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Grade 2 Sample Long-Range Pathway – Option 3

In the example below, the suggested learning is focused on Number for the first few months of the year, allowing students to deepen these concepts early and providing more sustained learning in these areas. The other strands are explored more as monthly units of study which are completed.

|  | Strand | Big Ideas | Conceptual Threads | Math Every Day Activities | Activity Kit | Mathology Little Books | Practice and Learning Centres |
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| 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 |
| Sept. | 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 |
| 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 |
| Nov. | 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 |
| Nov. | 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 subtraction |
| Nov./Dec. | 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 |
| Dec. | 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 |
| Dec. | 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 with 1 or 2 attributes changing or sorting 2-D shapes and 3-D solids |
| Jan. | 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 |
| Jan. | 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 |
| Jan./  Feb. | 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 |
| 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. | 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 |
| Mar. | 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 object with different non-standard units |
| Mar. | 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. | 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 |
| May | 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 |
| 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 |
| 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 |
| 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 and  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 | 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 & decomposing numbers including as tens and ones  Estimating quantities using referents  Mental math activities |
| June | Revisit difficult concepts |  |  |  | Activities from each strand |  |  |