## mathology

## Mathology 3 Correlation (Number) - Saskatchewan

Note* that some of the Indicators address content that is not mentioned in the Outcome, e.g., N3.1 Indicators include skip-counting; money; adding and subtracting whole numbers

| Curriculum Expectations | Grade 3 Mathology.ca | Mathology Little Books | Mathology Practice Workbook 3 | Pearson Canada K-3 Mathematics Learning Progression |
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| Goals: Number Sense, Logical Thinking, Spatial Sense, Mathematics as a Human Endeavour |  |  |  |  |
| Outcomes <br> N3.1. Demonstrate understanding of whole numbers to 1000 (concretely, pictorially, physically, orally, in writing, and symbolically) including: <br> - representing (including place value) <br> - describing <br> - estimating with referents <br> - comparing two numbers <br> - ordering 3 or more numbers | Number Unit 1: Counting <br> 1: Numbers All Around Us <br> 2: Counting to 1000 <br> 3: Skip-Counting Forward and Backward <br> 4: Counting Consolidation <br> Number Unit 2: Number <br> Relationships <br> 5: Estimating Quantities <br> 6: Composing and <br> Decomposing Quantities <br> 7: Comparing and Ordering <br> Quantities <br> 8: Number Relationships Consolidation <br> Number Unit 3: Place Value <br> 9: Building Numbers <br> 10: Representing Numbers in Different Ways <br> 11: What's the Number? | Calla's Jingle Dress <br> Planting Seeds <br> Sports Camp <br> Math Makes Me Laugh <br> How Numbers Work <br> Finding Buster <br> The Street Party <br> Fantastic Journeys <br> To Scaffold: <br> What Would You Rather? <br> Ways to Count <br> Family Fun Day <br> Array's Bakery <br> The Money Jar <br> Back to Batoche <br> A Class-full of Projects <br> The Money Jar <br> Marbles, Alleys, Migs, and <br> Guli! <br> The Great Dogsled Race | Unit 2 Questions 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 (pp. 8-12) <br> Unit 3 Questions 1, 2, $3,4,5,6,7,8,9,10$, 11 (pp. 13-17) <br> Unit 4 Questions 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 (pp. 18-22) <br> Unit 8 Questions 1, 2, 4, 5, 6, 7, 8, 10 (pp. 42-47) | Big Idea: Numbers tell us how many and how much. <br> Applying the principles of counting <br> - Fluently skip-counts by factors of 10 (e.g., 2, 5, 10) and multiples of 10 from any given number. <br> - Uses number patterns to bridge hundreds when counting forward and backward (e.g., $399,400,401) .$ <br> - Fluently skip-counts by factors of 100 (e.g., 20, 25,50) and multiples of 100 from any given number. <br> Recognizing and writing numerals <br> - Names, writes, and matches three-digit numerals to quantities. <br> Big Idea: Numbers are related in many ways |



N3.2 Demonstrate understanding of addition of whole numbers with answers to 1000 and their corresponding subtractions (limited to 1, 2, and 3-digit numerals) including:

- representing strategies for adding and subtracting concretely, pictorially, and symbolically
- solving situational questions involving addition and subtraction
- estimating using personal strategies for adding and subtracting


## Number Unit 5: Addition and

## Subtraction

19: Modelling Addition and Subtraction
20: Estimating Sums and Differences
22: Using Mental Math to Add and Subtract
23: Mastering Addition and Subtraction Facts
24: Creating and Solving
Problems
25: Creating and Solving
Problems with Larger
Numbers
13: Place Value
Consolidation

## Number Unit 7: Financial

 Literacy36: Purchasing and Making
Change

Calla's Jingle Dress
The Street Party
Sports Camp
Planting Seeds
Math Makes Me Laugh
How Numbers Work
Finding Buster

## To Scaffold:

Array's Bakery
Marbles, Alleys, Mibs, and
Guli!
A Class-full of Projects
The Money Jar
The Great Dogsled Race Kokum's Bannock

Unit 5 Questions 1, 2, $\quad$ Big Idea: Quantities and $3,4,5,6,7,8,9,10$,
11, 12 (pp. 25-30)

Unit 8 Questions 9, 10 (pp. 46-47)

## numbers can be grouped by or partitioned into equal-sized units. Unitizing quantities into ones, tens, and hundreds (placevalue concepts) <br> - Writes, reads, composes, and decomposes three-digit numbers using ones, tens, and hundreds. <br> Big Idea: Quantities and numbers can be added and subtracted to determine how many or how much. <br> Developing conceptual meaning of addition and subtraction

- Models and symbolizes addition and subtraction problem types (i.e., join, separate, part-part-whole, and compare).
- Relates addition and
subtraction as inverse operations.
- Uses properties of addition and subtraction to solve problems (e.g., adding or subtracting 0 , commutativity of addition).
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. <br> - Fluently recalls complements to 100 (e.g., $64+36 ; 73+27$ ). |
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| N3.3 Demonstrate an understanding of multiplication to $5 \times 5$ and the corresponding division statements including: <br> - representing and explaining using repeated addition or subtraction, equal grouping, and arrays <br> - creating and solving situational questions <br> - modelling processes using concrete, physical, and visual representations, and recording the process symbolically <br> - relating multiplication to division. | Number Unit 6: <br> Multiplication and Division <br> 27: Exploring Multiplication <br> 28: Exploring Division <br> 29: Relating Multiplication and Division <br> 30: Properties of Multiplication <br> 31: Creating and Solving Problems <br> 32: Building Fluency: The Games Room | Calla's Jingle Dress <br> Sports Camp <br> Planting Seeds | Unit 16 Questions 1, 2, 3, 4, 5, 6, 7, 8a, 9, 10, 11 (pp. 96-101) | Big Idea: Quantities and numbers can be grouped by, or partitioned into units to determine how many or how much. <br> Developing conceptual meaning of multiplication and division <br> - Models and symbolizes singledigit multiplication problems involving equal groups or measures (i.e., equal jumps on a number line), and relates them to addition. <br> - Uses properties of multiplication and division to solve problems (e.g., multiplying and dividing by 1 , commutativity of multiplication). <br> - Models and symbolizes equal sharing and grouping division problems and relates them to subtraction. |
| N3.4 Demonstrate understanding of fractions concretely, pictorially, physically, and orally including: <br> - representing <br> - observing and describing situations <br> - comparing <br> - relating to quantity. | Number Unit 4: Fractions <br> 14: Exploring Equal Parts <br> 15: Comparing Fractions 1 <br> 16: Comparing Fractions 2 <br> 17: Partitioning Sets <br> 18: Consolidation | Hockey Homework | Unit 12 Questions 1, $\begin{aligned} & 2,3,4,5,6,7,8,9 \text {, } \\ & 12,13 \\ & \text { (pp. 70-75) } \end{aligned}$ | Big Idea: Quantities and numbers can be grouped by or partitioned into equal-sized units. <br> Partitioning quantities to form fractions <br> - Partitions wholes into equalsized parts to make fair shares or equal groups. <br> - Partitions wholes (e.g., intervals, sets) into equal parts |

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|  |  |  |  | and names the unit fractions. - Relates the size of parts to the number of equal parts in a whole (e.g., a whole cut into 2 equal pieces has larger parts than a whole cut into 3 equal pieces). <br> - Compares unit fractions to determine relative size. - Counts by unit fractions (e.g., counting by $\left.\frac{1}{4}: \frac{1}{4}, \frac{2}{4}, \frac{3}{4}\right)$. <br> - Uses fraction symbols to name fractional quantities. <br> - Compares related fractions (e.g., same numerator, same denominator, unit fractions, familiar fractions) to determine more/less or equal. |
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## mathology

Mathology 3 Correlation (Patterns and Relations) - Saskatchewan

| Curriculum Expectations | Grade 3 Mathology.ca | Mathology Little Books | Mathology Practice Workbook 3 | Pearson Canada K-3 Mathematics Learning Progression |
| :---: | :---: | :---: | :---: | :---: |
| Goals: Number Sense, Logical Thinking, Mathematics as a Human Endeavour |  |  |  |  |
| Outcomes <br> P3.1 Demonstrate understanding of increasing patterns and decreasing patterns including: <br> - observing and describing <br> - extending <br> - comparing <br> - creating patterns using manipulatives, diagrams, sounds, and actions. | Pattern Unit 1: Increasing and <br> Decreasing Patterns <br> 1: Describing and Extending <br> Patterns <br> 2: Representing Patterns <br> 3: Creating Patterns <br> 4: Identifying Errors and <br> Missing Terms <br> 5: Solving Problems <br> 7: Consolidation | Namir's Marvellous <br> Masterpieces <br> To Scaffold: <br> The Best Surprise | Unit 1 Questions 3, 4, 5, 6, 7, 8, 9 (pp. 3-7) | Big Idea: Regularity and repetition form patterns that can be generalized and predicted mathematically. Representing and generalizing increasing/decreasing patterns - Identifies and extends nonnumeric increasing/decreasing patterns (e.g., jump-clap; jump-clap-clap; jump-clap-clap-clap, etc.). <br> - Identifies and extends familiar number patterns and makes connections to addition (e.g., skip-counting by $2 \mathrm{~s}, 5 \mathrm{~s}, 10 \mathrm{~s}$ ). <br> - Identifies, reproduces, and extends increasing/decreasing patterns concretely, pictorially, and numerically using repeated addition or subtraction. <br> - Extends number patterns and finds missing elements (e.g., 1, 3, 5, $\qquad$ , $9, \ldots$. . <br> - Creates an increasing/decreasing pattern |


|  |  |  |  | (concretely, pictorially, and/or numerically) and explains the pattern rule. <br> - Generalizes and explains the rule for arithmetic patterns including the starting point and change (e.g., for $28,32,36$, the rule is start at 28 and add 4 each time). |
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| P3.2 Demonstrate understanding of equality by solving one-step addition and subtraction equations involving symbol representing an unknown number. | Patterning Unit 2: Variables <br> and Equations <br> 8: Solving Equations Concretely <br> 9: Strategies for Solving <br> Equations <br> 11: Creating Equations <br> 12: Consolidation | A Week of Challenges | Unit 7 Questions 1, 2, 3, 4, 6, 7, 10 (pp. 37-41) | Big Idea: Patterns and relations can be represented with symbols, equations, and expressions. <br> Understanding equality and inequality, building on generalized properties of numbers and operations - Investigates addition and subtraction as inverse operations. <br> - Explores properties of addition and subtraction (e.g., adding or subtracting 0 , commutativity of addition). <br> Using symbols, unknowns, and variables to represent mathematical relations - Uses placeholders (e.g., ㅁ) for unknown values in equations. - Solves for an unknown value in a one-step addition and subtraction problem (e.g., $n+5$ $=15$ ). |

## mathólogy

Mathology 3 Correlation (Shape and Space) - Saskatchewan

| Curriculum Expectations | Grade 3 Mathology.ca | Mathology Little Books | Mathology Practice Workbook 3 | Pearson Canada K-3 Mathematics Learning Progression |
| :---: | :---: | :---: | :---: | :---: |
| Goals: Spatial Sense, Logical Thinking, Number Sense, Mathematics as a Human Endeavour |  |  |  |  |
| Outcomes <br> SS3.1 Demonstrate understanding of the passage of time including: <br> - relating common activities to standard and non-standard units <br> - describing relationships between units <br> - solving situational questions | Measurement Unit 2: Time and Temperature <br> 8: Measuring the Passage of Time <br> 9: Relationships Among Units of Time | Goat Island | Unit 13 Questions 1, 2, 3, 4, 5, 11 (pp. 7677, 81) | Big Idea: Many things in our world (e.g., objects, spaces, events) have attributes that can be measured and compared. <br> Understanding attributes that can be measured <br> - Explores measurement of visible attributes (e.g., length, capacity, area) and non-visible attributes (e.g., mass, time, temperature). <br> - Uses language to describe attributes (e.g., long, tall, short, wide, heavy). <br> Big Idea: Assigning a unit to a continuous attribute allows us to measure and make comparisons. <br> Selecting and using standard units to estimate, measure, and make comparisons <br> - Selects and uses appropriate standard units to estimate, |


|  |  |  |  | measure, and compare length, perimeter, area, capacity, mass, and time. <br> Uses the measurement of familiar objects as benchmarks to estimate another measure in standard units (e.g., doorknob is 1 m from the ground; room temperature is $21^{\circ} \mathrm{C}$ ). <br> Understanding relationships among measurement units - Understands relationship of units of length ( $\mathrm{mm}, \mathrm{cm}, \mathrm{m}$ ), mass ( $\mathrm{g}, \mathrm{kg}$ ), capacity ( $\mathrm{mL}, \mathrm{L}$ ), and time (e.g., seconds, minutes, hours) |
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| SS3.2 Demonstrate understanding of measuring mass in g and kg by: <br> - selecting and justifying referents for g and kg <br> - modelling and describing the relationship between g and kg <br> - estimating mass using referents <br> - measuring and recording mass. | Measurement Unit 3: Area, Mass, and Capacity 15: Measuring Mass | Measurements About YOU! | Unit 17 Questions 5, 6, 7, 8 (pp. 104-106) | Big Idea: Assigning a unit to a continuous attribute allows us to measure and make comparisons. <br> Selecting and using standard units to estimate, measure, and make comparisons - Uses standard sized objects to measure (e.g., 10 centicube rod). <br> - 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. <br> - Selects and uses appropriate standard units to estimate, measure, and compare length, perimeter, area, capacity, mass, |


|  |  |  |  | and time. <br> - Uses the measurement of familiar objects as benchmarks to estimate another measure in standard units. <br> Understanding relationships among measurement units - Understands that decomposing and rearranging does not change the measure of an object. <br> - Understands relationship of units of length ( $\mathrm{mm}, \mathrm{cm}, \mathrm{m}$ ), mass (g, kg), capacity ( $\mathrm{mL}, \mathrm{L}$ ), and time (e.g., seconds, minutes, hours). |
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| SS3.3 Demonstrate understanding of linear measurement ( cm and m ) including: <br> - selecting and justifying referents <br> - generalizing the relationship between cm and m <br> - estimating length and perimeter using referents <br> - measuring and recording length, width, height, and perimeter. | Measurement Unit 1: Length and Perimeter <br> 1: Estimating Length <br> 2: Relating Centimetres and Metres <br> 3: Measuring Length <br> 5: Measuring Perimeter <br> 6: How Many Can You Make? <br> 7: Consolidation | Goat Island <br> Measurements About YOU! <br> The Bunny Challenge <br> To Scaffold: <br> Getting Ready for School <br> The Discovery | Unit 6 Questions 1, 2, $3,4,5,6,7,8,9,10$, 11, 12 (pp. 31-36) <br> Unit 17 Question 2 (p. 103) | Big Idea: Many things in our world (e.g., objects, spaces, events) have attributes that can be measured and compared. <br> Understanding attributes that can be measured <br> - 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. <br> 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. <br> - Selects and uses appropriate standard units to estimate, measure, and compare length, perimeter, area, capacity, mass, and time. <br> - Uses the measurement of familiar objects as benchmarks to estimate another measure in standard units (e.g., doorknob is 1 m from the ground; room temperature is $21^{\circ} \mathrm{C}$ ). |
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| SS3.4 Demonstrate understanding of 3-D objects by analyzing characteristics including faces, edges, and vertices. | Geometry Unit 2: 3-D Solids <br> 6: Exploring Geometric <br> Attributes of Solids <br> 8: Constructing Skeletons | WONDERful Buildings <br> To Scaffold: <br> I Spy Awesome Buildings | Unit 10 Questions 1 , $2,3,4,5,6,7,8,10$ (pp. 56-59, 61) | Big Ideas: 2-D shapes and 3-D solids can be analyzed and classified in different ways by their attributes. <br> Investigating geometric attributes and properties of 2D shapes and 3-D solids - Analyzes geometric attributes of 2-D shapes and 3-D solids (e.g., number of sides/edges, faces, corners). <br> - Classifies and names 2-D shapes and <br> 3-D solids based on common attributes. <br> - Constructs and compares 2-D shapes and 3-D solids with given attributes. <br> - Classifies and names 2-D shapes and <br> 3-D solids using geometric properties (e.g., a rectangle has 4 right angles). |


| SS3.5 Demonstrate understanding of 2-D shapes (regular and irregular) including triangles, quadrilaterals, pentagons, hexagons, and octagons including: <br> - describing <br> - comparing <br> - sorting. | Geometry Unit 1: 2-D Shapes <br> 1: Sorting Polygons <br> 2: What's the Sorting Rule? <br> Geometry Unit 5: Angles <br> 20: Investigating Angles <br> 21: Comparing Angles | Gallery Tour WONDERful Buildings <br> To Scaffold: <br> I Spy Awesome Buildings Sharing Our Stories | Unit 9 Questions 1, 2, 3, 4, 5, 10 (pp. 50-52, 55) | Big Ideas: 2-D shapes and 3-D solids can be analyzed and classified in different ways by their attributes. <br> Investigating geometric attributes and properties of 2D shapes and 3-D solids <br> - Analyzes geometric attributes of 2-D shapes and 3-D solids (e.g., number of sides/edges, faces, corners). <br> - Classifies and names 2-D shapes and 3-D solids based on common attributes. <br> - Classifies and names 2-D shapes and <br> 3-D using geometric properties (e.g., a rectangle has 4 right angles). |
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## math mogy

## Mathology 3 Correlation (Statistics and Probability: Data Analysis) - Saskatchewan

| Curriculum Expectations | Grade 3 Mathology.ca | Mathology Little Books | Mathology Practice Workbook 3 | Pearson Canada K-3 Mathematics Learning Progression |
| :---: | :---: | :---: | :---: | :---: |
| Goals: Spatial Sense, Number Sense, Logical Thinking, Mathematics as a Human Endeavour |  |  |  |  |
| Outcomes <br> SP3.1 Demonstrate understanding of first-hand data using tally marks, charts, lists, bar graphs, and line plots (abstract pictographs) through: <br> - collecting, organizing, and representing <br> - solving situational questions. | Data Management and Probability Unit 1A: Data Management <br> 1: Interpreting Bar Graphs <br> 2: Interpreting Line Plots <br> 3: Collecting Data <br> 4: Drawing Bar Graphs <br> 5: Drawing Line Plots <br> 6: Consolidation | Welcome to The Nature Park <br> To Scaffold: <br> Marsh Watch <br> Big Buddy Days | Unit 14 Questions 1, 2, 3, 4, 5, 8a (p. 84-86, 88) | 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. Formulating questions to learn about groups, collections, and events by collecting relevant data <br> - Formulates questions that can be addressed by counting collections (e.g., How many of us come to school by bus, by car, walking?) and questions that can be addressed through observation (e.g., How many people do/do not use the crosswalk?). <br> Collecting data and organizing them into categories <br> - Collects data by determining (most) categories in advance |


|  |  |  |  | (e.g., yes/no; list of choices). <br> - Orders categories by frequency (e.g., most to least). Creating graphical displays of collected data <br> - Creates one-to-one displays (e.g., line plot, dot plot, bar graph). <br> Reading and interpreting data displays <br> - Reads and interprets information from data displays (e.g., orders by frequency, compares frequencies, determines total number of data points). <br> - Describes the shape of data in informal ways (e.g., range, spread, gaps, mode). <br> - Critiques whether the display used is appropriate for the data collected. |
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