**Mathology 2 Correlation (Number Strand) – British Columbia\***

Curricular Competencies

**[RA]** Reasoning and Analyzing

**[US]** Understanding and Solving

**[CR]** Communication and Representing

**[ConR]** Connecting and Reflecting

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Learning Standards** | **Mathology Grade 2 Classroom Activity Kit** | **Mathology Little Books** | | **Pearson Canada K-3 Mathematics Learning Progression** |
| **N1** Number concepts to 100 | | | | |
| **N1.1** Counting:  — skip-counting by 2, 5, and 10 | **Teacher Cards**  **Cluster 1: Counting**  2: Skip-Counting Forward [RA, CR, ConR]  3: Skip-Counting Flexibly [RA, CR, ConR]  4: Skip-Counting Backward [RA, CR, ConR]  5: Counting Consolidation [RA, CR, ConR]  **Cluster 3: Grouping and Place Value**  14: Making a Number Line [RA, CR, ConR]  15: Grouping to Count [RA, CR, ConR]  16: Grouping and Place Value Consolidation [RA, US, CR, ConR]  **Cluster 5: Number Relationships 2**  24: Jumping on the Number Line  [RA, US, CR, ConR]  25: Number Relationships 2 Consolidation [RA, US, CR, ConR]  **Cluster 9: Financial Literacy**  43: Estimating Money [RA, CR, ConR]  44: Earning Money [RA, US, CR, ConR]  46: Saving Regularly [RA, US, CR, ConR]  47: Financial Literacy Consolidation  [RA, US, CR, ConR]  **Math Every Day Cards**  1A: Skip-Counting on a Hundred Chart  Skip-Counting from Any Number  1B: Skip-Counting with Actions  What’s Wrong? What’s Missing?  3A: Adding Ten  Taking Away Ten  9: Collections of Coins | What Would You Rather?   * compare quantities to 100 * estimate and count to 100   Ways to Count   * estimate and group to count to 100 * skip-count to 100   Family Fun Day   * split quantities into equal groups to count to 100 * compose/decompose to 100   The Money Jar   * add/subtract to 100 (further developed) * compose/decompose based on units of 10   **To Scaffold:**  On Safari!  How Many Is Too Many?  **To Extend:**  Finding Buster  How Numbers Work  Calla’s Jingle Dress | **Big Idea: Numbers tell us how many and how much.** | |
| **Applying the principles of counting**  - Fluently skip-counts by factors of 10 (e.g., 2, 5, 10) and multiples of 10 from any given number. | |
| **Big Idea: Quantities and numbers can be grouped by or partitioned into equal-sized units.** | |
| **Unitizing quantities and comparing units to the whole**  - Partitions into and skip-counts by equal-sized units and recognizes that the results will be the same when counted by ones (e.g., counting a set by 1s or by 5s gives the same result).  - Recognizes that, for a given quantity, increasing the number of sets decreases the number of objects in each set. | |
| **Big Idea: Regularity and repetition form patterns that can be generalized and predicted mathematically.** | |
| **Representing and generalizing increasing/decreasing patterns**  - Identifies and extends familiar number patterns and makes connections to addition (e.g., skip-counting by 2s, 5s, 10s).  - Identifies, reproduces, and extends increasing/decreasing patterns concretely, pictorially, and numerically using repeated addition or subtraction. | |

\*codes given to curriculum expectations are for cross-referencing purposes only

|  |  |  |  |
| --- | --- | --- | --- |
| **N1.1a** Counting:  — skip-counting by 2, 5, and 10: using different starting points | **Teacher Cards**  **Cluster 1: Counting**  3: Skip-Counting Flexibly  [RA, CR, ConR]  **Cluster 3: Grouping and Place Value**  14: Making a Number Line  [RA, CR, ConR]  16: Grouping and Place Value Consolidation [RA, US, CR, ConR]  **Cluster 5: Number Relationships 2**  24: Jumping on the Number Line  [RA, US, CR, ConR]  25: Number Relationships 2 Consolidation [RA, US, CR, ConR]  **Cluster 9: Financial Literacy**  46: Saving Regularly [RA, US, CR, ConR]  **Math Every Day Cards**  1A: Skip-Counting from Any Number  1B: Skip-Counting with Actions  What’s Wrong? What’s Missing?  3A: Adding Ten  Taking Away Ten | What Would You Rather?   * compare quantities to 100 * estimate and count to 100   Ways to Count   * estimate and group to count to 100 * skip-count to 100   Family Fun Day   * split quantities into equal groups to count to 100 * compose/decompose to 100   The Money Jar   * add/subtract to 100 (further developed) * compose/decompose based on units of 10   **To Scaffold:**  On Safari!  How Many Is Too Many?  **To Extend:**  Finding Buster  How Numbers Work  Calla’s Jingle Dress | **Big Idea: Numbers tell us how many and how much.** |
| **Applying the principles of counting**  - Fluently skip-counts by factors of 10 (e.g., 2, 5, 10) and multiples of 10 from any given number. |
| **Big Idea: Quantities and numbers can be grouped by or partitioned into equal-sized units.** |
| **Unitizing quantities into ones, tens, and hundreds (place-value concepts)**  - Determines 10 more/less than a given number without counting.  **Unitizing quantities and comparing units to the whole**  - Partitions into and skip-counts by equal-sized units and recognizes that the results will be the same when counted by ones (e.g., counting a set by 1s or by 5s gives the same result). |

|  |  |  |  |
| --- | --- | --- | --- |
| **N1.1b** Counting:  — skip-counting by 2, 5, and 10: increasing and decreasing (forward and backward) | **Teacher Cards**  **Cluster 1: Counting**  2: Skip-Counting Forward [RA, CR, ConR]  3: Skip-Counting Flexibly [RA, CR, ConR]  4: Skip-Counting Backward  [RA, CR, ConR]  5: Counting Consolidation [RA, CR, ConR]  **Cluster 2: Number Relationships 1**  11: Decomposing to 20  [RA, US, CR, ConR]  **Cluster 3: Grouping and Place Value**  14: Making a Number Line [RA, CR, ConR]  15: Grouping to Count [RA, US, CR, ConR]  16: Grouping and Place Value Consolidation [RA, US, CR, ConR]  **Cluster 5: Number Relationships 2**  24: Jumping on the Number Line  [RA, US, CR, ConR]  25: Number Relationships 2 Consolidation [RA, US, CR, ConR]  **Math Every Day Cards**  1A: Skip-Counting on a Hundred Chart  Skip-Counting from Any Number  1B: Skip-Counting with Actions  What’s Wrong? What’s Missing?  3A: Adding Ten  Taking Away Ten | What Would You Rather?   * compare quantities to 100 * estimate and count to 100   Ways to Count   * estimate and group to count to 100 * skip-count to 100   Family Fun Day   * split quantities into equal groups to count to 100 * compose/decompose to 100   Array’s Bakery   * solve addition/subtraction problems * solve equal grouping/sharing problems   The Money Jar   * add/subtract to 100 (further developed) * compose/decompose based on units of 10   **To Scaffold:**  On Safari!  How Many Is Too Many?  **To Extend:**  Finding Buster  How Numbers Work  Calla’s Jingle Dress | **Big Idea: Numbers tell us how many and how much.** |
| **Applying the principles of counting**  - Fluently skip-counts by factors of 10 (e.g., 2, 5, 10) and multiples of 10 from any given number. |
| **Big idea: Quantities and numbers can be grouped by or partitioned into equal-sized units.** |
| **Unitizing quantities and comparing units to the whole**  - Partitions into and skip-counts by equal-sized units and recognizes that the results will be the same when counted by ones (e.g., counting a set by 1s or by 5s gives the same result).  - Recognizes that, for a given quantity, increasing the number of sets decreases the number of objects in each set.  - Recognizes and describes equal-sized sets as units within a larger set (doubling or tripling). |
| **Big Idea: Regularity and repetition form patterns that can be generalized and predicted mathematically.** |
| **Representing and generalizing increasing/decreasing patterns**  - Identifies and extends familiar number patterns and makes connections to addition (e.g., skip-counting by 2s, 5s, 10s).  - Identifies, reproduces, and extends increasing/decreasing patterns concretely, pictorially, and numerically using repeated addition or subtraction. |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **N1.2** Quantities to 100 can be arranged and recognized | **Teacher Cards**  **Cluster 2: Number Relationships 1**  6: Comparing Quantities  [RA, US, CR, ConR]  7: Ordering Quantities [RA, US, CR]  10: Estimating with Benchmarks  [RA, US, CR, ConR]  12: Number Relationships 1 Consolidation [RA, US, CR, ConR]  **Math Every Day Cards**  2A: Show Me in Different Ways  Guess My Number  2B: Building an Open Number Line | | What Would You Rather?   * compare quantities to 100 * estimate and count to 100   Back to Batoche   * group quantities based on units of 10 * compare/order numbers to 100   The Great Dogsled Race   * add/subtract to 100 * compare/order numbers   **To Scaffold:**  A Family Cookout  At the Corn Farm  How Many Is Too Many?  **To Extend:**  Fantastic Journeys  Finding Buster  Math Makes Me Laugh  The Street Party  Planting Seeds | | **Big Idea: Numbers are related in many ways.** |
| **Comparing and ordering quantities (multitude or magnitude)**  - Compares and orders quantities and written numbers using benchmarks.  - Determines how many more/less one quantity is compared to another. |
| **N1.2a** Quantities to 100 can be arranged and recognized:  — comparing and ordering numbers to 100 | **Teacher Cards**  **Cluster 2: Number Relationships 1**  6: Comparing Quantities  [RA, US, CR, ConR]  7: Ordering Quantities [RA, US, CR]  12: Number Relationships 1 Consolidation [RA, US, CR, ConR]  **Cluster 3: Grouping and Place Value**  14: Making a Number Line [RA, CR, ConR]  **Cluster 5: Number Relationships 2**  22: Benchmarks on a Number Line  [RA, US, CR, ConR]  **Cluster 9: Financial Literacy**  43: Estimating Money [RA, CR, ConR]  46: Saving Regularly [RA, US, CR, ConR]  **Math Every Day Cards**  2A: Show Me in Different Ways  Guess My Number  2B: Building an Open Number Line  5A: Which Ten is Nearer? | | What Would You Rather?   * compare quantities to 100 * estimate and count to 100   Back to Batoche   * group quantities based on units of 10 * compare/order numbers to 100   The Great Dogsled Race   * add/subtract to 100 * compare/order numbers   **To Scaffold:**  A Family Cookout  At the Corn Farm  How Many Is Too Many?  **To Extend:**  Fantastic Journeys  Finding Buster  Math Makes Me Laugh  The Street Party  Planting Seeds | | **Big Idea: Numbers are related in many ways.** |
| **Comparing and ordering quantities (multitude or magnitude)**  - Compares and orders quantities and written numbers using benchmarks.  - Determines how many more/less one quantity is compared to another. |
| **N1.2b** Quantities to 100 can be arranged and recognized:  — benchmarks of 25, 50, and 100 | | **Teacher Cards**  **Cluster 2: Number Relationships 1**  7: Ordering Quantities [RA, US, CR]  10: Estimating with Benchmarks  [RA, US, CR, ConR]  12: Number Relationships 1 Consolidation [RA, US, CR, ConR]  **Cluster 5: Number Relationships 2**  22: Benchmarks on a Number Line  [RA, US, CR, ConR]  **Math Every Day Cards**  2B: Building an Open Number Line  5A: Which Ten is Nearer? | What Would You Rather?   * compare quantities to 100 * estimate and count to 100   Ways to Count   * estimate and group to count to 100 * skip-count to 100   **To Scaffold:**  At the Corn Farm  A Family Cookout | **Big Idea: Numbers are related in many ways.** | |
| **Comparing and ordering quantities (multitude or magnitude)**  - Compares and orders quantities and written numbers using benchmarks.  **Estimating quantities and numbers**  - Uses relevant benchmarks to compare and estimate quantities (e.g., more/less than 10). | |
| **N1.2c** Quantities to 100 can be arranged and recognized:  — place value: understanding of 10s and 1s | | **Teacher Cards**  **Cluster 3: Grouping and Place Value**  13: Building Numbers  [RA, US, CR, ConR]  16: Grouping and Place Value Consolidation [RA, US, CR, ConR]  **Math Every Day Cards**  3B: Thinking Tens  Describe Me | Back to Batoche   * group quantities based on units of 10 * compare/order numbers to 100   A Class-full of Projects   * add/subtract to 100 * compose/decompose based on units of 10   The Money Jar   * add/subtract to 100 (further developed) * compose/decompose based on units of 10   **To Scaffold:**  At the Corn Farm  **To Extend:**  Finding Buster  How Numbers Work | **Big Idea: Quantities and numbers can be grouped by or partitioned into equal-sized units.** | |
| **Unitizing quantities into ones, tens, and hundreds (place-value concepts)**  - Writes, reads, composes, and decomposes two-digit numbers as units of tens and leftover ones. | |

|  |  |  |  |
| --- | --- | --- | --- |
| **N1.2d** Quantities to 100 can be arranged and recognized:  — place value: understanding the relationship between digit places and their value, to 99 (e.g., the digit 4 in 49 has the value of 40) | **Teacher Cards**  **Cluster 3: Grouping and Place Value**  13: Building Numbers  [RA, US, CR, ConR]  16: Grouping and Place Value Consolidation [RA, US, CR, ConR]  **Math Every Day Cards**  3B: Thinking Tens  Describe Me | Back to Batoche   * group quantities based on units of 10 * compare/order numbers to 100   A Class-full of Projects   * add/subtract to 100 * compose/decompose based on units of 10   The Money Jar   * add/subtract to 100 (further developed) * compose/decompose based on units of 10   **To Scaffold:**  At the Corn Farm  **To Extend:**  Finding Buster  How Numbers Work | **Big Idea: Quantities and numbers can be grouped by or partitioned into equal-sized units.** |
| **Unitizing quantities into ones, tens, and hundreds (place-value concepts)**  - Writes, reads, composes, and decomposes two-digit numbers as units of tens and leftover ones. |
| **N1.2e** Quantities to 100 can be arranged and recognized:  — place value: decomposing two-digit numbers into 10s and 1s | **Teacher Cards**  **Cluster 3: Grouping and Place Value**  13: Building Numbers [RA, US, CR, ConR]  16: Grouping and Place Value Consolidation [RA, US, CR, ConR]  **Math Every Day Cards**  3B: Thinking Tens  Describe Me | Back to Batoche   * group quantities based on units of 10 * compare/order numbers to 100   A Class-full of Projects   * add/subtract to 100 * compose/decompose based on units of 10   The Money Jar   * add/subtract to 100 (further developed) * compose/decompose based on units of 10   **To Scaffold:**  At the Corn Farm  **To Extend:**  Finding Buster  How Numbers Work | **Big Idea: Quantities and numbers can be grouped by or partitioned into equal-sized units.** |
| **Unitizing quantities into ones, tens, and hundreds (place-value concepts)**  - Writes, reads, composes, and decomposes two-digit numbers as units of tens and leftover ones. |

|  |  |  |  |
| --- | --- | --- | --- |
| **N1.3** Even and odd numbers | **Teacher Cards**  **Cluster 2: Number Relationships 1**  8: Odd and Even Numbers [RA, CR, ConR]  12: Number Relationships 1 Consolidation [RA, US, CR, ConR]  **Math Every Day Cards**  2A: Show Me in Different Ways  Guess My Number  2B: Math Commander | Ways to Count   * estimate and group to count to 100 * skip-count to 100 | **Big Idea: Numbers are related in many ways.** |
| **Comparing and ordering quantities (multitude or magnitude)** |

|  |  |  |  |
| --- | --- | --- | --- |
| **Learning Standards** | **Mathology Grade 2 Classroom Activity Kit** | **Mathology Little Books** | **Pearson Canada K-3 Mathematics Learning Progression** |
| **N2** benchmarks of 25, 50, and 100 and personal referents | | | |
| **N2** benchmarks of 25, 50, and 100 and personal referents | **Teacher Cards**  **Cluster 2: Number Relationships 1**  10: Estimating with Benchmarks  [RA, US, CR, ConR]  12: Number Relationships 1 Consolidation [RA, US, CR, ConR]  **Math Every Day Card**  2B: Building an Open Number Line | What Would You Rather?   * compare quantities to 100 * estimate and count to 100   Ways to Count   * estimate and group to count to 100 * skip-count to 100   **To Scaffold:**  At the Corn Farm  A Family Cookout | **Big Idea: Numbers are related in many ways.** |
| **Estimating Quantities and Numbers**  - Uses relevant benchmarks to compare and estimate quantities (e.g., more/less than 10). |
| **N2.1** Seating arrangements at ceremonies/feasts | **Teacher Cards**  **Cluster 2: Number Relationships 1**  10: Estimating with Benchmarks  [RA, US, CR, ConR] | **No direct correlation.** | **Big Idea: Numbers are related in many ways.** |
| **Estimating Quantities and Numbers**  - Uses relevant benchmarks to compare and estimate quantities (e.g., more/less than 10). |

|  |  |  |  |
| --- | --- | --- | --- |
| **Learning Standards** | **Mathology Grade 2 Classroom Activity Kit** | **Mathology Little Books** | **Pearson Canada K-3 Mathematics Learning Progression** |
| **N3** addition and subtraction facts to 20 (introduction of computational strategies) | | | |
| **N3.1** Adding and subtracting numbers to 20 | **Teacher Cards**  **Cluster 7: Operational Fluency**  32: Complements of 10  [RA, US, CR]  33: Using Doubles [RA, US, CR]  34: Fluency with 20 [RA, US, CR]  36: Operational Fluency Consolidation [RA, US, CR]  **Cluster 9: Financial Literacy**  45: Spending Money  [RA, US, CR, ConR]  46: Saving Regularly  [RA, US, CR, ConR]  47: Financial Literacy Consolidation [RA, US, CR, ConR]  **Math Every Day Cards**  7A: Doubles and Near-Doubles  I Have… I Need…  7B: Hungry Bird  Make 10 Sequences | Array’s Bakery   * solve addition/subtraction problems * solve equal grouping/sharing problems   A Class-full of Projects   * add/subtract to 100 * compose/decompose based on units of 10   The Great Dogsled Race   * add/subtract to 100 * compare/order numbers   **To Scaffold:**  Buy 1–Get 1  Canada's Oldest Sport  **To Extend:**  Math Makes Me Laugh  The Street Party  Planting Seeds | **Big idea: Numbers are related in many ways.** |
| **Decomposing wholes into parts and composing wholes from parts**  - Composes and decomposes quantities to 20. |
| **Big Idea: Quantities and numbers can be added and subtracted to determine how many or how much.** |
| **Developing conceptual meaning of addition and subtraction**  - Uses symbols and equations to represent addition and subtraction situations.  **Developing fluency of addition and subtraction computation**  - Fluently recalls complements to 10 (e.g., 6 + 4; 7 + 3).  - Extends known sums and differences to solve other equations (e.g., using 5 + 5 to add 5 + 6).  - Fluently adds and subtracts with quantities to 20. |
| **Big Idea: Patterns and relations can be represented with symbols, equations, and expressions.** |
| **Understanding equality and inequality, building on generalized properties of numbers and operations**  - Decomposes and combines numbers in equations to make them easier to solve (e.g., 8 + 5 = 3 + 5 + 5).  **Using symbols, unknowns, and variables to represent mathematical relations**  - Uses the equal (=) symbol in equations and knows its meaning (i.e., equivalent; is the same as). |

|  |  |  |  |
| --- | --- | --- | --- |
| **N3.2** Fluency with math strategies for addition and subtraction (e.g., making or bridging 10, decomposing, identifying related doubles, adding on to find the difference) | **Teacher Cards**  **Cluster 2: Number Relationships 1**  11: Decomposing to 20  [RA, US, CR, ConR]  **Cluster 7: Operational Fluency**  32: Complements of 10  [RA, US, CR]  33: Using Doubles [RA, US, CR]  34: Fluency with 20 [RA, US, CR]  36: Operational Fluency Consolidation [RA, US, CR]  **Math Every Day Cards**  2A: Show Me in Different Ways  7A: Doubles and Near-Doubles  I Have… I Need…  7B: Hungry Bird  Make 10 Sequences | Array’s Bakery  solve addition/subtraction problems   * solve equal grouping/sharing problems   A Class-full of Projects   * add/subtract to 100 * compose/decompose based on units of 10   **To Scaffold:**  Buy 1–Get 1  Canada's Oldest Sport  **To Extend:**  Math Makes Me Laugh  The Street Party  Planting Seeds | **Big Idea: Numbers are related in many ways.** |
| **Decomposing wholes into parts and composing wholes from parts**  - Composes and decomposes quantities to 20. |
| **Big Idea: Quantities and numbers can be added and subtracted to determine how many or how much.** |
| **Developing conceptual meaning of addition and subtraction**  - Uses symbols and equations to represent addition and subtraction situations.  **Developing fluency of addition and subtraction computation**  - Fluently recalls complements to 10 (e.g., 6 + 4; 7 + 3).  - Extends known sums and differences to solve other equations (e.g., using 5 + 5 to add 5 + 6).  - Fluently adds and subtracts with quantities to 20. |
| **Big Idea: Patterns and relations can be represented with symbols, equations, and expressions.** |
| **Understanding equality and inequality, building on generalized properties of numbers and operations**  - Records different expressions of the same quantity as equalities (e.g., 2 + 4 = 5 + 1).  - Decomposes and combines numbers in equations to make them easier to solve (e.g., 8 + 5 = 3 + 5 + 5). |

|  |  |  |  |
| --- | --- | --- | --- |
| **Learning Standards** | **Mathology Grade 2 Classroom Activity Kit** | **Mathology Little Books** | **Pearson Canada K-3 Mathematics Learning Progression** |
| **N4** Addition and subtraction to 100 | | | |
| **N4.1** decomposing numbers to 100 | **Teacher Cards**  **Cluster 2: Number Relationships 1**  12: Number Relationships 1 Consolidation [RA, US, CR, ConR]  **Cluster 5: Number Relationships 2**  23: Decomposing 50  [RA, US, CR, ConR]  24: Jumping on the Number Line  [RA, US, CR, ConR]  25: Number Relationships 2 Consolidation [RA, US, CR, ConR]  **Cluster 9: Financial Literacy**  44: Earning Money [RA, US, CR, ConR]  45: Spending Money [RA, US, CR, ConR]  47: Financial Literacy Consolidation  [RA, US, CR, ConR]  **Math Every Day Cards**  2A: Show Me in Different Ways  5A: Building Numbers  5B: How Many Ways?  What’s the Unknown Part?  7A: I Have… I Need…  9: Showing Money in Different Ways | Family Fun Day   * split quantities into equal groups to count to 100 * compose/decompose to 100   Back to Batoche   * group quantities based on units of 10 * compare/order numbers to 100   Marbles, Alleys, Mibs, and Guli!   * add/subtract 2-digit numbers * solve equal grouping/sharing problems   A Class-full of Projects   * add/subtract to 100 * compose/decompose based on units of 10   The Money Jar   * add/subtract to 100 (further developed) * compose/decompose based on units of 10   **To Scaffold:**  Paddling the River  That’s 10!  Hockey Time!  **To Extend:**  Finding Buster  How Numbers Work | **Big Idea: Numbers tell us how many and how much.** |
| **Unitizing quantities into ones, tens, and hundreds (place-value concepts)**  - Writes, reads, composes, and decomposes two-digit numbers as units of tens and leftover ones. |
| **Big idea: Numbers are related in many ways.** |
| **Decomposing wholes into parts and composing wholes from parts**  - Composes two-digit numbers from parts (e.g., 14 and 14 is 28), and decomposes two-digit numbers into parts (e.g., 28 is 20 and 8). |
| **Big Idea: Patterns and relations can be represented with symbols, equations, and expressions.** |
| **Using symbols, unknowns, and variables to represent mathematical relations**  - Uses the equal (=) symbol in equations and knows its meaning (i.e., equivalent; is the same as). |

|  |  |  |  |
| --- | --- | --- | --- |
| **N4.2** estimating sums and differences to 100 | **Teacher Cards**  **Cluster 7: Operational Fluency**  35: Multi-Digit Fluency [RA, US, CR]  36: Operational Fluency Consolidation [RA, US, CR]  **Cluster 9: Financial Literacy**  43: Estimating Money [RA, US, CR] | **No direct correlation.** | **Big Idea: Numbers are related in many ways.** |
| **Estimating Quantities and Numbers**  - Uses relevant benchmarks to compare and estimate quantities (e.g., more/less than 10). |
| **Big Idea: Quantities and numbers can be added and subtracted to determine how many or how much.** |
| **Developing fluency of addition and subtraction computation**  - Develops efficient mental strategies and algorithms to solve equations with multi-digit numbers.  - Estimates sums and differences of multi-digit numbers. |
| **N4.3** using strategies such as looking for multiples of 10, friendly numbers (e.g., 48 + 37, 37 = 35 + 2, 48 + 2, 50 + 35 = 85), decomposing into 10s and 1s and recomposing (e.g., 48 + 37, 40 + 30 = 70, 8 +7 = 15, 70 +15 = 85), and compensating (e.g., 48 + 37, 48 +2 = 50, 37 – 2 = 35, 50 + 35 = 80) | **Teacher Cards**  **Cluster 6: Conceptualizing Addition and Subtraction**  27: Solving Problems 1 [RA, US, CR, ConR]  28: Solving Problems 2 [RA, US, CR, ConR]  29: Solving Problems 3 [RA, US, CR, ConR]  30: Solving Problems 4 [RA, US, CR, ConR]  31: Conceptualizing Addition and Subtraction Consolidation  [RA, US, CR, ConR]  **Cluster 7: Operational Fluency**  35: Multi-Digit Fluency [RA, US, CR]  36: Operational Fluency Consolidation [RA, US, CR]  **Math Every Day Cards**  7A: I Have… I Need…  7B: Hungry Bird  Make 10 Sequences | Array’s Bakery   * solve addition/subtraction problems * solve equal grouping/sharing problems   Marbles, Alleys, Mibs, and Guli!   * add/subtract 2-digit numbers * solve equal grouping/sharing problems   A Class-full of Projects   * add/subtract to 100 * compose/decompose based on units of 10   The Money Jar   * add/subtract to 100 (further developed) * compose/decompose based on units of 10   The Great Dogsled Race   * add/subtract to 100 * compare/order numbers   **To Scaffold:**  Canada’s Oldest Sport  **To Extend:**  Math Makes Me Laugh | **Big Idea: Quantities and numbers can be added and subtracted to determine how many or how much.** |
| **Developing conceptual meaning of addition and subtraction**  - Uses symbols and equations to represent addition and subtraction situations.  - Models and symbolizes addition and subtraction problem types (i.e., join, separate, part-part-whole, and compare).  **Developing fluency of addition and subtraction computation**  - Extends known sums and differences to solve other equations (e.g., using 5 + 5 to add 5 + 6).  - Develops efficient mental strategies and algorithms to solve equations with multi-digit numbers. |
| **N4.4** adding up to find the difference | **Teacher Cards**  **Cluster 6: Conceptualizing Addition and Subtraction**  27: Solving Problems 1 [RA, US, CR, ConR]  28: Solving Problems 2 [RA, US, CR, ConR]  29: Solving Problems 3 [RA, US, CR, ConR]  30: Solving Problems 4 [RA, US, CR, ConR]  31: Conceptualizing Addition and Subtraction Consolidation  [RA, US, CR, ConR]  **Cluster 7: Operational Fluency**  35: Multi-Digit Fluency [RA, US, CR]  36: Operational Fluency Consolidation [RA, US, CR]  **Math Every Day Cards**  7A: I Have… I Need…  7B: Hungry Bird | Array’s Bakery   * solve addition/subtraction problems * solve equal grouping/sharing problems   Marbles, Alleys, Mibs, and Guli!   * add/subtract 2-digit numbers * solve equal grouping/sharing problems   A Class-full of Projects   * add/subtract to 100 * compose/decompose based on units of 10   The Money Jar   * add/subtract to 100 (further developed) * compose/decompose based on units of 10   The Great Dogsled Race   * add/subtract to 100 * compare/order numbers   **To Scaffold:**  Buy 1–Get 1  Canada’s Oldest Sport  **To Extend:**  Math Makes Me Laugh | **Big Idea: Quantities and numbers can be added and subtracted to determine how many or how much.** |
| **Developing conceptual meaning of addition and subtraction**  - Uses symbols and equations to represent addition and subtraction situations.  - Models and symbolizes addition and subtraction problem types (i.e., join, separate, part-part-whole, and compare).  **Developing fluency of addition and subtraction computation**  - Extends known sums and differences to solve other equations (e.g., using 5 + 5 to add 5 + 6). |

|  |  |  |  |
| --- | --- | --- | --- |
| **N4.5** using an open number line, hundred chart, ten-frames | **Teacher Cards**  **Cluster 5: Number Relationships 2**  24: Jumping on the Number Line [RA, US, CR, ConR]  25: Number Relationships 2 Consolidation [RA, US, CR, ConR]  **Cluster 6: Conceptualizing Addition and Subtraction**  27: Solving Problems 1 [RA, US, CR, ConR]  28: Solving Problems 2 [RA, US, CR, ConR]  29: Solving Problems 3 [RA, US, CR, ConR]  30: Solving Problems 4 [RA, US, CR, ConR]  31: Conceptualizing Addition and Subtraction Consolidation  [RA, US, CR, ConR]  **Cluster 7: Operational Fluency**  35: Multi-Digit Fluency [RA, US, CR]  36: Operational Fluency Consolidation [RA, US, CR]  **Math Every Day Cards**  2B: Building an Open Number Line  3A: Adding Ten  Taking Away Ten  7A: I Have… I Need…  7B: Hungry Bird | Array’s Bakery   * solve addition/subtraction problems * solve equal grouping/sharing problems   Marbles, Alleys, Mibs, and Guli!   * add/subtract 2-digit numbers * solve equal grouping/sharing problems   A Class-full of Projects   * add/subtract to 100 * compose/decompose based on units of 10   The Money Jar   * add/subtract to 100 (further developed) * compose/decompose based on units of 10   **To Scaffold:**  Paddling Down the River  Buy 1–Get 1  Canada’s Oldest Sport  **To Extend:**  Math Makes Me Laugh | **Big Idea: Quantities and numbers can be added and subtracted to determine how many or how much.** |
| **Developing conceptual meaning of addition and subtraction**  - Uses symbols and equations to represent addition and subtraction situations.  - Models and symbolizes addition and subtraction problem types (i.e., join, separate, part-part-whole, and compare).  **Developing fluency of addition and subtraction computation**  - Extends known sums and differences to solve other equations (e.g., using 5 + 5 to add 5 + 6). |

|  |  |  |  |
| --- | --- | --- | --- |
| **N4.6** using addition and subtraction in real-life contexts and problem-based situations | **Cluster 6: Conceptualizing Addition and Subtraction**  27: Solving Problems 1 [RA, US, CR, ConR]  28: Solving Problems 2 [RA, US, CR, ConR]  29: Solving Problems 3 [RA, US, CR, ConR]  30: Solving Problems 4 [RA, US, CR, ConR]  31: Conceptualizing Addition and Subtraction Consolidation  [RA, US, CR, ConR]  **Cluster 7: Operational Fluency**  35: Multi-Digit Fluency [RA, US, CR]  36: Operational Fluency Consolidation [RA, US, CR]  **Cluster 9: Financial Literacy**  44: Earning Money [RA, US, CR, ConR]  46: Saving Regularly [RA, US, CR, ConR]  **Math Every Day Cards**  6: What Math Do You See?  What Could the Story Be?  7B: Hungry Bird | Back to Batoche   * group quantities based on units of 10 * compare/order numbers to 100   Array’s Bakery   * solve addition/subtraction problems * solve equal grouping/sharing problems   Marbles, Alleys, Mibs, and Guli!   * add/subtract 2-digit numbers * solve equal grouping/sharing problems   A Class-full of Projects   * add/subtract to 100 * compose/decompose based on units of 10   The Money Jar   * add/subtract to 100 (further developed) * compose/decompose based on units of 10   The Great Dogsled Race   * add/subtract to 100 * compare/order numbers   **To Scaffold:**  Buy 1–Get 1  Canada’s Oldest Sport  **To Extend:**  Math Makes Me Laugh  The Street Party  Planting Seeds | **Big Idea: Quantities and numbers can be added and subtracted to determine how many or how much.** |
| **Developing conceptual meaning of addition and subtraction**  - Uses symbols and equations to represent addition and subtraction situations.  - Models and symbolizes addition and subtraction problem types (i.e., join, separate, part-part-whole, and compare).  **Developing fluency of addition and subtraction computation**  - Extends known sums and differences to solve other equations (e.g., using 5 + 5 to add 5 + 6). |

|  |  |  |  |
| --- | --- | --- | --- |
| **N4.7** whole-class number talks | **Math Every Day Cards**  7A: Doubles and Near-Doubles  7B: Make 10 Sequences | **No direct correlation.** | **Big idea: Numbers are related in many ways.** |
| **Decomposing wholes into parts and composing wholes from parts**  - Composes two-digit numbers from parts (e.g., 14 and 14 is 28), and decomposes two-digit numbers into parts (e.g., 28 is 20 and 8). |
| **Big Idea: Quantities and numbers can be added and subtracted to determine how many or how much.** |
| **Developing fluency of addition and subtraction computation**  - Extends known sums and differences to solve other equations (e.g., using 5 + 5 to add 5 + 6).  - Develops efficient mental strategies and algorithms to solve equations with multi-digit numbers. |

|  |  |  |  |
| --- | --- | --- | --- |
| **Learning Standards** | **Mathology Grade 2 Classroom Activity Kit** | **Mathology Little Books** | **Pearson Canada K-3 Mathematics Learning Progression** |

|  |  |  |  |
| --- | --- | --- | --- |
| **N5** Financial Literacy — coin combinations to 100 cents, and spending and saving | | | |
| **N5.1** counting simple mixed combinations of coins to 100 cents | **Teacher Cards**  **Cluster 9: Financial Literacy**  43: Estimating Money  [RA, US, CR, ConR]  44: Earning Money [RA, US, CR, ConR]  46: Saving Regularly [RA, US, CR, ConR]  **Math Every Day Card**  9: Collections of Coins  Showing Money in Different Ways | The Money Jar   * add/subtract to 100 (further developed) * compose/decompose based on units of 10 | **Big Idea: Numbers tell us how many and how much.** |
| **Applying the principles of counting**  - Fluently skip-counts by factors of 10 (e.g., 2, 5, 10) and multiples of 10 from any given number. |
| **Big Idea: Numbers are related in many ways.** |
| **Decomposing wholes into parts and composing wholes from parts**  - Composes two-digit numbers from parts (e.g., 14 and 14 is 28), and decomposes two-digit numbers into parts. |
| **Big Idea: 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)**  - Sorts a set of objects in different ways using a single attribute (e.g., buttons sorted by the number of holes or by shape). |
| **N5.2** introduction to the concepts of spending and saving, integrating the concepts of wants and needs | **Teacher Cards**  **Cluster 9: Financial Literacy**  44: Earning Money [RA, US, CR, ConR]  45: Spending Money [RA, US, CR, ConR]  46: Saving Regularly [RA, US, CR, ConR]  47: Financial Literacy Consolidation [RA, US, CR, ConR] | **No direct correlation.** | **No direct correlation.** |

|  |  |  |  |
| --- | --- | --- | --- |
| **N5.3** role-playing financial transactions (e.g., using bills and coins) | **Teacher Cards**  **Cluster 9: Financial Literacy**  44: Earning Money [RA, US, CR, ConR]  45: Spending Money [RA, US, CR, ConR]  46: Saving Regularly [RA, US, CR, ConR]  47: Financial Literacy Consolidation [RA, US, CR, ConR] | **No direct correlation.** | **Big Idea: Numbers tell us how many and how much.** |
| **Applying the principles of counting**  - Fluently skip-counts by factors of 10 (e.g., 2, 5, 10) and multiples of 10 from any given number. |
| **Big Idea: Numbers are related in many ways.** |
| **Decomposing wholes into parts and composing wholes from parts**  - Composes and decomposes quantities to 20.  - Composes two-digit numbers from parts (e.g., 14 and 14 is 28), and decomposes two-digit numbers into parts. |
| **Big Idea: Quantities and numbers can be added and subtracted to determine how many or how much.** |
| **Developing fluency of addition and subtraction computation**  - Fluently adds and subtracts with quantities to 20. |
| **Big Idea: Regularity and repetition form patterns that can be generalized and predicted mathematically.** |
| **Representing and generalizing increasing/decreasing patterns**  - Identifies and extends familiar number patterns and makes connections to addition (e.g., skip-counting by 2s, 5s, 10s). |

**Mathology 2 Correlation (Other Strands) – British Columbia\***

Curricular Competencies

**[RA]** Reasoning and Analyzing

**[US]** Understanding and Solving

**[CR]** Communication and Representing

**[ConR]** Connecting and Reflecting

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Learning Standards** | **Mathology Grade 2 Classroom Activity Kit** | **Mathology Little Books** | | **Pearson Canada K-3 Mathematics Learning Progression** |
| **P1** Repeating and increasing patterns | | | | |
| **P1.1** exploring more complex repeating patterns (e.g., positional patterns, circular patterns) | **Teacher Cards**  **Patterning and Algebra Cluster 1: Repeating Patterns**  1: Exploring Patterns [RA, US, CR]  2: Extending and Predicting [RA, CR]  3: Errors and Missing Elements  [RA, CR, ConR]  4: Combining Attributes  [RA, US, CR, ConR]  5: Repeating Patterns Consolidation [RA, US, CR, ConR]  **Math Every Day Card**  1: Show Another Way  Repeating Patterns Around Us | Pattern Quest   * investigate repeating patterns * investigate growing and shrinking patterns   **To Scaffold:**  Midnight and Snowfall | **Big Idea: Regularity and repetition form patterns that can be generalized and predicted mathematically** | |
| **Identifying, reproducing, extending, and creating patterns that repeat**  - Identifies the repeating unit of patterns in multiple forms (e.g., circular, 2-D, 3-D). | |
| **P1.2** identifying the core of repeating patterns (e.g., the pattern of the pattern that repeats over and over) | **Teacher Cards**  **Patterning and Algebra Cluster 1: Repeating Patterns**  1: Exploring Patterns [RA, US, CR]  2: Extending and Predicting [RA, CR]  3: Errors and Missing Elements  [RA, CR, ConR]  4: Combining Attributes  [RA, US, CR, ConR]  5: Repeating Patterns Consolidation [RA, US, CR, ConR]  **Math Every Day Card**  1: Show Another Way  Repeating Patterns Around Us | Pattern Quest   * investigate repeating patterns * investigate growing and shrinking patterns   **To Scaffold:**  Midnight and Snowfall | | **Big Idea: Regularity and repetition form patterns that can be generalized and predicted mathematically** |
| **Identifying, reproducing, extending, and creating patterns that repeat**  - Identifies the repeating unit (core) of a pattern.  - Reproduces, creates, and extends repeating patterns based on copies of the repeating unit (core).  - Recognizes, extends, and creates repeating patterns based on two or more attributes (e.g., shape and orientation) |

\*codes given to curriculum expectations are for cross-referencing purposes only

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **P1.3** increasing patterns using manipulatives, sounds, actions, and numbers (0 to 100) | **Teacher Cards**  **Patterning and Algebra Cluster 2: Increasing/Decreasing Patterns**  6: Increasing Patterns 1 [RA, US, CR, ConR]  7: Increasing Patterns 2 [RA, US, CR]  9: Extending Patterns [RA, US, CR, ConR]  10: Reproducing Patterns [RA, US, CR, ConR]  11: Creating Patterns [RA, US, CR, ConR]  12: Errors and Missing Terms  [RA, US, CR, ConR]  13: Solving Problems [RA, US, CR, ConR]  14: Increasing/Decreasing Patterns Consolidation [RA, US, CR, ConR]  **Math Every Day Cards**  2A: How Many Can We Make?  Error Hunt  2B: Making Increasing Patterns  Making Decreasing Patterns | The Best Surprise   * explore growing and shrinking patterns * investigate number patterns   Pattern Quest   * investigate repeating patterns * investigate growing and shrinking patterns   **To Extend:**  Namir’s Marvellous Masterpieces | | **Big Idea: Regularity and repetition form patterns that can be generalized and predicted mathematically.** |
| **Representing and generalizing increasing/decreasing patterns**  - Identifies and extends non-numeric increasing/ decreasing patterns (e.g., jump-clap; jump-clap-clap; jump-clap-clap clap, etc.).  - Identifies and extends familiar number patterns and makes connections to addition (e.g., skip-counting by 2s, 5s, 10s).  - Identifies, reproduces, and extends increasing/decreasing patterns concretely, pictorially, and numerically using repeated addition or subtraction.  - Extends number patterns and finds missing elements (e.g., 1, 3, 5, \_\_, 9, …).  - Creates an increasing/decreasing pattern (concretely, pictorially, and/or numerically) and explains the pattern rule. |
| **Big Idea: Quantities and numbers can be added and subtracted to determine how many or how much.** |
| **Developing Fluency of Addition and Subtraction Computation**  - Fluently adds and subtracts with quantities to 20 |
| **P1.4** Métis finger weaving  **P1.5** First Peoples head/armband patterning | **Teacher Card**  **Patterning and Algebra Cluster 2: Increasing/Decreasing Patterns**  13: Solving Problems [RA, US, CR, ConR] | The Best Surprise   * explore growing and shrinking patterns * investigate number patterns   Pattern Quest   * investigate repeating patterns * investigate growing and shrinking patterns | | **Big Idea: Regularity and repetition form patterns that can be generalized and predicted mathematically.** |
| **Identifying, reproducing, extending, and creating patterns that repeat**  - Identifies the repeating unit (core) of a pattern.  - Reproduces, creates, and extends repeating patterns based on copies of the repeating unit (core).  - Recognizes, extends, and creates repeating patterns based on two or more attributes (e.g., shape and orientation)  - Identifies the repeating unit of patterns in multiple forms (e.g., circular, 2-D, 3-D). |
| **P1.6** online video and text: Small Number Counts to 100 | **Teacher Card**  **Patterning and Algebra Cluster 1: Repeating Patterns**  5: Repeating Patterns Consolidation  [RA, US, CR, ConR] | Pattern Quest   * investigate repeating patterns * investigate growing and shrinking patterns   **To Scaffold:**  Midnight and Snowfall | | **Big Idea: Regularity and repetition form patterns that can be generalized and predicted mathematically** |
| **Identifying, reproducing, extending, and creating patterns that repeat**  - Identifies the repeating unit (core) of a pattern.  - Predicts missing element(s) and correct errors in repeating patterns.  - Reproduces, creates, and extends repeating patterns based on copies of the repeating unit (core). |
|  | | | | |
| **Learning Standards** | **Mathology Grade 2 Classroom Activity Kit** | **Mathology Little Books** | | **Pearson Canada K-3 Mathematics Learning Progression** |
| **P2** change in quantity, using pictorial and symbolic representation | | | | |
| **P2.1** numerically describing a change in quantity (e.g., for 6 + n = 10, visualize the change in quantity by using ten-frames, hundred charts, etc.) | **Teacher Card**  **Patterning and Algebra Cluster 3: Equality and Inequality**  19: Missing Numbers [RA, CR, ConR]  **Math Every Day Card**  3B: What’s Missing?  *Link to Other Strands:*  ***Teacher Cards***  ***Number Cluster 7: Operational Fluency***  *32: Complements of 10 [RA, US, CR]*  ***Math Every Day Card***  *7: I Have… I Need…* | | Kokum’s Bannock   * model and describe equality and inequality * explore properties of addition and subtraction   **To Extend:**  A Week of Challenges | **Big Idea: Patterns and relations can be represented with symbols, equations, and expressions.** |
| **Using symbols, unknowns, and variables to represent mathematical relations**  - Uses the equal (=) symbol in equations and knows its meaning (i.e., equivalent; is the same as).  - Understands and uses the equal (=) and not equal (≠) symbols when comparing expressions.  - Solves for an unknown value in a one-step addition and subtraction problem (e.g., n + 5 = 15). |

|  |  |  |  |
| --- | --- | --- | --- |
| **Learning Standards** | **Mathology Grade 2 Classroom Activity Kit** | **Mathology Little Books** | **Pearson Canada K-3 Mathematics Learning Progression** |
| **P3** symbolic representation of quality and inequality | | | |
| **P3.1** symbolic representation of equality and inequality | **Teacher Cards**  **Patterning and Algebra Cluster 3: Equality and Inequality**  16: Equal or Not Equal [RA, CR, ConR]  17: Exploring Number Sentences  [RA, CR, ConR]  20: Equality and Inequality Consolidation [RA, CR, ConR]  **Math Every Day Cards**  3A: Equal or not Equal?  How Many Ways?  3B: Which One Doesn’t Belong?  *Link to Other Strands:*  ***Teacher Cards***  ***Number Cluster 6: Conceptualizing Addition and Subtraction***  *27: Solving Problems 1 [RA, US, CR, ConR]*  *28: Solving Problems 2 [RA, US, CR, ConR]*  *29: Solving Problems 3 [RA, US, CR, ConR]*  *30: Solving Problems 4 [RA, US, CR, ConR]*  *31: Conceptualizing Addition and Subtraction Consolidation*  *[RA, US, CR, ConR]*  ***Number Cluster 7: Operational Fluency***  *33: Using Doubles [RA, US, CR]*  *34: Fluency with 20 [RA, US, CR]* | Kokum’s Bannock   * model and describe equality and inequality * explore properties of addition and subtraction   **To Scaffold:**  Nutty and Wolfy  **To Extend:**  A Week of Challenges | **Big Idea: Patterns and relations can be represented with symbols, equations, and expressions.** |
| **Understanding equality and inequality, building on generalized properties of numbers and operations**  - Models and describes equality (balance; the same as) and inequality (imbalance; not the same as).  - Records different expressions of the same quantity as equalities (e.g., 2 + 4 = 5 + 1).  - Explores properties of addition and subtraction (e.g., adding or subtracting 0, commutativity of addition).  **Using symbols, unknowns, and variables to represent mathematical relations**  - Uses the equal (=) symbol in equations and knows its meaning (i.e., equivalent; is the same as).  - Understands and uses the equal (=) and not equal (≠) symbols when comparing expressions.  - Solves for an unknown value in a one-step addition and subtraction problem (e.g., n + 5 = 15). |

|  |  |  |  |
| --- | --- | --- | --- |
| **Learning Standards** | **Mathology Grade 2 Classroom Activity Kit** | **Mathology Little Books** | **Pearson Canada K-3 Mathematics Learning Progression** |
| **M1** direct linear measurement, introducing standard metric units | | | |
| **M1.1** centimetres and metres | **Teacher Cards**  **Measurement Cluster 2: Using Standard Units**  8: Benchmarks and Estimation [RA, CR]  9: The Metre [RA, US, CR]  10: The Centimetre [US, CR]  11: Metres or Centimetres?  [RA, US, CR]  12: Using Standard Units Consolidation [RA, CR, ConR]  **Math Every Day Card**  2: Which Unit? | The Discovery   * estimate and measure length, perimeter, and area * compare and describe length, perimeter, and area   **To Extend:**  Goat Island  The Bunny Challenge  Measurements About YOU! | **Big Idea: Many things in our world (e.g., objects, spaces, events) have attributes that can be measured and compared.** |
| **Understanding attributes that can be measured**  - Understands that some things have more than one attribute that can be measured.  - Extends understanding of length to other linear measurements (e.g., height, width, distance around). |
| **Big Idea: 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**  - Demonstrates ways to estimate, measure, compare, and order objects by length, perimeter, area, capacity, and mass with standard units by   * using an intermediary object of a known measure * using multiple copies of a unit * iterating a single unit   - Selects and uses appropriate standard units to estimate, measure, and compare length, perimeter, area, capacity, mass, and time. |
| **Big Idea: Numbers tell us how many and how much.** |
| **Applying the principles of counting**  - Says the number name sequence forward through the teen numbers. |

|  |  |  |  |
| --- | --- | --- | --- |
| **M1.2** estimating length | **Teacher Cards**  **Measurement Cluster 2: Using Standard Units**  8: Benchmarks and Estimation  [RA, CR]  9: The Metre [RA, US, CR]  10: The Centimetre [US, CR]  12: Using Standard Units Consolidation [RA, CR, ConR]  **Math Every Day Card**  2: What Am I? | Getting Ready for School   * estimate and measure length, duration, and distance around * compare, order, and describe measures   The Discovery   * estimate and measure length, perimeter, and area * compare and describe length, perimeter, and area   **To Extend:**  Goat Island  The Bunny Challenge  Measurements About YOU! | **Big Idea: 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**  - Demonstrates ways to estimate, measure, compare, and order objects by length, perimeter, area, capacity, and mass with standard units by   * using an intermediary object of a known measure * using multiple copies of a unit * iterating a single unit   - Selects and uses appropriate standard units to estimate, measure, and compare length, perimeter, area, capacity, mass, and time.  - Uses the measurement of familiar objects as benchmarks to estimate another measure in standard units. |
| **Big Idea: Numbers tell us how many and how much.** |
| **Applying the principles of counting**  - Says the number name sequence forward through the teen numbers. |

|  |  |  |  |
| --- | --- | --- | --- |
| **M1.3** measuring and recording length, height, and width, using standard units | **Teacher Cards**  **Measurement Cluster 2: Using Standard Units**  9: The Metre [RA, US, CR]  10: The Centimetre [US, CR]  11: Metres or Centimetres?  [RA, US, CR]  12: Using Standard Units Consolidation [RA, CR, ConR] | Getting Ready for School   * estimate and measure length, duration, and distance around * compare, order, and describe measures   The Discovery   * estimate and measure length, perimeter, and area * compare and describe length, perimeter, and area   **To Extend:**  Goat Island  The Bunny Challenge  Measurements About YOU! | **Big Idea: Many things in our world (e.g., objects, spaces, events) have attributes that can be measured and compared.** |
| **Understanding attributes that can be measured**  - Understands that some things have more than one attribute that can be measured.  - Extends understanding of length to other linear measurements (e.g., height, width, distance around). |
| **Big Idea: 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**  - Demonstrates ways to estimate, measure, compare, and order objects by length, perimeter, area, capacity, and mass with standard units by   * using an intermediary object of a known measure * using multiple copies of a unit * iterating a single unit   - Selects and uses appropriate standard units to estimate, measure, and compare length, perimeter, area, capacity, mass, and time. |
| **Big Idea: Numbers tell us how many and how much.** |
| **Applying the principles of counting**  - Says the number name sequence forward through the teen numbers. |

|  |  |  |  |
| --- | --- | --- | --- |
| **Learning Standards** | **Mathology Grade 2 Classroom Activity Kit** | **Mathology Little Books** | **Pearson Canada K-3 Mathematics Learning Progression** |
| **G1** multiple attributes of 2D shapes and 3D objects | | | |
| **G1.1** sorting 2D shapes and 3D objects, using two attributes, and explaining the sorting rule | **Teacher Cards**  **Geometry Cluster 1: 2-D Shapes**  1: Sorting 2-D Shapes  [RA, US, CR, ConR]  5: 2-D Shapes Consolidation  [RA, CR]  **Geometry Cluster 2: 3-D Solids**  6: Sorting 3-D Solids  [RA, US, CR, ConR]  10: 3-D Solids Consolidation  [RA, US, CR, ConR]  **Math Every Day Card**  2B: Which Solid Does Not Belong? | I Spy Awesome Buildings   * investigate and make 2-D shapes * find and classify 2-D shapes in   3-D objects  Sharing Our Stories   * explore lines of symmetry in 2-D shapes * explore 2-D shapes   **To Scaffold:**  What Was Here?  The Tailor Shop  **To Extend:**  WONDERful Buildings | **Big Idea: 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**  - Compares 2-D shapes and 3-D solids to find the similarities and differences.  - Analyzes geometric attributes of 2-D shapes and 3-D solids (e.g., number of sides, faces, corners).  - Classifies and names 2-D shapes and 3-D solids based on common attributes. |
| **Big Idea: 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)**  - Identifies the sorting rule used to sort sets.  - Sorts a set of objects based on two attributes |
| **G1.2** describing, comparing, and constructing 2D shapes, including triangles, squares, rectangles, circles | **Teacher Cards**  **Geometry Cluster 1: 2-D Shapes**  2: Exploring 2-D Shapes [RA, CR]  3: Constructing 2-D Shapes [RA, CR]  5: 2-D Shapes Consolidation  [RA, CR]  **Geometry Cluster 3: Geometric Relationships**  13: Visualizing Shapes and Solids [RA, CR, ConR]  **Math Every Day Card**  1: Visualizing Shapes  Comparing Shapes | I Spy Awesome Buildings   * investigate and make 2-D shapes * find and classify 2-D shapes in   3-D objects  **To Scaffold:**  What Was Here?  The Tailor Shop | **Big Idea: 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**  - Compares 2-D shapes and 3-D solids to find the similarities and differences.  - Analyzes geometric attributes of 2-D shapes and 3-D solids (e.g., number of sides, faces, corners).  - Classifies and names 2-D shapes and 3-D solids based on common attributes.  - Constructs and compares 2-D shapes and 3-D solids with given attributes (e.g., number of vertices, faces).  **Investigating 2-D shapes, 3-D solids, and their attributes through composition and decomposition**  - Constructs composite 2-D shapes and 3-D solids from verbal instructions, visualization, and memory. |

|  |  |  |  |
| --- | --- | --- | --- |
| **G1.3** identifying 2D shapes as part of 3D objects | **Teacher Cards**  **Geometry Cluster 2: 3-D Solids**  6: Sorting 3-D Solids  [RA, US, CR, ConR]  10: 3-D Solids Consolidation  [RA, US, CR, ConR]  **Math Every Day Cards**  2A: What Do You See?  3B: Name the Solids | I Spy Awesome Buildings   * investigate and make 2-D shapes * find and classify 2-D shapes in   3-D objects  Sharing Our Stories   * explore lines of symmetry in 2-D shapes * explore 2-D shapes   **To Scaffold:**  What Was Here?  **To Extend:**  WONDERful Buildings | **Big Idea: 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**  - Compares 2-D shapes and 3-D solids to find the similarities and differences.  - Analyzes geometric attributes of 2-D shapes and 3-D solids (e.g., number of sides, faces, corners).  - Classifies and names 2-D shapes and 3-D solids based on common attributes. |
| **G1.4** using traditional northwest coast First Peoples shapes (ovoids, U, split U, and local art shapes) reflected in the natural environment | **Teacher Card**  **Geometry Cluster 1: 2-D Shapes**  2: Exploring 2-D Shapes [RA, CR] | I Spy Awesome Buildings   * investigate and make 2-D shapes * find and classify 2-D shapes in   3-D objects  **To Scaffold:**  What Was Here?  The Tailor Shop | **Big Idea: 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**  - Recognizes 2-D shapes and 3-D solids embed in other images or objects.  - Identifies 2-D shapes in 3-D objects in the environment. |

|  |  |  |  |
| --- | --- | --- | --- |
| **Learning Standards** | **Mathology Grade 2 Classroom Activity Kit** | **Mathology Little Books** | **Pearson Canada K-3 Mathematics Learning Progression** |

|  |  |  |  |
| --- | --- | --- | --- |
| **D1** pictorial representation of concrete graphs, using one-to-one correspondence | | | |
| **D1.1** collecting data, creating a concrete graph, and representing the graph, using a pictorial representation through grids, stamps, drawings  **D1.2** one-to-one correspondence | **Teacher Cards**  **Data Management and Probability Cluster 1: Data Management**  1: Interpreting Graphs 1  [RA, CR, ConR]  3: Creating a Survey [RA, CR, ConR]  4: Making Graphs 1 [RA, CR, ConR]  6: Data Management Consolidation [RA, US, CR, ConR]  **Math Every Day Card**  1: Conducting Surveys  Reading and Interpreting Graphs | Big Buddy Days   * build pictographs * interpret pictographs   Marsh Watch   * collect, organize, and display data in graphs * read and ask questions about graphs   **To Scaffold:**  Graph It!  **To Extend:**  Welcome to the Nature Park | **Big Idea: Formulating questions, collecting data, and consolidating data in visual and graphical displays help us understand, predict, and interpret situations that involve uncertainty, variability, and randomness.** |
| **Collecting data and organizing it into categories**  - Collects data from simple surveys concretely (e.g., shoes, popsicle sticks) or using simple records (e.g., check marks, tallies).  **Creating graphical displays of collected data**  - Creates displays using objects or simple pictographs (may use symbol for data).  **Reading and interpreting data displays**  - Interprets displays by noting how many more/less than other categories.  **Drawing conclusions by making inferences and justifying decisions based on collected data**  - Poses and answers questions about data collected and displayed. |
| **Big Idea: 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)**  - Sorts a set of objects in different ways using a single attribute (e.g., buttons sorted by the number of holes or by shape). |

|  |  |  |  |
| --- | --- | --- | --- |
| **D2** likelihood of familiar life events, using comparative language | | | |
| **D2.1** using comparative language (e.g., certain, uncertain; more, less, or equally likely) | **Teacher Card**  **Data Management and Probability Cluster 2: Probability and Chance**  7: Likelihood of Events  [RA, CR, ConR]  **Math Every Day Card**  2: Word of the Day | **To Extend:**   * Chance | **Big Idea: Formulating questions, collecting data, and consolidating data in visual and graphical displays help us understand, predict, and interpret situations that involve uncertainty, variability, and randomness.** |
| **Using the language of chance to describe and predict events**  - Describes the likelihood of an event (e.g., impossible, unlikely, certain).  - Compares the likelihood of two events (e.g., more likely, less likely, equally likely). |

**Note: The following activities are not specifically correlated to the British Columbia learning standards for Grade 2 but may be of interest to teachers in preparing a strong foundation for mathematics:**

Number

1: Bridging Tens

9: Ordinal Numbers

Activities 17 – 21: Early Fractional Thinking

26: Exploring Properties

Activities 37 – 42: Early Multiplicative Thinking

Math Every Day Card 4A: Equal Parts from Home, Modelling Fraction Amounts

Math Every Day Card 4B: Regrouping Equal Parts, Naming Equal Parts

Math Every Day Card 8A: Counting Equal Groups to Find How Many, I Spy

Math Every Day Card 8B: How Many Blocks?, How Many Ways?

Patterning and Algebra

Activity 8: Decreasing Patterns

Activity 15: Equal and Unequal Sets

Activity 18: Exploring Properties

Measurement

Activities 1–7: Using Non-Standard Units

Activities 13–18: Time and Temperature

Math Every Day Card 1: Estimation Scavenger Hunt, Estimation Station

Math Every Day Card 3A: Hula Hoop Clock, Calendar Questions

Math Every Day Card 3B: Monthly Mix-Up, Thermometer Drop or Pop

Geometry

Activity 4: Symmetry in 2-D Shapes

Activity 7: 3-D Solids Around Us

Activity 8: Constructing 3-D Solids

Activity 9: Constructing Skeletons

Math Every Day Card 2A: Geometry in Poetry

Math Every Day Card 2B: Solids Around Us

Activity 11: Making Shapes

Activity 12: Building with Solids

Activity 14: Creating Pictures and Designs

Activity 15: Covering Outlines

Activity 16: Creating Symmetrical Designs

Activity 17: Geometric Relationships Consolidation

Math Every Day Card 3A: Fill Me In!, Make Me a Picture

Math Every Day Card 3B: Draw the Shapes

Activities 18–21: Location and Movement

Math Every Day Card 4A: Our Design, Treasure Map

Math Every Day Card 4B: Crazy Creatures, Perspective Matching Game

Activities 22–25: Coding

Math Every Day Card 5: Code of the Day, Wandering Animals

Data Management and Probability

Activity 2: Interpreting Graphs 2

Activity 5: Making Graphs 2

Activity 8: Conducting Experiments

Activity 9: Probability and Chance Consolidation

Math Every Day Card 2: What’s in the Bag?