# Grade 2 Mathology.ca <u>Ontario</u> Sample Long-Range Pathway

In the example below, the suggested learning is balanced, starting with Patterning, but focused on Number most of the first months of math instruction.

|  | Strand | Big Ideas | Activity Kit | Math Every Day Activities | Mathology Little Books |
|---|---|---|---|---|---|
| **Sept.** | Patterning and Algebra | Regularity and repetition form patterns that can be generalized and predicted | Patterning and Algebra Cluster 1 Repeating Patterns<br><br>1.Exploring Patterns<br>2.Extending and Predicting<br>3.Errors and Missing Elements<br>4.Combining Attributes<br>5.Consolidation | Repeating Patterns Card 1:<br>Show Another Way/<br>Repeating Patterns Around Us | Pattern Quest |
| **Sept.** | Number | Numbers tell us how many and how much | Number Cluster 1 Counting<br><br>1.Bridging Tens<br>2.Skip-Counting Forward<br>3.Skip-Counting Flexibly<br>4.Skip-Counting Backward<br>5.Consolidation | Skip-Counting Card 1A:<br>Skip-Counting on a Hundred Chart/<br>Skip-Counting from Any Number<br><br>Card 1B:<br>Skip-Counting with Actions/What's Wrong? What's Missing? | What Would You Rather?<br><br>Ways To Count |

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| **Oct.** | Patterning and Algebra | Regularity and repetition form patterns that can be generalized and predicted | Patterning and Algebra Cluster 2 Increasing /Decreasing Patterns<br><br>6.Increasing Patterns 1<br>7.Increasing Patterns 2<br>8.Decreasing Patterns<br>9.Extending Patterns<br>10.Reproducing Patterns<br>11.Creating Patterns<br>12.Errors and Missing Terms<br>13.Solving Problems<br>14.Patterns in Number Relationships<br>15.Consolidation | Increasing/Decreasing Patterns Card 2A:<br>How Many Can We Make?/Error Hunt<br><br>Card 2B:<br>Making Increasing Patterns/ Making Decreasing Patterns | Pattern Quest<br><br>The Best Surprise |
| **Oct.** | Number | Numbers are related in many ways | Number Cluster 2 Number Relationships 1<br><br>6.Comparing Quantities<br>7.Ordering Quantities<br>8.Comparing and Ordering Numbers to 200<br>9.Odd and Even Numbers<br>10.Estimating with Benchmarks<br>11.Consolidation | Number Relationships 1 Card 2A:<br>Show Me in Different Ways/Guess My Number<br><br>Card 2B:<br>Math Commander/ Building an Open Number Line | What Would You Rather?<br><br>Back to Batoche<br><br>The Great Dogsled Race |
| **Oct.** | Number | Quantities and Numbers can be partitioned into equal-sized units | Number Cluster 3 Grouping and Place Value<br><br>12.Building Numbers to 100<br>13.Making a Number Line<br>14.Grouping to Count<br>15.Building Numbers to 200<br>16.Consolidation | Grouping and Place Value Card 3A:<br>Adding Ten/Taking Away Ten<br><br>Card 3B:<br>Thinking Tens/Describe Me | A Class-Full of Projects |

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| **Nov.** | Number | Quantities and numbers can be added and subtracted to tell how many and how much | Number Cluster 7 Operational Fluency<br><br>33.Using Doubles<br>34.Fluency with 20<br>35.Mastering Addition and Subtraction Facts<br>36.Multi-Digit Fluency<br>37.Consolidation | Operational Fluency<br>Card 7A:<br>Doubles and Near Doubles/I have… I need…<br><br>Card 7B:<br>Hungry Bird/Make 10 Sequences | Array's Bakery<br><br>Marbles, Alleys, Mibs, and Guli!<br><br>The Great Dogsled Race |
| **Dec.** | Measurement | Many things in our world (e.g., objects, spaces, events) have attributes that can be measured and compared | Measurement Cluster 1<br>Using Non-Standard Units<br><br>1.Measuring Length 1<br>2.Measuring Length 2<br>3.Measuring Distance Around<br>4.Consolidation | Using Non-Standard Units<br>Card 1:<br>Estimation Scavenger Hunt/Estimation Station | Getting Ready for School |
| **Dec.** | Measurement | Assigning a unit to a continuous attribute allows us to measure and make comparisons | Measurement Cluster 2<br>Using Standard Units<br><br>5.Benchmarks and Estimation<br>6.The Metre<br>7.The Centimetre<br>8.Metres or Centimetres?<br>9.Consolidation | Using Standard Units<br>Card 2:<br>What am I?/Which unit? | Animal Measures (Grade 1)<br><br>The Discovery |
| **Jan.** | Number | Numbers are related in many ways | Number Cluster 5<br>Number Relationships 2<br><br>23.Benchmarks on a Number Line<br>24.Jumping on the Number Line<br>25.Composing and Decomposing Numbers to 200<br>26.Consolidation | Number Relationships 2<br>Card 5A:<br>Which Ten Is Nearer?/Building Numbers<br><br>Card 5B:<br>How Many Ways?/What's the Unknown Part? | Back to Batoche<br><br>Family Fun Day<br><br>A Class-full of Projects |

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| **Jan.** | Geometry | 2-D shapes and 3-D solids can be analyzed and classified in different ways by their attributes<br><br>2-D shapes and 3-D solids can be transformed in many ways and analyzed for change | Geometry Cluster 1 2-D Shapes<br><br>1.Sorting 2-D Shapes<br>2.Congruent 2-D Shapes<br>3.Exploring 2-D Shapes<br>4.Symmetry in 2-D Shapes<br>5.Consolidation | 2-D Shapes<br>Card 1:<br>Visualizing Shapes/Comparing Shapes | I Spy Awesome Buildings<br><br>Sharing Our Stories |
| **Feb.** | Patterning and Algebra | Patterns and relations can be represented with symbols, equations, and expressions | Patterning and Algebra Cluster 3 Equality and Inequality<br><br>16.Equal and Unequal Sets<br>17.Equal or Not Equal?<br>18.Exploring Number Sentences<br>19.Exploring Number Sentences for Larger Numbers<br>20.Exploring Properties<br>21.Missing Numbers<br>22.Consolidation | Equality and Inequality<br>Card 3A:<br>Equal or Not Equal?/How Many Ways?<br><br>Card 3B:<br>Which One Doesn't Belong?/What's Missing? | Nutty and Wolfy (Grade 1)<br><br>Kokum's Bannock |
| **Feb.** | Number | Quantities and numbers can be added and subtracted to tell how many and how much | Number Cluster 6 Conceptualizing Addition and Subtraction<br><br>27.Exploring Properties<br>28.Solving Problems 1<br>29.Solving Problems 2<br>30.Solving Problems 3<br>31.Solving Problems 4<br>32.Consolidation | Conceptualizing Addition and Subtraction<br>Card 6:<br>What Math Do You See?/What Could the Story Be? | Array's Bakery<br><br>Marbles, Alleys, Mibs, and Guli!<br><br>The Great Dogsled Race |

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| **Mar.** | Geometry | 2-D shapes and 3-D solids can be analyzed and classified in different ways by their attributes | Geometry Cluster 2 Geometric Relationships<br><br>6.Making Shapes<br>7.Visualizing Shapes<br>8.Creating Pictures and Designs<br>9.Covering Outlines<br>10.Consolidation | Geometric Relationships<br>Card 2A:<br>Fill me in!/Make Me a Picture<br><br>Card 2B:<br>Name the Solid/Draw the Shape | I Spy Awesome Buildings<br><br>Sharing Our Stories |
| **Mar.** | Measurement | Many things in our world (e.g., objects, spaces, events) have attributes that can be measured and compared | Measurement Cluster 3 Time<br><br>10.Measuring Time<br>11. Measuring the Passage of Time<br>12.Consolidation | Time<br>Card 3A:<br>Hula Hoop Clock/<br>Calendar Questions<br><br>Card 3B:<br>Monthly Mix-Up | |
| **Apr.** | Number | Financial Literacy<br>Quantities and numbers can be added and subtracted to tell how many and how much | Number Cluster 9 Financial Literacy<br><br>44.Estimating Money<br>45.Earning Money<br>46.Spending Money<br>47.Money up to $200<br>48.Saving Regularly<br>49.Consolidation | Financial Literacy<br>Card 9:<br>Collections of Coins/Showing Money in Different Ways | The Money Jar |
| **Apr.** | Number | Quantities and numbers can be grouped by and partitioned into units to determine how many and much | Number Cluster 8<br>Early Multiplicative Thinking<br><br>38.Making Equal Shares<br>39.Making Equal Groups<br>40.Exploring Repeated Addition<br>41.Repeated Addition and Multiplication<br>42.Repeated Subtraction and Division<br>43.Consolidation | Early Multiplicative Thinking<br>Card 8A:<br>Counting Equal Groups to Find How Many/I Spy<br><br>Card 8B:<br>How Many Blocks?/How Many Ways? | Array's Bakery<br><br>Marbles, Alleys, Mibs, and Guli! |

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| **Apr.** | Number | Quantities and numbers can be grouped into equal-sized units | Revisit Number Cluster 3 Grouping and Place Value<br><br>12.Building Numbers to 100<br>13.Making a Number Line<br>14.Grouping to Count<br>15.Building Numbers to 200<br>16.Consolidation | Grouping and Place Value<br>Card 3A:<br>Adding Ten/Taking Away Ten<br><br>Card 3B:<br>Thinking Tens/Describe Me | A Class-full of Projects |
| **May** | Data Management<br><br><br><br><br><br>Probability and Chance | Formulating questions, collecting data, and consolidating data in visual and graphical displays helps us to understand, predict, and interpret situations that involve uncertainty, variability and randomness | Data Management and Probability Cluster 1 Data Management<br><br>1.Sorting Data by 2 Attributes<br>2.Interpreting Graphs 1<br>3.Interpreting Graphs 2<br>4.Creating a Survey<br>5.Making Graphs 1<br>6.Making Graphs 2<br>7.Identifying the Mode<br>8.Consolidation<br><br><br>Cluster 2 Probability and Chance<br><br>9.Likelihood of Events<br>10.Conducting Experiments<br>11.Consolidation | Data Management<br>Card 1:<br>Conducting Surveys/Reading and Interpreting Graphs<br><br>Probability and Chance<br>Card 2:<br>What's in the Bag?/Word of the Day | Graph It! (Grade 1)<br><br>Big Buddy Days<br><br>Marsh Watch |

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| **May** | Number | Quantities and numbers can be grouped by or partitioned into equal-sized units | Number Cluster 4 Early Fractional Thinking<br><br>17.Equal Parts<br>18.Comparing Fractions 1<br>19.Comparing Fractions 2<br>20.Regrouping Fractional Parts<br>21.Partitioning Sets<br>22.Consolidation | Early Fractional Thinking Card 4A:<br>Equal Parts from Home/Modelling Fraction Amounts<br><br>Card 4B:<br>Regrouping Equal Parts/Naming Equal Parts | The Best Birthday |
| **May** | Number | Quantities and numbers can be added and subtracted to tell how many and how much | Revisit Number Cluster 6 Conceptualizing Addition and Subtraction<br><br>28.Solving Problems 1<br>29.Solving Problems 2<br>30.Solving Problems 3<br>31.Solving Problems 4<br>32.Consolidation<br><br>Revisit Number Cluster 7 Operational Fluency<br><br>33.Using Doubles<br>34.Fluency with 20<br>35.Mastering Addition and Subtraction Facts<br>36.Multi-Digit Fluency<br>37.Consolidation | Conceptualizing Addition and Subtraction Card 6:<br>What Math Do You See?/What Could the Story Be?<br><br><br>Operational Fluency Card 7A:<br>Doubles and Near Doubles/I Have... I Need...<br><br>Card 7B:<br>Hungry Bird/Make 10 Sequences | The Money Jar<br><br>Marbles, Alleys, Mibs, and Guli!<br><br>The Great Dogsled Race |

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| **June** | Geometry | Objects can be located in space and viewed from multiple perspectives | Geometry Cluster 3<br>Location and Movement<br><br>11.Reading Maps<br>12.Drawing a Map<br>13.Perspective Taking<br>14.Consolidation<br><br>Cluster 4 Coding<br><br>15.Coding Concurrent Events<br>16.Effects of Altering Code<br>17.Writing Code to Solve Problems<br>18.Consolidation | Location and Movement<br>Card 3A:<br>Our Design/Treasure Map<br><br>Card 3B:<br>Crazy Creatures/<br>Perspective Matching Game<br><br>Coding<br>Card 4:<br>Code of the Day/Wandering Animals | Robo |

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