Grade 2 Sample Long-Range Pathway – Option 1

In the examples below, the suggested learning is cyclical, allowing concepts to be revisited throughout the year. The Number Strand alternates with another strand every month. Students can then make connections with concepts in another, more prominent strand. This suggested pathway also allows students whose strengths are in the visual-spatial areas of math to have more opportunities to be engaged.

	Strand	Big Ideas	Conceptual Threads	Math Every Day Activities	Activity Kit	Mathology Little Books	Practice and Learning Centres
Sept.	Geometry	2-D shapes and 3-D solids can be analyzed and classified in different ways by their attributes 2-D shapes and 3-D solids can be transformed in many ways and analyzed for change	Investigating geometric attributes and properties of 2-D shapes and 3-D solids Exploring 2-D shapes and 3-D solids by applying and visualizing transformations	2-D Shapes Card 1: Visualizing Shapes/ Comparing Shapes	Geometry Cluster 1 2-D Shapes Activities 1–5	I Spy Awesome Buildings Sharing Our Stories	Sorting by one or two attributes and identifying the sorting rule Making pictures with 2-D shapes Shape riddles Creating, extending, translating, and predicting elements in repeating patterns

	Strand	Big Ideas	Conceptual Threads	Math Every Day Activities	Activity Kit	Mathology Little Books	Practice and Learning Centres
Sept.	Number	Numbers tell us how many and how much	Applying the principles of counting Recognizing and writing numerals	Counting Card 1A: Skip-Counting on a Hundred Chart/ Skip-Counting from Any Number Card 1B: Skip-Counting with Actions/ What's Wrong? What's Missing?	Number Cluster 1 Counting Activities 1–5* *Teachers may choose a smaller number range to begin the year and extend these activities over time.	What Would You Rather? Ways To Count	Counting and subitizing practice, including skip-counting Ordering and comparing smaller numbers
Oct.	Patterning and Algebra	Regularity and repetition form patterns that can be generalized and predicted mathematically	Identifying, sorting, and classifying attributes and patterns mathematically (e.g., number of sides, shape, size) Identifying, reproducing, extending, and creating patterns that repeat Representing and generalizing increasing/decreasing patterns	Repeating Patterns Card 1: Show Another Way/ Repeating Patterns Around Us Increasing/Decreasing Patterns Card 2A: How Many Can We Make?/Error Hunt Card 2B: Making Increasing Patterns/Making Decreasing Patterns	Patterning and Algebra Cluster 1 Repeating Patterns Activities 1–5 Patterning and Algebra Cluster 2 Increasing/Decreasing Patterns* Activities 6–14 *Decreasing patterns are for Ontario only	Pattern Quest The Best Surprise	Extending, creating, and predicting elements in repeating patterns and identifying the core Creating concrete increasing/decreasing patterns Sorting 2-D shapes and determining sorting rules

	Strand	Big Ideas	Conceptual Threads	Math Every Day Activities	Activity Kit	Mathology Little Books	Practice and Learning Centres
Oct.	Number	Numbers are related in many ways	Estimating quantities and numbers Decomposing wholes into parts and composing wholes from parts	Number Relationships 1 Card 2A: Show Me in Different Ways/Guess My Number Card 2B: Math Commander/ Building an Open Number Line	Number Cluster 2 Number Relationships 1 Activities 6–12	What Would You Rather? Back to Batoche The Great Dogsled Race	Counting and subitizing practice, including skip-counting Comparing and ordering numbers and quantities Number riddles using odd, even, and ordinal terms
Nov.	Geometry	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	3-D Solids Card 2A: Geometry in Poetry/ What Do You See? Card 2B: Solids Around Us/Which Solid Does Not Belong?	Geometry Cluster 2 3-D Solids Activities 6–10	I Spy Awesome Buildings	Sorting 2-D shapes and 3-D solids using one and two attributes and identifying the sorting rule Extending and creating increasing and decreasing patterns and identifying the pattern rule
Nov.	Number	Numbers are related in many ways	Decomposing wholes into parts and composing wholes from parts	Number Relationships 2 Card 5A: Which Ten Is Nearer?/ Building Numbers Card 5B: How Many Ways?/ What's the Unknown Part?	Number Cluster 5 Number Relationships 2 Activities 22–25	Back to Batoche Family Fun Day A Class-full of Projects	Counting and subitizing practice, including skip-counting Comparing and ordering numbers and quantities Estimating quantity using referents Missing parts 20 = ? + 14

	Strand	Big Ideas	Conceptual Threads	Math Every Day Activities	Activity Kit	Mathology Little Books	Practice and Learning Centres
Dec.	Number	Quantities and numbers can be added and subtracted to tell how many and how much	Developing fluency of addition and subtraction computation Developing conceptual meaning of addition and subtraction	Operational Fluency Card 7A: Doubles and Near-Doubles/ I Have... I Need... Card 7B: Hungry Bird/ Make 10 Sequences	Number Cluster 7 Operational Fluency Activities 32–36	Array's Bakery Marbles, Alleys, Mibs, and Guli! The Great Dogsled Race	Comparing and ordering numbers Creating and solving story problems Mental math to 20: doubles, 1 or 2 more or less, making tens, adding and subtracting zero

	Strand	Big Ideas	Conceptual Threads	Math Every Day Activities	Activity Kit	Mathology Little Books	Practice and Learning Centres
Dec.	Data Management and Probability	Formulating questions, collecting data, and consolidating data in visual and graphical displays helps us to understand, predict, and interpret situations	Formulating questions to learn about groups, collections, and events by collecting relevant data Collecting data and organizing it into categories Creating graphical displays of collected data Reading and interpreting data displays Drawing conclusions by making inferences and justifying decisions based on data collected Using the language of chance to describe and predict events* *Ontario and BC only	Data Management Card 1: Conducting Surveys/Reading and Interpreting Graphs Probability and Chance Card 2: What's in the Bag?/Word of the Day* * Ontario and BC only	Data Management and Probability Cluster 1 Data Management Activities 1–6 *Activities 2 and 5 are for Ontario only Data Management & Probability Cluster 2 Probability and Chance Activities 7–9* *Ontario and BC only	Graph It! (Grade 1) Big Buddy Day Marsh Watch	Extending and creating increasing and decreasing concrete and numerical patterns and finding the pattern rule Collecting data and making graphs Develop and solve story problems using graphs 2-D shape and 3-D solids riddles using geometric attributes

	Strand	Big Ideas	Conceptual Threads	Math Every Day Activities	Activity Kit	Mathology Little Books	Practice and Learning Centres
Jan.	Number	Quantities and numbers can be grouped by or partitioned into equal-sized units	Unitizing quantities into ones, tens, and hundreds (place value concepts) Unitizing quantities and comparing units to the whole	Grouping and Place Value Card 3A: Adding Ten/ Taking Away Ten Card 3B: Thinking Tens/ Describe Me	Number Cluster 3 Grouping and Place Value Activities 13–16	A Class-full of Projects	Skip-counting practice Mental math activities Comparing and ordering numbers on a number line Composing and decomposing numbers including in tens and ones Creating and solving story problems
Jan.	Measurement* *All provinces except for BC	Many things in our world (e.g., objects, spaces, events) have attributes that can be measured and compared	Understanding attributes that can be measured Directly and Indirectly comparing and ordering objects with the same measurable attribute Selecting and using non-standard units to estimate, measure, make comparisons	Using Non-Standard Units Card 1: Estimation Scavenger Hunt/ Estimation Station	Measurement Cluster 1 Using Non-Standard Units Activities 1–7	Getting Ready for School	Mental math activities Creating, translating, and predicting elements of repeating and increasing patterns Creating and solving measurement story problems Measuring length, height, width, and distance around and object with different non-standard units

	Strand	Big Ideas	Conceptual Threads	Math Every Day Activities	Activity Kit	Mathology Little Books	Practice and Learning Centres
Feb.	Patterning and Algebra	Patterns and relations can be represented with symbols, equations, and expressions	Understanding equality and inequality, building n generalized properties of numbers and operations Using symbols, unknowns, and variables to represent mathematical relations	Equality and Inequality Card 3A: Equal or Not Equal?/How Many Ways? Card 3B: Which One Doesn't Belong?/What's Missing?	Patterning and Algebra Cluster 3 Equality and Inequality Activities 15–20	Nutty and Wolfy (Grade 1) Kokum's Bannock	Mental math activities Extending, creating, finding missing elements, and predicting elements in repeating, increasing and decreasing patterns Measurement using multiple uniform units (linking cubes)
Feb./ Mar.	Number	Quantities and numbers can be added and subtracted to tell how many and how much	Developing conceptual meaning of addition and subtraction	Conceptualizing Addition and Subtraction Card 6: What Math Do You See?/What Could the Story Be?	Number Cluster 6 Conceptualizing Addition and Subtraction Activities 26–31	Array's Bakery Marbles, Alleys, Mibs, and Guli! The Great Dogsled Race	Conceptual subitizing practice (decomposing quantities into visualized parts and finding sum) Mental math activities Comparing and ordering numbers on a number line Composing and decomposing numbers including as tens and ones Creating and solving story problems

	Strand	Big Ideas	Conceptual Threads	Math Every Day Activities	Activity Kit	Mathology Little Books	Practice and Learning Centres
Mar.	Geometry	2-D shapes and 3-D solids can be analyzed and classified in different ways by their attributes	Investigating 2-D shapes, 3-D solids, and their attributes through composition and decomposition	Geometric Relationships Card 3A: Fill Me In!/Make Me a Picture Card 3B: Name the Solid/ Draw the Shape	Geometry Cluster 3 Geometric Relationships Activities 11–17	I Spy Awesome Buildings Sharing Our Stories	Creating, finding missing elements, and predicting elements in concrete and numerical growing patterns Measurement using iteration of different uniform non-standard units Shape trains with 1 or 2 attributes changing
Mar.	Number* *Ontario only	Quantities and numbers can be grouped by and partitioned into units to determine how many and much	Developing conceptual meaning of multiplication and division	Early Multiplicative Thinking Card 8A: Counting Equal Groups to Find How Many/ I Spy Card 8B: How Many Blocks?/How Many Ways?	Number Cluster 8 Early Multiplicative Thinking Activities 37–42	Array's Bakery Marbles, Alleys, Mibs, and Guli!	Measuring and graphing length or width of objects to compare Explore equality and inequality with towers Mental math activities
Apr.	Measurement* *All provinces except for BC	Many things in our world (e.g., objects, spaces, events) have attributes that can be measured and compared.	Understanding attributes that can be measured	Time and temperature Card 3A: Hula Hoop Clock*/ Calendar Questions Card 3B: Monthly Mix-Up/ Thermometer Drop or Pop* *Ontario only	Measurement Cluster 3 Time and Temperature Activities 13–14 Activities 15–18* *Ontario only		Creating, finding missing elements, and predicting elements in concrete and numerical increasing and decreasing patterns Mental math activities Shape trains changing with 1 or 2 attributes changing or sorting 2-D shapes and 3-D solids

	Strand	Big Ideas	Conceptual Threads	Math Every Day Activities	Activity Kit	Mathology Little Books	Practice and Learning Centres
Apr.	Measurement* *Ontario and BC only	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	Using Standard Units Card 2: What Am I?/Which Unit?	Measurement Cluster 2 Using Standard Units Activities 8–12	Animal Measures (Grade 1) The Discovery	Creating and solving story problems using measurement Balance-scale activities to explore equality and inequality Replicating, filling and creating composite 2-D shapes and 3-D solids
Apr.	Number	Financial Literacy* *Ontario and BC only		Financial literacy Card 9: Collections of Coins/ Showing Money in Different Ways	Number Cluster 9 Financial Literacy Activities 43–47	The Money Jar	Using coins to show skip counting to a given number Creating and solving story problems using coins Creating, finding missing elements, and predicting elements in concrete and numerical growing patterns
May	Number* *Ontario only	Quantities and numbers can be grouped by or partitioned into equal-sized units	Partitioning quantities to form fractions	Early Fractional Thinking Card 4A: Equal Parts from Home/Modelling Fraction Amounts Card 4B: Regrouping Equal Parts/Naming Equal Parts	Number Cluster 4 Early Fractional Thinking Activities 17–21	The Best Birthday	Mental math activities Conceptual subitizing practice Comparing and ordering numbers on a number line

	Strand	Big Ideas	Conceptual Threads	Math Every Day Activities	Activity Kit	Mathology Little Books	Practice and Learning Centres
May	Geometry	Objects can be located in space and viewed from multiple perspectives	Locating and mapping objects in space Viewing and representing objects from multiple perspectives	Location and Movement Card 4A*: Our Design/Treasure Map Card 4B*: Crazy Creatures/Perspective Matching Game Coding Card 5: Code of the Day/Wandering Animals *Ontario only	Geometry Cluster 4 Location and Movement Activities 18–21* Geometry Cluster 5 Coding Activities 22–25 *Ontario only	Robo	Composing and decomposing numbers including as tens and ones Estimating quantities using referents Mental math activities
May	Number	Quantities and numbers can be grouped by or partitioned into equal-sized units	Unitizing quantities into ones, tens, and hundreds (place-value concepts)	Grouping and Place Value Card 3A: Adding Ten/Taking Away Ten Card 3B: Thinking Tens/Describe Me	Revisit Number Cluster 3 Grouping and Place Value Building and naming numbers Decomposing and composing numbers using tens and ones	A Class-full of Projects	Ordering and placing numbers on a number line Using benchmarks Collecting data related to days of the week and months of the year and represent on a graph (birthdays, activities) Mental math activities

	Strand	Big Ideas	Conceptual Threads	Math Every Day Activities	Activity Kit	Mathology Little Books	Practice and Learning Centres
May	Number	Quantities and numbers can be added and subtracted to tell how many and how much	Developing fluency of addition and subtraction computation* Developing the conceptual meaning of addition and subtraction* *Consider a focus on subtraction in revisiting these activities.	Conceptualizing Addition and Subtraction Card 6: What Math Do You See?/What Could the Story Be? Operational Fluency Card 7A: Doubles and Near-Doubles/I Have... I Need... Card 7B: Hungry Bird/ Make 10 Sequences	Revisit Number Cluster 6 Conceptualizing Addition and Subtraction Activities 28–31 Revisit Number Cluster 7 Operational Fluency Activities 32–36 Number Talks for mental math fluency and basic fact recall Problem-Solving with all problem types for addition and subtraction	The Money Jar Marbles, Alleys, Mibs, and Guli! The Great Dogsled Race	Decomposing quantities and numbers using 10s and 1s Creating, finding missing elements, and predicting elements in concrete and numerical increasing and decreasing patterns Describing equality and inequality symbolically (14 + 6 = 13 + 7) Replicating, filling, creating, and filling composite 2-D shapes and 3-D solids
June	Revisit difficult concepts				Activities from each strand		