers to 100)  Teacher Guide  Blackline masters	Estimates and partitions quantities to skip count to 100  Composes and decomposes to 100	Quantities and numbers can be grouped by or partitioned into units.  Numbers are related in many ways.	Estimating quantities and numbers  Unitizing quantities and comparing units to the whole  Decomposing wholes into parts and composing wholes from parts
2	2N1Students analyze quantity to 1000 2N1.2, 2N1.5	Back to Batoche (numbers to 100)  Teacher Guide  Blackline masters	Groups quantities based on units of ten  Compares and orders numbers to 100  Indigenous Connections:  • Cultural symbols and language are important  • Cultural events and activities are important	Quantities and numbers can be grouped by or partitioned into units.  Numbers are related in many ways.  Quantities and numbers can be added and subtracted to determine how many and how much.	Unitizing quantities based on units of ten (place-value concepts)  Comparing quantities of multitude or magnitude  Ordering and sequencing quantities and numbers  Developing conceptual meaning of addition and subtraction

2	2N1Students analyze quantity to 1000 2N1.2  2N2Students investigate addition and subtraction to 100 2N2.1, 2N2.2	The Money Jar  Teacher Guide  Blackline masters	Adds and subtracts to 100 Composes and decomposes based on units of ten	Quantities and numbers can be added and subtracted to determine how many and how much.  Quantities and numbers can be grouped by units or split into units.	Developing conceptual meaning of addition and subtraction  Developing fluency of addition and subtraction computation  Unitizing quantities based on units of ten (place-value concepts)
2	2N1Students analyze quantity to 1000 2N1.2	Fantastic Journeys (numbers to 1000)  Teacher Guide  Blackline masters	Estimates quantities to 1000  Compares and orders quantities to 1000	Numbers are related in many ways.	Estimating quantities and numbers  Comparing quantities of multitude or magnitude  Ordering and sequencing quantities and numbers
2	2N1Students analyze quantity to 1000 2N1.2	Finding Buster (numbers to 1000)  Teacher Guide  Blackline masters	Groups quantities based on units of ten to 1000  Estimates, compares, and orders quantities and numbers to 1000	Quantities and numbers can be grouped by or partitioned into units.  Numbers are related in many ways.	Unitizing quantities based on units of ten (place-value concepts)  Comparing quantities of multitude or magnitude  Estimating quantities and numbers  Ordering and sequencing quantities and numbers

2	2N1Students analyze quantity to 1000 2N1.2	How Numbers Work  Teacher Guide  Blackline masters	Groups quantities based on units of ten (to 1000)  Composes and decomposes to 1000	Quantities and numbers can be grouped by or partitioned into units.  Numbers are related in many ways.	Unitizing quantities based on units of ten (place-value concepts)  Decomposing wholes into parts and composing wholes from parts
2	2N1Students analyze quantity to 1000 2N1.2, 2N1.4	What Would You Rather? (numbers to 100)  Teacher Guide  Blackline masters	Compares quantities (to 100)  Estimates and counts (to 100)	Numbers are related in many ways.  Numbers tell us how many and how much.	Comparing quantities of multitude or magnitude Recalling number names Estimating quantities and numbers Unitizing quantities and comparing units to the whole
2	2N1Students analyze quantity to 1000 2N1.3 2N2Students investigate addition and subtraction to 100 2N2.2	Array's Bakery  Teacher Guide  Blackline masters	Adds and subtracts to 50 Skip counts to 50	Quantities and numbers can be added and subtracted to determine how many and how much.  Quantities and numbers can be grouped by or partitioned into units.	Developing conceptual meaning of addition and subtraction  Developing fluency of addition and subtraction computation  Unitizing quantities and comparing units to the whole
2	2N1Students analyze quantity to 1000 2N1.3  2N2Students investigate addition and subtraction to 100 2N2.2	Marbles, Alley's, Mibs, and Guli!  Teacher Guide  Blackline masters	Adds and subtracts to 50 Models multiplication and division to 50	Quantities and numbers can be added and subtracted to determine how many and how much.  Quantities and numbers can be multiplied (by grouping units) and divided (by splitting into units) to determine how many and how much.	Developing conceptual meaning of addition and subtraction  Developing fluency of addition and subtraction computation  Developing conceptual meaning of multiplication and division

2	2N1Students analyze quantity to 1000 2N1.5	Nutty and Wolfy (numbers to 20)  Teacher Guide  Blackline masters	Describes equality as balance and inequality as imbalance  Explores how two equations can equal the same quantity  Uses the equal symbol in equations and knows its meaning	Algebraic symbols and expressions allow us to represent relations and solve problems.	Understanding equality and inequality is founded on generalized properties of numbers and operations  Uses symbols, unknowns, and variables to represent mathematical relations
2	2N1Students analyze quantity to 1000 2N1.5  2N2Students investigate addition and subtraction to 100 2N2.2	The Great Dogsled Race Teacher Guide Blackline masters	Add/Subtract to 100  Compare/Order numbers  Indigenous Connections: It is important to treat animals with respect It is important to get out on the land and learn to read the land	Quantities and numbers can be added and subtracted to determine how many or how much.  Numbers are related in many ways.	Developing Fluency of Addition and Subtraction Computation  Comparing and Ordering Quantities (Multitude or Magnitude)

2	2N1Students analyze quantity to 1000 2N1.5  2N2Students investigate addition and subtraction to 100 2N2.1	Kokum's Bannock  Teacher Guide  Blackline masters	Model and describe equality and inequality  Explore properties of addition and subtraction  Indigenous Connections:  • Learning with elders and community members passes down important teachings  • Experiential learning is frequently a way young ones learn from elders and community members	Patterns and relations can be represented with symbols, equations, and expressions.	Understanding Equality and Inequality, Building on Generalized Properties of Numbers and Operations
2	2N2Students investigate addition and subtraction to 100 2N2.1	Paddling the River  Teacher Guide  Blackline masters	Count, compare, and order to 20 Compose and decompose to 20	Numbers are related in many ways.  Numbers tell us how many and how much.	Comparing quantities of multitude or magnitude  Recalling number names  Applying counting to any set of objects  Decomposing wholes into parts and composing wholes from parts
2	2N2Students investigate addition and subtraction to 100 2N2.1, 2N2.2	A Class-Full of Projects  Teacher Guide  Blackline masters	Adds and subtracts to 100  Composes and decomposes based on units of ten	Quantities and numbers can be added and subtracted to determine how many and how much.  Quantities and numbers can be grouped by units or split into units.	Developing conceptual meaning of addition and subtraction  Developing fluency of addition and subtraction computation  Unitizing quantities based on units of ten (place-value concepts)

2	2N3 Students interpret part-whole relationships using unit fractions.	The Best Birthday  Teacher Guide  Blackline masters	Partitions quantities to make fractions  Partitions quantities to skip count	Quantities and numbers can be grouped by or partitioned into units.	Partitioning quantities to form fractions  Unitizing quantities and comparing units to the whole
2	2N3 Students interpret part-whole relationships using unit fractions.	Hockey Homework  Teacher Guide  Blackline masters	Split Wholes into Equal Parts to Make Fractions Compare Fractions	Quantities and numbers can be grouped by or partitioned into units.	Partitioning quantities to form fractions
3	3N1 Students interpret place value within 100 000	How Numbers Work  Teacher Guide  Blackline masters	Groups quantities based on units of ten (to 1000)  Composes and decomposes to 1000	Quantities and numbers can be grouped by or partitioned into units.  Numbers are related in many ways.	Unitizing quantities based on units of ten (place-value concepts)  Decomposing wholes into parts and composing wholes from parts
3	3N1 Students interpret place value within 100 000	Finding Buster (numbers to 1000)  Teacher Guide  Blackline masters	Groups quantities based on units of ten to 1000  Estimates, compares, and orders quantities and numbers to 1000	Quantities and numbers can be grouped by or partitioned into units.  Numbers are related in many ways.	Unitizing quantities based on units of ten (place-value concepts)  Comparing quantities of multitude or magnitude  Estimating quantities and numbers  Ordering and sequencing quantities and numbers

3	3N1 Students interpret place value within 100 000	Fantastic Journeys (numbers to 1000) Teacher Guide Blackline masters	Estimates quantities to 1000 Compares and orders quantities to 1000	Numbers are related in many ways.	Estimating quantities and numbers  Comparing quantities of multitude or magnitude  Ordering and sequencing quantities and numbers
3	3N1 Students interpret place value within 100 000  3N2 Students apply strategies for addition and subtraction within 1000	Math Makes Me Laugh  Teacher Guide  Blackline masters	Adds and subtracts to 1000  Compares and orders quantities to 1000	Quantities and numbers can be added and subtracted to determine how many and how much.  Numbers are related in many ways.	Developing conceptual meaning of addition and subtraction  Developing fluency of addition and subtraction computation  Ordering and sequencing quantities and numbers  Comparing quantities of multitude or magnitude
3	3N1 Students interpret place value within 100 000  3N2 Students apply strategies for addition and subtraction within 1000	The Street Party Teacher Guide Blackline masters	Adds and subtracts to 1000  Compares and orders quantities to 1000	Quantities and numbers can be added and subtracted to determine how many and how much.  Numbers are related in many ways.	Developing conceptual meaning of addition and subtraction  Developing fluency of addition and subtraction computation  Ordering and sequencing quantities and numbers  Comparing quantities of multitude or magnitude

3	3N2 Students apply strategies for addition and subtraction within 1000  3N3 Students analyze and apply strategies for multiplication and Division within 100  3N3.1	Planting Seeds  Teacher Guide  Blackline masters	Adds and subtracts to 1000  Develops conceptual meaning of multiplication  Indigenous Connections:  Generosity is important Hands-on experience is a powerful way to learn	Quantities and numbers can be added and subtracted to determine how many and how much.  Quantities and numbers can be multiplied (by grouping units) and divided (by splitting into units) to determine how many or how much.	Developing conceptual meaning of addition and subtraction  Developing fluency of addition and subtraction computation  Developing conceptual meaning of multiplication and division
3	3N2 Students apply strategies for addition and subtraction within 1000  3N3 Students analyze and apply strategies for multiplication and Division within 100  3N3.1	Calla's Jingle Dress  Teacher Guide  Blackline masters	Multiplies and divides to 50  Adds and subtracts to 100  Indigenous Connections:  Family, elders, and community members are all important  Traditions and community celebrations are significant	Quantities and numbers can be multiplied (by grouping units) and divided (by splitting into units) to determine how many and how much.  Quantities and numbers can be added and subtracted to determine how many and how much.	Developing conceptual meaning of multiplication and division  Developing fluency for multiplication and division computation  Developing fluency of addition and subtraction computation
3	3N3 Students analyze and apply strategies for multiplication and Division within 100 3N3.1, 3N3.2	Sports Camp  Teacher Guide  Blackline masters	Models multiplication and division to 36  Multiplies and divides to 36	Quantities and numbers can be multiplied (by grouping units) and divided (by splitting into units) to determine how many and how much.	Developing conceptual meaning of multiplication and division  Developing fluency for multiplication and division computation

3	3N3 Students analyze and apply strategies for multiplication and Division within 100 3N3.1	Array's Bakery  Teacher Guide  Blackline masters	Adds and subtracts to 50 Skip counts to 50	Quantities and numbers can be added and subtracted to determine how many and how much.  Quantities and numbers can be grouped by or partitioned into units.	Developing conceptual meaning of addition and subtraction Developing fluency of addition and subtraction computation Unitizing quantities and comparing units to the whole
3	3N3 Students analyze and apply strategies for multiplication and Division within 100 3N3.1	Marbles, Alley's, Mibs, and Guli!  Teacher Guide  Blackline masters	Adds and subtracts to 50  Models multiplication and division to 50	Quantities and numbers can be added and subtracted to determine how many and how much.  Quantities and numbers can be multiplied (by grouping units) and divided (by splitting into units) to determine how many and how much.	Developing conceptual meaning of addition and subtraction  Developing fluency of addition and subtraction computation  Developing conceptual meaning of multiplication and division
3	3N4 Students Interpret fractions in relation to one whole.	Hockey Homework  Teacher Guide  Blackline masters	Split Wholes into Equal Parts to Make Fractions Compare Fractions	Quantities and numbers can be grouped by or partitioned into units.	Partitioning quantities to form fractions

**Geometry and Spatial Reasoning Strand** 

Grade	Learning Outcome	Title	Math Focus	Big Ideas	Conceptual Threads
К	KG1 Children Investigate Shape KG1	Zoom In, Zoom Out  Teacher Guide  Blackline Masters	Explore and describe 3D shapes  Construct 3D structures and identify common 2D shapes within	2D and 3D shapes can be analyzed and compared based on attributes that change or stay the same after moving, rotating, and reflecting shapes.  Shapes are composed of and can be decomposed into other shapes.	Composing, decomposing, tiling, and packing 2D and 3D shapes  Constructing, manipulating, and drawing to identify, compare, and analyse attributes of 2D and 3D shapes
К	KG1 Children Investigate Shape KG1	The Castle Wall  Teacher Guide  Blackline Masters	Explore, sort, compare, and describe 3D shapes  Construct 3D structures and identify common 2D shapes within	2D and 3D shapes can be analyzed and compared based on attributes that change or stay the same after moving, rotating, and reflecting shapes. Shapes are composed of and can be decomposed into other shapes.	Constructing, manipulating, and drawing to identify, compare, and analyse attributes of 2D and 3D shapes Composing, decomposing, tiling, and packing 2D and 3D shapes
1	1G1 Students interpret shape in two and three dimensions. 1G1	Memory Book  Teacher Guide  Blackline masters	Locates objects on a map and uses positional language to describe location  Identifies and connects 2D and 3D shapes to the real world.  Indigenous Connections:  • The importance of learning from family and community  • The importance of recognizing the interconnectedness of the land and its people	The location of objects can be described with language, gesture, and maps.  2D and 3D shapes can be analyzed and compared based on attributes that change or stay the same after moving, rotating, and reflecting shapes.	Locating and mapping objects in space  Constructing, manipulating, and drawing to identify, compare, and analyse attributes of 2D and 3D shapes

1	1G1 Students interpret shape in two and three dimensions. 1G1	What Was Here?  Teacher Guide  Blackline masters	Explore, identify, and sort 3D objects  Connect 2D shapes to 3D figures  Connect 2D shapes and 3D figures to the real world	2D and 3D shapes can be analyzed and compared based on attributes that change or stay the same after moving, rotating, and reflecting shapes.	Constructing, manipulating, and drawing to identify, compare, and analyse attributes of 2D and 3D shapes  Exploring congruence by matching, moving, rotating and reflecting 2D and 3D shapes and representations
1	1G1 Students interpret shape in two and three dimensions. 1G1	The Castle Wall  Teacher Guide  Blackline masters	Explore, sort, compare, and describe 3D shapes  Construct 3D structures and identify common 2D shapes within	2D and 3D shapes can be analyzed and compared based on attributes that change or stay the same after moving, rotating, and reflecting shapes.  Shapes are composed of and can be decomposed into other shapes.	Constructing, manipulating, and drawing to identify, compare, and analyse attributes of 2D and 3D shapes  Composing, decomposing, tiling, and packing 2D and 3D shapes
1	1G1 Students interpret shape in two and three dimensions. 1G1	The Tailor Shop  Teacher Guide  Blackline masters	Transform and describe shapes.  Describe and compare shapes.	2-D shapes and 3-D solids can be transformed in many ways and analyzed for change.  2-D shapes and 3-D solids can be analyzed and classified in different ways by their attributes.	Exploring Symmetry to Analyze 2-D Shapes and 3-D Solids Exploring Symmetry to Analyze 2-D Shapes and 3-D Solids Investigating Geometric Attributes and Properties of 2-D Shapes and 3-D Solids

1	1G1 Students interpret shape in two and three dimensions. 1G1	Zoom In, Zoom Out  Teacher Guide  Blackline masters	Explore and describe 3D shapes  Construct 3D structures and identify common 2D shapes within	2D and 3D shapes can be analyzed and compared based on attributes that change or stay the same after moving, rotating, and reflecting shapes.  Shapes are composed of and can be decomposed into other shapes.	Composing, decomposing, tiling, and packing 2D and 3D shapes  Constructing, manipulating, and drawing to identify, compare, and analyse attributes of 2D and 3D shapes
2	2G1 Students analyze and explain geometric attributes of shape 2G1.1	I Spy Awesome Buildings  Teacher Guide  Blackline masters	Find and classify 2-D shapes in 3-D objects.  Investigate and make 2-D shapes.	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
2	2G1 Students analyze and explain geometric attributes of shape 2G1.1, 2G1.2	Sharing Our Stories  Teacher Guide  Blackline masters	Explore lines of symmetry in 2-D shapes.  Explore 2-D shapes  Indigenous Connections:  • Understanding and engaging in cultural activities creates positive identity  • We learn traditional teachings when engaging in cultural events.	2-D shapes and 3-D solids can be transformed in many ways and analyzed for change.  2-D shapes and 3-D solids can be analyzed and classified in different ways by their attributes.	Exploring Symmetry to Analyze 2-D Shapes and 3-D Solids  Investigating Geometric Attributes and Properties of 2-D Shapes and 3-D Solids

2	2G1 Students analyze and explain geometric attributes of shape 2G1.2	The Tailor Shop  Teacher Guide  Blackline masters	Transform and describe shapes.  Describe and compare shapes.	2-D shapes and 3-D solids can be transformed in many ways and analyzed for change.  2-D shapes and 3-D solids can be analyzed and classified in different ways by their attributes.	Exploring Symmetry to Analyze 2-D Shapes and 3-D Solids Exploring Symmetry to Analyze 2-D Shapes and 3-D Solids Investigating Geometric Attributes and Properties of 2-D Shapes and 3-D Solids
3	3G Students Relate geometric properties to shape 3G1.1, 3G1.2	Gallery Tour  Teacher Guide  Blackline masters	Describe and compare transformations  Identify, describe and compare 2-D shapes	<ul><li>2-D shapes and 3-D solids can be transformed in many ways and analyzed for change.</li><li>2-D shapes and 3-D solids can be analyzed and classified in different ways by their attributes.</li></ul>	Exploring Symmetry to Analyze 2-D Shapes and 3-D Solids  Investigating Geometric Attributes and Properties of 2-D Shapes and 3-D Solids
3	3G1 Students Relate geometric properties to shape 3G1.1	WONDERful Buildings  Teacher Guide  Blackline masters	Identify, describe and compare 2-D shapes and 3-D objects Compose and Decompose 2-D Shapes and 3-D Solids	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 Investigating 2-D Shapes, 3-D Solids, and Their Attributes Through Composition and Decomposition

## **Measurement Strand**

Grade	Learning Outcome	Title	Math Focus	Big Ideas	Conceptual Threads
К	KM1 Children explore size through direct comparison KM1.1. KM1.2	To Be Long!  Teacher Guide  Blackline Masters	Compares objects by length Uses relative language to describe length	Many things in our world (e.g. objects, spaces, events) have attributes that can be measured and compared.  Assigning a unit to a continuous attribute allows us to measure and make comparisons.	Understanding attributes that can be measured  Directly comparing and ordering objects with the same measureable attribute  Estimating measures using referents and benchmarks
K	KM1 Children explore size through direct comparison KM1.1, KM1.2	The Best in Show  Teacher Guide  Blackline Masters	Uses measuring tools to compare objects by length, height, distance, mass, capacity  Uses relative language to describe measures	Many things in our world (e.g. objects, spaces, events) have attributes that can be measured and compared.  Assigning a unit to a continuous attribute allows us to measure and make comparisons.	Understanding attributes that can be measured Directly comparing and ordering objects with the same measureable attribute Estimating measures using referents and benchmarks
К	KM1 Children explore size through direct comparison KM1.1, KM1.2	The Amazing Seed  Teacher Guide  Blackline Masters	Estimate and compare attributes  Estimate and measure using non-standard units	Many things in our world (e.g., objects, spaces, events) have attributes that can be measured and compared.  Assigning a unit to a continuous attribute allows us to measure and make comparisons.	Directly and Indirectly Comparing and Ordering Objects with the Same Measurable Attribute  Selecting and Using Non-standard Units to Estimate, Measure, and Make Comparisons

1	1M1 Students relate length to the understanding of size. 1M1.1, 1M1.2	Animal Measures  Teacher Guide  BlackLine Masters	Measures length and mass with non-standard units  Explores relationship between the size of the unit and the number of units used to measure	Assigning a unit to a continuous attribute allows us to measure and make comparisons.  Many things in our world (e.g. objects, spaces, events) have attributes that can be measured and compared.	Selecting and using nonstandard units to measure and make comparisons  Estimating measures using referents and benchmarks Understanding attributes that can be measured
1	1M1 Students relate length to the understanding of size. 1M1.1, 1M1.2	The Amazing Seed  Teacher Guide  BlackLine Masters	Estimate and compare attributes  Estimate and measure using non-standard units	Many things in our world (e.g., objects, spaces, events) have attributes that can be measured and compared.  Assigning a unit to a continuous attribute allows us to measure and make comparisons.	Directly and Indirectly Comparing and Ordering Objects with the Same Measurable Attribute  Selecting and Using Non-standard Units to Estimate, Measure, and Make Comparisons
1	1M1 Students relate length to the understanding of size. 1M1.1	The Best in Show  Teacher Guide  BlackLine Masters	Uses measuring tools to compare objects by length, height, distance, mass, capacity  Uses relative language to describe measures	Many things in our world (e.g. objects, spaces, events) have attributes that can be measured and compared.  Assigning a unit to a continuous attribute allows us to measure and make comparisons.	Understanding attributes that can be measured  Directly comparing and ordering objects with the same measureable attribute  Estimating measures using referents and benchmarks

1	1M1 Students relate length to the understanding of size. 1M1.2	To Be Long!  Teacher Guide  BlackLine Masters	Compares objects by length Uses relative language to describe length	Many things in our world (e.g. objects, spaces, events) have attributes that can be measured and compared.  Assigning a unit to a continuous attribute allows us to measure and make comparisons.	Understanding attributes that can be measured  Directly comparing and ordering objects with the same measureable attribute  Estimating measures using referents and benchmarks
2	2M1 Students communicate length using units 2M1.1, 2M1.2	Getting Ready for School  Teacher Guide  Blackline masters	Estimate and measure length, duration, and distance around  Compare, order and describe measures	Assigning a unit to a continuous attribute allows us to measure and make comparisons.  Many things in our world (e.g., objects, spaces, events) have attributes that can be measured and compared.	Selecting and Using Standard Units to Estimate, Measure, and Make Comparisons  Directly and Indirectly Comparing and Ordering Objects with the Same Measurable Attribute
2	2M1 Students communicate length using units 2M1.1	The Amazing Seed  Teacher Guide  Blackline masters	Estimate and compare attributes  Estimate and measure using non-standard units	Many things in our world (e.g., objects, spaces, events) have attributes that can be measured and compared.  Assigning a unit to a continuous attribute allows us to measure and make comparisons.	Directly and Indirectly Comparing and Ordering Objects with the Same Measurable Attribute  Selecting and Using Non-standard Units to Estimate, Measure, and Make Comparisons
2	2M1 Students communicate length using units 2M1.1	The Discovery  Teacher Guide  Blackline masters	Estimate and measure length, perimeter and area  Compare and describe length, perimeter and area	Assigning a unit to a continuous attribute allows us to measure and make comparisons.	Selecting and Using Non-standard Units to Estimate, Measure, and Make Comparisons

2	2M1 Students communicate length using units 2M1.1	Animal Measures  Teacher Guide  Blackline masters	Measures length and mass with non-standard units  Explores relationship between the size of the unit and the number of units used to measure	Assigning a unit to a continuous attribute allows us to measure and make comparisons.  Many things in our world (e.g. objects, spaces, events) have attributes that can be measured and compared.	Selecting and using nonstandard units to measure and make comparisons Estimating measures using referents and benchmarks  Understanding attributes that can be measured
3	3M1 Students Determine length using standard units  3M1.1	Measurements about YOU!  Teacher Guide  Blackline masters	Estimate, measure and compare attributes  Identify and relate measures	Assigning a unit to a continuous attribute allows us to measure and make comparisons	Selecting and Using Standard Units to Estimate, Measure, and Make Comparisons
3	3M1 Students Determine length using standard units 3M1.2	The Bunny Challenge  Teacher Guide  Blackline masters	Estimate, measure and compare area Estimate, measure and compare perimeter	Assigning a unit to a continuous attribute allows us to measure and make comparisons.	Selecting and Using Non-standard Units to Estimate, Measure, and Make Comparisons
3	3M2 Students interpret angles.				

### **Patterns and Relations Strand**

Grade	Learning Outcome	Title	Math Focus	Big Ideas	Conceptual Threads
К	KP1 Children identify and create repeating patterns KP1	A Lot of Noise  Teacher Guide  Blackline Masters	Identify, describe, reproduce, and create repeating patterns with sounds and/or movement  Identify and describe what comes next in a repeating pattern	Algebraic symbols and expressions allow us to represent relations and solve problems	Identifying, reproducing, extending and creating patterns that repeat.  Identifying, sorting and classifying attributes that can be described mathematically
К	KP1 Children identify and create repeating patterns KP1	We Can Bead!  Teacher Guide  Blackline Masters	Describe, extend and create repeating patterns  Sort Objects by Attributes  Indigenous Connections:  • Understanding the connection to land and place and the resources they yield  • The significance of experiential learning	Regularity and repetition form patterns that can be generalized and predicted mathematically.	Identifying, Reproducing, Extending, and Creating Patterns That Repeat  Representing and Generalizing Increasing/Decreasing Patterns
1	1P1 Students examine pattern in cycles 1P1	Midnight and Snowfall  Teacher Guide  Blackline masters	Identify and describe repeating patterns Compare and create patterns	Regularity and repetition form patterns that can be generalized and predicted mathematically.	Identifying, Reproducing, Extending, and Creating Patterns That Repeat

2	2P1 Students explain and analyze patterns in a variety of contexts. 2P1.1, 2P1.2	Pattern Quest  Teacher Guide  Blackline masters	Investigate repeating patterns Investigate growing and shrinking patterns Indigenous Connections:  • Understanding that FNMI art reflects the culture and values of Indigenous peoples  • Appreciating works of art and artistic traditions from diverse cultures, communities, times, and places	Regularity and repetition form patterns that can be generalized and predicted mathematically.	Identifying, Reproducing, Extending, and Creating Patterns That Repeat  Representing and Generalizing Increasing/Decreasing Patterns
2	2P1 Students explain and analyze patterns in a variety of contexts. 2P1.1	The Best Surprise  Teacher Guide  Blackline masters	Explore growing and shrinking patterns Investigate number patterns	Regularity and repetition form patterns that can be generalized and predicted mathematically.	Representing and generalizing increasing/decreasing pattern
3	3P1 Students analyze patterns in numerical sequences. 3P1.1, 3P1.2	Namir's Marvellous Masterpieces  Teacher Guide  Blackline masters	Investigate growing and shrinking patterns (further developed)  Use equations to represent simple growing and shrinking patterns	Regularity and repetition form patterns that can be generalized and predicted mathematically	Representing and Generalizing Increasing/Decreasing Patterns
3	3P1 Students analyze patterns in numerical sequences. 3P1.1	How Numbers Work  Teacher Guide  Blackline masters	Groups quantities based on units of ten (to 1000)  Composes and decomposes to 1000	Quantities and numbers can be grouped by or partitioned into units.  Numbers are related in many ways.	Unitizing quantities based on units of ten (place-value concepts)  Decomposing wholes into parts and composing wholes from parts

	3	3P1 Students analyze patterns in	The Best Surprise	Explore growing and shrinking patterns	Regularity and repetition form patterns that can be	Representing and generalizing increasing/decreasing pattern
١		numerical	Teacher Guide	Investigate number patterns	generalized and predicted	
١		sequences.			mathematically.	
		3P1.1, 3P1.2	Blackline masters			

## Time

Grade	Learning Outcome	Title	Math Focus	Big Ideas	Conceptual Threads
К	KT1 Children interpret time as a sequence of events.				
1	1T1 Students explain Time in relation to cycles				
2	2T1 Students relate duration to time. 2T1.1, 2T1.2	Goat Island Teacher Guide Blackline masters	Measure time, temperature and length  Explore units of measure and their relationships  Indigenous Connections:  • Traditional teachings occur when engaging with the land, nature, and the outdoors with elders and community members	Assigning a unit to a continuous attribute allows us to measure and make comparisons.	Selecting and Using Standard Units to Estimate, Measure, and Make Comparisons Understanding Relationships Among Measurement Units

2	2T1 Students relate duration to time. 2T1.1	Getting Ready for School  Teacher Guide  Blackline masters	Estimate and measure length, duration, and distance around  Compare, order and describe measures	Assigning a unit to a continuous attribute allows us to measure and make comparisons.  Many things in our world (e.g., objects, spaces, events) have attributes that can be measured and compared.	Selecting and Using Standard Units to Estimate, Measure, and Make Comparisons  Directly and Indirectly Comparing and Ordering Objects with the Same Measurable Attribute
3	2T1 Students tell time using clocks.				

# Statistics

Grade	Learning Outcome	Title	Math Focus	Big Ideas	Conceptual Threads
К					
1	1ST1 Students investigate and represent data 1ST1.1	Graph It!  Teacher Guide  Blackline masters	Interpret concrete graphs and picture graphs Build concrete graphs and picture graphs		

2	2ST1 Students relate data to a variety of representations 2ST1.1, 2ST1.2	Marsh Watch  Teacher Guide  Blackline masters	Collect, organize and display data in graphs  Read and ask questions about graphs  Indigenous Connections:  Valuing the land, nature and the outdoors	Formulating questions, collecting data, and consolidating data in visual and graphical displays help us understand, predict, and interpret situations that involve uncertainty, variability, and randomness.	Collecting Data and Organizing It into Categories  Formulating Questions to Learn About Groups, Collections, and Events by Collecting Relevant Data
2	2ST1 Students relate data to a variety of representations 2ST1.1, 2ST1.2	Big Buddy Days  Teacher Guide  Blackline masters	Build pictographs Interpret pictographs	Formulating questions, collecting data, and consolidating data in visual and graphical displays help us understand, predict, and interpret situations that involve uncertainty, variability, and randomness.	Collecting Data and Organizing It into Categories  Reading and Interpreting Data Displays
3	3ST1 Students interpret and explain representations of data. 3ST1.1, 3ST1.2	Welcome to the Nature Park  Teacher Guide  Blackline masters	Interpret charts, tables, pictographs and bar graphs  Draw conclusions from data displays	Formulating questions, collecting data, and consolidating data in visual and graphical displays help us understand, predict, and interpret situations that involve uncertainty, variability, and randomness.	Reading and Interpreting Data Displays  Drawing Conclusions by Making Inferences and Justifying Decisions Based on Data Collected

**Financial Literacy** 

Grade	Learning Outcome	Title	Math Focus	Big Ideas	Conceptual Threads
К	KFL1 Children explore money				
1	1FL Students explore money and how it is used for everyday living. 1FL	Buy 1, Get 1  Teacher Guide  Blackline masters	Add and subtract to 20 Develop addition and subtraction strategies	Quantities and numbers can be added and subtracted to determine how many and how much.	Developing conceptual meaning of addition and subtraction Developing fluency of addition and subtraction computation
2	2FL Students relate money and decision making 2FL	The Money Jar  Teacher Guide  Blackline masters	Adds and subtracts to 100 Composes and decomposes based on units of ten	Quantities and numbers can be added and subtracted to determine how many and how much.  Quantities and numbers can be grouped by units or split into units.	Developing conceptual meaning of addition and subtraction  Developing fluency of addition and subtraction computation  Unitizing quantities based on units of ten (place-value concepts)
3	3FL Students describe strategies that support responsible money management				

Algebra

Grade	Learning Outcome	Title	Math Focus	Big Ideas	Conceptual Threads
3	3A1 Students illustrate equality with equations	A Week of Challenges  Teacher Guide	Use properties of equality to solve problems  Use the language of algebra	Patterns and relations can be represented with symbols, equations, and expressions.	Understanding Equality and Inequality, Building on Generalized Properties of Numbers and Operations
		Blackline masters			Using Symbols, Unknowns, and Variables to Represent Mathematical Relations

# **Other Books**

Grade	Learning Outcome	Title	Math Focus	Big Ideas	Conceptual Threads
К		The New Nest  Teacher Guide  Blackline Masters	Uses positional language to describe location and movement  Uses relative positions to describe location Recognize shapes	The location of objects can be described with language, gesture, and maps.  2-D shapes and 3-D solids can be analyzed and classified in different ways by their attributes.	Locating and mapping objects in space Investigating Geometric Attributes and Properties of 2-D Shapes and 3-D Solids
К	Possibly Gr 1 ST1.1 and ST1.2 Students investigate and represent data.	Hedge and Hog  Teacher Guide  Blackline Masters	Creates displays (graphs) using objects Interprets data/graphs to answer questions	The process of formulating questions, collecting data and consolidating data in visual and graphical displays help us to understand, predict and interpret situations that involve uncertainty, variability, and randomness of groups or data sets.	Formulating questions to learn about groups, collections, and events by collecting data  Creating visual or graphical displays of data collected  Reading and interpreting data displays  Draw conclusions, making inferences and justifying decisions based on data collected
1	Possibly Gr 1 1N1.3 Students interpret and explain quantity to 100	At the Corn Farm  Teacher Guide  Blackline masters	Group quantities based on units of 10  Compare and order sets/quantities to 20  Indigenous Connections:  • The importance of working together/collaboration  • Corn as a historic staple	Quantities and numbers can be grouped by or partitioned into units.  Numbers are related in many ways.	Unitizing quantities based on units of ten (place-value concepts)  Comparing quantities of multitude or magnitude  Estimating quantities and numbers  Ordering and sequencing quantities and numbers

2	Robo Teacher Guide Blackline masters	Describe the Location of Objects  Describe the Location of Objects	Objects can be located in space and viewed from multiple perspectives.	Locating and Mapping Objects in Space.
3	Chance Teacher Guide Blackline masters	Explore the Likelihood of Different Outcomes Investigate the Fairness of Games	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  Formulating Questions to Learn About Groups, Collections, and Events by Collecting Relevant Data



