Master 74a

# **Curriculum Correlation**

### Number Cluster 6: Conceptualizing Addition and Subtraction

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
Expectations Overall Expectation N3 Operational Sense: so investigate multiplication and Cross Strand: Patterning a P2 Expressions and Equa symbols, and addition and s N3.1 solve problems involving the addition and subtraction of whole numbers to 18, using a variety of mental strategies N3.2 describe relationships between quantities by using whole-number addition and subtraction N3.5 solve problems involving the addition and subtraction of two-digit numbers, with and without regrouping, using	Activity Kit Activity Kit Below Activity Activity Activity Activity Below Activity Activity Activity Activity Activity Activity Activity Activity Below Activity Act	and subtraction of one- and two- of the concept of equality betwo Below Grade: • Canada's Oldest Sport (Activities 27, 28, 29, 30, 31) On Grade: • Array's Bakery (Activities 27, 28, 29, 30, 31) • Marbles, Alleys, Mibs, and Guli! (Activities 27, 28, 29, 30, 31) • The Great Dogsled Race (Activities 27, 28, 29, 30, 31) • The Great Dogsled Race (Activities 27, 28, 29, 30, 31)	<ul> <li>Progression</li> <li>digit whole numbers, using a variety of strategies, and</li> <li>een pairs of expressions, using concrete materials,</li> <li>Big Idea: Quantities and numbers can be added and subtracted to determine how many or how much.</li> <li>Developing Conceptual Meaning of Addition and Subtraction</li> <li>Uses symbols and equations to represent addition and subtraction situations. (Activities 26, 27, 28, 29, 30, 31)</li> <li>Models and symbolizes addition and subtraction problem types (i.e., join, separate, part-part-whole, and compare). (Activities 27, 28, 29, 30, 31; MED 6: 1, 2)</li> <li>Developing Fluency of Addition and Subtraction Computation</li> <li>Fluently adds and subtracts with quantities to 10. (Activity 26)</li> <li>Extends known sums and differences to solve other equations (e.g., using 5 + 5 to add 5 + 6). (Activities 27, 28, 29, 30, 31)</li> <li>Big Idea: Patterns and relations can be represented with symbols, equations, and expressions.</li> </ul>
concrete materials (e.g., base ten materials, counters), student- generated algorithms, and standard algorithms	<ul> <li>31: Conceptualizing Addition and Subtraction Consolidation (N3.1, N3.2, N3.5)</li> <li>On Grade: Math Every Day Card 6: What Math Do You See? (N3.1, N3.2, N3.5)</li> </ul>	Math Makes Me Laugh (Activities 27, 28, 29, 30, 31)	Understanding Equality and Inequality, Building on Generalized Properties of Numbers and Operations - Explores properties of addition and subtraction (e.g., adding or subtracting 0, commutativity of addition). (Activity 26)

Master 74a

# **Curriculum Correlation**

## Number Cluster 6: Conceptualizing Addition and Subtraction

### Ontario (continued)

<b>P2.2</b> represent, through investigation with concrete materials and pictures, two number expressions that are equal, using the equal sign	What Could the Story Be? (N3.1, N3.2, N3.5)	
<b>P2.4</b> identify, through investigation, and use the commutative property of addition to facilitate computation with whole numbers		
<b>P2.5</b> identify, through investigation, the properties of zero in addition and subtraction		

Master 74b

# **Curriculum Correlation**

### Number Cluster 6: Conceptualizing Addition and Subtraction

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
<ul> <li>Big Ideas Development of computation The regular change in incres N4 Addition and subtraction to 100 </li> <li>N4.3 using strategies such as looking for multiples of 10, friendly numbers, decomposing into 10s and 1s and recomposing, and compensating </li> <li>N4.4 adding up to find the difference N4.5 using an open number line, hundred chart, ten-frames </li> <li>N4.6 using addition and subtraction in real-life contexts and problem-based situations </li> <li>P3.1 symbolic</li> </ul>		n with numbers to 100 requires a	<ul> <li>Progression</li> <li>an understanding of place value.</li> <li>Big Idea: Quantities and numbers can be added and subtracted to determine how many or how much.</li> <li>Developing Conceptual Meaning of Addition and Subtraction</li> <li>Uses symbols and equations to represent addition and subtraction situations. (Activities 26, 27, 28, 29, 30, 31)</li> <li>Models and symbolizes addition and subtraction problem types (i.e., join, separate, part-part-whole, and compare). (Activities 27, 28, 29, 30, 31; MED 6: 1, 2)</li> <li>Developing Fluency of Addition and Subtraction Computation</li> <li>Fluently adds and subtracts with quantities to 10. (Activity 26)</li> <li>Extends known sums and differences to solve other equations (e.g., using 5 + 5 to add 5 + 6). (Activities 27, 28, 29, 30, 31)</li> <li>Big Idea: Patterns and relations can be represented with symbols, equations, and expressions.</li> <li>Understanding Equality and Inequality, Building on Generalized Properties of Numbers and Operations</li> </ul>
<b>P3.1</b> symbolic representation of equality and inequality	What Could the Story Be? (N4.6)		

### Number Cluster 6: Conceptualizing Addition and Subtraction

#### New Brunswick/Prince Edward Island

	athology Grade 2 Classroom ctivity Kit	Mathology Little Books	Pearson Canada K-3 Mathematics Learning Progression
General Outcome Develop number sense Cross Strand	<ul> <li>Dies and Equations): Represent alge</li> <li>Below Grade: Intervention</li> <li>11: Adding and Subtracting to 20</li> <li>12: Solving Story Problems</li> <li>On Grade: Teacher Cards</li> <li>26: Exploring Properties (N8, N9c, N9d, N10a, N10b, 210c, N10d)</li> <li>27: Solving Problems 1 (N9a, N9b, N10a, N10b, N10c, N10d, N10e, N10f, PR4)</li> <li>28: Solving Problems 2 (N9a, N9b, N10a, N10b, N10c, N10d, N10e, PR4)</li> <li>29: Solving Problems 3 (N9a, N9b, N10a, N10b, N10c, N10d, N10e, PR4)</li> <li>30: Solving Problems (N9a, N9b, N10a, N10b, N10c, N10d, N10e, PR4)</li> <li>31: Conceptualizing Addition and Subtraction Consolidation (N9a, N9b, N10a, N10b, N10c, N10c, N10d, N10e, N10c, N10d, N10e, N10a, N10b, N10c, N10c, N10d, N10e, N10a, N10b, N10c, N10c, N10d, N10e, N10a, N10b, N10c, N10d, N10e, N10c, N10d, N10e, N10a, N10b, N10c, N10d, N10e, N10c, N10d, N10e, N10b, N10c, N10d, N10e, N10b, N10c, N10d, N10b, N10c, N10d, N10e, N10b, N10c, N10d, N10b, N10c, N10b, N10c, N10b, N10c, N10b, N10c, N10b, N10c, N10b, N</li></ul>	<ul> <li>braic expressions in multiple w</li> <li>Below Grade: <ul> <li>Canada's Oldest Sport (Activities 27, 28, 29, 30, 31)</li> </ul> </li> <li>On Grade: <ul> <li>Array's Bakery (Activities 27, 28, 29, 30, 31)</li> <li>Marbles, Alleys, Mibs, and Guli! (Activities 27, 28, 29, 30, 31)</li> <li>Marbles, Alleys, Mibs, and Guli! (Activities 27, 28, 29, 30, 31)</li> <li>The Great Dogsled Race (Activities 27, 28, 29, 30, 31)</li> </ul> </li> <li>Above Grade: <ul> <li>Math Makes Me Laugh (Activities 27, 28, 29, 30, 31)</li> </ul> </li> </ul>	

Master 74c

# **Curriculum Correlation**

## Number Cluster 6: Conceptualizing Addition and Subtraction

New Brunswick/Prince Edward Island (continued)

<ul> <li>N10 Apply mental mathematics strategies, such as:</li> <li>N10a using doubles</li> <li>N10b making 10</li> <li>N10c one more, one less</li> <li>N10d two more, two less</li> <li>N10e building on a known double</li> <li>N10f addition for subtraction to determine basic addition</li> </ul>	On Grade: Math Every Day Card 6: What Math Do You See? (N9b, N10a, N10b, N10c, N10d, N10e, N10f) What Could the Story Be? (N9b)	
<b>PR4</b> Record equalities and inequalities symbolically using the equal symbol or the not equal symbol.		

## Number Cluster 6: Conceptualizing Addition and Subtraction

### Newfoundland and Labrador

Specific Outcomes	Mathology Grade 2 Classroom Activity Kit	Mathology Little Books	Pearson Canada K-3 Mathematics Learning Progression
<ul> <li>General Outcome Develop number sense Cross Strand Patterns and Relations (Variable 2N8 Demonstrate and explain the effect of adding zero to  or subtracting zero from any  number. </li> <li>2N9 Demonstrate an  understanding of addition  (limited to 1 and 2-digit</li></ul>	Activity Kit es and Equations): Represent algebre Below Grade: Intervention 11: Adding and Subtracting to 20 12: Solving Story Problems On Grade: Teacher Cards 26: Exploring Properties (2N8, 2N9c, 2N9d, 2N10)	raic expressions in multiple wa Below Grade: • Canada's Oldest Sport (Activities 27, 28, 29, 30, 31) On Grade: • Array's Bakery (Activities 27, 28, 29,	
<ul> <li>numerals) with answers to 100 and the corresponding subtraction by:</li> <li>2N9a using personal strategies for adding and subtracting with and without the support of manipulatives</li> <li>2N9b creating and solving problems that involve addition and</li> </ul>	<ul> <li>27: Solving Problems 1 (2N9a, 2N9b, 2N10, 2PR4)</li> <li>28: Solving Problems 2 (2N9a, 2N9b, 2N10, 2PR4)</li> <li>29: Solving Problems 3 (2N9a, 2N9b, 2N10, 2PR4)</li> <li>30: Solving Problems (2N9a, 2N9b, 2N10, 2PR4)</li> <li>31: Conceptualizing Addition and Subtraction Consolidation</li> </ul>	<ul> <li>30, 31)</li> <li>Marbles, Alleys, Mibs, and Guli! (Activities 27, 28, 29, 30, 31)</li> <li>The Great Dogsled Race (Activities 27, 28, 29, 30, 31)</li> <li>Above Grade:</li> </ul>	<ul> <li>Models and symbolizes addition and subtraction problem types (i.e., join, separate, part-part-whole, and compare). (Activities 27, 28, 29, 30, 31; MED 6: 1, 2)</li> <li>Developing Fluency of Addition and Subtraction Computation</li> <li>Fluently adds and subtracts with quantities to 10. (Activity 26)</li> <li>Extends known sums and differences to solve other equations (e.g., using 5 + 5 to add 5 + 6). (Activities 27, 28, 29, 30, 31)</li> </ul>
<ul> <li>subtraction</li> <li>2N9c explaining that the order in which numbers are added does not affect the sum</li> <li>2N9d explaining that the order in which numbers are subtracted may affect the difference</li> </ul>	(2N9a, 2N9b, 2N10, 2PR4) On Grade: Math Every Day Card 6: What Math Do You See? (2N9b, 2N10) What Could the Story Be? (2N9b)	<ul> <li>Math Makes Me Laugh (Activities 27, 28, 29, 30, 31)</li> </ul>	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 - Explores properties of addition and subtraction (e.g., adding or subtracting 0, commutativity of addition). (Activity 26)

Master 74d

## **Curriculum Correlation**

## Number Cluster 6: Conceptualizing Addition and Subtraction

### Newfoundland and Labrador (continued)

<b>2N10</b> Apply mental mathematics strategies for the basic addition and related subtraction facts to 18.		
2PR4 Record equalities and inequalities symbolically using the equal symbol or the not equal symbol.		

Master 74e

## **Curriculum Correlation**

### Number Cluster 6: Conceptualizing Addition and Subtraction

#### Manitoba

Specific Outcomes	Mathology Grade 2 Classroom Activity Kit	Mathology Little Books	Pearson Canada K-3 Mathematics Learning Progression
<ul> <li>General Outcome Develop number sense Cross Strand: Patterns and Relations (Variab 2.N.8 Demonstrate and explain the effect of adding zero to or subtracting zero from any number. 2.N.9 Demonstrate an understanding of addition (limited to 1- and 2-digit numerals) with answers to 100 and the corresponding subtraction by: <ul> <li>using personal strategies for adding and subtracting with and without the support of manipulatives</li> <li>creating and solving problems that involve addition and subtraction</li> <li>explaining that the order in which numbers are added does not affect the sum</li> <li>explaining that the order in which numbers are subtracted may affect the difference</li> </ul> </li> </ul>	Classroom Activity Kit Ples and Equations): Represent a Below Grade: Intervention 11: Adding and Subtracting to 20 12: Solving Story Problems On Grade: Teacher Cards 26: Exploring Properties (2.N.8, 2.N.9) 27: Solving Problems 1 (2.N.9) 28: Solving Problems 2 (2.N.9) 29: Solving Problems 3 (2.N.9) 30: Solving Problems (2.N.9) 31: Conceptualizing Addition and Subtraction Consolidation (2.N.9) On Grade: Math Every Day Card 6: What Math Do You See? (2.N.9, 2.N.10) What Could the Story Be? (2.N.9)	<ul> <li>Algebraic expressions in multip</li> <li>Below Grade: <ul> <li>Canada's Oldest Sport (Activities 27, 28, 29, 30, 31)</li> </ul> </li> <li>On Grade: <ul> <li>Array's Bakery (Activities 27, 28, 29, 30, 31)</li> <li>Marbles, Alleys, Mibs, and Guil! (Activities 27, 28, 29, 30, 31)</li> <li>The Great Dogsled Race (Activities 27, 28, 29, 30, 31)</li> </ul> </li> <li>The Great Dogsled Race (Activities 27, 28, 29, 30, 31)</li> <li>Above Grade: <ul> <li>Math Makes Me Laugh (Activities 27, 28, 29, 30, 31)</li> </ul> </li> </ul>	

Master 74f

## **Curriculum Correlation**

## Number Cluster 6: Conceptualizing Addition and Subtraction

#### Nova Scotia

Specific Outcomes	Mathology Grade 2 Classroom Activity Kit	Mathology Little Books	Pearson Canada K-3 Mathematics Learning Progression
<ul> <li>General Outcome Students will be expected to demo Cross Strand Patterns and Relations (Variable N08 Students will be expected  to demonstrate and explain  the effect of adding zero to  or subtracting zero from any  number. </li> <li>N09 Students will be expected  to demonstrate an  understanding of addition  (limited to 1- and 2-digit  numerals) with answers to  100 and the corresponding  subtraction by  </li> <li>N09a using personal  strategies for adding  and subtracting with  and without the support  of manipulatives  </li> <li>N09b creating and  solving problems that  involve addition and  subtraction  N09c explaining that</li></ul>	Activity Kit Instrate number sense. Is and Equations): Students will be a Below Grade: Intervention 11: Adding and Subtracting to 20 12: Solving Story Problems On Grade: Teacher Cards 26: Exploring Properties (N08, N09c, N09d, N10) 27: Solving Problems 1 (N09a, N09b, N10, PR04) 28: Solving Problems 2 (N09a, N09b, N10, PR04) 29: Solving Problems 3 (N09a, N09b, N10, PR04) 30: Solving Problems (N09a, N09b, N10, PR04) 31: Conceptualizing Addition and Subtraction Consolidation (N09a, N09b, 2N10, PR04) On Grade: Math Every Day		<ul> <li>Progression</li> <li>aic expressions in multiple ways.</li> <li>Big Idea: Quantities and numbers can be added and subtracted to determine how many or how much.</li> <li>Developing Conceptual Meaning of Addition and Subtraction</li> <li>Uses symbols and equations to represent addition and subtraction situations. (Activities 26, 27, 28, 29, 30, 31)</li> <li>Models and symbolizes addition and subtraction problem types (i.e., join, separate, part-part-whole, and compare). (Activities 27, 28, 29, 30, 31; MED 6: 1, 2)</li> <li>Developing Fluency of Addition and Subtraction Computation</li> <li>Fluently adds and subtracts with quantities to 10. (Activity 26)</li> <li>Extends known sums and differences to solve other equations (e.g., using 5 + 5 to add 5 + 6). (Activities 27, 28, 29, 30, 31)</li> <li>Big Idea: Patterns and relations can be represented with symbols, equations, and expressions.</li> <li>Understanding Equality and Inequality,</li> </ul>
<ul> <li>N09c explaining that the order in which numbers are added does not affect the sum</li> <li>N09d explaining and demonstrating that the order in which numbers are subtracted matters</li> </ul>	Card 6: What Math Do You See? (N09b, N10) What Could the Story Be? (N09b)	(Activities 27, 28, 29, 30, 31)	<ul> <li>Understanding Equality and Inequality,</li> <li>Building on Generalized Properties of Numbers and Operations</li> <li>Explores properties of addition and subtraction (e.g., adding or subtracting 0, commutativity of addition). (Activity 26)</li> </ul>

## Number Cluster 6: Conceptualizing Addition and Subtraction

### Nova Scotia (continued)

when finding a difference		
N10 Students will be expected to apply mental mathematics strategies to quickly recall basic addition facts to 18 and determine related subtraction facts.		
<b>PR04</b> Students will be expected to record equalities and inequalities symbolically, using the equal symbol or the not equal symbol.		

Master 74g

# **Curriculum Correlation**

## Number Cluster 6: Conceptualizing Addition and Subtraction

#### Alberta/Northwest Territories/Nunavut

Learning Outcomes	Mathology Grade 2 Classroom Activity Kit	Mathology Little Books	Pearson Canada K-3 Mathematics Learning Progression
<ul> <li>General Outcome Develop number sense Cross Strand Patterns and Relations (Value) Number 8. Demonstrate and explain the effect of adding zero to or subtracting zero from any number. </li> <li>9. Demonstrate an</li> <li>understanding of</li> <li>addition (limited to 1-</li> <li>and 2-digit numerals)</li> <li>with answers to 100</li> <li>and the corresponding</li> <li>subtraction by:</li> </ul>		<ul> <li>algebraic expressions in multip</li> <li>Below Grade: <ul> <li>Canada's Oldest Sport (Activities 27, 28, 29, 30, 31)</li> </ul> </li> <li>On Grade: <ul> <li>Array's Bakery (Activities 27, 28, 29, 30, 31)</li> <li>Marbles, Alleys, Mibs, and Guli! (Activities 27, 28, 29, 30, 31)</li> <li>Marbles, Alleys, Mibs, and Guli! (Activities 27, 28, 29, 30, 31)</li> <li>The Great Dogsled</li> </ul> </li> </ul>	Progression         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. (Activities 26, 27, 28, 29, 30, 31)         - Models and symbolizes addition and subtraction problem types (i.e., join, separate, part-part-whole, and compare). (Activities 27, 28, 29, 30, 31; MED 6: 1, 2)         Developing Fluency of Addition and Subtraction Computation
<ul> <li>9a. using personal strategies for adding and subtracting with and without the support of manipulatives</li> <li>9b. creating and solving problems that involve addition and subtraction</li> <li>9c. using the commutative property of addition (the order in which numbers are added does not affect the sum)</li> </ul>	00. Ostale a Daskie a (Nos. Not	Race (Activities 27, 28, 29, 30, 31) Above Grade: • Math Makes Me Laugh (Activities 27, 28, 29, 30, 31)	<ul> <li>Fluently adds and subtracts with quantities to 10. (Activity 26)</li> <li>Extends known sums and differences to solve other equations (e.g., using 5 + 5 to add 5 + 6). (Activities 27, 28, 29, 30, 31)</li> <li>Big Idea: Patterns and relations can be represented with symbols, equations, and expressions.</li> <li>Understanding Equality and Inequality, Building on Generalized Properties of Numbers and Operations</li> <li>Explores properties of addition and subtraction (e.g., adding or subtracting 0, commutativity of addition). (Activity 26)</li> </ul>

Master 74g

# **Curriculum Correlation**

## Number Cluster 6: Conceptualizing Addition and Subtraction

### Alberta/Northwest Territories/Nunavut (continued)

<ul> <li>9d. using the associative property of addition (grouping a set of numbers in different ways does not affect the sum)</li> <li>9e. explaining that the order in which numbers are subtracted may affect the difference</li> <li>10. Apply mental</li> </ul>		
for basic addition facts and related subtraction facts to 18.		
<ul> <li>Patterns and Relations</li> <li>5. Record equalities and inequalities symbolically, using the equal symbol or the not equal symbol.</li> </ul>		

## Number Cluster 6: Conceptualizing Addition and Subtraction

#### Saskatchewan

Specific Outcomes	Mathology Grade 2 Classroom Activity Kit	Mathology Little Books	Pearson Canada K-3 Mathematics Learning Progression
<ul> <li>Goals</li> <li>Spatial Sense, Logical Thinking, Cross Strand: Patterns and Ref</li> <li>Number</li> <li>N2.2 Demonstrate</li> <li>understanding of addition</li> <li>(limited to 1 and 2-digit</li> <li>numerals) with answers to 100</li> <li>and the corresponding</li> <li>subtraction by:</li> <li>N2.2a representing</li> <li>strategies for adding and</li> <li>subtracting concretely,</li> <li>pictorially, and symbolically</li> <li>N2.2b creating and solving</li> <li>problems involving addition</li> <li>and subtraction</li> <li>N2.2c estimating</li> <li>N2.2d using personal</li> <li>strategies for adding and</li> <li>subtracting with and</li> <li>without the support of</li> <li>manipulatives</li> <li>N2.2e analyzing the effect</li> <li>of adding or subtracting</li> <li>zero</li> <li>N2.2f analyzing the effect</li> <li>of the ordering of the</li> <li>quantities (addends,</li> <li>minuends, and</li> <li>subtraction</li> <li>statements.</li> </ul>	Mathematics as a Human Endeavou	<ul> <li>Below Grade:</li> <li>Canada's Oldest Sport (Activities 27, 28, 29, 30, 31)</li> <li>On Grade:</li> <li>Array's Bakery (Activities 27, 28, 29, 30, 31)</li> <li>Marbles, Alleys, Mibs, and Guli! (Activities 27, 28, 29, 30, 31)</li> <li>The Great Dogsled Race (Activities 27, 28, 29, 30, 31)</li> <li>The Great Dogsled Race (Activities 27, 28, 29, 30, 31)</li> <li>Above Grade:</li> <li>Math Makes Me Laugh (Activities 27, 28, 29, 30, 31)</li> </ul>	<ul> <li>Big Idea: Quantities and numbers can be added and subtracted to determine how many or how much.</li> <li>Developing Conceptual Meaning of Addition and Subtraction</li> <li>Uses symbols and equations to represent addition and subtraction situations. (Activities 26, 27, 28, 29, 30, 31)</li> <li>Models and symbolizes addition and subtraction problem types (i.e., join, separate, part-partwhole, and compare). (Activities 27, 28, 29, 30, 31; MED 6: 1, 2)</li> <li>Developing Fluency of Addition and Subtraction Computation</li> <li>Fluently adds and subtracts with quantities to 10. (Activity 26)</li> <li>Extends known sums and differences to solve other equations (e.g., using 5 + 5 to add 5 + 6). (Activities 27, 28, 29, 30, 31)</li> <li>Big Idea: Patterns and relations can be represented with symbols, equations, and expressions.</li> <li>Understanding Equality and Inequality, Building on Generalized Properties of Numbers and Operations</li> <li>Explores properties of addition and subtraction (e.g., adding or subtracting 0, commutativity of addition). (Activity 26)</li> </ul>

Master 74h

# **Curriculum Correlation**

## Number Cluster 6: Conceptualizing Addition and Subtraction

### Saskatchewan (continued)

Patterns and Relations P2.3 Demonstrate understanding of equality and inequality concretely and pictorially (0 to 100) by:		
P2.3c recording equalities		
with an equal sign		