Master 15a

Curriculum Correlation

Patterning and Algebra Cluster 2: Increasing/Decreasing Patterns

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

Ontario

Curriculum Expectations	Mathology Grade 2 Classroom Activity Kit	Mathology Little Books	Pearson Canada K-3 Mathematics Learning Progression
Overall Expectation **P1 Patterns and Relationships:** identify, describe, extend, and create repeating patterns, growing patterns, and shrinking patterns **Cross Strand:** Number **N3 Operational Sense:** solve problems involving the addition and subtraction of one- and two-digit whole numbers, using a variety of strategies, and investigate multiplication and division.			
P1.1 identify and describe, through investigation, growing patterns and shrinking patterns generated by the repeated addition or subtraction of 1's, 2's, 5's, 10's, and 25's on a number line and on a hundreds chart **P1.2** identify, describe, and create, through investigation, growing patterns and shrinking patterns involving addition and subtraction, with and without the use of calculators **P1.3** identify repeating, growing, and shrinking patterns found in real-life contexts	**Below Grade: Intervention** 3: Skip-Counting 4: Repeated Addition and Subtraction **On Grade: Teacher Cards** 6: Increasing Patterns 1 (P1.2, P1.7) 7: Increasing Patterns 2 (P1.2, P1.4, P1.7) 8: Decreasing Patterns (P1.2, P1.4, P1.7) 9: Extending Patterns (P1.2, P1.7) 10: Reproducing Patterns (P1.4) 11: Creating Patterns (P1.2, P1.3, P1.5, P1.7) 12: Errors and Missing Terms (P1.2, P1.5, N3.1) 13: Solving Problems (P1.2, P1.3, P1.4, N3.1) 14: Increasing/Decreasing Patterns Consolidation (P1.2, P1.3, P1.4, P1.5, P1.7)	**On Grade:** • The Best Surprise (Activities 6, 8, 9, 10, 11, 13, 14) • Pattern Quest (Activities 6, 10, 11, 14) **Above Grade:** • 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) - 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) **Big Idea: Quantities and numbers can be added and subtracted to determine how many or how much.** **Developing Fluency of Addition and Subtraction Computation**

Master 15a

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 **P1.5** create growing or shrinking patterns **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). **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:** How Many Can We Make? (P1.1, P1.2, P1.5, P1.7) Error Hunt (P1.2, P1.7) **Card 2B:** Making Increasing Patterns (P1.2, P1.7) 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)

Master 15b

Curriculum Correlation

Patterning and Algebra Cluster 2: Increasing/Decreasing Patterns

Note: 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 The regular change in increasing patterns can be identified and used to make generalizations. **Cross Strand:** Number Development of computational fluency in addition and subtraction with numbers to 100 requires an understanding of place value.			
P1 Repeating and increasing patterns • **P1.3** increasing patterns using manipulatives, sounds, actions, and numbers (0 to 100) • **P1.4** Métis finger weaving • **P1.5** First Peoples head/armband patterning **N3 Addition and subtraction facts to 20** • **N3.1** adding and subtracting numbers to 20	**Below Grade: Intervention** 3: Skip-Counting 4: Repeated Addition and Subtraction **On Grade: Teacher Cards** 6: Increasing Patterns 1 (P1.3, N3.1) 7: Increasing Patterns 2 (P1.3, N3.1) 8: Decreasing Patterns (not required by your curriculum) 9: Extending Patterns (P1.3, N3.1) 10: Reproducing Patterns (P1.3, N3.1) 11: Creating Patterns (P1.3, N3.1) 12: Errors and Missing Terms (P1.3, N3.1) 13: Solving Problems (P1.3, P1.4, P1.5, N3.1) 14: Increasing/Decreasing Patterns Consolidation (P1.3, N3.1)	**On Grade:** • The Best Surprise (Activities 6, 8, 9, 10, 11, 13, 14) • Pattern Quest (Activities 6, 10, 11, 14) **Above Grade:** • 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) - 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)

Master 15b

Curriculum Correlation

Patterning and Algebra Cluster 2: Increasing/Decreasing Patterns

British Columbia/Yukon Territories (continued)

	On Grade: Math Every Day **Card 2A:** How Many Can We Make? (P1.3, N3.1) Error Hunt (P1.3, N3.1) **Card 2B:** Making Increasing Patterns (P1.3, N3.1) Making Decreasing Patterns (not required by your curriculum)		**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; MED 2B: 1, 2)

Master 15c

Curriculum Correlation

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 **Patterns and Relations:** Use patterns to describe the world and solve problems. **Cross Strand** **Number:** Develop number sense.			
PR2 Demonstrate an understanding of increasing patterns by: • describing • extending • comparing • creating patterns using manipulatives, diagrams, sounds and actions **N10** Apply mental mathematics strategies to determine basic addition facts to 18 and related subtraction facts	**Below Grade: Intervention** 3: Skip-Counting 4: Repeated Addition and Subtraction **On Grade: Teacher Cards** 6: Increasing Patterns 1 (PR2, N10) 7: Increasing Patterns 2 (PR2, N10) 8: Decreasing Patterns (not required by your curriculum) 9: Extending Patterns (PR2, N10) 10: Reproducing Patterns (PR2, N10) 11: Creating Patterns (PR2, N10) 12: Errors and Missing Terms (PR2, N10) 13: Solving Problems (PR2, N10) 14: Increasing/Decreasing Patterns Consolidation (PR2, N10) **On Grade: Math Every Day** **Card 2A:** How Many Can We Make? (PR2, N10) Error Hunt (PR2, N10) **Card 2B:** Making Increasing Patterns (PR2, N10) Making Decreasing Patterns (not required by your curriculum)	**On Grade:** • The Best Surprise (Activities 6, 8, 9, 10, 11, 13, 14) • Pattern Quest (Activities 6, 10, 11, 14) **Above Grade:** • 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) - 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) **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; MED 2B: 1, 2)

Master 15d

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 **Patterns and Relations:** Use patterns to describe the world and solve problems. **Cross Strand** **Number:** Develop number sense.			
2.PR.2 Demonstrate an understanding of increasing patterns by: • describing • reproducing • extending • creating patterns using manipulatives, diagrams, sounds, and actions (numbers to 100)	**Below Grade: Intervention** 3: Skip-Counting 4: Repeated Addition and Subtraction **On Grade: Teacher Cards** 6: Increasing Patterns 1 (2.PR.2) 7: Increasing Patterns 2 (2.PR.2) 8: Decreasing Patterns (not required by your curriculum) 9: Extending Patterns (2.PR.2) 10: Reproducing Patterns (2.PR.2) 11: Creating Patterns (2.PR.2) 12: Errors and Missing Terms (2.PR.2) 13: Solving Problems (2.PR.2) 14: Increasing/Decreasing Patterns Consolidation (2.PR.2) **On Grade: Math Every Day** **Card 2A:** How Many Can We Make? (2.PR.2) Error Hunt (2.PR.2) **Card 2B:** Making Increasing Patterns (2.PR.2) Making Decreasing Patterns (not required by your curriculum)	**On Grade:** • The Best Surprise (Activities 6, 8, 9, 10, 11, 13, 14) • Pattern Quest (Activities 6, 10, 11, 14) **Above Grade:** • 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) - 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) **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; MED 2B: 1, 2)

Master 15e

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 **Patterns and Relations:** Students will be expected to use patterns to describe the world and solve problems. **Cross Strand** **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 non-numerical patterns using manipulatives, diagrams, sounds, and actions. **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** 3: Skip-Counting 4: Repeated Addition and Subtraction **On Grade: Teacher Cards** 6: Increasing Patterns 1 (PR02, N10) 7: Increasing Patterns 2 (PR02, N10) 8: Decreasing Patterns (not required by your curriculum) 9: Extending Patterns (PR02, N10) 10: Reproducing Patterns (PR02, N10) 11: Creating Patterns (PR02, N10) 12: Errors and Missing Terms (PR02, N10) 13: Solving Problems (PR02, N10) 14: Increasing/Decreasing Patterns Consolidation (PR02, N10)	**On Grade:** • The Best Surprise (Activities 6, 8, 9, 10, 11, 13, 14) • Pattern Quest (Activities 6, 10, 11, 14) **Above Grade:** • 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) - 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) **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; MED 2B: 1, 2)

Master 15e

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)		

Master 15f

Curriculum Correlation

Patterning and Algebra Cluster 2: Increasing/Decreasing Patterns

Alberta/Northwest Territories/Nunavut

Learning Outcomes	Mathology Grade 2 Classroom Activity Kit	Mathology Little Books	Pearson Canada K-3 Mathematics Learning Progression
General Outcome **Patterns and Relations:** Use patterns to describe the world and to solve problems. **Cross Strand** **Number:** Develop number sense.			
Patterns and Relations **2.** Demonstrate an understanding of increasing patterns by: • describing • reproducing • extending • creating numerical (numbers to 100) and non-numerical patterns using manipulatives, diagrams, sounds and actions. **Number** **10.** Apply mental mathematics strategies for basic addition facts and related subtraction facts to 18.	**Below Grade: Intervention** 3: Skip-Counting 4: Repeated Addition and Subtraction **On Grade: Teacher Cards** 6: Increasing Patterns 1 (PR2, N10) 7: Increasing Patterns 2 (PR2, N10) 8: Decreasing Patterns (not required by your curriculum) 9: Extending Patterns (PR2, N10) 10: Reproducing Patterns (PR2, N10) 11: Creating Patterns (PR2, N10) 12: Errors and Missing Terms (PR2, N10) 13: Solving Problems (PR2, N10) 14: Increasing/Decreasing Patterns Consolidation (PR2, N10) **On Grade: Math Every Day** **Card 2A:** How Many Can We Make? (PR2, N10) Error Hunt (PR2, N10) **Card 2B:** Making Increasing Patterns (PR2, N10) Making Decreasing Patterns (not required by your curriculum)	**On Grade:** • The Best Surprise (Activities 6, 8, 9, 10, 11, 13, 14) • Pattern Quest (Activities 6, 10, 11, 14) **Above Grade:** • 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) - 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) **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; MED 2B: 1, 2)

Master 15g

Curriculum Correlation

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 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: • **P2.2a** describing • **P2.2b** reproducing • **P2.2c** extending • **P2.2d** creating patterns using manipulatives, pictures, sounds, and actions (numbers to 100). **Number** **N2.2** Demonstrate understanding of addition (limited to 1 and 2-digit numerals) with answers to 100 and the corresponding subtraction by: • **N2.2a** representing strategies for adding and subtracting concretely, pictorially, and symbolically	**Below Grade: Intervention** 3: Skip-Counting 4: Repeated Addition and Subtraction **On Grade: Teacher Cards** 6: Increasing Patterns 1 (P2.2a, P2.2b, P2.2c, N2.2a, N2.2d) 7: Increasing Patterns 2 (P2.2a, P2.2b, P2.2c, N2.2a, N2.2d) 8: Decreasing Patterns (not required by your curriculum) 9: Extending Patterns (P2.2a, P2.2b, P2.2c, N2.2a, N2.2d) 10: Reproducing Patterns (P2.2a, P2.2b, P2.2c, N2.2a, N2.2d) 11: Creating Patterns (P2.2a, P2.2c, P2.2d, N2.2a, N2.2d) 12: Errors and Missing Terms (P2.2a, P2.2c, P2.2d, N2.2a, N2.2d) 13: Solving Problems (P2.2b, P2.2.c, N2.2a, N2.2d) 14: Increasing/Decreasing Patterns Consolidation (P2.2a, P2.2b, P2.2c, P2.2d, N2.2a, N2.2d)	**On Grade:** • The Best Surprise (Activities 6, 8, 9, 10, 11, 13, 14) • Pattern Quest (Activities 6, 10, 11, 14) **Above Grade:** • 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) - 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)

Master 15g

Curriculum Correlation

Patterning and Algebra Cluster 2: Increasing/Decreasing Patterns

Saskatchewan (continued)

• **N2.2d** using personal strategies for adding and subtracting with and without the support of manipulatives	**On Grade: Math Every Day** **Card 2A:** How Many Can We Make? (P2.2a, P2.2c, P2.2d, N2.2a, N2.2d) Error Hunt (P2.2a, N2.2a, N2.2d) **Card 2B:** Making Increasing Patterns (P2.2a, P2.2d, N2.2a, N2.2d) Making Decreasing Patterns (not required by your curriculum)		**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; MED 2B: 1, 2)