



Mathology Grade 3 Correlation (Number) – Alberta

Organizing Idea:

Quantity is measured with numbers that enable counting, labelling, comparing, and operating.

Guiding Question: How can place value support organization of number? Learning Outcome: Students interpret place value to 100 000.						
Knowledge	Understanding	Skills & Procedures	Grade 3 Mathology	Mathology Little Books	Mathology Practice Workbook 3	Pearson Canada Grades K–3 Mathematics Learning Progression
<p>For numbers in base-10, each place has 10 times the value of the place to its right.</p> <p>The digits 0 to 9 indicate the number of groups in each place in a number.</p> <p>The value of each place in a number is the product of the digit and its place value.</p>	<p>Place value is the basis for the base-10 system.</p> <p>Place value determines the value of a digit based on its place in a number, relative to the ones place.</p> <p>Place value is used to read, write, and compare numbers.</p>	<p>Identify the place value of each digit in a natural number.</p> <p>Relate the values of adjacent places.</p>	<p>Number Unit 1: Number Relationships and Place Value 1: Representing Numbers to 10 000 3: Representing Larger Numbers</p> <p>Number Unit 1: Number Relationships and Place Value 1: Representing Numbers to 10 000 3: Representing Larger Numbers</p>	<p>How Numbers Work</p> <p>Finding Buster How Numbers Work</p>	<p>Unit 4 Questions 1, 3, 4, 7 (pp. 18-20)</p> <p>N/A</p>	<p>Big Idea: The set of real numbers is infinite. Extending Whole Number Understanding to the Set of Real Numbers - Extends whole number understanding to 100 000. Big Idea: Quantities and numbers can be grouped by or partitioned into equal-sized units. Unitizing Quantities into Base-Ten Units - Understands that the value of a digit is ten times the value of the same digit one place to the right. - Understands that the value of a digit is one-tenth the value of the same digit one place to the left.</p> <p>Big Idea: The set of real numbers is infinite. Extending Whole Number Understanding to the Set of Real Numbers - Extends whole number understanding to 100 000. Big Idea: Quantities and numbers can be grouped by or partitioned into equal-sized units. Unitizing Quantities into Base-Ten Units - Understands that the value of a digit is ten times the value of the same digit one place to the right. - Understands that the value of a digit is one-tenth the value of the same digit one place to the left.</p>

<p>Numbers can be composed in various ways using place value.</p> <p>Numbers can be rounded in contexts where an exact count is not needed.</p> <p>The less than sign, <, and the greater than sign, >, are used to show the relationship between two unequal numbers.</p> <p>A zero in the leftmost place of a natural number does not change the value of the number.</p> <p>The dollar sign, \$, is placed to the left of the dollar value in English and to the right of the dollar value in French.</p> <p>The cent sign, ¢, is placed to the right of the cent value in English and in French.</p>	Determine the value of each digit in a natural number.	Number Unit 1: Number Relationships and Place Value 1: Representing Numbers to 10 000 3: Representing Larger Numbers	How Numbers Work	Unit 4 Questions 1, 3, 7 (pp. 18-20)	Big Idea: The set of real numbers is infinite. Extending Whole Number Understanding to the Set of Real Numbers - Extends whole number understanding to 100 000. Big Idea: Quantities and numbers can be grouped by or partitioned into equal-sized units. Unitizing Quantities into Base-Ten Units - Understands that the value of a digit is ten times the value of the same digit one place to the right. - Understands that the value of a digit is one-tenth the value of the same digit one place to the left.
	Express natural numbers using words and numerals.	Number Unit 1: Number Relationships and Place Value 1: Representing Numbers to 10 000 3: Representing Larger Numbers		Unit 4 Questions 2, 3, 4, 5 (pp. 18-19)	Big Idea: The set of real numbers is infinite. Extending Whole Number Understanding to the Set of Real Numbers - Extends whole number understanding to 100 000. Big Idea: Quantities and numbers can be grouped by or partitioned into equal-sized units. Unitizing Quantities into Base-Ten Units - Understands that the value of a digit is ten times the value of the same digit one place to the right. - Understands that the value of a digit is one-tenth the value of the same digit one place to the left.
	Express various compositions of a natural number using place value.	Number Unit 1: Number Relationships and Place Value 2: Composing and Decomposing Numbers to 10 000 6: Consolidation	Finding Buster Fantastic Journeys	Unit 3 Questions 1, 2, 3, 4, 10 (pp. 13-14, 16) Unit 4 Questions 3, 4, 5, 10 (pp. 19-20, 22)	Big Idea: Quantities and numbers can be grouped by or partitioned into equal-sized units. Unitizing Quantities into Base-Ten Units - Understands that the value of a digit is one-tenth the value of the same digit one place to the left. Big Idea: Numbers are related in many ways. Decomposing and Composing Numbers to Investigate Equivalencies - Composes and decomposes whole numbers using standard and non-standard partitioning (e.g., 1000 is 10 hundreds or 100 tens).
	Round natural numbers to various places.	Number Unit 1: Number Relationships and Place Value 4: Rounding Numbers		Unit 4 Question 9 (p. 21)	Big Idea: Numbers are related in many ways. Estimating Quantities and Numbers - Uses relevant benchmarks (e.g., multiples of 10) to compare and estimate quantities.
	Compare and order natural numbers.	Number Unit 1: Number Relationships and Place Value	Fantastic Journeys Finding Buster	Unit 3 Questions 5, 6, 8, 9, 10, 11 (pp. 15-17)	Big Idea: Numbers are related in many ways. Comparing and Ordering Quantities (Multitude and Magnitude)

			5: Comparing and Ordering Numbers	Math Makes Me Laugh The Street Party	Unit 4 Questions 6, 8 (pp. 20-21)	- Compares, orders, and locates whole numbers based on place-value understanding and records using $<$, $=$, $>$ symbols.
		Express the relationship between two numbers using $<$, $>$, or $=$.	Number Unit 1: Number Relationships and Place Value 5: Comparing and Ordering Numbers		Unit 3 Question 7 (p. 15)	Big Idea: Numbers are related in many ways. Comparing and Ordering Quantities (Multitude and Magnitude) - Compares, orders, and locates whole numbers based on place-value understanding and records using $<$, $=$, $>$ symbols.
		Count and represent the value of a collection of nickels, dimes, and quarters as cents.	Number Unit 6: Financial Literacy 32: Counting Money		Unit 8 Questions 1, 2, 4, 5, 6, 7 (pp. 42-45)	Big Idea: Numbers tell us how many and how much. Applying the Principles of Counting - Fluently skip-counts by factors of 100 (e.g., 20, 25, 50) and multiples of 100 from any given number. Big Idea: Numbers are related in many ways. Estimating Quantities and Numbers - Uses relevant benchmarks (e.g., multiples of 10) to compare and estimate quantities.
		Count and represent the value of a collection of loonies, toonies, and bills as dollars.	Number Unit 6: Financial Literacy 32: Counting Money		Unit 8 Questions 1, 4, 6 (pp. 42, 44-45)	Big Idea: Numbers tell us how many and how much. Applying the Principles of Counting - Fluently skip-counts by factors of 100 (e.g., 20, 25, 50) and multiples of 100 from any given number. Big Idea: Numbers are related in many ways. Estimating Quantities and Numbers - Uses relevant benchmarks (e.g., multiples of 10) to compare and estimate quantities.
		Recognize French and English symbolic representations of monetary values.	Number Unit 6: Financial Literacy 32: Counting Money		N/A	Big Idea: Numbers tell us how many and how much. Applying the Principles of Counting - Fluently skip-counts by factors of 100 (e.g., 20, 25, 50) and multiples of 100 from any given number. Big Idea: Numbers are related in many ways. Estimating Quantities and Numbers - Uses relevant benchmarks (e.g., multiples of 10) to compare and estimate quantities.

Guiding Question: How can processes be established for addition and subtraction?

Learning Outcome: Students apply strategies for addition and subtraction within 1000.

Knowledge	Understanding	Skills & Procedures	Grade 3 Mathology	Mathology Little Books	Mathology Practice Workbook 3	Pearson Canada Grades K–3 Mathematics Learning Progression
<p>Recall of addition and subtraction number facts facilitates addition and subtraction strategies.</p> <p>Standard algorithms for addition and subtraction are conventional procedures based on place value.</p> <p>Estimation can be used to support addition and subtraction in everyday situations, including</p> <ul style="list-style-type: none"> • when an exact sum or difference is not needed • to check if an answer is reasonable 	<p>Addition and subtraction strategies can be chosen based on the nature of the numbers.</p> <p>Standard algorithms for addition and subtraction may be used for any natural numbers.</p>	<p>Relate strategies for the addition and subtraction of two-digit numbers to strategies for the addition and subtraction of three-digit numbers.</p>	<p>Number Unit 3: Addition and Subtraction 12: Modeling Addition and Subtraction 14: Using Mental Math to Add and Subtract</p>	<p>Math Makes Me Laugh Planting Seeds The Street Party</p>	<p>Unit 5 Question 1 (p. 25)</p>	<p>Big Idea: Quantities and numbers can be added and subtracted to determine how many or how much. Developing Conceptual Meaning of Addition and Subtraction - Relates addition and subtraction as inverse operations. Developing Fluency of Addition and Subtraction Computation - Develops efficient mental strategies and algorithms to solve equations with multi-digit numbers (e.g., calculating the change required for a simple cash transaction). - Estimates sums and differences of multi-digit numbers (e.g., estimating change). 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 three-digit numbers using ones, tens, and hundreds. 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., $8 + 5 = 3 + 5 + 5$).</p>
		<p>Model regrouping by place value for addition and subtraction.</p>	<p>Number Unit 3: Addition and Subtraction 12: Modeling Addition and Subtraction</p>		<p>Unit 5 Questions 3, 7, 8, 9, 10 (pp. 26, 28-29)</p>	<p>Big Idea: Quantities and numbers can be added and subtracted to determine how many or how much. Developing Conceptual Meaning of Addition and Subtraction - Relates addition and subtraction as inverse operations. 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 three-digit numbers using ones, tens, and hundreds.</p>

		Explain the standard algorithms for addition and subtraction of natural numbers.	Number Unit 3: Addition and Subtraction 12: Modeling Addition and Subtraction	Math Makes Me Laugh The Street Party	N/A	Big Idea: Quantities and numbers can be added and subtracted to determine how many or how much. Developing Conceptual Meaning of Addition and Subtraction - Relates addition and subtraction as inverse operations. 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 three-digit numbers using ones, tens, and hundreds.
		Add and subtract natural numbers using standard algorithms.	Number Unit 3: Addition and Subtraction 12: Modeling Addition and Subtraction 15: Creating and Solving Problems 16: Creating and Solving Problems with Larger Numbers 17: Consolidation	Math Makes Me Laugh	Unit 5 Questions 3, 5, 7, 8, 9, 10, 11, 12 (pp. 26-30)	Big Idea: Quantities and numbers can be added and subtracted to determine how many or how much. Developing Conceptual Meaning of Addition and Subtraction - 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 (e.g., calculating the change required for a simple cash transaction). - Estimates sums and differences of multi-digit numbers (e.g., estimating change). 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 three-digit numbers using ones, tens, and hundreds.
		Estimate sums and differences.	Number Unit 3: Addition and Subtraction 13: Estimating Sum and Differences 14: Using Mental Math to Add and Subtract	Calla's Jingle Dress	Unit 5 Questions 2, 4, 9 (pp. 26-27, 29)	Big Idea: Quantities and numbers can be added and subtracted to determine how many or how much. Developing Conceptual Meaning of Addition and Subtraction

			<p>15: Creating and Solving Problems 16: Creating and Solving Problems with Larger Numbers 17: Consolidation</p>			<ul style="list-style-type: none"> - 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). <p>Developing Fluency of Addition and Subtraction Computation</p> <ul style="list-style-type: none"> - Develops efficient mental strategies and algorithms to solve equations with multi-digit numbers (e.g., calculating the change required for a simple cash transaction). - Estimates sums and differences of multi-digit numbers (e.g., estimating change). <p>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</p> <ul style="list-style-type: none"> - Decomposes and combines numbers in equations to make them easier to solve (e.g., $8 + 5 = 3 + 5 + 5$).
	Solve problems using addition and subtraction.	<p>Number Unit 3: Addition and Subtraction 15: Creating and Solving Problems 16: Creating and Solving Problems with Larger Numbers 17: Consolidation</p>	Calla's Jingle Dress	Unit 5 Questions 6, 9, 10, 12 (pp. 27, 29-30)	<p>Big Idea: Quantities and numbers can be added and subtracted to determine how many or how much. Developing Conceptual Meaning of Addition and Subtraction</p> <ul style="list-style-type: none"> - 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). <p>Developing Fluency of Addition and Subtraction Computation</p> <ul style="list-style-type: none"> - Develops efficient mental strategies and algorithms to solve equations with multi-digit numbers (e.g., calculating the change required for a simple cash transaction). - Estimates sums and differences of multi-digit numbers (e.g., estimating change). 	

Guiding Question: How can multiplication and division provide new perspectives of number?						
Learning Outcome: Students analyze and apply strategies for multiplication and division within 100.						
Knowledge	Understanding	Skills & Procedures	Grade 3 Mathology	Mathology Little Books	Mathology Practice Workbook 3	Pearson Canada Grades K–3 Mathematics Learning Progression
<p>Multiplication and division are inverse mathematical operations.</p> <p>Multiplication can represent repeated addition.</p> <p>Multiplication can be interpreted in various ways according to context, such as</p> <ul style="list-style-type: none"> • equal groups • an array • an area <p>Division can be interpreted in various ways according to context, such as</p> <ul style="list-style-type: none"> • equal sharing • equal grouping • repeated subtraction <p>The order in which two quantities are multiplied does</p>	<p>Quantities can be composed and decomposed through multiplication and division.</p>	<p>Compose a product using equal groups of objects.</p>	<p>Number Unit 4: Early Multiplicative Thinking 20: Exploring Multiplication</p>	<p>Planting Seeds Sports Camp Calla's Jingle Dress</p> <p><u>Grade 2</u> Array's Bakery Marbles, Alleys, Mibs, and Guli!</p>	<p>Unit 16 Questions 1, 5, 8, 10 (pp. 96, 98-100)</p>	<p>Big Idea: Quantities and numbers can be grouped by, and partitioned into, units to determine how many or how much. Developing Conceptual Meaning of Multiplication and Division</p> <ul style="list-style-type: none"> - Models and symbolizes single-digit multiplication problems involving equal groups or measures (i.e., equal jumps on a number line), and relates them to addition.
		<p>Relate multiplication to repeated addition.</p>	<p>Number Unit 4: Early Multiplicative Thinking 18: Exploring Repeated Addition 19: Repeated Addition and Multiplication 20: Exploring Multiplication 23: Consolidation</p>	<p>Calla's Jingle Dress Planting Seeds Sports Camp</p>	<p>Unit 16 Questions 1, 2, 4, 5, 8, 10 (pp. 96-100)</p>	<p>Big Idea: Quantities and numbers can be grouped by, and partitioned into, units to determine how many or how much. Developing Conceptual Meaning of Multiplication and Division</p> <ul style="list-style-type: none"> - Models equal groups and uses multiplication symbol (×) to symbolize operation. - Uses repeated addition of groups to solve problems. - Models and symbolizes single-digit multiplication problems involving equal groups or measures (i.e., equal jumps on a number line), and relates them to addition. <p>Big Idea: Regularity and repetition form patterns that can be generalized and predicted mathematically. Representing and Generalizing Increasing/ Decreasing Patterns</p> <ul style="list-style-type: none"> - Identifies and extends familiar number patterns and makes connections to addition (e.g., skip-counting by 2s, 5s, 10s).
		<p>Relate multiplication to skip counting.</p>	<p>Number Unit 4: Early Multiplicative Thinking 18: Exploring Repeated Addition 19: Repeated Addition and Multiplication 20: Exploring Multiplication 23: Consolidation</p>	<p>Planting Seeds</p> <p><u>Grade 2</u> Array's Bakery Marbles, Alleys, Mibs, and Guli!</p>	<p>Unit 16 Questions 2, 5, 10 (pp. 97-98, 100)</p>	<p>Big Idea: Quantities and numbers can be grouped by, and partitioned into, units to determine how many or how much. Developing Conceptual Meaning of Multiplication and Division</p> <ul style="list-style-type: none"> - Models equal groups and uses multiplication symbol (×) to symbolize operation. - Uses repeated addition of groups to solve problems. - Models and symbolizes single-digit multiplication problems involving equal groups or measures (i.e.,

<p>not affect the product (commutative property).</p> <p>The order in which two numbers are divided affects the quotient.</p> <p>Multiplication or division by 1 results in the same number (identity property).</p>						<p>equal jumps on a number line), and relates them to addition.</p> <p>Big Idea: Regularity and repetition form patterns that can be generalized and predicted mathematically. Representing and Generalizing Increasing/ Decreasing Patterns</p> <ul style="list-style-type: none"> - Identifies and extends familiar number patterns and makes connections to addition (e.g., skip-counting by 2s, 5s, 10s).
	Investigate multiplication by 0.	<p>Number Unit 5: Multiplication and Division</p> <p>25: Strategies for Multiplication</p>		N/A	<p>Big Idea: 4–9 Quantities and numbers can be operated on to determine how many and how much. Investigating Number and Arithmetic Properties</p> <ul style="list-style-type: none"> - Understands the identity of operations (e.g., $5 + 0 = 5$; $7 \times 1 = 7$). <p>Developing Fluency of Operations</p> <ul style="list-style-type: none"> - Fluently recalls multiplication and division facts to 100. 	
	Model a quotient by partitioning a quantity into equal groups or groups of a certain size, with or without remainders.	<p>Number Unit 4: Early Multiplicative Thinking</p> <p>21: Repeated Subtraction and Division</p> <p>22: Exploring Division</p> <p>Number Unit 5: Multiplication and Division</p> <p>28: Dividing with Remainders</p>	<p>Sports Camp</p> <p><u>Grade 2</u></p> <p>Marbles, Alleys, Mibs, and Guli!</p>	Unit 16 Questions 8b, 9 (pp. 99-100)	<p>Big Idea: Quantities and numbers can be grouped by, and partitioned into, units to determine how many or how much. Developing Conceptual Meaning of Multiplication and Division</p> <ul style="list-style-type: none"> - Models and symbolizes equal sharing and grouping division problems using the division symbol (\div). - Relates division to repeated subtraction. - Begins to model single-digit and multi-digit multiplication and related division situations. <p>Big Idea: Quantities and numbers can be added and subtracted to determine how many or how much. Developing Fluency of Addition and Subtraction Computation</p> <ul style="list-style-type: none"> - Fluently adds and subtracts with quantities to 20. <p>Big Idea: 4–9 Quantities and numbers can be operated on to determine how many and how much. Developing Conceptual Meaning of Operations</p> <ul style="list-style-type: none"> - Models and develops meanings for division of whole numbers that result in fractions. <p>Big Idea: 4–9 Quantities and numbers can be operated on to determine how many and how much. Developing Fluency of Operations</p> <ul style="list-style-type: none"> - Solves whole number computation using efficient strategies (e.g., mental computation, algorithms, 	

						calculating cost of transactions and change owing, saving money to make a purchase).
		Visualize and model products and quotients as arrays.	<p>Number Unit 4: Early Multiplicative Thinking 20: Exploring Multiplication 21: Repeated Subtraction and Division 22: Exploring Division 23: Consolidation</p> <p>Number Unit 5: Multiplication and Division 26: Relating Multiplication and Division 27: Strategies for Division</p>	Grade 2 Array's Bakery	Unit 16 Questions 1, 3, 4, 5, 8 (pp. 96-99)	<p>Big Idea: Quantities and numbers can be grouped by, and partitioned into, units to determine how many or how much.</p> <p>Developing Conceptual Meaning of Multiplication and Division</p> <ul style="list-style-type: none"> - Models and symbolizes single-digit multiplication problems involving equal groups or measures (i.e., equal jumps on a number line), and relates them to addition. - Models and symbolizes equal sharing and grouping division problems using the division symbol (\div). - Relates division to repeated subtraction. - Begins to model single-digit and multi-digit multiplication and related division situations. <p>Big Idea: Quantities and numbers can be added and subtracted to determine how many or how much.</p> <p>Developing Fluency of Addition and Subtraction Computation</p> <ul style="list-style-type: none"> - Fluently adds and subtracts with quantities to 20. <p>Big Idea: 4–9 Quantities and numbers can be operated on to determine how many and how much.</p> <p>Investigating Number and Arithmetic Properties</p> <ul style="list-style-type: none"> - Understands the identity of operations (e.g., $5 + 0 = 5$; $7 \times 1 = 7$). <p>Developing Fluency of Operations</p> <ul style="list-style-type: none"> - Fluently recalls multiplication and division facts to 100.
		Recognize interpretations of multiplication and division in various contexts.	<p>Number Unit 5: Multiplication and Division 29: Solving Multiplication and Division Problems</p>		Unit 16 Questions 2, 3, 8, 9 (pp. 97, 99-100)	<p>Big Idea: 4–9 Quantities and numbers can be operated on to determine how many and how much.</p> <p>Investigating Number and Arithmetic Properties</p> <ul style="list-style-type: none"> - Understands operation relationships (e.g., inverse relationship between multiplication/division, addition/subtraction). <p>Developing Fluency of Operations</p> <ul style="list-style-type: none"> - Solves whole number computation using efficient strategies (e.g., mental computation, algorithms, calculating cost of transactions and change owing, saving money to make a purchase).
Numbers can be multiplied or divided in parts	Sharing and grouping situations can be	Investigate multiplication	Number Unit 4: Early Multiplicative Thinking	Sports Camp	Unit 16 Questions 2, 3, 8, 9, 11 (pp. 99-101)	Big Idea: Quantities and numbers can be grouped by, and partitioned into, units to determine how many or how much.

<p>(distributive property).</p> <p>Multiplication strategies include</p> <ul style="list-style-type: none"> repeated addition multiplying in parts compensation <p>Division strategies include</p> <ul style="list-style-type: none"> repeated subtraction partitioning the dividend <p>Products can be expressed symbolically using the multiplication sign, x, factors, and the equal sign.</p> <p>Quotients can be expressed symbolically using the division sign, ÷, dividend, divisor, and the equal sign.</p> <p>A missing quantity in a product or quotient can be represented in different ways, including</p> <ul style="list-style-type: none"> $a \times b = \square$ 	<p>interpreted as multiplication or division.</p> <p>Multiplication and division strategies can be supported by addition and subtraction.</p>	<p>and division strategies.</p>	<p>19: Repeated Addition and Multiplication 20: Exploring Multiplication 21: Repeated Subtraction and Division 22: Exploring Division</p> <p>Number Unit 5: Multiplication and Division 25: Strategies for Multiplication 26: Relating Multiplication and Division 27: Strategies for Division</p>			<p>Developing Conceptual Meaning of Multiplication and Division</p> <ul style="list-style-type: none"> Models equal groups and uses multiplication symbol (x) to symbolize operation. Uses repeated addition of groups to solve problems. Models and symbolizes single-digit multiplication problems involving equal groups or measures (i.e., equal jumps on a number line), and relates them to addition. Models and symbolizes equal sharing and grouping division problems using the division symbol (÷). Relates division to repeated subtraction. Begins to model single-digit and multi-digit multiplication and related division situations. <p>Big Idea: Regularity and repetition form patterns that can be generalized and predicted mathematically.</p> <p>Representing and Generalizing Increasing/ Decreasing Patterns</p> <ul style="list-style-type: none"> Identifies and extends familiar number patterns and makes connections to addition (e.g., skip-counting by 2s, 5s, 10s). <p>Big Idea: Quantities and numbers can be added and subtracted to determine how many or how much.</p> <p>Developing Fluency of Addition and Subtraction Computation</p> <ul style="list-style-type: none"> Fluently adds and subtracts with quantities to 20. <p>Big Idea: 4–9 Quantities and numbers can be operated on to determine how many and how much.</p> <p>Investigating Number and Arithmetic Properties</p> <ul style="list-style-type: none"> Understands the identity of operations (e.g., $5 + 0 = 5$; $7 \times 1 = 7$). <p>Developing Fluency of Operations</p> <ul style="list-style-type: none"> Fluently recalls multiplication and division facts to 100.
		<p>Multiply and divide within 100.</p>	<p>Number Unit 5: Multiplication and Division 30: Building Fluency: The Games Room 25: Strategies for Multiplication 27: Strategies for Division</p>		<p>Unit 16 Questions 2, 5, 7, 8, 9, 10, 11 (pp. 97-100)</p>	<p>Big Idea: Quantities and numbers can be grouped by, and partitioned into, units to determine how many or how much.</p> <p>Developing Fluency for Multiplication and Division Computation</p> <ul style="list-style-type: none"> Fluently multiplies and divides to 25. <p>Developing Conceptual Meaning of Multiplication and Division</p>

<ul style="list-style-type: none"> • $a \times \square = c$ • $\square \times b = c$ • $e \div f = \square$ • $e \div \square = g$ • $\square \div f = g$ <p>A remainder is the quantity left over after division.</p>						<ul style="list-style-type: none"> - Models and symbolizes equal sharing and grouping division problems using the division symbol (\div). - Relates division to repeated subtraction. - Begins to model single-digit and multi-digit multiplication and related division situations. <p>Big Idea: 4–9 Quantities and numbers can be operated on to determine how many and how much.</p> <p>Investigating Number and Arithmetic Properties</p> <ul style="list-style-type: none"> - Understands the identity of operations (e.g., $5 + 0 = 5$; $7 \times 1 = 7$). <p>Developing Fluency of Operations</p> <ul style="list-style-type: none"> - Fluently recalls multiplication and division facts to 100.
		Verify a product or quotient using inverse operations.	<p>Number Unit 5: Multiplication and Division</p> <p>26: Relating Multiplication and Division</p> <p>29: Solving Multiplication and Division Problems</p>		N/A	<p>Big Idea: 4–9 Quantities and numbers can be operated on to determine how many and how much.</p> <p>Investigating Number and Arithmetic Properties</p> <ul style="list-style-type: none"> - Understands operation relationships (e.g., inverse relationship between multiplication/division, addition/subtraction). - Understands the identity of operations (e.g., $5 + 0 = 5$; $7 \times 1 = 7$). <p>Developing Fluency of Operations</p> <ul style="list-style-type: none"> - Fluently recalls multiplication and division facts to 100. - Solves whole number computation using efficient strategies (e.g., mental computation, algorithms, calculating cost of transactions and change owing, saving money to make a purchase).
		Determine a missing quantity in a product or quotient in a variety of ways.	<p>Number Unit 5: Multiplication and Division</p> <p>26: Relating Multiplication and Division</p>		Unit 16 Question 8b (p. 99)	<p>Big Idea: 4–9 Quantities and numbers can be operated on to determine how many and how much.</p> <p>Investigating Number and Arithmetic Properties</p> <ul style="list-style-type: none"> - Understands the identity of operations (e.g., $5 + 0 = 5$; $7 \times 1 = 7$). <p>Developing Fluency of Operations</p> <ul style="list-style-type: none"> - Fluently recalls multiplication and division facts to 100.
		Express multiplication and division symbolically.	<p>Number Unit 5: Multiplication and Division</p> <p>30: Building Fluency: The Games Room</p>	Sports Camp	Unit 16 Questions 2, 4, 5, 6, 8, 9, 10 (pp. 97-100)	<p>Big Idea: Quantities and numbers can be grouped by, and partitioned into, units to determine how many or how much.</p> <p>Developing Fluency for Multiplication and Division Computation</p> <ul style="list-style-type: none"> - Fluently multiplies and divides to 25. <p>Developing Conceptual Meaning of Multiplication and Division</p>

						<ul style="list-style-type: none"> - Models and symbolizes equal sharing and grouping division problems using the division symbol (\div). - Relates division to repeated subtraction. - Begins to model single-digit and multi-digit multiplication and related division situations.
		Explain the meaning of the remainder in various situations.	Number Unit 5: Multiplication and Division 28: Dividing with Remainders		N/A	Big Idea: 4–9 Quantities and numbers can be operated on to determine how many and how much. Developing Conceptual Meaning of Operations <ul style="list-style-type: none"> - Models and develops meanings for division of whole numbers that result in fractions. Big Idea: 4–9 Quantities and numbers can be operated on to determine how many and how much. Developing Fluency of Operations <ul style="list-style-type: none"> - Solves whole number computation using efficient strategies (e.g., mental computation, algorithms, calculating cost of transactions and change owing, saving money to make a purchase).
		Solve problems using multiplication and division in sharing or grouping situations.	Number Unit 5: Multiplication and Division 26: Relating Multiplication and Division 29: Solving Multiplication and Division Problems	Sports Camp	Unit 16 Questions 2, 3, 8, 9, 10 (pp. 97, 99-100)	Big Idea: 4–9 Quantities and numbers can be operated on to determine how many and how much. Investigating Number and Arithmetic Properties <ul style="list-style-type: none"> - Understands operation relationships (e.g., inverse relationship between multiplication/division, addition/subtraction). - Understands the identity of operations (e.g., $5 + 0 = 5$; $7 \times 1 = 7$). Developing Fluency of Operations <ul style="list-style-type: none"> - Fluently recalls multiplication and division facts to 100. - Solves whole number computation using efficient strategies (e.g., mental computation, algorithms, calculating cost of transactions and change owing, saving money to make a purchase).
<p>A multiplication table shows both multiplication and division facts.</p> <p>Fact families are groups of related multiplication and division number facts.</p>	Multiplication number facts have related division facts.	Examine patterns in multiplication and division, including patterns in multiplication tables and skip counting.	Number Unit 5: Multiplication and Division 30: Building Fluency: The Games Room		N/A	Big Idea: Quantities and numbers can be grouped by, and partitioned into, units to determine how many or how much. Developing Fluency for Multiplication and Division Computation <ul style="list-style-type: none"> - Fluently multiplies and divides to 25. Developing Conceptual Meaning of Multiplication and Division <ul style="list-style-type: none"> - Models and symbolizes equal sharing and grouping division problems using the division symbol (\div). - Relates division to repeated subtraction.

						- Begins to model single-digit and multi-digit multiplication and related division situations.
		Recognize families of related multiplication and division number facts.	Number Unit 5: Multiplication and Division 26: Relating Multiplication and Division 30: Building Fluency: The Games Room 31: Consolidation		Unit 16 Questions 5, 6 (p. 98)	<p>Big Idea: 4–9 Quantities and numbers can be operated on to determine how many and how much.</p> <p>Investigating Number and Arithmetic Properties</p> <ul style="list-style-type: none"> - Understands the identity of operations (e.g., $5 + 0 = 5$; $7 \times 1 = 7$). <p>Developing Fluency of Operations</p> <ul style="list-style-type: none"> - Fluently recalls multiplication and division facts to 100. <p>Big Idea: Quantities and numbers can be grouped by, and partitioned into, units to determine how many or how much.</p> <p>Developing Fluency for Multiplication and Division Computation</p> <ul style="list-style-type: none"> - Fluently multiplies and divides to 25. <p>Developing Conceptual Meaning of Multiplication and Division</p> <ul style="list-style-type: none"> - Models and symbolizes equal sharing and grouping division problems using the division symbol (\div). - Relates division to repeated subtraction. - Begins to model single-digit and multi-digit multiplication and related division situations.
		Recall multiplication number facts, with factors to 10, and related division facts.	Number Unit 5: Multiplication and Division 24: Multiplication and Division Fact Families 25: Strategies for Multiplication 30: Building Fluency: The Games Room		Unit 16 Question 11 (p. 101)	<p>Big Idea: Quantities and numbers can be grouped by, and partitioned into, units to determine how many or how much.</p> <p>Developing Conceptual Meaning of Multiplication and Division</p> <ul style="list-style-type: none"> - Models and symbolizes equal sharing and grouping division problems using the division symbol (\div). - Relates division to repeated subtraction. - Begins to model single-digit and multi-digit multiplication and related division situations. <p>Developing Fluency for Multiplication and Division Computation</p> <ul style="list-style-type: none"> - Fluently multiplies and divides to 25. <p>Big Idea: 4–9 Quantities and numbers can be operated on to determine how many and how much.</p> <p>Investigating Number and Arithmetic Properties</p> <ul style="list-style-type: none"> - Understands the identity of operations (e.g., $5 + 0 = 5$; $7 \times 1 = 7$). <p>Developing Fluency of Operations</p> <ul style="list-style-type: none"> - Fluently recalls multiplication and division facts to 100.

Guiding Question: How can fractions contribute to a sense of number?

Learning Outcome: Students interpret fractions in relation to one whole.

Knowledge	Understanding	Skills & Procedures	Grade 3 Mathology	Mathology Little Books	Mathology Practice Workbook 3	Pearson K–3 Learning Progression
<p>The same fraction can represent</p> <ul style="list-style-type: none"> equal parts of one whole length, shape, or object equal groups of one whole quantity equal parts of each equal group in one whole quantity <p>The name of a fraction describes its composition as a number of unit fractions.</p> <p>Fraction notation, $\left(\frac{a}{b}\right)$, relates the numerator, a, as a number of equal parts, to the denominator, b, as the total number of equal parts in the whole.</p>	<p>Fractions are numbers between natural numbers.</p> <p>Fractions can represent part-to-whole relationships.</p> <p>A unit fraction describes the size of the equal parts of a fraction.</p> <p>The size of the parts and the total number of equal parts in the whole are inversely related.</p>	<p>Model fractions of a whole quantity, length, shape, or object, in various ways, limited to denominators of 12 or less.</p>	<p>Number Unit 2: Fractions 7: Exploring Equal Parts 8: Comparing Fractions 1 10: Comparing and Ordering Fractions</p>		<p>Unit 12 Questions 1, 2, 3, 7, 8, 9 (pp. 70-71, 73)</p>	<p>Big Idea: Quantities and numbers can be grouped by or partitioned into equal-sized units. Partitioning Quantities to Form Fractions</p> <ul style="list-style-type: none"> - Counts by unit fractions (e.g., counting by $\frac{1}{4}$: $\frac{1}{4}$, $\frac{2}{4}$, $\frac{3}{4}$). Uses fraction symbols to name fractional quantities. - Partitions a number line (from 0 to 1) into equal parts and names the parts using fractions. <p>Big Idea 4-9: Numbers are related in many ways. Comparing and Ordering Quantities (Multitude and Magnitude)</p> <ul style="list-style-type: none"> - Compares, orders, and locates fractions using flexible strategies (e.g., comparing models; creating common denominators or numerators).
		<p>Visualize fractions as compositions of a unit fraction.</p>	<p>Number Unit 2: Fractions 7: Exploring Equal Parts 8: Comparing Fractions 1 9: Comparing Fractions 2</p>		<p>Unit 12 Questions 1, 2, 5 (pp. 70-72)</p>	<p>Big Idea: Quantities and numbers can be grouped by or partitioned into equal-sized units. Partitioning Quantities to Form Fractions</p> <ul style="list-style-type: none"> - Counts by unit fractions (e.g., counting by $\frac{1}{4}$: $\frac{1}{4}$, $\frac{2}{4}$, $\frac{3}{4}$). Uses fraction symbols to name fractional quantities. - Compares related fractions (e.g., same numerator, same denominator, unit fractions, familiar fractions) to determine more/less, equal, or equivalent. - Partitions a number line (from 0 to 1) into equal parts and names the parts using fractions.
	<p>Identify the numerator and denominator of a fraction in various representations.</p>	<p>Number Unit 2: Fractions 7: Exploring Equal Parts</p>		<p>Unit 12 Question 5 (p. 72)</p>	<p>Big Idea: Quantities and numbers can be grouped by or partitioned into equal-sized units. Partitioning Quantities to Form Fractions</p> <ul style="list-style-type: none"> - Counts by unit fractions (e.g., counting by $\frac{1}{4}$: $\frac{1}{4}$, $\frac{2}{4}$, $\frac{3}{4}$). Uses fraction symbols to name fractional quantities. 	
	<p>Name a given fraction.</p>	<p>Number Unit 2: Fractions 7: Exploring Equal Parts</p>		<p>Unit 12 Question 1, 2, 3, 5 (pp. 70-72)</p>	<p>Big Idea: Quantities and numbers can be grouped by or partitioned into equal-sized units. Partitioning Quantities to Form Fractions</p> <ul style="list-style-type: none"> - Counts by unit fractions (e.g., counting by $\frac{1}{4}$: $\frac{1}{4}$, $\frac{2}{4}$, $\frac{3}{4}$). Uses fraction symbols to name fractional quantities. 	

<p>Equal numerators or equal denominators can facilitate the comparison of fractions.</p> <p>A fraction with a numerator that is equal to its denominator is one whole.</p> <p>Each fraction is associated with a point on the number line.</p>	<p>Express fractions, including one whole, symbolically, limited to denominators of 12 or less.</p>	<p>Number Unit 2: Fractions 7: Exploring Equal Parts 8: Comparing Fractions 1 9: Comparing Fractions 2</p>	<p>Hockey Homework</p>	<p>Unit 12 Question 1, 2, 3, 5, 7, 8, 9 (pp. 70-73)</p>	<p>Big Idea: Quantities and numbers can be grouped by or partitioned into equal-sized units. Partitioning Quantities to Form Fractions - Counts by unit fractions (e.g., counting by $\frac{1}{4}$: $\frac{1}{4}$, $\frac{2}{4}$, $\frac{3}{4}$). Uses fraction symbols to name fractional quantities. - Compares related fractions (e.g., same numerator, same denominator, unit fractions, familiar fractions) to determine more/less, equal, or equivalent. - Partitions a number line (from 0 to 1) into equal parts and names the parts using fractions.</p>
	<p>Relate various representations of the same fraction, limited to denominators of 12 or less.</p>	<p>Number Unit 2: Fractions 9: Comparing Fractions 2</p>		<p>Unit 12 Questions 1, 3 (pp. 70-71)</p>	<p>Big Idea: Quantities and numbers can be grouped by or partitioned into equal-sized units. Partitioning Quantities to Form Fractions - Compares related fractions (e.g., same numerator, same denominator, unit fractions, familiar fractions) to determine more/less, equal, or equivalent.</p>
	<p>Compare the same fraction of different-sized wholes.</p>	<p>Number Unit 2: Fractions 8: Comparing Fractions 1 9: Comparing Fractions 2</p>	<p>Hockey Homework</p>	<p>Unit 12 Question 4 (p. 71)</p>	<p>Big Idea: Quantities and numbers can be grouped by or partitioned into equal-sized units. Partitioning Quantities to Form Fractions - Compares related fractions (e.g., same numerator, same denominator, unit fractions, familiar fractions) to determine more/less, equal, or equivalent. - Partitions a number line (from 0 to 1) into equal parts and names the parts using fractions.</p>
	<p>Compare different fractions of the same whole that have the same denominator.</p>	<p>Number Unit 2: Fractions 8: Comparing Fractions 1 9: Comparing Fractions 2 10: Comparing and Ordering Fractions 11: Consolidation</p>		<p>Unit 12 Questions 5, 6 (p. 72)</p>	<p>Big Idea: Quantities and numbers can be grouped by or partitioned into equal-sized units. Partitioning Quantities to Form Fractions - Compares related fractions (e.g., same numerator, same denominator, unit fractions, familiar fractions) to determine more/less, equal, or equivalent. - Partitions a number line (from 0 to 1) into equal parts and names the parts using fractions. Big Idea 4-9: Numbers are related in many ways. Comparing and Ordering Quantities (Multitude and Magnitude) - Compares, orders, and locates fractions using flexible strategies (e.g., comparing models; creating common denominators or numerators).</p>

		Compare different fractions of the same whole that have the same numerator and different denominators.	Number Unit 2: Fractions 8: Comparing Fractions 1 9: Comparing Fractions 2 10: Comparing and Ordering Fractions 11: Consolidation		Unit 12 Question 6 (p. 72)	Big Idea: Quantities and numbers can be grouped by or partitioned into equal-sized units. Partitioning Quantities to Form Fractions - Compares related fractions (e.g., same numerator, same denominator, unit fractions, familiar fractions) to determine more/less, equal, or equivalent. - Partitions a number line (from 0 to 1) into equal parts and names the parts using fractions. Big Idea 4-9: Numbers are related in many ways. Comparing and Ordering Quantities (Multitude and Magnitude) - Compares, orders, and locates fractions using flexible strategies (e.g., comparing models; creating common denominators or numerators).
		Express the relationship between two fractions of the same whole, using $<$, $>$, or $=$.	Number Unit 2: Fractions 8: Comparing Fractions 1 9: Comparing Fractions 2 10: Comparing and Ordering Fractions		N/A	Big Idea: Quantities and numbers can be grouped by or partitioned into equal-sized units. Partitioning Quantities to Form Fractions - Compares related fractions (e.g., same numerator, same denominator, unit fractions, familiar fractions) to determine more/less, equal, or equivalent. - Partitions a number line (from 0 to 1) into equal parts and names the parts using fractions. Big Idea 4-9: Numbers are related in many ways. Comparing and Ordering Quantities (Multitude and Magnitude) - Compares, orders, and locates fractions using flexible strategies (e.g., comparing models; creating common denominators or numerators).
		Relate a fraction less than one to its position on the number line, limited to denominators of 12 or less.	Number Unit 2: Fractions 8: Comparing Fractions 1 10: Comparing and Ordering Fractions		N/A	Big Idea: Quantities and numbers can be grouped by or partitioned into equal-sized units. Partitioning Quantities to Form Fractions - Partitions a number line (from 0 to 1) into equal parts and names the parts using fractions. Big Idea 4-9: Numbers are related in many ways. Comparing and Ordering Quantities (Multitude and Magnitude) - Compares, orders, and locates fractions using flexible strategies (e.g., comparing models; creating common denominators or numerators).
		Compare fractions to	Number Unit 2: Fractions	Hockey Homework	Unit 12 Questions 5, 6 (p. 72)	Big Idea: Quantities and numbers can be grouped by or partitioned into equal-sized units.

		benchmarks of 0, $\frac{1}{2}$, and 1.	8: Comparing Fractions 1 10: Comparing and Ordering Fractions			<p>Partitioning Quantities to Form Fractions</p> <ul style="list-style-type: none"> - Partitions a number line (from 0 to 1) into equal parts and names the parts using fractions. <p>Big Idea 4-9: Numbers are related in many ways. Comparing and Ordering Quantities (Multitude and Magnitude)</p> <ul style="list-style-type: none"> - Compares, orders, and locates fractions using flexible strategies (e.g., comparing models; creating common denominators or numerators).
--	--	---	--	--	--	--

Mathology Grade 3 Correlation (Algebra) – Alberta

Organizing Idea:

Equations express relationships between quantities.

Guiding Question: How can equality facilitate agility with number? Learning Outcome: Students illustrate equality with equations.						
Knowledge	Understanding	Skills & Procedures	Grade 3 Mathology	Mathology Little Books	Mathology Practice Workbook 3	Pearson Canada Grades K–3 Mathematics Learning Progression
<p>An equation uses the equal sign to indicate equality between two expressions.</p> <p>The left and right sides of an equation are interchangeable.</p>	<p>Two expressions are equal if they represent the same number.</p>	<p>Write equations that represent equality between a number and an expression or between two different expressions of the same number.</p>	<p>Patterning Unit 2: Variables and Equations 9: Exploring Number Sentences for Larger Numbers 10: Solving Equations Concretely</p>	<p>A Week of Challenges</p>	<p>Unit 7 Questions 2, 3, 4c, 7 (pp. 38-40)</p>	<p>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</p> <ul style="list-style-type: none"> - 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). <p>Using Symbols, Unknowns, and Variables to Represent Mathematical Relations</p> <ul style="list-style-type: none"> - Solves for an unknown value in a one-step addition and subtraction problem (e.g., $n + 5 = 15$). <p>Big Idea: Quantities and numbers can be added and subtracted to determine how many or how much. Developing Conceptual Meaning of Addition and Subtraction</p> <ul style="list-style-type: none"> - Uses symbols and equations to represent addition and subtraction situations.
<p>Equations can be modelled using a balance.</p> <p>A symbol may represent an</p>	<p>Equations can include unknown values.</p>	<p>Model equations that include an unknown value, including with a balance.</p>	<p>Patterning Unit 2: Variables and Equations 10: Solving Equations Concretely 11: Strategies for Solving Equations</p>	<p>A Week of Challenges</p>	<p>Unit 7 Questions 1, 2 (pp. 37-38)</p>	<p>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</p>

unknown value in an equation.			12: Creating Equations 13: Consolidation			- Explores properties of addition and subtraction (e.g., adding or subtracting 0, commutativity of addition). Using Symbols, Unknowns, and Variables to Represent Mathematical Relations - Solves for an unknown value in a one-step addition and subtraction problem (e.g., $n + 5 = 15$).
	Determine an unknown value on the left or right side of an equation, limited to equations with one operation.	Patterning Unit 2: Variables and Equations 10: Solving Equations Concretely 11: Strategies for Solving Equations 12: Creating Equations 13: Consolidation	A Week of Challenges	Unit 7 Questions 1, 2, 3, 4, 5, 10 (pp. 37-39, 41)	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). Using Symbols, Unknowns, and Variables to Represent Mathematical Relations - Solves for an unknown value in a one-step addition and subtraction problem (e.g., $n + 5 = 15$).	
	Solve problems using equations, limited to equations with one operation.	Patterning Unit 2: Variables and Equations 12: Creating Equations	A Week of Challenges	Unit 7 Questions 6, 8 (pp. 39-40)	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). Using Symbols, Unknowns, and Variables to Represent Mathematical Relations - Solves for an unknown value in a one-step addition and subtraction problem (e.g., $n + 5 = 15$).	

Mathology Grade 3 Correlation (Geometry) – Alberta

Organizing Idea:

Shapes are defined and related by geometric attributes.

Guiding Question: In what ways might geometric properties refine interpretation of shape? Learning Outcome: Students relate geometric properties to shape.						
Knowledge	Understanding	Skills & Procedures	Grade 3 Mathology	Mathology Little Books	Mathology Practice Workbook 3	Pearson Canada Grades K–3 Mathematics Learning Progression
Geometric properties can describe relationships, including perpendicular, parallel, and equal. Parallel lines or planes are always the same distance apart. Perpendicular lines or planes intersect at a 90° (right) angle. Right angles can be identified using various referents, such as	Geometric properties are relationships between geometric attributes. Geometric properties define a class of polygon.	Investigate the relationships between the sides of a polygon, including perpendicular, parallel, and equal, using referents for 90° or by measuring.	Geometry Unit 1: 2-D Shapes 3: Geometric Relationships		Unit 9 Questions 3, 6, 7 (pp. 51, 53)	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 - Classifies and names 2-D shapes and 3-D solids using geometric properties (e.g., a rectangle has 4 right angles).
		Investigate the relationships between vertices of a polygon, including equal or right angles, using direct comparison or referents for 90°.	Geometry Unit 1: 2-D Shapes 3: Geometric Relationships		Unit 9 Questions 3, 6, 7, 9 (pp. 51, 53-54)	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 - Classifies and names 2-D shapes and 3-D solids using geometric properties (e.g., a rectangle has 4 right angles).

<ul style="list-style-type: none"> the corner of a piece of paper the angle between the hands on an analog clock at 3:00 a capital letter L <p>Polygons include</p> <ul style="list-style-type: none"> triangles quadrilaterals pentagons hexagons octagons <p>Regular polygons have sides of equal length and interior angles of equal measure.</p>		Describe geometric properties of regular and irregular polygons.	Geometry Unit 1: 2-D Shapes 1: Sorting Polygons 2: What’s the Sorting Rule?	Gallery Tour WONDERful Buildings	Unit 9 Questions 1, 2, 3 (pp. 50-51)	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 - Classifies and names 2-D shapes and 3-D solids using geometric properties (e.g., a rectangle has 4 right angles).
		Sort polygons according to geometric properties and describe the sorting rule.	Geometry Unit 1: 2-D Shapes 1: Sorting Polygons 2: What’s the Sorting Rule? 5: Consolidation	WONDERful Buildings	Unit 9 Questions 4, 5 (pp. 51-52)	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 - Classifies and names 2-D shapes and 3-D solids using geometric properties (e.g., a rectangle has 4 right angles).
		Classify polygons as regular or irregular using geometric properties.	Geometry Unit 1: 2-D Shapes 1: Sorting Polygons 2: What’s the Sorting Rule?		Unit 9 Questions 1, 2, 3 (p. 50-51)	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 - Classifies and names 2-D shapes and 3-D solids using geometric properties (e.g., a rectangle has 4 right angles).
<p>Transformations include</p> <ul style="list-style-type: none"> translations rotations reflections <p>The distance between any two vertices of a shape is maintained in the image created by a transformation.</p>	Geometric properties do not change when a polygon undergoes a transformation.	Examine geometric properties of polygons by translating, rotating, or reflecting using hands-on materials or digital applications.	Geometry Unit 1: 2-D Shapes 4: Transforming Shapes	Gallery Tour	Unit 11 Question 3 (p. 63)	Big Idea: 2-D shapes and 3-D solids can be transformed in many ways and analyzed for change. Exploring 2-D Shapes and 3-D Solids by Applying and Visualizing Transformations - Performs and describes the transformations of shapes on a grid including direction and turn (e.g., predicting the outcome for a given code to transform a shape or altering code to a new endpoint).

Mathology Grade 3 Correlation (Measurement) – Alberta

Organizing Idea:

Attributes such as length, area, volume, and angle are quantified by measurement.

Guiding Question: In what ways can length be communicated? Learning Outcome: Students determine length using standard units.						
Knowledge	Understanding	Skills & Procedures	Grade 3 Mathology	Mathology Little Books	Mathology Practice Workbook 3	Pearson Canada Grades K–3 Mathematics Learning Progression
<p>The basic unit of length in the metric system is the metre.</p> <p>Metric units are named using prefixes that indicate the relationship to the basic unit, including</p> <ul style="list-style-type: none"> • milli: one thousand millimetres in one metre • centi: one hundred centimetres in one metre • deci: ten decimetres in one metre 	<p>Length is measured in standard units according to the metric system and the imperial system.</p> <p>Length can be expressed in various units according to context and desired precision.</p>	<p>Relate millimetres, centimetres, and metres.</p>	<p>Measurement Unit 1: Length and Perimeter</p> <p>3: The Centimetre</p> <p>4: Estimating and Measuring in Millimetres</p> <p>10: Consolidation</p>	<p>Measurements About YOU!</p>	<p>Unit 6 Questions 2, 3 (p. 32)</p>	<p>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</p> <ul style="list-style-type: none"> - Demonstrates ways to estimate, measure, compare, and order objects by length, perimeter, area, capacity, and mass with standard units by <ul style="list-style-type: none"> • 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 (e.g., doorknob is 1 m from the ground; room temperature is 21°C). <p>Big Idea: Numbers tell us how many and how much. Applying the Principles of Counting</p> <ul style="list-style-type: none"> - Says the number name sequence forward through the teen numbers. <p>Big Idea: 4–9 Assigning a unit to a continuous attribute allows us to measure and make comparisons.</p>

<p>Metric units are abbreviated for convenience, including</p> <ul style="list-style-type: none"> • m: metre • dm: decimetre • cm: centimetre • mm: millimetre <p>Standard measuring tools show iterations of a standard unit from an origin.</p> <p>Units of length in the imperial system include inch, foot, and yard, related in these ways:</p> <ul style="list-style-type: none"> • 12 inches in one foot • 36 inches in one yard • 3 feet in one yard <p>Approximate conversions between metric and imperial are useful in real-world situations, including</p> <ul style="list-style-type: none"> • $2\frac{1}{2}$ centimetres are approximately 1 inch 					<p>Selecting and Using Units to Estimate, Measure, Construct, and Make Comparisons</p> <ul style="list-style-type: none"> - Chooses the most appropriate unit to measure a given attribute of an object (e.g., classroom area measured in square metres). <p>Understanding Relationships Among Measured Units</p> <ul style="list-style-type: none"> - Understands and applies the multiplicative relationship among metric units of length, mass, and capacity.
	Relate inches to feet and yards.	Measurement Unit 1: Length and Perimeter 7: Imperial Measures		N/A	<p>Big Idea: Assigning a unit to a continuous attribute allows us to measure and make comparisons.</p> <p>Understanding Relationships Among Measurement Units</p> <ul style="list-style-type: none"> - Understands relationship of units of length (mm, cm, m), mass (g, kg), capacity (mL, L), and time (e.g., seconds, minutes, hours). <p>Selecting and Using Standard Units to Estimate, Measure, and Make Comparisons</p> <ul style="list-style-type: none"> - Demonstrates ways to estimate, measure, compare, and order objects by length, perimeter, area, capacity, and mass with standard units by <ul style="list-style-type: none"> • 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 (e.g., doorknob is 1 m from the ground; room temperature is 21°C).
	Justify the choice of millimetres, centimetres, or metres to measure various lengths.	Measurement Unit 1: Length and Perimeter 9: How Many Can You Make? 10: Consolidation		Unit 6 Question 1 (p. 31)	<p>Big Idea: Many things in our world (e.g., objects, spaces, events) have attributes that can be measured and compared.</p> <p>Understanding Attributes That Can Be Measured</p> <ul style="list-style-type: none"> - Understands that some things have more than one attribute that can be measured (e.g., an object can have both length and mass). - Understands conservation of length (e.g., a string is the same length when straight and not straight),

<ul style="list-style-type: none"> • 1 metre is approximately 3 feet • 30 centimetres are approximately 1 foot • 1 metre is approximately 1 yard 						<p>capacity (e.g., two differently shaped containers may hold the same amount), and area (e.g., two surfaces of different shapes can have the same area).</p> <ul style="list-style-type: none"> - Extends understanding of length to other linear measurements (e.g., height, width, distance around). <p>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</p> <ul style="list-style-type: none"> - Demonstrates ways to estimate, measure, compare, and order objects by length, perimeter, area, capacity, and mass with standard units by <ul style="list-style-type: none"> • 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 (e.g., doorknob is 1 m from the ground; room temperature is 21°C).
		<p>Measure lengths of straight lines and curves, with millimetres, centimetres, or metres.</p>	<p>Measurement Unit 1: Length and Perimeter 2: The Metre 3: The Centimetre 4: Estimating and Measuring in Millimetres 5: Metres, Centimetres, or Millimetres? 6: Measuring Length 10: Consolidation</p>		<p>Unit 6 Questions 4, 5, 6, 7, 9, 11, 12 (pp. 32-36)</p>	<p>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</p> <ul style="list-style-type: none"> - Demonstrates ways to estimate, measure, compare, and order objects by length, perimeter, area, capacity, and mass with standard units by <ul style="list-style-type: none"> • 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

						<p>standard units (e.g., doorknob is 1 m from the ground; room temperature is 21°C).</p> <p>Big Idea: Numbers tell us how many and how much. Applying the Principles of Counting</p> <ul style="list-style-type: none"> - Says the number name sequence forward through the teen numbers. <p>Big Idea: 4–9 Assigning a unit to a continuous attribute allows us to measure and make comparisons.</p> <p>Selecting and Using Units to Estimate, Measure, Construct, and Make Comparisons</p> <ul style="list-style-type: none"> - Chooses the most appropriate unit to measure a given attribute of an object (e.g., classroom area measured in square metres). <p>Understanding Relationships Among Measured Units</p> <ul style="list-style-type: none"> - Understands and applies the multiplicative relationship among metric units of length, mass, and capacity. <p>Big Idea: Many things in our world (e.g., objects, spaces, events) have attributes that can be measured and compared.</p> <p>Understanding Attributes That Can Be Measured</p> <ul style="list-style-type: none"> - Understands that some things have more than one attribute that can be measured (e.g., an object can have both length and mass). - Understands conservation of length (e.g., a string is the same length when straight and not straight), capacity (e.g., two differently shaped containers may hold the same amount), and area (e.g., two surfaces of different shapes can have the same area). - Extends understanding of length to other linear measurements (e.g., height, width, distance around).
		Recognize length expressed in metric or imperial units.	Measurement Unit 1: Length and Perimeter 7: Imperial Measures		Unit 6 Questions 2, 3, 6 (pp. 32-33)	<p>Big Idea: Assigning a unit to a continuous attribute allows us to measure and make comparisons.</p> <p>Understanding Relationships Among Measurement Units</p> <ul style="list-style-type: none"> - Understands relationship of units of length (mm, cm, m), mass (g, kg), capacity (mL, L), and time (e.g., seconds, minutes, hours).

						<p>Selecting and Using Standard Units to Estimate, Measure, and Make Comparisons</p> <ul style="list-style-type: none"> - Demonstrates ways to estimate, measure, compare, and order objects by length, perimeter, area, capacity, and mass with standard units by <ul style="list-style-type: none"> • 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 (e.g., doorknob is 1 m from the ground; room temperature is 21°C).
		Approximate a measurement in inches, feet, or yards using centimetres or metres.	<p>Measurement Unit 1: Length and Perimeter 7: Imperial Measures</p>		N/A	<p>Big Idea: Assigning a unit to a continuous attribute allows us to measure and make comparisons. Understanding Relationships Among Measurement Units</p> <ul style="list-style-type: none"> - Understands relationship of units of length (mm, cm, m), mass (g, kg), capacity (mL, L), and time (e.g., seconds, minutes, hours). <p>Selecting and Using Standard Units to Estimate, Measure, and Make Comparisons</p> <ul style="list-style-type: none"> - Demonstrates ways to estimate, measure, compare, and order objects by length, perimeter, area, capacity, and mass with standard units by <ul style="list-style-type: none"> • 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 (e.g., doorknob is 1 m from the ground; room temperature is 21°C).
The perimeter of a polygon is the sum of the	Length remains the same when	Determine perimeter of polygons.	<p>Measurement Unit 1: Length and Perimeter 8: Measuring Perimeter</p>	The Bunny Challenge	Unit 6 Questions 7, 8, 9, 10, 12 (pp. 33-36)	<p>Big Idea: Many things in our world (e.g., objects, spaces, events) have attributes that can be measured and compared.</p>

lengths of its sides.	decomposed or rearranged.		9: How Many Can You Make? 10: Consolidation		Unit 17 Question 2 (p. 103)	<p>Understanding Attributes That Can Be Measured</p> <ul style="list-style-type: none"> - Understands that some things have more than one attribute that can be measured (e.g., an object can have both length and mass). - Understands conservation of length (e.g., a string is the same length when straight and not straight), capacity (e.g., two differently shaped containers may hold the same amount), and area (e.g., two surfaces of different shapes can have the same area). - Extends understanding of length to other linear measurements (e.g., height, width, distance around). <p>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</p> <ul style="list-style-type: none"> - Demonstrates ways to estimate, measure, compare, and order objects by length, perimeter, area, capacity, and mass with standard units by <ul style="list-style-type: none"> • 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 (e.g., doorknob is 1 m from the ground; room temperature is 21°C).
		Determine the length of an unknown side given the perimeter of a polygon.	Measurement Unit 1: Length and Perimeter 8: Measuring Perimeter	The Bunny Challenge	Unit 6 Questions 9, 10, 11 (pp. 34-35)	<p>Big Idea: Many things in our world (e.g., objects, spaces, events) have attributes that can be measured and compared.</p> <p>Understanding Attributes That Can Be Measured</p> <ul style="list-style-type: none"> - Understands that some things have more than one attribute that can be measured (e.g., an object can have both length and mass). - Understands conservation of length (e.g., a string is the same length when straight and not straight), capacity (e.g., two differently shaped containers may hold the same amount), and area (e.g., two

						<p>surfaces of different shapes can have the same area).</p> <ul style="list-style-type: none"> - Extends understanding of length to other linear measurements (e.g., height, width, distance around). <p>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</p> <ul style="list-style-type: none"> - Demonstrates ways to estimate, measure, compare, and order objects by length, perimeter, area, capacity, and mass with standard units by <ul style="list-style-type: none"> • 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 (e.g., doorknob is 1 m from the ground; room temperature is 21°C).
<p>A benchmark is a known length to which another length can be compared.</p> <p>Length can be estimated using a personal or familiar referent.</p>	<p>Length can be estimated when less accuracy is required.</p>	<p>Identify referents for a centimetre and a metre.</p>	<p>Measurement Unit 1: Length and Perimeter 1: Estimating Length</p>		<p>Unit 6 Questions 4, 6 (pp. 32-33)</p>	<p>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</p> <ul style="list-style-type: none"> - Understands that some things have more than one attribute that can be measured (e.g., an object can have both length and mass). - Understands conservation of length (e.g., a string is the same length when straight and not straight), capacity (e.g., two differently shaped containers may hold the same amount), and area (e.g., two surfaces of different shapes can have the same area). - Extends understanding of length to other linear measurements (e.g., height, width, distance around). <p>Big Idea: Assigning a unit to a continuous attribute allows us to measure and make comparisons.</p>

						<p>Selecting and Using Standard Units to Estimate, Measure, and Make Comparisons</p> <ul style="list-style-type: none"> - Demonstrates ways to estimate, measure, compare, and order objects by length, perimeter, area, capacity, and mass with standard units by <ul style="list-style-type: none"> • 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 (e.g., doorknob is 1 m from the ground; room temperature is 21°C).
		Estimate length by comparing to a benchmark.	<p>Measurement Unit 1: Length and Perimeter 1: Estimating Length</p>		Unit 6 Questions 4, 6 (pp. 32-33)	<p>Big Idea: Many things in our world (e.g., objects, spaces, events) have attributes that can be measured and compared.</p> <p>Understanding Attributes That Can Be Measured</p> <ul style="list-style-type: none"> - Understands that some things have more than one attribute that can be measured (e.g., an object can have both length and mass). - Understands conservation of length (e.g., a string is the same length when straight and not straight), capacity (e.g., two differently shaped containers may hold the same amount), and area (e.g., two surfaces of different shapes can have the same area). - Extends understanding of length to other linear measurements (e.g., height, width, distance around). <p>Big Idea: Assigning a unit to a continuous attribute allows us to measure and make comparisons.</p> <p>Selecting and Using Standard Units to Estimate, Measure, and Make Comparisons</p> <ul style="list-style-type: none"> - Demonstrates ways to estimate, measure, compare, and order objects by length, perimeter, area, capacity, and mass with standard units by <ul style="list-style-type: none"> • using an intermediary object of a known measure • using multiple copies of a unit

						<ul style="list-style-type: none"> iterating a single unit <ul style="list-style-type: none"> 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 (e.g., doorknob is 1 m from the ground; room temperature is 21°C).
		Estimate length by visualizing the iteration of a referent for a centimetre or metre.	Measurement Unit 1: Length and Perimeter 1: Estimating Length 10: Consolidation		Unit 6 Questions 4, 6 (pp. 32-33)	<p>Big Idea: Many things in our world (e.g., objects, spaces, events) have attributes that can be measured and compared.</p> <p>Understanding Attributes That Can Be Measured</p> <ul style="list-style-type: none"> Understands that some things have more than one attribute that can be measured (e.g., an object can have both length and mass). Understands conservation of length (e.g., a string is the same length when straight and not straight), capacity (e.g., two differently shaped containers may hold the same amount), and area (e.g., two surfaces of different shapes can have the same area). Extends understanding of length to other linear measurements (e.g., height, width, distance around). <p>Big Idea: Assigning a unit to a continuous attribute allows us to measure and make comparisons.</p> <p>Selecting and Using Standard Units to Estimate, Measure, and Make Comparisons</p> <ul style="list-style-type: none"> Demonstrates ways to estimate, measure, compare, and order objects by length, perimeter, area, capacity, and mass with standard units by <ul style="list-style-type: none"> 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 (e.g., doorknob is 1 m from the ground; room temperature is 21°C).

Guiding Question: How can angles broaden an understanding of space?						
Learning Outcome: Students interpret angles.						
Knowledge	Understanding	Skills & Procedures	Grade 3 Mathology	Mathology Little Books	Mathology Practice Workbook 3	Pearson Canada Grades K–3 Mathematics Learning Progression
<p>Angle defines the space in</p> <ul style="list-style-type: none"> corners bends turns or rotations intersections slopes <p>The arms of an angle can be line segments or rays.</p> <p>A vertex is the common end point of two arms.</p>	<p>An angle is formed when two arms meet at a vertex.</p> <p>An angle can be interpreted as the motion of a length rotated about a vertex.</p>	Recognize various angles in surroundings.	Geometry Unit 2: Angles 6: Investigating Angles 8: Consolidation		Unit 9 Question 10 (p. 55)	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 - Classifies and names 2-D shapes and 3-D solids using geometric properties (e.g., a rectangle has 4 right angles).
		Recognize situations in which an angle can be perceived as motion.	Geometry Unit 2: Angles 6: Investigating Angles		N/A	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 - Classifies and names 2-D shapes and 3-D solids using geometric properties (e.g., a rectangle has 4 right angles).
<p>Superimposing is the process of placing one angle over another to compare angles.</p> <p>A referent is a personal or familiar representation of a known angle.</p>	<p>Two angles can be compared directly or indirectly.</p>	Compare two angles directly by superimposing.	Geometry Unit 2: Angles 7: Comparing Angles		Unit 9 Question 8 (p. 54)	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 - Classifies and names 2-D shapes and 3-D solids using geometric properties (e.g., a rectangle has 4 right angles).
		Compare two angles indirectly by superimposing a third angle.	Geometry Unit 2: Angles 7: Comparing Angles		Unit 9 Question 8 (p. 54)	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 - Classifies and names 2-D shapes and 3-D solids using geometric properties (e.g., a rectangle has 4 right angles).
		Estimate which of two angles is greater.	Geometry Unit 2: Angles 7: Comparing Angles		Unit 9 Question 10 (p. 55)	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

						- Classifies and names 2-D shapes and 3-D solids using geometric properties (e.g., a rectangle has 4 right angles).
		Identify referents for 90°.	Geometry Unit 2: Angles 6: Investigating Angles 7: Comparing Angles		Unit 9 Questions 8, 10 (p. 54)	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 - Classifies and names 2-D shapes and 3-D solids using geometric properties (e.g., a rectangle has 4 right angles).
		Identify 90° angles in the environment using a referent.	Geometry Unit 2: Angles 6: Investigating Angles 7: Comparing Angles		Unit 9 Question 8 (p. 54)	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 - Classifies and names 2-D shapes and 3-D solids using geometric properties (e.g., a rectangle has 4 right angles).



Mathology Grade 3 Correlation (Patterns) – Alberta

Organizing Idea:

Awareness of patterns supports problem solving in various situations.

Guiding Question: How can diverse representations of patterns contribute to interpretation of change?						
Learning Outcome: Students analyze patterns in numerical sequences.						
Knowledge	Understanding	Skills & Procedures	Grade 3 Mathology	Mathology Little Books	Mathology Practice Workbook 3	Pearson Canada Grades K–3 Mathematics Learning Progression
Ordinal numbers can indicate position in a sequence.	A sequence is a list of terms arranged in a certain order.	Recognize familiar numerical sequences, including the sequence of even or odd numbers.	Patterning Unit 1: Increasing and Decreasing Patterns 2: Numerical Sequences	Namir’s Marvellous Masterpieces How Numbers Work The Best Surprise	Unit 1 Questions 4, 7, 9 (pp. 4, 6-7)	Big Idea: Regularity and repetition form patterns that can be generalized and predicted mathematically. Representing and Generalizing Increasing/Decreasing Patterns - Identifies, reproduces, and extends increasing/decreasing patterns concretely, pictorially, and numerically using repeated addition or subtraction.
Finite sequences, such as a countdown, have a definite end.	Sequences may be finite or infinite.					
Infinite sequences, such as the natural numbers, never end.		Describe position in a sequence using ordinal numbers.	Patterning Unit 1: Increasing and Decreasing Patterns 1: Describing and Extending Patterns 3: Representing Patterns 4. Creating Patterns 5: Identifying Errors and Missing Terms 8: Consolidation		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, reproduces, and extends increasing/decreasing patterns concretely, pictorially, and numerically using repeated addition or subtraction. - 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).
		Differentiate between finite	Patterning Unit 1: Increasing and Decreasing Patterns		N/A	Big Idea: Regularity and repetition form patterns that can be generalized and predicted mathematically.

		and infinite sequences.	2: Numerical Sequences			Representing and Generalizing Increasing/Decreasing Patterns - Identifies, reproduces, and extends increasing/decreasing patterns concretely, pictorially, and numerically using repeated addition or subtraction.
Numerical sequences can be constructed using addition, subtraction, multiplication, or division.	A sequence can progress according to a pattern.	Recognize skip-counting sequences in various representations, including rows or columns of a multiplication table.	Patterning Unit 1: Increasing and Decreasing Patterns 4: Creating Patterns 7: Exploring Multiplicative Patterns 8: Consolidation	Namir’s Marvellous Masterpieces	Unit 2 Questions 4, 5, 6, 7, 8, 9, 10 (pp. 10-12) Unit 8 Questions 1, 2, 4, 5, 10 (pp. 42-44, 47)	Big Idea: Regularity and repetition form patterns that can be generalized and predicted mathematically. Representing and Generalizing Increasing/Decreasing Patterns - 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). - Extends and represents patterns involving simple multiplicative relationships (e.g., doubling: 1, 2, 4, 8, 16, ... and tripling: 1, 3, 9, 27, 81, ...).
		Determine any missing term in a skip-counting sequence using multiplication.	Patterning Unit 1: Increasing and Decreasing Patterns 5: Identifying Errors and Missing Terms 7: Exploring Multiplicative Patterns		Unit 2 Questions 4, 6 (p. 10)	Big Idea: Regularity and repetition form patterns that can be generalized and predicted mathematically. Representing and Generalizing Increasing/Decreasing Patterns - 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). - Extends and represents patterns involving simple multiplicative relationships (e.g., doubling: 1, 2, 4, 8, 16, ... and tripling: 1, 3, 9, 27, 81, ...).
		Describe the change from term to term in a numerical sequence using mathematical operations.	Patterning Unit 1: Increasing and Decreasing Patterns 1: Describing and Extending Patterns 3: Representing Patterns 4: Creating Patterns 5: Identifying Errors and Missing Terms 6: Solving Problems 7: Exploring Multiplicative Patterns	Namir’s Marvellous Masterpieces 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, reproduces, and extends increasing/decreasing patterns concretely, pictorially, and numerically using repeated addition or subtraction. - Generalizes and explains the rule for arithmetic patterns including the starting point and change

			8: Consolidation			<p>(e.g., for 28, 32, 36, the rule is start at 28 and add 4 each time).</p> <ul style="list-style-type: none"> - Extends and represents patterns involving simple multiplicative relationships (e.g., doubling: 1, 2, 4, 8, 16, ... and tripling: 1, 3, 9, 27, 81, ...).
--	--	--	------------------	--	--	---

Mathology Grade 3 Correlation (Time) – Alberta

Organizing Idea:

Duration is described and quantified by time.

Guiding Question: How can duration be communicated? Learning Outcome: Students tell time using clocks.						
Knowledge	Understanding	Skills & Procedures	Grade 3 Mathology	Mathology Little Books	Mathology Practice Workbook 3	Pearson Canada Grades K–3 Mathematics Learning Progression
Clocks relate seconds to minutes and hours according to a base-60 system. The basic unit of time is the second. One second is $\frac{1}{60}$ of a minute. One minute is $\frac{1}{60}$ of an hour.	Clocks are standard measuring tools used to communicate time.	Investigate relationships between seconds, minutes, and hours using an analog clock.	Measurement Unit 2: Time 11: Relationship Among Units of Time		Unit 13 Question 3, 5, 11 (pp. 77, 81)	Big Idea: Assigning a unit to a continuous attribute allows us to measure and make comparisons. Understanding Relationships Among Measurement Units - Understands relationship of units of length (mm, cm, m), mass (g, kg), capacity (mL, L), and time (e.g., seconds, minutes, hours). 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 - Explores measurement of visible attributes (e.g., length, capacity, area) and non-visible attributes (e.g., mass, time, temperature).
Analog and digital clocks represent time of day. Time of day can be expressed as a duration relative to 12:00 in two 12-hour cycles.		Relate minutes past the hour to minutes until the next hour.	Measurement Unit 2: Time 12: Telling Time in One- and Five-Minute Intervals		Unit 13 Question 6, 9, 11 (pp. 78-80)	Big Idea: 4–9 Assigning a unit to a continuous attribute allows us to measure and make comparisons. Selecting and Using Units to Estimate, Measure, Construct, and Make Comparisons - Reads and records time (i.e., digital and analogue) and calendar dates. Understanding Relationships Among Measured Units - Understands relationship among different measures of time (e.g., seconds, minutes, hours, days, decades).

Time of day can be expressed as a duration relative to 0:00 in one 24-hour cycle in some contexts, including French-language contexts.	Describe time of day as a.m. or p.m. relative to 12-hour cycles of day and night.	Measurement Unit 2: Time 12: Telling Time in One- and Five-Minute Intervals 13: Telling Time on a 24-Hour Clock		Unit 13 Question 8, 9, 11 (pp. 79-80)	Big Idea: 4–9 Assigning a unit to a continuous attribute allows us to measure and make comparisons. Selecting and Using Units to Estimate, Measure, Construct, and Make Comparisons - Reads and records time (i.e., digital and analogue) and calendar dates. Understanding Relationships Among Measured Units - Understands relationship among different measures of time (e.g., seconds, minutes, hours, days, decades).
	Tell time using analog and digital clocks.	Measurement Unit 2: Time 12: Telling Time in One- and Five-Minute Intervals 14: Consolidation		Unit 13 Question 6, 8, 9, 11 (pp. 78-80)	Big Idea: 4–9 Assigning a unit to a continuous attribute allows us to measure and make comparisons. Selecting and Using Units to Estimate, Measure, Construct, and Make Comparisons - Reads and records time (i.e., digital and analogue) and calendar dates. Understanding Relationships Among Measured Units - Understands relationship among different measures of time (e.g., seconds, minutes, hours, days, decades).
	Express time of day in relation to one 24-hour cycle.	Measurement Unit 2: Time 13: Telling Time on a 24-Hour Clock 14: Consolidation		Unit 13 Question 9, 10, 11 (pp. 79-80)	Big Idea: 4–9 Assigning a unit to a continuous attribute allows us to measure and make comparisons. Selecting and Using Units to Estimate, Measure, Construct, and Make Comparisons - Reads and records time (i.e., digital and analogue) and calendar dates. Understanding Relationships Among Measured Units - Understands relationship among different measures of time (e.g., seconds, minutes, hours, days, decades).



Mathology Grade 3 Correlation (Statistics) – Alberta

Organizing Idea:

The science of collecting, analyzing, visualizing, and interpreting data can inform understanding and decision making.

Guiding Question: How can representation support communication? Learning Outcome: Students interpret and explain representations of data.						
Knowledge	Understanding	Skills & Procedures	Grade 3 Mathology	Mathology Little Books	Mathology Practice Workbook 3	Pearson K–3 Learning Progression
Statistical questions are questions that can be answered by collecting data.	Representation connects data to a statistical question.	Formulate statistical questions for investigation.	Data Unit 1: Data Management 3: Collecting Data	Welcome to The Nature Park	N/A	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 - 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?). Collecting Data and Organizing It into Categories - Collects data by determining (most) categories in advance (e.g., yes/no; list of choices). - Orders categories by frequency (e.g., most to least). - Generates data by counting or measuring (e.g., linking cube tower: number of cubes or height). Limited to whole units.
		Predict the answer to a statistical question.	Data Unit 1: Data Management 3: Collecting Data		Unit 14 Question 3 (p. 85)	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.

						<p>Formulating Questions to Learn About Groups, Collections, and Events by Collecting Relevant Data</p> <ul style="list-style-type: none"> - 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?). <p>Collecting Data and Organizing It into Categories</p> <ul style="list-style-type: none"> - Collects data by determining (most) categories in advance (e.g., yes/no; list of choices). - Orders categories by frequency (e.g., most to least). - Generates data by counting or measuring (e.g., linking cube tower: number of cubes or height). Limited to whole units.
<p>First-hand data is collected by the person using the data.</p> <p>Second-hand data is data collected by others from sources such as websites and social media.</p>	<p>Representation expresses data specific to a unique time and place.</p> <p>Representation tells a story about data.</p>	<p>Collect data using digital or non-digital tools and resources.</p>	<p>Data Unit 1: Data Management 3: Collecting Data</p>	<p>Welcome to The Nature Park</p>	<p>N/A</p>	<p>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.</p> <p>Formulating Questions to Learn About Groups, Collections, and Events by Collecting Relevant Data</p> <ul style="list-style-type: none"> - 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?). <p>Collecting Data and Organizing It into Categories</p> <ul style="list-style-type: none"> - Collects data by determining (most) categories in advance (e.g., yes/no; list of choices). - Orders categories by frequency (e.g., most to least). - Generates data by counting or measuring (e.g., linking cube tower: number of cubes or height). Limited to whole units.
		<p>Represent first-hand and second-hand data in a dot plot or bar graph with one-to-one correspondence.</p>	<p>Data Unit 1: Data Management 4: Drawing Bar Graphs 5: Drawing Dot Plots 7: Consolidation</p>		<p>Unit 14 Questions 4, 5 (p. 86)</p>	<p>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.</p> <p>Creating Graphical Displays of Collected Data</p> <ul style="list-style-type: none"> - Creates displays using objects or simple pictographs (may use symbol for data).

						<ul style="list-style-type: none"> - Organizes display so categories are ordered by frequency. - Creates one-to-one displays (e.g., line plot, dot plot, bar graph). - Displays data collected in more than one way and describes the differences (e.g., bar graph, pictograph). <p>Reading and Interpreting Data Displays</p> <ul style="list-style-type: none"> - Reads and interprets information from data displays (e.g., orders by frequency, compares frequencies, determines total number of data points). - Describes the shape of data in informal ways (e.g., range, spread, gaps, mode, mean). - Critiques whether the display used is appropriate for the data collected.
		Describe the story that a representation tells about a collection of data in relation to a statistical question.	<p>Data Unit 1: Data Management</p> <p>1: Interpreting Bar Graphs</p> <p>2: Interpreting Dot Plots</p>	Welcome to The Nature Park	Unit 14 Question 1, 2, 4, 8a (pp. 84-86, 88)	<p>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.</p> <p>Reading and Interpreting Data Displays</p> <ul style="list-style-type: none"> - Reads and interprets information from data displays (e.g., orders by frequency, compares frequencies, determines total number of data points). - Describes the shape of data in informal ways (e.g., range, spread, gaps, mode, mean). - Critiques whether the display used is appropriate for the data collected.
		Examine First Nations, Métis, or Inuit representations of data.	<p>Data Unit 1: Data Management</p> <p>6: First Nations, Métis, or Inuit Representations of Data</p>		N/A	<p>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.</p> <p>Reading and Interpreting Data Displays</p> <ul style="list-style-type: none"> - Reads and interprets information from data displays (e.g., orders by frequency, compares frequencies, determines total number of data points). - Describes the shape of data in informal ways (e.g., range, spread, gaps, mode, mean).

						- Critiques whether the display used is appropriate for the data collected.
		Consider possible answers to a statistical question based on the data collected.	Data Unit 1: Data Management 3: Collecting Data		Unit 14 Question 3 (p. 85)	<p>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.</p> <p>Formulating Questions to Learn About Groups, Collections, and Events by Collecting Relevant Data</p> <ul style="list-style-type: none"> - 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?). <p>Collecting Data and Organizing It into Categories</p> <ul style="list-style-type: none"> - Collects data by determining (most) categories in advance (e.g., yes/no; list of choices). - Orders categories by frequency (e.g., most to least). - Generates data by counting or measuring (e.g., linking cube tower: number of cubes or height). Limited to whole units.



Mathology Grade 3 Correlation (Financial Literacy) – Alberta

Organizing Idea:

Informed financial decision making contributes to the well-being of individuals, groups, and communities.

Guiding Question: In what ways can money management be supported? Learning Outcome: Students describe strategies that support responsible money management.						
Knowledge	Understanding	Skills & Procedures	Grade 3 Mathology	Mathology Little Books	Mathology Practice Workbook 3	Pearson Canada Grades K–3 Mathematics Learning Progression
<p>Good money habits allow individuals to appreciate the value of money and the importance of managing it.</p> <p>Responsible spending can be supported through strategies, such as</p> <ul style="list-style-type: none"> • buying needed items first • buying items that are affordable 	<p>Individuals can develop good habits early in life to make responsible money decisions now and in the future.</p> <p>Saving is essential for personal short-term and long-term goals.</p>	<p>Discuss the importance of responsible spending and saving.</p>	<p>Number Unit 6: Financial Literacy 33: Good Money Habits 35: Consolidation</p>		<p>Unit 8 Questions 9, 10 (pp. 46-47)</p>	<p>Big Idea: Quantities and numbers can be added and subtracted to determine how many or how much. Developing Fluency of Addition and Subtraction Computation</p> <p>- Fluently recalls complements to 100 (e.g., $64 + 36$; $73 + 27$).</p>

<ul style="list-style-type: none"> • taking time when making purchases • not purchasing more than is needed <p>Saving means not spending in order to keep money aside for unexpected expenses and to pay for purchases, activities, and future plans or goals.</p> <p>Responsible saving can be supported through strategies, such as</p> <ul style="list-style-type: none"> • considering needs and wants • setting financial goals • establishing a savings account • putting earned money aside on a regular basis <p>Responsible money management can allow individuals to help others in need through donation.</p>	<p>Donating money can have a significant impact on the well-being of others.</p>	<p>Identify possible short-term and long-term saving goals.</p>	<p>Number Unit 6: Financial Literacy 34: Short-Term and Long-Term Savings Goals 35: Consolidation</p>		<p>N/A</p>	<p>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 recalls complements to 100 (e.g., $64 + 36$; $73 + 27$).</p>
--	--	---	--	--	------------	---