## Patterning and Algebra Cluster 2: Increasing/Decreasing Patterns

Note: Codes to curriculum are for cross-referencing purposes only.

## Ontario



## Curriculum Correlation

## Patterning and Algebra Cluster 2: Increasing/Decreasing Patterns

Ontario (continued)

| P1.4 represent a given growing or shrinking pattern in a variety of ways <br> P1.5 create growing or shrinking patterns <br> P1.7 demonstrate, through investigation, an understanding that a pattern results from repeating an operation (e.g., addition, subtraction) or making a repeated change to an attribute (e.g., colour, orientation). <br> N3.1 solve problems involving the addition and subtraction of whole numbers to 18 , using a variety of mental strategies | On Grade: Math Every Day Card 2A: <br> How Many Can We Make? (P1.1, P1.2, P1.5, P1.7) <br> Error Hunt <br> (P1.2, P1.7) <br> Card 2B: <br> Making Increasing Patterns (P1.2, P1.7) <br> Making Decreasing Patterns (P1.2, P1.7) |  | Fluently adds and subtracts with quantities to 20 . (Activities 6, 7, 8, 9, 10, 11, 12, 13, 14, MED 2A: 1, 2; MED 2B: 1, 2) |
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## Curriculum Correlation

 Patterning and Algebra Cluster 2: Increasing/Decreasing PatternsNote: Codes to curriculum are for cross-referencing purposes only.

## British Columbia/Yukon Territories

| Learning Standards | Mathology Grade 2 Classroom Activity Kit | Mathology Little Books | Pearson Canada K-3 Mathematics Learning Progression |
| :---: | :---: | :---: | :---: |
| Big Idea <br> The regular change in increasing patterns can be identified and used to make generalizations. <br> Cross Strand: Number <br> Development of computational fluency in addition and subtraction with numbers to 100 requires an understanding of place value. |  |  |  |
| P1 Repeating and increasing patterns <br> - P1.3 increasing patterns using manipulatives, sounds, actions, and numbers ( 0 to 100) <br> - P1.4 Métis finger weaving <br> - P1.5 First Peoples head/armband patterning <br> N3 Addition and subtraction facts to 20 <br> - N3.1 adding and subtracting numbers to 20 | Below Grade: Intervention <br> 3: Skip-Counting <br> 4: Repeated Addition and Subtraction <br> On Grade: Teacher Cards <br> 6: Increasing Patterns 1 (P1.3, N3.1) <br> 7: Increasing Patterns 2 (P1.3, N3.1) <br> 8: Decreasing Patterns (not required by your curriculum) <br> 9: Extending Patterns (P1.3, N3.1) <br> 10: Reproducing Patterns (P1.3, N3.1) <br> 11: Creating Patterns (P1.3, N3.1) <br> 12: Errors and Missing Terms (P1.3, N3.1) <br> 13: Solving Problems (P1.3, P1.4, P1.5, N3.1) <br> 14: Increasing/Decreasing Patterns Consolidation (P1.3, N3.1) | On Grade: <br> - The Best Surprise <br> (Activities 6, 8, 9, 10, 11, 13, 14) <br> - Pattern Quest (Activities 6, 10, 11, 14) <br> Above Grade: <br> - Namir's Marvellous Masterpieces (Activities $6,8,10,11,13,14)$ | Big Idea: Regularity and repetition form patterns that can be generalized and predicted mathematically. <br> 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.). (Activities 6, 7, 8, 9, 10, 13, 14) <br> - Identifies and extends familiar number patterns and makes connections to addition (e.g., skip-counting by 2s, 5s, 10s). (Activities 7, 10, 13, 14) Identifies, reproduces, and extends increasing/ decreasing patterns concretely, pictorially, and numerically using repeated addition or subtraction. (Activities 7, 8, 9, 10, 13, 14) - Extends number patterns and finds missing elements (e.g., 1, 3, 5, $\qquad$ , 9, ...). (Activities 12; MED 2A: 2) - Creates an increasing/decreasing pattern (concretely, pictorially, and/or numerically) and explains the pattern rule. (Activities 11, 14; MED 2A: 1; MED 2B: 1, 2) |

## Curriculum Correlation

## Patterning and Algebra Cluster 2: Increasing/Decreasing Patterns

British Columbia/Yukon Territories (continued)


## Patterning and Algebra Cluster 2: Increasing/Decreasing Patterns

## New Brunswick/Prince Edward Island/Newfoundland and Labrador

| Specific Outcomes | Mathology Grade 2 Classroom Activity Kit | Mathology Little Books | Pearson Canada K-3 Mathematics Learning Progression |
| :---: | :---: | :---: | :---: |
| General Outcome <br> Patterns and Relations: Use patterns to describe the world and solve problems. <br> Cross Strand <br> Number: Develop number sense. |  |  |  |
| PR2 Demonstrate an understanding of increasing patterns by: <br> - describing <br> - extending <br> - comparing <br> - creating patterns using manipulatives, diagrams, sounds and actions <br> N10 Apply mental mathematics strategies to determine basic addition facts to 18 and related subtraction facts | Below Grade: Intervention <br> 3: Skip-Counting <br> 4: Repeated Addition and Subtraction | On Grade: <br> - The Best Surprise (Activities 6, 8, 9, 10, 11, 13, 14) <br> - Pattern Quest (Activities 6, 10, 11, 14) <br> Above Grade: <br> - Namir's Marvellous Masterpieces (Activities $6,8,10,11,13,14)$ | Big Idea: Regularity and repetition form patterns that can be generalized and predicted mathematically. |
|  | On Grade: Teacher Cards <br> 6: Increasing Patterns 1 (PR2, N10) <br> 7: Increasing Patterns 2 (PR2, N10) <br> 8: Decreasing Patterns (not required by your curriculum) <br> 9: Extending Patterns (PR2, N10) <br> 10: Reproducing Patterns (PR2, N10) <br> 11: Creating Patterns (PR2, N10) <br> 12: Errors and Missing Terms (PR2, N10) <br> 13: Solving Problems (PR2, N10) <br> 14: Increasing/Decreasing Patterns Consolidation (PR2, N10) <br> On Grade: Math Every Day Card 2A: |  | Representing and Generalizing Increasing/Decreasing Patterns <br> - Identifies and extends non-numeric increasing/ decreasing patterns (e.g., jump-clap; jump-clap-clap; jump-clap-clap clap, etc.). (Activities 6, 7, 8, 9, 10, 13, 14) <br> - Identifies and extends familiar number patterns and makes connections to addition (e.g., skip-counting by 2s, 5s, 10s). (Activities 7, 10, 13, 14) <br> - Identifies, reproduces, and extends increasing/ decreasing patterns concretely, pictorially, and numerically using repeated addition or subtraction. (Activities 7, 8, 9, 10, 13, 14) <br> - Extends number patterns and finds missing elements (e.g., 1, 3, 5, $\qquad$ , 9, ...). (Activities 12; MED 2A: 2) <br> - Creates an increasing/decreasing pattern (concretely, pictorially, and/or numerically) and explains the pattern rule. (Activities 11, 14; MED 2A: 1; MED 2B: 1, 2) |
|  | How Many Can We Make? <br> (PR2, N10) <br> Error Hunt (PR2, N10) |  | Big Idea: Quantities and numbers can be added and subtracted to determine how many or how much. |
|  | Making Increasing Patterns (PR2, N10) Making Decreasing Patterns (not required by your curriculum) |  | Developing Fluency of Addition and Subtraction Computation <br> - Fluently adds and subtracts with quantities to 20. (Activities 6, 7, 8, 9, 10, 11, 12, 13, 14, MED 2A: 1, 2; MED 2B: 1, 2) |

## Curriculum Correlation

## Patterning and Algebra Cluster 2: Increasing/Decreasing Patterns

## Manitoba

| Specific Outcomes | Mathology Grade 2 Classroom Activity Kit | Mathology Little Books | Pearson Canada K-3 Mathematics Learning Progression |
| :---: | :---: | :---: | :---: |
| General Outcome <br> Patterns and Relations: Use patterns to describe the world and solve problems. <br> Cross Strand <br> Number: Develop number sense. |  |  |  |
| 2.PR. 2 Demonstrate an understanding of increasing patterns by: <br> - describing <br> - reproducing <br> - extending <br> - creating patterns using manipulatives, diagrams, sounds, and actions (numbers to 100) | Below Grade: Intervention <br> 3: Skip-Counting <br> 4: Repeated Addition and Subtraction <br> On Grade: Teacher Cards <br> 6: Increasing Patterns 1 (2.PR.2) <br> 7: Increasing Patterns 2 (2.PR.2) <br> 8: Decreasing Patterns (not required by your curriculum) <br> 9: Extending Patterns (2.PR.2) <br> 10: Reproducing Patterns (2.PR.2) <br> 11: Creating Patterns (2.PR.2) <br> 12: Errors and Missing Terms (2.PR.2) <br> 13: Solving Problems (2.PR.2) <br> 14: Increasing/Decreasing Patterns Consolidation (2.PR.2) <br> On Grade: Math Every Day Card 2A: <br> How Many Can We Make? <br> (2.PR.2) <br> Error Hunt (2.PR.2) <br> Card 2B: <br> Making Increasing Patterns (2.PR.2) <br> Making Decreasing Patterns (not required by your curriculum) | On Grade: <br> - The Best Surprise (Activities 6, 8, 9, 10, 11, 13, 14) <br> - Pattern Quest (Activities 6, 10, 11, 14) <br> Above Grade: <br> - Namir's Marvellous Masterpieces (Activities $6,8,10,11,13,14)$ | Big Idea: Regularity and repetition form patterns that can be generalized and predicted mathematically. |
|  |  |  | Representing and Generalizing Increasing/Decreasing Patterns |
|  |  |  | - Identifies and extends decreasing patterns (e.g., jump-clap; jump-clap-clap; |
|  |  |  | jump-clap-clap clap, etc.). (Activities 6, 7, 8, 9, 10, |
|  |  |  | 13, 14) |
|  |  |  | - Identifies and extends familiar number patterns and makes connections to addition (e.g., skip-counting by 2s, 5s, 10s). (Activities 7, 10, 13, 14) |
|  |  |  | - Identifies, reproduces, and extends increasing/ decreasing patterns concretely, pictorially, and |
|  |  |  | numerically using repeated addition or subtraction. |
|  |  |  | (Activities 7, 8, 9, 10, 13, 14) <br> - Extends number patterns and finds missing elements |
|  |  |  | (e.g., 1, 3, 5, $\qquad$ , 9, ...). (Activities 12; MED 2A: 2) |
|  |  |  | - Creates an increasing/decreasing pattern (concretely, pictorially, and/or numerically) and explains the pattern rule. (Activities 11, 14; MED 2A: 1; MED 2B: 1, 2) |
|  |  |  | 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 . (Activities 6, 7, 8, 9, 10, 11, 12, 13, 14, MED 2A: 1, 2; |

## Curriculum Correlation

## Patterning and Algebra Cluster 2: Increasing/Decreasing Patterns

## Nova Scotia

| Specific Outcomes | Mathology Grade 2 Classroom Activity Kit | Mathology Little Books | Pearson Canada K-3 Mathematics Learning Progression |
| :---: | :---: | :---: | :---: |
| General Outcome <br> Patterns and Relations: Students will be expected to use patterns to describe the world and solve problems. Cross Strand <br> Number: Students will be expected to develop number sense. |  |  |  |
| PR02 Students will be expected to demonstrate an understanding of increasing patterns by describing, extending, and creating numerical patterns (numbers to 100) and nonnumerical patterns using manipulatives, diagrams, sounds, and actions. <br> N10 Students will be expected to apply mental mathematics strategies to quickly recall basic addition facts to 18 and determine related subtraction facts. | Below Grade: Intervention <br> 3: Skip-Counting <br> 4: Repeated Addition and Subtraction <br> On Grade: Teacher Cards <br> 6: Increasing Patterns 1 (PR02, N10) <br> 7: Increasing Patterns 2 (PR02, N10) <br> 8: Decreasing Patterns (not required by your curriculum) <br> 9: Extending Patterns (PR02, N10) <br> 10: Reproducing Patterns (PR02, N10) <br> 11: Creating Patterns (PR02, N10) <br> 12: Errors and Missing Terms (PR02, N10) <br> 13: Solving Problems (PR02, N10) <br> 14: Increasing/Decreasing Patterns Consolidation (PR02, N10) | On Grade: <br> - The Best Surprise (Activities 6, 8, 9, 10, 11, 13, 14) <br> - Pattern Quest (Activities 6, 10, 11, 14) <br> Above Grade: <br> - Namir's Marvellous Masterpieces (Activities $6,8,10,11,13,14)$ | 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.). (Activities 6, 7, 8, 9, 10, 13, 14) |
|  |  |  | - Identifies and extends familiar number patterns and makes connections to addition (e.g., skip-counting by |
|  |  |  | 2s, 5s, 10s). (Activities 7, 10, 13, 14) <br> - Identifies, reproduces, and extends increasing/ decreasing patterns concretely, pictorially, and |
|  |  |  | numerically using repeated addition or subtraction. <br> (Activities 7, 8, 9, 10, 13, 14) |
|  |  |  | Extends number patterns and finds missing elements (e.g., 1, 3, 5, $\qquad$ 9, ...). (Activities 12; MED 2A: 2) Creates an increasing/decreasing pattern (concretely, pictorially, and/or numerically) and explains the pattern rule. (Activities 11, 14; MED 2A: 1; MED 2B: 1, 2) |
|  |  |  | Big Idea: Quantities and numbers can be added and subtracted to determine how many or how much. |
|  |  |  | Developing Fluency of Addition and Subtraction Computation <br> - Fluently adds and subtracts with quantities to 20. (Activities 6, 7, 8, 9, 10, 11, 12, 13, 14, MED 2A: 1, 2; MED 2B: 1, 2) |

## Curriculum Correlation

## Patterning and Algebra Cluster 2: Increasing/Decreasing Patterns

Nova Scotia (continued)

|  | On Grade: Math Every Day |  |  |
| :--- | :--- | :--- | :--- |
|  | Card 2A: |  |  |
|  | How Many Can We Make? |  |  |
|  | (PR02, N10) |  |  |
|  | Error Hunt (PR02, N10) |  |  |
|  | Card 2B: |  |  |
|  | Making Increasing Patterns |  |  |
|  | (PR02, N10) |  |  |
|  | Making Decreasing Patterns |  |  |
|  | (not required by your curriculum) |  |  |

## Curriculum Correlation

## Patterning and Algebra Cluster 2: Increasing/Decreasing Patterns

## Alberta/Northwest Territories/Nunavut



## Patterning and Algebra Cluster 2: Increasing/Decreasing Patterns

## Saskatchewan

| Specific Outcomes | Mathology Grade 2 Classroom Activity Kit | Mathology Little Books | Pearson Canada K-3 Mathematics Learning Progression |
| :---: | :---: | :---: | :---: |
| Goals <br> Number Sense, Logical Thinking, Spatial Sense, Mathematics as a Human Endeavour Cross Strand: Number |  |  |  |
| Patterns and Relations P2.2 Demonstrate understanding of increasing patterns by: <br> - P2.2a describing <br> - P2.2b reproducing <br> - P2.2c extending <br> - P2.2d creating <br> patterns using manipulatives, pictures, sounds, and actions (numbers to 100). <br> Number N2.2 Demonstrate understanding of addition (limited to 1 and 2-digit numerals) with answers to 100 and the corresponding subtraction by: <br> - N2.2a representing strategies for adding and subtracting concretely, pictorially, and symbolically | Below Grade: Intervention <br> 3: Skip-Counting <br> 4: Repeated Addition and Subtraction <br> On Grade: Teacher Cards <br> 6: Increasing Patterns 1 (P2.2a, P2.2b, P2.2c, N2.2a, N2.2d) <br> 7: Increasing Patterns 2 (P2.2a, P2.2b, P2.2c, N2.2a, N2.2d) <br> 8: Decreasing Patterns (not required by your curriculum) <br> 9: Extending Patterns (P2.2a, P2.2b, P2.2c, N2.2a, N2.2d) <br> 10: Reproducing Patterns (P2.2a, P2.2b, P2.2c, N2.2a, N2.2d) <br> 11: Creating Patterns (P2.2a, P2.2c, P2.2d, N2.2a, N2.2d) <br> 12: Errors and Missing Terms (P2.2a, P2.2c, P2.2d, N2.2a, N2.2d) <br> 13: Solving Problems (P2.2b, P2.2.c, N2.2a, N2.2d) <br> 14: Increasing/Decreasing Patterns Consolidation (P2.2a, P2.2b, P2.2c, P2.2d, N2.2a, N2.2d) | On Grade: <br> - The Best Surprise (Activities 6, 8, 9, 10, 11, 13, 14) <br> - Pattern Quest (Activities 6, 10, 11, 14) <br> Above Grade: <br> - Namir's Marvellous Masterpieces (Activities $6,8,10,11,13,14)$ | Big Idea: Regularity and repetition form patterns that can be generalized and predicted mathematically. <br> Representing and Generalizing Increasing/Decreasing Patterns <br> - Identifies and extends non-numeric increasing/ decreasing patterns (e.g., jump-clap; jump-clap-clap; jump-clap-clap clap, etc.). (Activities 6, 7, 8, 9, 10, 13, 14) <br> - Identifies and extends familiar number patterns and makes connections to addition (e.g., skip-counting by 2s, 5s, 10s). (Activities 7, 10, 13, 14) <br> - Identifies, reproduces, and extends increasing/ decreasing patterns concretely, pictorially, and numerically using repeated addition or subtraction. (Activities 7, 8, 9, 10, 13, 14) Extends number patterns and finds missing elements (e.g., 1, 3, 5, _, 9, ...). (Activities 12; MED 2A: 2) Creates an increasing/decreasing pattern (concretely, pictorially, and/or numerically) and explains the pattern rule. (Activities 11, 14; MED 2A: 1; MED 2B: 1, 2) |

## Curriculum Correlation

## Patterning and Algebra Cluster 2: Increasing/Decreasing Patterns

Saskatchewan (continued)


