## mamathology

## Grade 1 Sample Long-Range Pathway - Option 2

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 Idea | Conceptual Threads | Activity Kit | Grade 1 Mathology Little Books | Practice and Learning Centres |
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| Sept. | Patterning and Algebra | Regularity and repetition form patterns that can be generalized and predicted | Identifying, sorting, and classifying attributes and patterns mathematically <br> Identifying, reproducing, extending, and creating patterns that repeat | Patterning and Algebra <br> Cluster 1 <br> Investigating Repeating <br> Patterns <br> Activities 1-5 <br> Cluster 2 <br> Creating patterns <br> Activities 6-9 | Midnight and Snowfall | Making repeating patterns |
| Sept. | Number | Numbers tell us how many and how much | Applying the principles of counting <br> Recognizing and writing numerals | Number Cluster 1 Counting <br> Activities 1-5 | On Safari! <br> A Family Cookout <br> Paddling the River | Counting and subitizing practice from K |
| Oct. | Number | Numbers tell us how many and how much | Recognizing quantities by subitizing <br> Estimating quantities and numbers | Number Cluster 2 Spatial Reasoning Activities 6-8 | Paddling the River | Counting and subitizing practice, including skip-counting |


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| Oct. | Number | Numbers are related in many ways | Comparing and ordering quantities | Number Cluster 3 <br> Comparing and Ordering Activities 9-12 | Cats and Kittens! | Counting and subitizing practice, including skip-counting <br> Comparing and ordering numbers and quantities |
| Nov. | Number | Numbers tell us how many and how much | Applying the principles of counting <br> Recognizing and writing numerals | Number Cluster 4 Skip-counting Activities 13-16 | How Many is Too Many? | Counting and subitizing practice, including skip-counting |
| Nov. | Number | Numbers are related in many ways | Decomposing wholes into parts and composing wholes from parts | Number Cluster 5 <br> Composing and Decomposing Activities 17-23 | Paddling the River <br> That's 10! | Counting and subitizing practice, including skip-counting <br> Comparing and ordering numbers and quantities |
| Dec. | Geometry | 2-D shapes and 3-D solids can be analyzed and classified in different ways by their attributes <br> 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 <br> Exploring 2-D shapes by applying and visualizing transformations | Geometry Cluster 1 <br> 2-D Shapes Activities 1-6 | The Tailor Shop <br> What Was Here? | Sorting Activities <br> Creating repeating patterns |


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| Dec. | Geometry | 2-D shapes and 3-D solids can be analyzed and classified in different ways by their attributes <br> 2-D shapes and 3-D solids can be transformed in many ways and analyzed for change | Investigating geometric attributes and properties of 3-D shapes <br> Exploring 3-D solids by applying and visualizing transformations | Geometry Cluster 2 <br> 3-D Solids <br> Activities 7-10 | What Was Here? | 2-D and 3-D sorting and building activities <br> Creating and translating repeating patterns |
| Jan. | Measurement | Many things in our world have attributes that can be measured and compared | Understanding attributes that can be measured <br> Directly and Indirectly comparing and ordering objects with the same measureable attribute | Measurement Cluster 1 Comparing Objects Activities 1-6 | The Amazing Seed | Sorting and building with 2-D shapes and 3-D solids <br> Creating, extending, and repeating patterns |


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| Jan. | Measurement | 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 | Measurement Cluster 2 Using Uniform Units Activities 7-15 <br> Cluster 3 <br> Time and Temperature Activities 16-21* <br> *Ontario only | Animal Measures | Sorting and building with 2-D shapes and 3-D solids <br> Creating, extending, and repeating patterns <br> Measurement through direct comparison and iteration (repeating) of uniform non-standard unit <br> Balance scale activities to explore equality and inequality <br> Replicating and creating composite 2-D shapes and 3-D solids |
| Feb. | Number | Quantities and numbers can be added and subtracted to tell how many and how much | Developing the conceptual meaning of addition and subtraction | Number Cluster 7 <br> Activities 28-30 <br> (Change Problems) | Hockey Time! <br> Buy 1 - Get 1 <br> Canada's Oldest <br> Sport <br> Cats and Kittens! | Counting and subitizing practice, including skip-counting <br> Comparing and ordering numbers and quantities <br> Composing and Decomposing |


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| Feb. | Patterning and Algebra | Patterns and relations can be represented with symbols, equations, and expressions | Understanding equality and inequality, building on generalized properties of numbers and operations <br> Using symbols, unknowns, and variables to represent mathematical relations | Patterning and Algebra Cluster 3 <br> Equality and Inequality Activities 10-13 | Nutty and Wolfy | Sorting and building with 2-D shapes and 3-D solids <br> Creating, extending, and repeating patterns <br> Measurement through direct comparison and repeating iteration of uniform non-standard unit <br> Balance scale activities to explore equality and inequality |
| Mar. | Number | Quantities and numbers can be added and subtracted to tell how many and how much | Developing fluency of addition and subtraction computation <br> Developing the conceptual meaning of addition and subtraction | Number Cluster 7 <br> Operational Fluency <br> Activities 31-35 <br> (Join/separate and part-partwhole problem types) | Hockey Time! <br> Buy 1 - Get 1 <br> Canada's Oldest Sport <br> Cats and Kittens! | Counting and subitizing practice, including skip-counting <br> Comparing and ordering numbers and quantities <br> Composing and Decomposing <br> Creating and solving pictorial story problems using addition and subtraction |
| Mar. | Number | Financial Literacy* <br> *Ontario and BC only |  | Number Cluster 8 <br> Activity 36-40 |  |  |

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| Apr. | Number | Quantities and numbers can be added and subtracted to tell how many and how much | Developing fluency of addition and subtraction computation <br> Developing the conceptual meaning of addition and subtraction <br> (Consider a focus on subtraction) | Revisit Number Cluster 7 <br> Operational Fluency <br> Activities 28-35 <br> Number Talks <br> For mental math fluency and basic fact recall <br> Problem-Solving with all problem types for addition and subtraction | On Safari! <br> Hockey Time! <br> Buy 1 - Get 1 <br> Canada's Oldest Sport <br> Cats and Kittens! | Creating and solving pictorial story problems using addition and subtraction |
| May | Number | Quantities and numbers can be grouped by or partitioned into equalsized units | Unitizing quantities into ones, tens, hundreds (place-value concepts) <br> Unitizing quantities and comparing units to the whole | Number Cluster 6 Early Place Value Activities 24-27 | At the Corn Farm | Counting and subitizing practice, including skip-counting <br> Composing and Decomposing <br> Comparing and ordering numbers and quantities <br> Creating and solving pictorial story problems using addition and subtraction |


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| May | Geometry | 2-D shapes and 3-D solids can be analyzed and classified in different ways by their attributes <br> 2-D shapes and 3-D solids can be transformed in many ways and analyzed for change | Investigating 2-D shapes, 3-D solids, and their attributes through composition and decomposition Exploring symmetry to analyze 2-D shapes and 3-D solids* <br> *Ontario only | Geometry Cluster 3 Geometric Relationships Activities 11-15 <br> Geometry Cluster 4 Symmetry Activities 16-18 | What Was Here? <br> The Tailor Shop | Sorting and building with 2-D shapes and 3-D solids <br> Creating, extending, and repeating patterns <br> Measurement through direct comparison and repeating iteration of uniform non-standard unit <br> Balance scale activities to explore equality and inequality |
| June | Geometry | Objects can be located in space and viewed from multiple perspectives* <br> *Ontario only | Locating and mapping objects in space <br> Viewing and representing objects from multiple perspectives | Geometry Cluster 5 Location and Measurement Activities 19-21 | Memory Book |  |
| June | Data <br> Management and Probability* <br> *Ontario and BC only | 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 | Formulating questions to learn about groups, collections and events <br> Collecting data and organizing it into categories <br> Creating graphical displays of collected data <br> Using the language of chance to describe and predict events | Data Management Cluster 1 <br> Activities 1-4 <br> Cluster 2 <br> Probability and Chance <br> Activities 5-6 | Graph It! | 2-D and 3-D sorting and building activities <br> Creating and translating repeating patterns |
| June | Revisit difficult concepts |  |  | Revisit activities from each strand |  |  |

