## mathology

## Grade 3 Sample Long-Range Pathway (National)

In the example below, the suggested learning is balanced, starting with Patterning, but focused on Number most of the first months of math instruction. Refer to your province's curriculum to build a plan for your classroom.

| Strand | Big Ideas | Conceptual Threads | Activity Kit |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Sept. | Number | Numbers tell us <br> how many and <br> how much | Applying the principles of counting | Number Unit 1 <br> Counting |
| Recognizing and writing numerals | How Numbers Work |  |  |  |
| related in many |  |  |  |  |
| ways | Estimating quantities and <br> numbers <br> Quantities and <br> numbers can be <br> grouped by or <br> partitioned into equal- <br> sized units. | Unitizing quantities and comparing <br> units to the whole | 1 Numbers All Around Us <br> 2 Counting to 1000 <br> 3 Skip Counting Forward and <br> Backward <br> 4 Counting Consolidation |  |


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| 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) <br> Identifying, reproducing, extending, and creating patterns that repeat <br> Representing and generalizing increasing and decreasing patterns | Patterning and Algebra Unit 1 <br> Increasing and Decreasing Patterns <br> Activities 1-7 <br> 1 Describing and Extending <br> Patterns <br> 2 Representing Patterns <br> 3 Creating Patterns <br> 6 Exploring Multiplicative <br> Patterns <br> 7 Increasing and Decreasing <br> Patterns Consolidation | Namir's Marvelous Masterpieces <br> To Scaffold Pattern Quest The Best Surprise |
| Oct. | Number | Numbers tell us how many and how much. <br> Numbers are related in many ways <br> Quantities and numbers can be grouped by or partitioned into equal-sized units. | Applying the principles of counting <br> Recognizing and writing numerals <br> Comparing and ordering quantities (multitude or magnitude) <br> Estimating quantities and numbers <br> Decomposing wholes into parts and composing wholes from parts <br> Unitizing quantities into ones, tens, and hundreds place-value concepts) | Number Unit 2 <br> Number Relationships <br> Activities 5-8 <br> 5 Estimating Quantities <br> 6 Composing and Decomposing <br> Quantities <br> 7 Comparing and Ordering <br> Quantities <br> 8 Number Relationships <br> Consolidation | Fantastic Journeys <br> To Scaffold What Would You Rather? <br> Back to Batoche <br> The Great Dogsled Race |


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| :---: | :---: | :---: | :---: | :---: | :---: |
| Nov | Number | Numbers tell us how many and how much. <br> Quantities and Numbers can be partitioned into equal-sized units <br> Numbers are related in many ways | Applying the principles of counting <br> Recognizing and writing numerals <br> Unitizing quantities into ones, tens, hundreds (place value concepts) <br> Comparing and ordering quantities (multitude or magnitude) <br> Estimating quantities and numbers | Number Unit 3 <br> Place Value <br> Activities 9-13 <br> 9 Building Numbers <br> 10 Representing Numbers in <br> Different Ways <br> 11 What's the Number <br> 12 Rounding Numbers <br> 13 Place Value Consolidation | Finding Buster How Numbers Work <br> To Scaffold <br> A Class Full of Projects |
| Nov. | Number | Quantities and Numbers can be partitioned into equal-sized units <br> Quantities and numbers can be added and subtracted to tell how many and how much | Unitizing quantities into ones, tens, hundreds (place value concepts) <br> Developing fluency of addition and subtraction computation <br> Developing conceptual meaning of addition and subtraction | Number Unit 5 <br> Addition and Subtraction <br> Activities 19-26 <br> 19 Modelling Addition and <br> Subtraction <br> 20 Estimating Sums and <br> Differences <br> 21 Adding and Subtracting Money <br> Amounts <br> 22 Using Mental Math to Add and <br> Subtract <br> 24 Creating and Solving Problems <br> 25 Creating and Solving Problems with Larger Numbers <br> 26 Addition and Subtraction Consolidation | The Street Party <br> Planting Seeds <br> To Scaffold <br> Array's Bakery <br> Marbles, Alleys, Mibs, <br> and Guli! <br> The Great Dogsled Race |


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| :---: | :---: | :---: | :---: | :---: | :---: |
| Dec. | Measurement | Many things in our world (e.g., objects, spaces, events) have attributes that can be measured and compared <br> Assigning a unit to a continuous attribute allows us to measure and make comparisons | Understanding attributes that can be measured <br> Directly and Indirectly comparing and ordering objects with the same measurable attribute <br> Selecting and using non-standard units to estimate, measure, make comparisons <br> Selecting and using standard units to estimate, measure, and make comparisons | Measurement Unit 3 <br> Area, Mass and Capacity <br> Activities 13-17 <br> 13 Measuring Area Using Non- <br> Standard Units <br> 14 Measuring Area Using Standard Units <br> 15 Measuring Mass <br> 16 Measuring Capacity <br> 17 Area Mass and Capacity <br> Consolidation | The Bunny Challenge Measurements About You! <br> To Scaffold Getting Ready for School |
| Dec. | Measurement | 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 | Measurement Unit 1 Length and Perimeter <br> Activities 1-5 <br> 1 Estimating Length <br> 2 Relating Centimetres and Metres <br> 3 Measuring Length <br> 4 Introducing Perimeter <br> 5 Length and Perimeter <br> Consolidation | The Bunny Challenge Measurements About You! <br> To Scaffold <br> The Discovery |


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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> 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 <br> Exploring 2-D shapes by applying and visualizing transformations | Geometry Unit 1 <br> 2-D Shapes <br> Activities 1-5 <br> 1 Sorting Polygons <br> 12 Symmetry and Transformations: <br> Exploring Congruency <br> 2 What's the Sorting Rule? <br> 3 Composing Shapes <br> 5 2-D Shapes Consolidation | Gallery Tour <br> To Scaffold <br> I Spy Awesome Buildings Sharing Our Stories |
| Feb. | Patterning and Algebra | Patterns and relations can be represented with symbols, equations, and expressions | Using symbols, unknowns, and variables to represent mathematical relation | Patterning and Algebra Unit 2 Variables and Equations <br> Activities 9-12 <br> 9a Equivalent Expressions <br> 9 Strategies for Solving Equations <br> 11 Creating Equations <br> 12 Variables and Equations: <br> Consolidation | A Week of Challenges <br> To Scaffold Kokum's Bannock |
| Mar. | 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 3D solids <br> Investigating <br> 2-D shapes, <br> 3-D solids, and their attributes through composition and decomposition | Geometry Unit 2 <br> 3-D Solids <br> Activities 6-10 <br> 6 Exploring Geometric Attributes of Solids <br> 7 Building Solids <br> 9 Working with Nets <br> 10 3-D: Consolidation | Wonderful Buildings <br> To Scaffold I Spy Awesome Buildings |


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| Mar. | Measurement | Many things in our <br> world (e.g., objects, <br> spaces, events) have <br> attributes that can be <br> measured and <br> compared <br> Assigning a unit to a <br> continuous attribute <br> allows us to measure <br> and make comparisons | Understanding attributes that can be <br> measured | Measurement Unit 2 <br> Time and Temperature <br> Undeasstanding relationships among | Activities 8-12 <br> 8 Measuring the Passage of Time <br> 9 Relationships Among Units of <br> Time <br> 10 Telling Time <br> 11 Reading a Thermometer <br> 12 Consolidation |
| Apr. | Number | Quantities and numbers <br> can be added and <br> subtracted to tell how <br> many and how much | Developing fluency of addition and <br> subtraction computation | Number Unit 7 <br> Developing conceptual meaning of <br> addition and subtraction <br> *Not required, but recommended <br> Activities 34-38 | 34 Estimating and Counting Money |
| 36 Purchasing and Making Change <br> 38 Financial Literacy: Consolidation | To Scaffold <br> The Money Jar |  |  |  |  |


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| Apr. | Number | Quantities and numbers can be grouped by and partitioned into units to determine how many and much | Developing the conceptual meaning of multiplication and division | Number Unit 6 <br> Multiplication and Division <br> Activities 27-33 <br> 27 Exploring Multiplication <br> 28 Exploring Division <br> 29 Relating Multiplication and <br> Division <br> 30 Properties of Multiplication <br> 31 Creating and Solving Problems <br> 32 Building Fluency; The Games <br> Room <br> 33 Multiplication and Division: <br> Consolidation | Planting Seeds Sports Camp <br> To scaffold Array's Bakery <br> Marbles, Alleys, Mibs, and Guli! |
| May | Data <br> Management <br> and <br> Probability | 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 by collecting relevant data <br> Collecting data and organizing it into categories <br> Creating graphical displays of collected data <br> Reading and interpreting data displays <br> Drawing conclusions by making inferences and justifying decisions based on data collected | Data Management and Probability Data Management <br> Activities 1-6 <br> 1 Interpreting Bar Graphs <br> 2 Interpreting Line Plots <br> 3 Collecting Data (distinguish between 1st and 2nd hand data) <br> 4 Drawing Bar Graphs <br> 5 Drawing Line Plots <br> 6 Consolidation | Welcome to the Nature Park <br> To scaffold <br> Graph It! (Grade 1) <br> Big Buddy Day <br> Marsh Watch |


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| May | Data <br> Management <br> and <br> Probability | Formulating questions, <br> collecting data, and <br> consolidating data in <br> visual and graphical <br> displays helps us to <br> understand, predict, and <br> interpret situations that <br> involve uncertainty, <br> variability and <br> randomness | Using the language of chance to <br> describe and predict events | Data Management and Probability <br> Unit 2 <br> Probability and Chance | Chance |
| May | Number | Quantivities 6-8 <br> Qan be grouped by or <br> partitioned into equal- <br> sized units | Partitioning quantities to form <br> fractions | 7 Describing the Likelihood of <br> Outcomes <br> 8 Probability and Chance <br> Consolidation | Number Unit 4 <br> Fractions |


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| June | Geometry | Objects can be located <br> in space and viewed <br> from multiple <br> perspectives | Locating and mapping objects in <br> space <br> Viewing and representing objects <br> from multiple perspectives | Geometry Unit 4 <br> Mapping and Coding <br> *Not required, but recommended | Activities 15-19 <br> 15 Describing Location <br> 13 Exploring Transformations <br> 16 Describing Movement on a Map <br> 17 Coding on a Grid |
|  |  |  |  | To Scaffold <br> Robo |  |
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