



## Correlation of Northwest Territories Program of Studies with Mathology Grade 5 (Number)

Curriculum Expectations	Grade 5 Mathology.ca	Mathology Practice Workbook 5	Pearson Canada Grades 4-6 Mathematics Learning Progression
<p><b>General Outcome</b> Develop number sense.</p> <p><b>Specific Outcomes</b> 1. Represent and describe whole numbers to 1 000 000.</p>	<p><b>Number Unit 1: Number Relationships and Place Value</b> 1: Representing Larger Numbers 2: Comparing Larger Numbers</p>	<p>Unit 2 Questions 1, 2, 3, 4, 6, 7, 8, 9, 10, 11, 15 (pp. 8-11, 13)</p>	<p><b>Big Idea: The set of real numbers is infinite.</b> <b>Extending whole number understanding to the set of real numbers</b> - Extends whole number understanding to 1 000 000.</p> <p><b>Big Idea: Numbers are related in many ways.</b> <b>Comparing and ordering quantities (multitude or magnitude)</b> - Compares, orders, and locates whole numbers based on place-value understanding and records using <math>&lt;</math>, <math>=</math>, <math>&gt;</math> symbols.</p> <p><b>Estimating quantities and numbers</b> - Rounds whole numbers using place-value understanding (e.g., 4736 can be rounded to 5000, 4700, 4740).</p> <p><b>Decomposing and composing numbers to investigate equivalencies</b> - Composes and decomposes whole numbers using standard and non-standard partitioning (e.g., 1000 is 10 hundreds or 100 tens).</p> <p><b>Big Idea: Quantities and numbers can be grouped by or partitioned into equal-sized units.</b> <b>Unitizing quantities into base-ten units</b></p>

			<ul style="list-style-type: none"> <li>- Writes and reads whole numbers in multiple forms (e.g., 1358; one thousand three hundred fifty-eight; <math>1000 + 300 + 50 + 8</math>).</li> <li>- Understands that the value of a digit is ten times the value of the same digit one place to the right.</li> </ul>
2. Use estimation strategies in problem-solving contexts.	<p><b>Number Unit 1: Number Relationships and Place Value</b> 3: Estimating to Solve Problems</p> <p><b>Number Unit 2: Fluency with Addition and Subtraction</b> 5: Estimating Sums and Differences</p> <p><b>Number Unit 4: Fluency with Multiplication and Division</b> 20: Using Estimation for Multiplication and Division</p>	<p>Unit 2 Questions 5, 12, 13, 14 (pp. 9, 12)</p> <p>Unit 3 Questions 1, 2, 3, 5 (pp. 14-15, 17)</p> <p>Unit 9 Questions 1, 2, 3, 4, 5, 12 (pp. 52-54, 57)</p> <p>Unit 12 Question 4 (p. 73)</p> <p>Unit 13 Question 3 (p. 81)</p>	<p><b>Big Idea: Numbers are related in many ways.</b></p> <p><b>Comparing and ordering quantities (multitude or magnitude)</b></p> <ul style="list-style-type: none"> <li>- Compares, orders, and locates whole numbers based on place-value understanding and records using <math>&lt;</math>, <math>=</math>, <math>&gt;</math> symbols.</li> </ul> <p><b>Estimating quantities and numbers</b></p> <ul style="list-style-type: none"> <li>- Rounds whole numbers using place-value understanding (e.g., 4736 can be rounded to 5000, 4700, 4740).</li> </ul> <p><b>Big Idea: Quantities and numbers can be operated on to determine how many and how much.</b></p> <p><b>Developing conceptual meaning of operations</b></p> <ul style="list-style-type: none"> <li>- Extends whole number computation models to larger numbers.</li> </ul> <p><b>Developing fluency of operations</b></p> <ul style="list-style-type: none"> <li>- Estimates the result of whole number operations using contextually relevant strategies (e.g., How many buses are needed to take the Grade 8 classes to the museum?).</li> <li>- 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).</li> </ul>

<p>3. Apply mental mathematics strategies and number properties in order to understand and recall basic multiplication facts (multiplication tables) to 81 and related division facts.</p>	<p><b>Number Unit 4: Fluency with Multiplication and Division</b> 19: Relating Multiplication and Division Facts</p>	<p>Unit 13 Questions 1, 2 (pp. 80-81)</p>	<p><b>Big Idea: Quantities and numbers can be operated on to determine how many and how much.</b> <b>Investigating number and arithmetic properties</b> - Recognizes and generates equivalent numerical expressions using commutative and associative properties. - Understands operational relationships (e.g., inverse relationship between multiplication/division, addition/subtraction). - Understands the identity of operations (e.g., <math>5 + 0 = 5</math>; <math>7 \times 1 = 7</math>). <b>Developing fluency of operations</b> - Fluently recalls multiplication and division facts to 100.</p>
<p>4. Apply mental mathematics strategies for multiplication.</p>	<p><b>Number Unit 4: Fluency with Multiplication and Division</b> 20: Using Estimation for Multiplication and Division 21: Strategies for Multiplying Larger Numbers</p>	<p>Unit 13 Questions 5, 9, 13 (pp. 81, 83, 85)</p>	<p><b>Big Idea: Quantities and numbers can be operated on to determine how many and how much.</b> <b>Developing conceptual meaning of operations</b> - Understands the effect of multiplying and dividing whole numbers by powers of 10. - Extends whole number computation models to larger numbers.</p>
<p>5. Demonstrate, with and without concrete materials, an understanding of multiplication (2-digit by 2-digit) to solve problems.</p>	<p><b>Number Unit 4: Fluency with Multiplication and Division</b> 22: Multiplying Whole Numbers</p>	<p>Unit 13 Questions 3, 4, 5, 7, 8, 9, 13 (pp. 81-83, 85)</p>	<p><b>Big Idea: Quantities and numbers can be operated on to determine how many and how much.</b> <b>Developing conceptual meaning of operations</b> - Extends whole number computation models to larger numbers. <b>Developing fluency of operations</b> - Solves whole number computation using efficient strategies (e.g., mental computation, algorithms, calculating cost</p>

			of transactions and change owing, saving money to make a purchase).
6. Demonstrate, with and without concrete materials, an understanding of division (3-digit by 1-digit), and interpret remainders to solve problems.	<b>Number Unit 4: Fluency with Multiplication and Division</b> 23: Dividing Larger Numbers	Unit 13 Questions 3, 6, 7, 9, 14 (pp. 81-83, 85)	<b>Big Idea: Quantities and numbers can be operated on to determine how many and how much.</b> <b>Developing conceptual meaning of operations</b> - Extends whole number computation models to larger numbers. <b>Developing fluency of operations</b> - 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).
7. Demonstrate an understanding of fractions by using concrete, pictorial and symbolic representations to: <ul style="list-style-type: none"> <li>• create sets of equivalent fractions</li> <li>• compare fractions with like and unlike denominators.</li> </ul>	<b>Number Unit 3: Fractions and Decimals</b> 10: Equivalent Fractions 12: Comparing and Ordering Fractions	Unit 7 Questions 1, 2, 3, 4, 8, 9, 12 (pp. 42-43, 45, 47)	<b>Big Idea: Numbers are related in many ways.</b> <b>Comparing and ordering quantities (multitude or magnitude)</b> - Compares, orders, and locates fractions with the same numerator or denominator using reasoning (e.g., $\frac{3}{5} > \frac{3}{6}$ because fifths are larger parts). - Compares, orders, and locates fractions using flexible strategies (e.g., comparing models; creating common denominators or numerators). <b>Estimating quantities and numbers</b> - Estimates the location of decimals and fractions on a number line. - Estimates the size and magnitude of fractions by comparing to benchmarks. <b>Decomposing and composing numbers to investigate equivalencies</b> - Generates and identifies equivalent fractions using flexible strategies (e.g., represents the same part of a whole; same part of a set; same location on a number line).

			<p><b>Big Idea: Quantities and numbers can be grouped by or partitioned into equal-sized units.</b></p> <ul style="list-style-type: none"> <li>- Partitions fractional parts into smaller fractional units (e.g., partitions halves into thirds to create sixths).</li> </ul>
8. Describe and represent decimals (tenths, hundredths, thousandths), concretely, pictorially and symbolically.	<p><b>Number Unit 3: Fractions and Decimals</b></p> <p>13: Representing Decimals</p>	Unit 7 Questions 5, 6, 7, 12 (pp. 44, 47)	<p><b>Big Idea: The set of real numbers is infinite.</b></p> <p><b>Extending whole number understanding to the set of real numbers.</b></p> <ul style="list-style-type: none"> <li>- Extends decimal number understanding to thousandths.</li> </ul> <p><b>Big Idea: Numbers are related in many ways.</b></p> <p><b>Decomposing and composing numbers to investigate equivalencies</b></p> <ul style="list-style-type: none"> <li>- Composes and decomposes decimal numbers using standard and non-standard partitioning (e.g., 1.6 is 16 tenths or 0.16 tens).</li> </ul> <p><b>Big Idea: Quantities and numbers can be grouped by or partitioned into equal-sized units.</b></p> <p><b>Unitizing quantities into base-ten units</b></p> <ul style="list-style-type: none"> <li>- Understands that the value of a digit is ten times the value of the same digit one place to the right.</li> <li>- Understands that the value of a digit is one-tenth the value of the same digit one place to the left.</li> <li>- Writes and reads decimal numbers in multiple forms (i.e., numerals, number names, expanded form).</li> </ul>
9. Relate decimals to fractions and fractions to decimals (to thousandths).	<p><b>Number Unit 3: Fractions and Decimals</b></p> <p>13: Representing Decimals</p> <p>16: Relating Fractions and Decimals</p>	Unit 7 Questions 10, 12 (pp. 46-47)	<p><b>Big Idea: Numbers are related in many ways.</b></p> <p><b>Comparing and ordering quantities</b></p>

			<p>- Models and explains the relationship between a fraction and its equivalent decimal form (e.g., <math>\frac{2}{5} = \frac{4}{10} = 0.4</math>).</p> <p><b>Big Idea: Quantities and numbers can be grouped by or partitioned into equal-sized units.</b></p> <p><b>Unitizing quantities into base-ten units</b></p> <p>- Uses fractions with denominators of 10 to develop decimal fraction understanding and notation (e.g., five-tenths is <math>\frac{5}{10}</math> or 0.5).</p> <p>- Understands that the value of a digit is ten times the value of the same digit one place to the right.</p> <p>- Understands that the value of a digit is one-tenth the value of the same digit one place to the left.</p> <p>- Writes and reads decimal numbers in multiple forms (i.e., numerals, number names, expanded form).</p>
<p>10. Compare and order decimals (to thousandths) by using:</p> <ul style="list-style-type: none"> <li>• benchmarks</li> <li>• place value</li> <li>• equivalent decimals.</li> </ul>	<p><b>Number Unit 3: Fractions and Decimals</b></p> <p>15: Comparing and Ordering Decimals</p>	<p>Unit 7 Questions 8, 9, 12 (pp. 45, 47)</p>	<p><b>Big Idea: Numbers are related in many ways.</b></p> <p><b>Comparing and ordering quantities</b></p> <p>- Compares, orders, and locates decimal numbers using place-value understanding.</p> <p><b>Estimating quantities and numbers</b></p> <p>- Estimates the location of decimals and fractions on a number line.</p> <p><b>Big Idea: Quantities and numbers can be grouped by or partitioned into equal-sized units.</b></p> <p><b>Unitizing quantities into base-ten units</b></p> <p>- Understands that the value of a digit is ten times the value of the same digit one place to the right.</p> <p>- Understands that the value of a digit is one-tenth the value of the same digit one place to the left.</p>

<p>11. Demonstrate an understanding of addition and subtraction of decimals (limited to thousandths).</p>	<p><b>Number Unit 5: Operations with Decimals</b>  26: Estimating Sums and Differences with Decimals  27: Adding with Decimal Numbers  28: Subtracting with Decimal Numbers</p>	<p>Unit 9 Question 1, 2, 3, 4, 5, 12 (pp. 52-54, 57)   Unit 12 Questions 1, 3, 4 (pp. 72-73)</p>	<p><b>Big Idea: Quantities and numbers can be operated on to determine how many and how much.</b>  <b>Developing conceptual meaning of operations</b>  - Demonstrates an understanding of decimal number computation through modelling and flexible strategies.  <b>Developing fluency of operations</b>  - Estimates sums and differences of decimal numbers (e.g., calculating cost of transactions involving dollars and cents).  - Solves decimal number computation using efficient strategies.</p>
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**Correlation of Northwest Territories Program of Studies with Mathology Grade 5  
(Patterns and Relations: Patterns)**

Curriculum Expectations	Grade 5 Mathology.ca	Mathology Practice Workbook 5	Pearson Canada Grades 4-6 Mathematics Learning Progression
<p><b>General Outcome</b> Use patterns to describe the world and to solve problems.</p> <p><b>Specific Outcomes</b> 1. Determine the pattern rule to make predictions about subsequent elements.</p>	<p><b>Patterning Unit 1: Patterning</b> 1: Investigating Geometric Patterns 2: Investigating Number Patterns 3: Using Pattern Rules to Solve Problems</p>	<p>Unit 1 Questions 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 (pp. 2-7)</p>	<p><b>Big Idea: Regularity and repetition form patterns that can be generalized and predicted mathematically. Representing patterns, relations, and functions</b></p> <ul style="list-style-type: none"> <li>- Describes, generates, extends, translates, and corrects number and shape patterns that follow a predetermined rule.</li> <li>- Uses multiple approaches to model situations involving repetition (i.e., repeating patterns) and change (i.e., increasing/decreasing patterns) (e.g., using objects, tables, graphs, symbols, loops and nested loops in coding).</li> <li>- Represents a numeric or shape pattern using a table of values by pairing the term value with a term number.</li> <li>- Generates a visual model to represent a simple number pattern.</li> <li>- Represents a mathematical context or problem with expressions and equations using variables to represent unknowns.</li> </ul> <p><b>Generalizing and analyzing patterns, relations, and functions</b></p> <ul style="list-style-type: none"> <li>- Explains the rule for numeric patterns including the starting point and change (e.g., given: 16, 22, 28, 34, .... Start at 16</li> </ul>



			and add 6 each time). - Describes numeric and shape patterns using words and numbers. - Predicts the value of a given element in a numeric or shape pattern using pattern rules.
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## Correlation of Northwest Territories Program of Studies with Mathology Grade 5 (Patterns and Relations: Variables and Equations)

Curriculum Expectations	Grade 5 Mathology.ca	Mathology Practice Workbook 5	Pearson Canada Grades 4-6 Mathematics Learning Progression
<p><b>General Outcome</b> Represent algebraic expressions in multiple ways.</p> <p><b>Specific Outcomes</b> 2. Express a given problem as an equation in which a letter variable is used to represent an unknown number (limited to whole numbers).</p>	<p><b>Patterning Unit 2: Variables and Equations</b> 5: Using Variables 6: Solving Addition and Subtraction Equations 7: Solving Multiplication and Division Equations 8: Using Equations to Solve Problems</p>	<p>Unit 16 Questions 2, 5, 6, 7, 8, 9 (pp. 99-102)</p>	<p><b>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</b></p> <ul style="list-style-type: none"> <li>- Expresses a one-step mathematical problem as an equation using a symbol or letter to represent an unknown number (e.g., Sena had some tokens and used four. She has seven left: <math>\square - 4 = 7</math>).</li> <li><b>Using variables, algebraic expressions, and equations to represent mathematical relations</b></li> <li>- Understands an unknown quantity (i.e., variable) may be represented by a symbol or letter (e.g., <math>13 - \square = 8</math>; <math>4n = 12</math>).</li> <li>- Flexibly uses symbols and letters to represent unknown quantities in equations (e.g., knows that <math>4 + \square = 7</math>; <math>4 + x = 7</math>; and <math>4 + y = 7</math> all represent the same equation with <math>\square</math>, <math>x</math>, and <math>y</math> representing the same value).</li> <li>- Interprets and writes algebraic expressions (e.g., <math>2n</math> means two times</li> </ul>

			<p>a number; subtracting a number from 7 can be written as <math>7 - n</math>).</p> <ul style="list-style-type: none"> <li>- Understands a variable as a changing quantity (e.g., <math>5s</math>, where <math>s</math> can be any value).</li> </ul>
<p>3. Solve problems involving single-variable, one-step equations with whole number coefficients and whole number solutions.</p>	<p><b>Patterning Unit 2: Variables and Equations</b></p> <p>5: Using Variables</p> <p>6: Solving Addition and Subtraction Equations</p> <p>7: Solving Multiplication and Division Equations</p> <p>8: Using Equations to Solve Problems</p>	<p>Unit 16 Questions 3a, 3c, 5, 7, 8, 9, 13 (pp. 100-102, 104)</p>	<p><b>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</b></p> <ul style="list-style-type: none"> <li>- Determines an unknown number in simple one-step equations using different strategies (e.g., <math>n \times 3 = 12</math>; <math>13 - \square = 8</math>).</li> <li>- Uses arithmetic properties to investigate and transform one-step addition and multiplication equations (e.g., <math>5 + 4 = 9</math> and <math>5 + a = 9</math> have the same structure and can be rearranged in similar ways to maintain equality: <math>4 + 5 = 9</math> and <math>a + 5 = 9</math>).</li> <li>- Uses arithmetic properties to investigate and transform one-step subtraction and division equations (e.g., <math>12 - 5 = 7</math> and <math>12 - b = 7</math> have the same structure and can be rearranged in similar ways to maintain equality: <math>12 - 7 = 5</math> and <math>12 - 7 = b</math>).</li> </ul> <p><b>Using variables, algebraic expressions, and equations to represent mathematical relations</b></p> <ul style="list-style-type: none"> <li>- Understands an unknown quantity (i.e., variable) may be represented by a symbol or letter (e.g., <math>13 - \square = 8</math>; <math>4n = 12</math>).</li> <li>- Flexibly uses symbols and letters to</li> </ul>

			<p>represent unknown quantities in equations (e.g., knows that <math>4 + \square = 7</math>; <math>4 + x = 7</math>; and <math>4 + y = 7</math> all represent the same equation with <math>\square</math>, <math>x</math>, and <math>y</math> representing the same value).</p> <ul style="list-style-type: none"> <li>- Interprets and writes algebraic expressions (e.g., <math>2n</math> means two times a number; subtracting a number from 7 can be written as <math>7 - n</math>).</li> <li>- Understands a variable as a changing quantity (e.g., <math>5s</math>, where <math>s</math> can be any value).</li> </ul>
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## Correlation of Northwest Territories Program of Studies with Mathology Grade 5 (Shape and Space: Measurement)

Curriculum Expectations	Grade 5 Mathology.ca	Mathology Practice Workbook 5	Pearson Canada Grades 4-6 Mathematics Learning Progression
<p><b>General Outcome</b> Use direct and indirect measurement to solve problems.</p> <p><b>Specific Outcomes</b> 1. Identify 90° angles.</p>	<p><b>Geometry Unit 1A: 2-D Shapes and 3-D Solids</b> 2: Investigating Quadrilaterals</p>	<p>Unit 4 Questions 1, 2, 5, 10 (pp. 22-24, 27)</p> <p>Unit 5 Questions 7, 9, 11 (pp. 31-32, 34)</p>	<p><b>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</b></p> <p>- Understands angle as a geometric figure formed from two rays or line segments sharing a common endpoint.</p>
<p>2. Design and construct different rectangles, given either perimeter or area, or both (whole numbers), and make generalizations.</p>	<p><b>Measurement Unit 1: Length, Perimeter, and Area</b> 4: Relating the Perimeter and Area of Rectangles</p>	<p>Unit 14 Questions 5, 6, 7, 8, 9, 12 (pp. 87-90, 92)</p>	<p><b>Big Idea: Assigning a unit to a continuous attribute allows us to measure and make comparisons. Understanding relationships among measured units</b></p> <p>- Develops and generalizes strategies to compute area and perimeter of rectangles. - Investigates the relationship between perimeter and area in rectangles.</p>
<p>3. Demonstrate an understanding of measuring length (mm) by:</p> <ul style="list-style-type: none"> <li>• selecting and justifying referents for the unit mm</li> <li>• modelling and describing the relationship between</li> </ul>	<p><b>Measurement Unit 1: Length, Perimeter, and Area</b> 1: Estimating and Measuring in Millimetres 2: Measuring Length in Different</p>	<p>Unit 14 Questions 1, 2, 3 (pp. 86-87)</p>	<p><b>Big Idea: 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</b></p>

<p>mm and cm units, and between mm and m units.</p>	<p>Units</p>		<p>- Chooses the most appropriate unit to measure a given attribute of an object (e.g., classroom area measured in square metres).  <b>Understanding relationships among measured units</b>  - Understands and applies the multiplicative relationship among metric units of length, mass, and capacity.</p>
<p>4. Demonstrate an understanding of volume by:</p> <ul style="list-style-type: none"> <li>• selecting and justifying referents for <math>\text{cm}^3</math> or <math>\text{m}^3</math> units</li> <li>• estimating volume, using referents for <math>\text{cm}^3</math> or <math>\text{m}^3</math></li> <li>• measuring and recording volume (<math>\text{cm}^3</math> or <math>\text{m}^3</math>)</li> <li>• constructing right rectangular prisms for a given volume.</li> </ul>	<p><b>Measurement Unit 2: Mass, Capacity, and Volume</b>  10: Investigating Volume  11: Investigating Volume with Rectangular Prisms</p>	<p>Unit 15 Questions 8, 9, 10, 11, 12, 13 (pp. 95-98)</p>	<p><b>Big Idea: Many things in our world (e.g., objects, spaces, events) have attributes that can be measured and compared.</b>  <b>Understanding attributes that can be measured, compared, and ordered</b>  - Understands volume and capacity as attributes of 3-D objects that can be measured and compared.  <b>Big Idea: 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</b>  - Chooses the most appropriate unit to measure a given attribute of an object (e.g., classroom area measured in square metres).  - Develops understanding of a unit cube and uses unit cubes to estimate and measure volume of 3-D objects.  - Measures, constructs, and estimates volume using standard cubic units (e.g., cubic centimetre).  <b>Understanding relationships among measured units</b>  - Understands and applies the multiplicative relationship among</p>

			metric units of length, mass, and capacity.
<p>5. Demonstrate an understanding of capacity by:</p> <ul style="list-style-type: none"> <li>• describing the relationship between mL and L</li> <li>• selecting and justifying referents for mL or L units</li> <li>• estimating capacity, using referents for mL or L</li> <li>• measuring and recording capacity (mL or L).</li> </ul>	<p><b>Measurement Unit 2: Mass, Capacity, and Volume</b> 8: Investigating Capacity</p>	<p>Unit 15 Questions 4, 5, 6, 7 (pp. 94-95)</p>	<p><b>Big Idea: Many things in our world (e.g., objects, spaces, events) have attributes that can be measured and compared.</b> <b>Understanding attributes that can be measured, compared, and ordered</b> - Understands volume and capacity as attributes of 3-D objects that can be measured and compared. <b>Big Idea: Assigning a unit to a continuous attribute allows us to measure and make comparisons.</b> <b>Selecting and using units to estimate, measure, construct, and make comparisons</b> - Chooses the most appropriate unit to measure a given attribute of an object (e.g., classroom area measured in square metres). <b>Understanding relationships among measured units</b> - Understands and applies the multiplicative relationship among metric units of length, mass, and capacity.</p>



## Correlation of Northwest Territories Program of Studies with Mathology Grade 5 (Shape and Space: 3-D Objects and 2-D Shapes)

Curriculum Expectations	Grade 5 Mathology.ca	Mathology Practice Workbook 5	Pearson Canada Grades 4-6 Mathematics Learning Progression
<p><b>General Outcome</b> Describe the characteristics of 3-D objects and 2-D shapes, and analyze the relationships among them.</p> <p><b>Specific Outcomes</b> 6. Describe and provide examples of edges and faces of 3-D objects, and sides of 2-D shapes that are:</p> <ul style="list-style-type: none"> <li>• parallel</li> <li>• intersecting</li> <li>• perpendicular</li> <li>• vertical</li> <li>• horizontal.</li> </ul>	<p><b>Geometry Unit 1A: 2-D Shapes and 3-D Solids</b></p> <p>1: Properties of 2-D Shapes and 3-D Objects</p> <p>2: Investigating Quadrilaterals</p>	<p>Unit 4 Questions 1, 2, 4, 9, 10 (pp. 22-24, 26-27)</p>	<p><b>Big Ideas: 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</b></p> <p>- Sorts, describes, constructs, and classifies polygons based on side attributes (e.g., parallel, perpendicular, regular/irregular).</p> <p>- Sorts, describes, constructs, and classifies 3-D objects based on edges, faces, vertices, and angles (e.g., prisms, pyramids).</p> <p><b>Investigating 2-D shapes, 3-D solids, and their attributes through composition and decomposition</b></p> <p>- Identifies types of lines in 2-D images (e.g., parallel, intersecting, perpendicular).</p> <p>- Investigates 2-D shapes that do or do not have parallel and perpendicular lines.</p>
<p>7. Identify and sort quadrilaterals, including:</p> <ul style="list-style-type: none"> <li>• rectangles</li> <li>• squares</li> </ul>	<p><b>Geometry Unit 1A: 2-D Shapes and 3-D Solids</b></p> <p>2: Investigating Quadrilaterals</p>	<p>Unit 4 Questions 1, 2, 3, 4, 5, 10 (pp. 22-24, 27)</p>	<p><b>Big Ideas: 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</b></p>



<ul style="list-style-type: none"> <li>• trapezoids</li> <li>• parallelograms</li> <li>• rhombuses</li> </ul> <p>according to their attributes.</p>			<ul style="list-style-type: none"> <li>- Identifies and draws parallel, intersecting, and perpendicular lines.</li> <li>- Sorts, describes, constructs, and classifies polygons based on side attributes (e.g., parallel, perpendicular, regular/irregular).</li> <li>- Sorts, describes, classifies 2-D shapes based on their geometric properties (e.g., side lengths, angles, diagonals).</li> <li>- Classifies 2-D shapes within a hierarchy based on their properties (e.g., rectangles are a subset of parallelograms).</li> </ul> <p><b>Investigating 2-D shapes, 3-D solids, and their attributes through composition and decomposition</b></p> <ul style="list-style-type: none"> <li>- Identifies types of lines in 2-D images (e.g., parallel, intersecting, perpendicular).</li> <li>- Investigates 2-D shapes that do or do not have parallel and perpendicular lines.</li> </ul>
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## Correlation of Northwest Territories Program of Studies with Mathology Grade 5 (Shape and Space: Transformations)

Curriculum Expectations	Grade 5 Mathology.ca	Mathology Practice Workbook 5	Pearson Canada Grades 4-6 Mathematics Learning Progression
<p><b>General Outcome</b> Describe and analyze position and motion of objects and shapes.</p> <p><b>Specific Outcomes</b> 8. Identify and describe a single transformation, including a translation, rotation and reflection of 2-D shapes.</p>	<p><b>Geometry Unit 2A: Transformations</b> 5: Investigating Translations 6: Investigating Reflections 7: Investigating Rotations 8: Identifying Transformations</p>	<p>Unit 5 Questions 5, 7, 8, 10 (pp. 30-33)</p>	<p><b>Big Ideas: 2-D shapes and 3-D solids can be transformed in many ways and analyzed for change.</b> <b>Exploring 2-D shapes and 3-D solids by applying and visualizing transformations</b> - Identifies, describes, and performs single transformations (i.e., translation, reflection, rotation) on 2-D shapes.</p>
<p>9. Perform, concretely, a single transformation (translation, rotation or reflection) of a 2-D shape, and draw the image.</p>	<p><b>Geometry Unit 2A: Transformations</b> 5: Investigating Translations 6: Investigating Reflections 7: Investigating Rotations 8: Identifying Transformations</p>	<p>Unit 5 Questions 4, 6, 9, 10 (pp. 30-33)</p>	<p><b>Big Ideas: 2-D shapes and 3-D solids can be transformed in many ways and analyzed for change.</b> <b>Exploring 2-D shapes and 3-D solids by applying and visualizing transformations</b> - Identifies, describes, and performs single transformations (i.e., translation, reflection, rotation) on 2-D shapes.</p>



**Correlation of Northwest Territories Program of Studies with Mathology Grade 5  
(Statistics and Probability: Data Analysis)**

Curriculum Expectations	Grade 5 Mathology.ca	Mathology Practice Workbook 5	Pearson Canada Grades 4-6 Mathematics Learning Progression
<p><b>General Outcome</b> Collect, display and analyze data to solve problems.</p> <p><b>Specific Outcomes</b> 1. Differentiate between first-hand and second-hand data.</p>	<p><b>Data Management Unit 1A: Data Management</b> 1: Exploring First-Hand and Second-Hand Data</p>	<p>Unit 10 Question 3 (p. 61)</p>	<p><b>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.</b></p> <p><b>Collecting data and organizing it into categories</b> - Differentiates between primary (i.e., first-hand) and secondary (i.e., second-hand) data sources.</p>
<p>2. Construct and interpret double bar graphs to draw conclusions.</p>	<p><b>Data Management Unit 1A: Data Management</b> 2: Constructing Double-Bar Graphs 3: Interpreting Double-Bar Graphs</p>	<p>Unit 10 Questions 4, 8 (pp. 62, 65)</p>	<p><b>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.</b></p> <p><b>Creating graphical displays of collected data</b> - Represents data graphically using many-to-one correspondence with appropriate scales and intervals (e.g., each symbol on pictograph represents 10 people).</p>

			<ul style="list-style-type: none"> <li>- Visually represents two or more data sets (e.g., double bar chart, stacked bar graph, multi-line graph, multi-column table).</li> <li><b>Reading and interpreting data displays and analyzing variability</b></li> <li>- Reads and interprets data displays using many-to-one correspondence.</li> <li><b>Drawing conclusions by making inferences and justifying decisions based on data collected.</b></li> <li>- Draws conclusions based on data presented.</li> <li>- Interprets the results of data presented graphically from primary (e.g., class survey) and secondary (e.g., online news reports) sources.</li> </ul>
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## Correlation of Northwest Territories Program of Studies with Mathology Grade 5 (Statistics and Probability: Chance and Uncertainty)

Curriculum Expectations	Grade 5 Mathology.ca	Mathology Practice Workbook 5	Pearson Canada Grades 4-6 Mathematics Learning Progression
<p><b>General Outcome</b> Use experimental or theoretical probabilities to represent and solve problems involving uncertainty.</p> <p><b>Specific Outcomes</b> 3. Describe the likelihood of a single outcome, using words such as:</p> <ul style="list-style-type: none"> <li>• impossible</li> <li>• possible</li> <li>• certain.</li> </ul>	<p><b>Data Management Unit 2: Probability (National)</b> 5: Describing Likelihood of Events</p>	<p>Unit 11 Questions 1, 2, 5, 6, 7, 8, 9 (pp. 66-71)</p>	<p><b>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.</b> <b>Using the language and tools of chance to describe and predict events</b> - Locates the likelihood of outcomes on a vocabulary-based probability continuum (e.g., impossible, unlikely, likely, certain).</p>
<p>4. Compare the likelihoods of two possible outcomes, using words such as:</p> <ul style="list-style-type: none"> <li>• less likely</li> <li>• equally likely</li> <li>• more likely.</li> </ul>	<p><b>Data Management Unit 2: Probability (National)</b> 5: Describing Likelihood of Events 6: Conducting Experiments</p>	<p>Unit 11 Questions 3, 4, 5, 7, 8, 9 (pp. 67-68, 70-71)</p>	<p><b>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.</b> <b>Using the language and tools of chance to describe and predict events</b> - Distinguishes between equally likely events (e.g., heads or tails on a</p>

			<p>fair coin) and unequally likely events (e.g., spinner with differently sized sections).</p> <ul style="list-style-type: none"> <li>- Identifies the sample space of independent events in an experiment (e.g., flipping a cup, drawing a coloured cube from a bag).</li> <li>- Investigates and calculates the experimental probability (i.e., relative frequency) of simple events (e.g., 3 heads in 5 coin tosses is <math>\frac{3}{5}</math>).</li> </ul>
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**Unit 6: Coding** Not required, but recommended

**Unit 12: Financial Literacy** Not required, but recommended