



## Correlation of Northwest Territories Program of Studies with Mathology Grade 6 (Number)

Curriculum Expectations	Grade 6 Mathology.ca	Mathology Practice Workbook 6	Pearson Canada Grades 4-6 Mathematics Learning Progression
<b>General Outcome</b> Develop number sense.			
<b>Specific Outcomes</b> 1. Demonstrate an understanding of place value, including numbers that are: <ul style="list-style-type: none"> <li>• greater than one million</li> <li>• less than one thousandth.</li> </ul>	<b>Number Unit 1: Number Relationships and Place Value</b> 1: Representing Larger Numbers (to 1 000 000 and Beyond) 2: Representing Numbers in Different Forms 5: Consolidation of Number Relationships and Place Value  <b>Number Unit 3: Fractions, Decimals, Percents, and Integers</b> 15: Representing Decimals 16: Comparing and Ordering Decimals 21: Consolidation of Fractions, Decimals, Percents, and Integers	Unit 2 Questions 1, 2, 3, 4, 5, 6 (pp. 9-10)  Unit 7 Questions 6, 7, 8, 15, 16 (pp. 47-48, 50-51)	<b>Big Idea: The set of real numbers is infinite. Extending whole number understanding to the set of real numbers</b> - Extends whole number understanding to 1 000 000. - Extends decimal number understanding to thousandths. <b>Big Idea: Numbers are related in many ways. Comparing and ordering quantities (multitude or magnitude)</b> - Compares, orders, and locates whole numbers based on place-value understanding, and records using <, =, and > symbols. - Compares, orders, and locates decimal numbers using place-value understanding. <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). - Composes and decomposes decimal numbers using standard and non-standard partitioning (e.g., 1.6 is 16 tenths or 0.16 tens ).

			<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>- 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> <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 (e.g., numerals, number names, expanded form).</li> </ul>
2. Solve problems involving whole numbers and decimal numbers.	<p><b>Number Unit 2: Fluency with Whole Numbers</b></p> <p>6: Solving Problems with Whole Numbers</p> <p>7: Estimating Reasonableness of Solutions</p> <p>9: Mental Math Strategies</p> <p>12: Consolidation of Fluency with Whole Numbers</p> <p><b>Number Unit 4: Operations with Fractions, Decimals, and Percents</b></p> <p>22: Multiplying Decimals by 1-Digit Numbers</p> <p>24: Dividing Decimals by 1-Digit Numbers</p> <p>26: Adding and Subtracting Decimals</p>	<p>Unit 3 Questions 6, 8 (pp. 17-18)</p> <p>Unit 8 Questions 1, 2, 3 (pp. 52-53)</p> <p>Unit 12 Questions 1, 2, 3, 4 (pp. 81-83)</p>	<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> <li>- Demonstrates an understanding of decimal number computation through modelling and flexible strategies.</li> </ul> <p><b>Developing fluency of operations</b></p> <ul style="list-style-type: none"> <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> <li>- Solves decimal number computation using efficient strategies.</li> </ul>

	30: Consolidation of Operations with Fractions, Decimals, and Percents		
<p>3. Demonstrate an understanding of factors and multiples by:</p> <ul style="list-style-type: none"> <li>determining multiples and factors of numbers less than 100</li> <li>identifying prime and composite numbers</li> <li>solving problems using multiples and factors.</li> </ul>	<p><b>Number Unit 1: Number Relationships and Place Value</b></p> <p>3: Identifying Factors and Multiples</p> <p>4: Identifying Prime and Composite Numbers</p> <p>5: Consolidation of Number Relationships and Place Value</p>	Unit 2 Questions 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 (pp. 11-14)	<p><b>Big Idea: Numbers are related in many ways. Decomposing and composing numbers to investigate equivalencies</b></p> <ul style="list-style-type: none"> <li>Decomposes numbers into prime factors.</li> </ul> <p><b>Big Idea: Quantities and numbers can be operated on to determine how many and how much.</b></p> <p><b>Investigating number and arithmetic properties</b></p> <ul style="list-style-type: none"> <li>Determines whether one number is a multiple of any one-digit number.</li> <li>Examines and classifies whole numbers based on their properties (e.g., even/odd; prime; composite; divisible by 2, 5, and 10).</li> <li>Generates multiples and factors for numbers using flexible strategies.</li> <li>Distinguishes between and investigates properties of prime and composite numbers (e.g., prime factorization).</li> </ul> <p><b>Developing fluency of operations</b></p> <ul style="list-style-type: none"> <li>Fluently recalls multiplication and division facts to 100.</li> </ul>
<p>4. Relate improper fractions to mixed numbers and mixed numbers to improper fractions.</p>	<p><b>Number Unit 3: Fractions, Decimals, Percents, and Integers</b></p> <p>13: Representing Fractions</p> <p>14: Comparing and Ordering Fractions</p> <p>21: Consolidation of Fractions, Decimals, Percents, and Integers</p>	Unit 7 Questions 1, 2, 3, 4, 5, 15, 16 (pp. 45-46, 50-51)	<p><b>Big Idea: Numbers are related in many ways. Comparing and ordering quantities (multitude or magnitude)</b></p> <ul style="list-style-type: none"> <li>Compares, orders, and locates fractions using flexible strategies (e.g., comparing models; creating common denominators or numerators).</li> </ul> <p><b>Estimating quantities and numbers</b></p> <ul style="list-style-type: none"> <li>Estimates the size and magnitude of fractions by comparing to benchmarks.</li> </ul> <p><b>Decomposing and composing numbers to investigate equivalencies</b></p> <ul style="list-style-type: none"> <li>Models equivalent forms of improper fractions and mixed numbers using flexible strategies.</li> </ul>

5. Demonstrate an understanding of ratio, concretely, pictorially and symbolically.	<b>Number Unit 2: Fluency with Whole Numbers</b> 11: Exploring Ratios 12: Consolidation of Fluency with Whole Numbers	Unit 3 Questions 9, 10, 11, 12, 13, 14 (pp. 18-20)	<b>Big Idea: Numbers are related in many ways. Using ratios, rates, proportions, and percents creates a relationship between quantities</b> - Understands the concept of ratio as a relationship between two quantities (e.g., 3 wins to 2 losses).
6. Demonstrate an understanding of percent (limited to whole numbers), concretely, pictorially and symbolically.	<b>Number Unit 3: Fractions, Decimals, Percents, and Integers</b> 18: Relating Fractions, Decimals, and Percents 21: Consolidation of Fractions, Decimals, Percents, and Integers	Unit 7 Questions 9, 10, 16 (pp. 48-49, 51)  Unit 12 Questions 7, 8, 9, 10, 14 (pp. 84-85, 87)	<b>Big Idea: Numbers are related in many ways. Decomposing and composing numbers to investigate equivalencies</b> - Models and explains the relationships among fractions, decimals, and percents. - Translates flexibly between representations.
7. Demonstrate an understanding of integers, concretely, pictorially and symbolically.	<b>Number Unit 3: Fractions, Decimals, Percents, and Integers</b> 19: Representing Integers 20: Comparing and Ordering Integers 21: Consolidation of Fractions, Decimals, Percents, and Integers	Unit 7 Questions 11, 12, 13, 14, 15, 16 (pp. 49-51)	<b>Big Idea: The set of real numbers is infinite Extending whole number understanding to the set of real numbers</b> - Extends whole number understanding to negative numbers.
8. Demonstrate an understanding of multiplication and division of decimals (1-digit whole number multipliers and 1-digit natural number divisors).	<b>Number Unit 4: Operations with Fractions, Decimals, and Percents</b> 22: Multiplying Decimals by 1-Digit Numbers 24: Dividing Decimals by 1-Digit Numbers 30: Consolidation of Operations with Fractions, Decimals, and Percents	Unit 12 Questions 1, 2, 3, 4, 14 (pp. 81-83, 87)	<b>Big Idea: Quantities and numbers can be operated on to determine how many and how much. Developing conceptual meaning of operations</b> - Demonstrates an understanding of decimal number computation through modelling and flexible strategies. <b>Developing fluency of operations</b> - Solves decimal number computation using efficient strategies.
9. Explain and apply the order of operations, excluding exponents, with and without technology (limited to whole numbers).	<b>Number Unit 2: Fluency with Whole Numbers</b> 8: The Order of Operations 12: Consolidation of Fluency with Whole Numbers	Unit 3 Questions 1, 2, 3, 4, 14 (pp. 15-16, 20)	<b>Big Idea: Quantities and numbers can be operated on to determine how many and how much. Investigating number and arithmetic properties</b> - Applies order of operations for whole numbers and explains the effect when order is not followed.



**Correlation of Northwest Territories Program of Studies with Mathology Grade 6  
(Patterns and Relations: Patterns)**

Curriculum Expectations	Grade 6 Mathology.ca	Mathology Practice Workbook 6	Pearson Canada Grades 4-6 Mathematics Learning Progression
<b>General Outcome</b> Use patterns to describe the world and to solve problems.			
<b>Specific Outcomes</b> 1. Represent and describe patterns and relationships, using graphs and tables.	<b>Patterning Unit 1: Patterning</b> 1: Investigating Patterns and Relationships in Tables and Graphs 2: Solving Problems 4: Consolidation of Patterning	Unit 1 Questions 1, 2, 3, 5, 8 (pp. 2-4, 6, 8)	<b>Big Idea: Regularity and repetition form patterns that can be generalized and predicted mathematically.</b> <b>Representing patterns, relations, and functions</b> - Represents a numeric or shape pattern using a table of values by pairing the term value with a term number. - Represents a mathematical context or problem with expressions and equations using variables to represent unknowns. <b>Generalizing and analyzing patterns, relations, and functions</b> - Explains the rule for numeric patterns including the starting point and change (e.g., given: 16, 22, 28, 34, .... Start at 16 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. - Describes the relationship between two numeric patterns (e.g., for every 4 steps, she travels 3 metres).

<p>2. Demonstrate an understanding of the relationships within tables of values to solve problems.</p>	<p><b>Patterning Unit 1: Patterning</b>  1: Investigating Patterns and Relationships in Tables and Graphs  2: Solving Problems  4: Consolidation of Patterning</p>	<p>Unit 1 Questions 1, 2, 3, 5, 6, 7, 8 (pp. 2-4, 6-8)</p>	<p><b>Big Idea: Regularity and repetition form patterns that can be generalized and predicted mathematically.</b>  <b>Representing patterns, relations, and functions</b>  - Represents a numeric or shape pattern using a table of values by pairing the term value with a term number.  - Represents a mathematical context or problem with expressions and equations using variables to represent unknowns.  <b>Generalizing and analyzing patterns, relations, and functions</b>  - Explains the rule for numeric patterns including the starting point and change (e.g., given: 16, 22, 28, 34, .... Start at 16 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.  - Describes the relationship between two numeric patterns (e.g., for every 4 steps, she travels 3 metres).</p>
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## Correlation of Northwest Territories Program of Studies with Mathology Grade 6 (Patterns and Relations: Variables and Equations)

Curriculum Expectations	Grade 6 Mathology.ca	Mathology Practice Workbook 6	Pearson Canada Grades 4-6 Mathematics Learning Progression
<b>General Outcome</b> Represent algebraic expressions in multiple ways.			
<b>Specific Outcomes</b> 3. Represent generalizations arising from number relationships, using equations with letter variables.	<b>Patterning Unit 2: Variables and Equations</b> 7: Representing Generalizations in Patterns 10: Consolidation of Variables and Equations  <b>Measurement Unit 1A: Perimeter, Area, Volume, and Capacity</b> 1: Determining the Perimeter of Polygons 2: Determining the Area of Rectangles	Unit 1 Questions 1, 2, 3, 7, 8 (pp. 2-4, 7-8)  Unit 13 Questions 3, 4, 8, 9, 10, 11, 13 (pp. 89-90, 92-93, 95)	<b>Big Idea: Patterns and relations can be represented with symbols, equations, and expressions. Using variables, algebraic expressions, and equations to represent mathematical relations</b> - Understands an unknown quantity (i.e., variable) may be represented by a symbol or letter (e.g., $13 - \square = 8$ ; $4n = 12$ ). - Flexibly uses symbols and letters to represent unknown quantities in equations (e.g., knows that $4 + \square = 7$ ; $4 + x = 7$ ; and $4 + y = 7$ all represent the same equation with $\square$ , $x$ , and $y$ representing the same value). - Interprets and writes algebraic expressions (e.g., $2n$ means two times a number; subtracting a number from 7 can be written as $7 - n$ ). - Understands a variable as a changing quantity (e.g., $5s$ , where $s$ can be any value).
4. Express a given problem as an equation in which a letter variable is used to represent an unknown number.	<b>Patterning Unit 2: Variables and Equations</b> 7: Representing Generalizations in Patterns 8: Writing and Solving Equations 10: Consolidation of Variables and Equations	Unit 14 Questions 6, 9, 10, 11, 13 (pp. 99-102)	<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> - 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: $\square - 4 = 7$ ).

			<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 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 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>
5. Demonstrate and explain the meaning of preservation of equality, concretely and pictorially.	<p><b>Patterning Unit 2: Variables and Equations</b></p> <p>6: Investigating Equality in Equations</p> <p>10: Consolidation of Variables and Equations</p>	Unit 14 Questions 4, 5, 7, 11, 13 (pp. 98-99, 101-102)	<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>- Recognizes that an equal sign between two expressions with variables indicates that the expressions are equivalent (e.g., <math>5n - 4 = 3n</math>; <math>3r = 2 + s</math>).</li> <li>- Investigates and models the meaning of preservation of equality of single variable equations (e.g., <math>3x = 12</math>).</li> </ul>





## Correlation of Northwest Territories Program of Studies with Mathology Grade 6 (Shape and Space: Measurement)

Curriculum Expectations	Grade 6 Mathology.ca	Mathology Practice Workbook 6	Pearson Canada Grades 4-6 Mathematics Learning Progression
<b>General Outcome</b> Use direct and indirect measurement to solve problems.			
<b>Specific Outcomes</b> 1. Demonstrate an understanding of angles by: <ul style="list-style-type: none"> <li>• identifying examples of angles in the environment</li> <li>• classifying angles according to their measure</li> <li>• estimating the measure of angles, using 45°, 90° and 180° as reference angles</li> <li>• determining angle measures in degrees</li> <li>• drawing and labelling angles when the measure is specified.</li> </ul>	<b>Geometry Unit 1A: 2-D Shapes and Angles</b> 1: Classifying and Measuring Angles 2: Measuring and Constructing Angles 6: Consolidation of 2-D Shapes and Angles	Unit 4 Questions 1, 2, 3, 12 (pp. 23-25, 29)	<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 angle as an attribute that can be measured and compared. - Understands angle is additive (e.g., 90° can be visualized as nine sectors that are 10° each). <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> - Measures, constructs, and estimates angles using degrees. <b>Big Idea: 2-D shapes and 3-D solids can be analyzed and classified in different ways by their attributes.</b> <b>Investigating geometric attributes and properties of 2-D shapes and 3-D solids</b> - Draws, compares, and classifies angles (i.e., right, acute, obtuse, straight, reflex).

<p>2. Demonstrate that the sum of interior angles is:</p> <ul style="list-style-type: none"> <li>• <math>180^\circ</math> in a triangle</li> <li>• <math>360^\circ</math> in a quadrilateral.</li> </ul>	<p><b>Geometry Unit 1A: 2-D Shapes and Angles</b>  3: Classifying Triangles  4: Identifying and Constructing Triangles  6: Consolidation of 2-D Shapes and Angles</p>	<p>Unit 4 Question 3 (pp. 24-25)</p>	<p><b>Big Idea: Assigning a unit to a continuous attribute allows us to measure and make comparisons.</b>  <b>Understanding relationships among measured units</b>  - Investigates and generalizes sum of interior angles of triangles (i.e., sum of angles of a triangle is <math>180^\circ</math>).</p>
<p>3. Develop and apply a formula for determining the:</p> <ul style="list-style-type: none"> <li>• perimeter of polygons</li> <li>• area of rectangles</li> <li>• volume of right rectangular prisms.</li> </ul>	<p><b>Measurement Unit 1A: Perimeter, Area, Volume, and Capacity</b>  1: Determining the Perimeter of Polygons  2: Determining the Area of Rectangles  4: Determining the Volume of Right Rectangular Prisms  6: Consolidation of Perimeter, Area, Volume, and Capacity</p>	<p>Unit 13 Questions 3, 4, 5, 8, 9, 10, 11, 13 (pp. 89-93, 95)  omit parts related to surface area</p>	<p><b>Big Idea: Patterns and relations can be represented with symbols, equations, and expressions.</b>  <b>Using variables, algebraic expressions, and equations to represent mathematical relations</b>  - Uses expressions and equations with variables to represent generalized relations and algorithms (e.g., <math>P = 2l + 2w</math>).</p> <p><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>  - Measures, constructs, and estimates perimeter and area of regular and irregular polygons.</p> <p><b>Understanding relationships among measured units</b>  - Develops and generalizes strategies to compute area and perimeter of rectangles.  - Develops and generalizes strategies and formulas to compute volumes of right rectangular prisms.</p>



## Correlation of Northwest Territories Program of Studies with Mathology Grade 6 (Shape and Space: 3-D Objects and 2-D Shapes)

Curriculum Expectations	Grade 6 Mathology.ca	Mathology Practice Workbook 6	Pearson Canada Grades 4-6 Mathematics Learning Progression
<b>General Outcome</b> Describe the characteristics of 3-D objects and 2-D shapes, and analyze the relationships among them.			
<b>Specific Outcomes</b> 4. Construct and compare triangles, including: <ul style="list-style-type: none"> <li>• scalene</li> <li>• isosceles</li> <li>• equilateral</li> <li>• right</li> <li>• obtuse</li> <li>• acute</li> </ul> in different orientations.	<b>Geometry Unit 1A: 2-D Shapes and Angles</b> 3: Classifying Triangles 4: Identifying and Constructing Triangles 6: Consolidation of 2-D Shapes and Angles	Unit 4 Questions 5, 6, 7, 12 (pp. 25-26, 29)	<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> - Sorts, describes, constructs, and classifies polygons based on side attributes (e.g., parallel, perpendicular, regular/irregular). - Sorts, describes, and classifies 2-D shapes based on their geometric properties (e.g., side length, angles, diagonals). - Classifies 2-D shapes within a hierarchy based on their properties (e.g., rectangles are a subset of parallelograms).
5. Describe and compare the sides and angles of regular and irregular polygons.	<b>Geometry Unit 1A: 2-D Shapes and Angles</b> 5: Investigating Polygons 6: Consolidation of 2-D Shapes and Angles	Unit 4 Questions 8, 10a, 10b, 11, 12 (pp. 27-29)	<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> - Sorts, describes, constructs, and classifies polygons based on side attributes (e.g., parallel, perpendicular, regular/irregular). - Sorts, describes, and classifies 2-D shapes based on their geometric properties (e.g., side lengths, angles, diagonals).



## Correlation of Northwest Territories Program of Studies with Mathology Grade 6 (Shape and Space: Transformations)

Curriculum Expectations	Grade 6 Mathology.ca	Mathology Practice Workbook 6	Pearson Canada Grades 4-6 Mathematics Learning Progression
<b>General Outcome</b> Describe and analyze position and motion of objects and shapes.			
<b>Specific Outcomes</b> 6. Perform a combination of translations, rotations and/or reflections on a single 2-D shape, with and without technology, and draw and describe the image.	<b>Geometry Unit 2A: Transformations</b> 7: Rotating 2-D Shapes on a Grid 8: Single Transformations on a Grid 9: Combining Transformations on a Grid 12: Consolidation of Transformations	Unit 5 Questions 3, 4, 9 (pp. 31-32, 36)	<b>Big Ideas: 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</b> - Identifies, describes, and performs single transformations (i.e., translation, reflection, rotation) on 2-D shapes. - Identifies, describes, applies, and creates a combination of successive transformations on 2-D shapes.
7. Perform a combination of successive transformations of 2-D shapes to create a design, and identify and describe the transformations.	<b>Geometry Unit 2A: Transformations</b> 9: Combining Transformations on a Grid 12: Consolidation of Transformations	N/A	<b>Big Ideas: 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</b> - Identifies, describes, and performs single transformations (i.e., translation, reflection, rotation) on 2-D shapes. - Identifies, describes, applies, and creates a combination of successive transformations on 2-D shapes.

<p>8. Identify and plot points in the first quadrant of a Cartesian plane, using whole number ordered pairs.</p>	<p><b>Geometry Unit 2A: Transformations</b>  10: Plotting and Reading Coordinates  11: Transformations on a Cartesian Plane  12: Consolidation of Transformations</p>	<p>Unit 5 Questions 1a, 2a (pp. 30-31)</p>	<p><b>Big Idea: Objects can be located in space and viewed from multiple perspectives.</b>  <b>Locating and mapping objects in space</b>  - Develops understanding of a Cartesian plane as a coordinate system using perpendicular axes.  - Plots and locates points on a Cartesian plane, and relates the location to the two axes. (Limited to the first quadrant.)</p>
<p>9. Perform and describe single transformations of a 2-D shape in the first quadrant of a Cartesian plane (limited to whole number vertices).</p>	<p><b>Geometry Unit 2A: Transformations</b>  11: Transformations on a Cartesian Plane  12: Consolidation of Transformations</p>	<p>Unit 5 Questions 5, 6 (p. 33)</p>	<p><b>Big Idea: Objects can be located in space and viewed from multiple perspectives.</b>  <b>Locating and mapping objects in space</b>  - Plots and locates points on a Cartesian plane, and relates the location to the two axes. (Limited to the first quadrant.)  - Analyzes and locates the vertices of 2-D shapes after transformation on a Cartesian plane. (Limited to the first quadrant.)</p>



**Correlation of Northwest Territories Program of Studies with Mathology Grade 6  
(Statistics and Probability: Data Analysis)**

Curriculum Expectations	Grade 6 Mathology.ca	Mathology Practice Workbook 6	Pearson Canada Grades 4-6 Mathematics Learning Progression
<b>General Outcome</b> Collect, display and analyze data to solve problems.			
<b>Specific Outcomes</b> 1. Create, label, and interpret line graphs to draw conclusions.	<b>Data Management Unit 1: Data Management</b> 1: Exploring Line Graphs 6: Consolidation of Data Management	Unit 9 Questions 1, 4, 5, 8 (pp. 61-64, 66)	<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>Collecting data and organizing it into categories</b> - Differentiates between discrete (e.g., votes) and continuous (e.g., height) data. <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). - Chooses and justifies appropriate visual representations for displaying discrete (e.g., bar graph) and continuous (e.g., line graph) data.
2. Select, justify and use appropriate methods of collecting data, including: <ul style="list-style-type: none"> <li>• questionnaires</li> <li>• experiments</li> <li>• databases</li> <li>• electronic media.</li> </ul>	<b>Data Management Unit 1: Data Management</b> 3: Collecting and Organizing Data 6: Consolidation of Data Management	Unit 9 Questions 3, 8 (pp. 63, 66)	<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>Collecting data and organizing it into categories</b> - Constructs data organizers to support data

			<p>collection (e.g., creates tally chart or line plot on a grid to collect survey data).</p> <ul style="list-style-type: none"> <li>- Selects and justifies an appropriate method of data collection (e.g., experiment, observation, survey) based on question posed.</li> </ul>
<p>3. Graph collected data, and analyze the graph to solve problems.</p>	<p><b>Data Management Unit 1: Data Management</b></p> <p>3: Collecting and Organizing Data 4: Interpreting Graphs to Solve Problems 6: Consolidation of Data Management</p>	<p>Unit 9 Questions 1, 5, 8 (pp. 61-62, 64-66)</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></p> <ul style="list-style-type: none"> <li>- Represents data graphically using many-to-one correspondence with appropriate scales and intervals (e.g., each symbol on pictograph represents 10 people).</li> <li>- Chooses and justifies appropriate visual representations for displaying discrete (e.g., bar graph) and continuous (e.g., line graph) data.</li> </ul> <p><b>Reading and interpreting data displays and analyzing variability</b></p> <ul style="list-style-type: none"> <li>- Reads and interprets data displays using many-to-one correspondence.</li> </ul> <p><b>Drawing conclusions by making inferences and justifying decisions based on data collected</b></p> <ul style="list-style-type: none"> <li>- Draws conclusions on data presented.</li> <li>- Interprets the results of data presented graphically from primary (e.g., class survey) and secondary (e.g., online news report) sources.</li> </ul>



**Correlation of Northwest Territories Program of Studies with Mathology Grade 6  
(Statistics and Probability: Chance and Uncertainty)**

Curriculum Expectations	Grade 6 Mathology.ca	Mathology Practice Workbook 6	Pearson Canada Grades 4-6 Mathematics Learning Progression
<b>General Outcome</b> Use experimental or theoretical probabilities to represent and solve problems involving uncertainty.			
<b>Specific Outcomes</b> 4. Demonstrate an understanding of probability by: <ul style="list-style-type: none"> <li>identifying all possible outcomes of a probability experiment</li> <li>differentiating between experimental and theoretical probability</li> <li>determining the theoretical probability of outcomes in a probability experiment</li> <li>determining the experimental probability of outcomes in a probability experiment</li> <li>comparing experimental results with the theoretical probability for an experiment.</li> </ul>	<b>Data Management Unit 2: Probability</b> 7: Exploring Theoretical Probability 8: Independent Events 9: Conducting Experiments 10: Consolidation of Probability	Unit 10 Questions 1, 2, 5, 6, 8 (pp. 67-68, 70, 72)	<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>Collecting data and organizing it into categories</b> - Records the results of multiple trials of simple events. <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). - Distinguishes between equally likely events (e.g., heads or tails on a fair coin) unequally likely events (e.g., spinner with differently sized sections). - Identifies the sample space of independent events in an experiment (e.g., flipping a cup, drawing a coloured cube from a bag). - Investigates and calculates the experimental probability (i.e., relative frequency) of simple events (e.g., 3 heads in 5 coins tosses is $\frac{3}{5}$ ).

**Unit 6: Coding** Not required, but recommended

**Unit 11: Financial Literacy** Not required, but recommended