Big Idea, Major Concepts, GLOs	Specific Learning Outcomes ELOs are bold	Season	Nehiyaw Ways of Knowing
NUMBER AT A GLANCE Problem solving with whole numbers and decimal numbers; factors and multiples (prime and composite numbers); percent; integers; order of operations			
Quantity Operational Sense Relationships Representation Reasoning			
The Base Ten Numeration System-is a scheme for recording numbers 0-9, groups of ten(s), and place value	**1. Demonstrate an understanding of place value, including numbers that are:** • **greater than one million** • **less than one thousandth. [C, CN, R, T]**		• **Forecasting animal populations over the next decade.**
Numbers-the set of real numbers is infinite. Each real number can be associated with a unique point on the number line. (counting numbers, whole numbers, integers, fractions/rational numbers) Estimation-approximated numerical calculations using numbers/ referents that are easier to compute with mentally.	**2. Solve problems involving whole numbers and decimal numbers. [ME, PS, T] [ICT: C6–2.4]**		• **Budgeting (e.g., cost of school lunch program, cost of supplies to build snow shoes, etc.)**
Properties-for a given set of numbers there are relationships that are always true. These rules govern arithmetic and algebra. (properties of operations, properties of equality)	**3. Demonstrate an understanding of factors and multiples by:** • **determining multiples and factors of numbers less than 100** • **identifying prime and composite numbers** • **solving problems using multiples and factors. [CN, PS, R, V]**		
	4. Relate improper fractions to mixed numbers and mixed numbers to improper fractions. [CN, ME, R, V]		
Basic Facts and Algorithms-operations with rational numbers.	**5. Demonstrate an understanding of ratio, concretely, pictorially and symbolically. [C, CN, PS, R, V]**		• **Apply to real life ratios - number of students per class, number of arrows shot per rabbit hit, etc.**
	6. Demonstrate an understanding of percent (limited to whole numbers), concretely, pictorially and symbolically. [C, CN, PS, R, V]		• **Infuse the Cree language - follow the math terms Ask students to figure out how real life LBL camp activities: e.g., How many poles are needed to make 5 tipis? Connections to beading work**

Big Idea, Major Concepts, GLOs	Specific Learning Outcomes ELOs are bold	Season	Nehiyaw Ways of Knowing
Properties-for a given set of numbers there are relationships that are always true. These rules govern arithmetic and algebra. (properties of operations, properties of equality) Basic Facts and Algorithms-operations with rational numbers.	**7. Demonstrate an understanding of integers, concretely, pictorially and symbolically. [C, CN, R, V]**		
	8. Demonstrate an understanding of multiplication and division of decimals (1-digit whole number multipliers and 1-digit natural number divisors). [C, CN, ME, PS, R, V]		• **Look at canning ingredients**
	9. Explain and apply the order of operations, excluding exponents, with and without technology (limited to whole numbers). [C, CN, ME, PS, T] [ICT: C6–2.4, C6–2.7]		
PATTERNS AND RELATIONS AT A GLANCE Using relationships and table of values to solve problems; understanding preservation of equality **Patterns Relationships Variables Expressions Equations**			
Patterns-are relationships that can be described and generalizations made for mathematical situations that have numbers or objects that repeat in predictable ways. (numbers, geometry)	**1. Represent and describe patterns and relationships, using graphs and tables.**		• **Animal populations, finished bead work, diverse human populations**
	2. Demonstrate an understanding of the relationships within tables of values to solve problems.		
Variable-mathematical structures can be translated and represented abstractly using variables, expressions and equations.	**3. Represent generalizations arising from number relationships, using equations with letter variables.**		
	4. Express a given problem as an equation in which a letter variable is used to represent an unknown number.		
Variable-mathematical structures can be translated and represented abstractly using variables, expressions and equations. Equivalence/Equality-any number, measure, algebraic expression, or equation can be represented in an infinite number of ways that have the same value. (preserve the equality)	5. Demonstrate and explain the meaning of preservation of equality, concretely and pictorially.		

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Big Idea, Major Concepts, GLOs	Specific Learning Outcomes ELOs are bold	Season	Nehiyaw Ways of Knowing
	SHAPE AND SPACE – MEASUREMENT **AT A GLANCE** **Estimate and measure angles; developing and applying formulas for perimeter and volume; create and use formulas for perimeter, area and volume**		
	Attributes Relationships Units		
Measurement-some attributes of objects are measurable and can be quantified using unit amounts. (time, length, area, mass, volume, capacity, magnitude, perimeter, angles)	**1. Demonstrate an understanding of angles by:** • **identifying examples of angles in the environment** • **classifying angles according to their measure** • **estimating the measure of angles, using 45°, 90° and 180° as reference angles** • **determining angle measures in degrees** • **drawing and labelling angles when the measure is specified.**		
	2. Demonstrate that the sum of interior angles is: • 180° in a triangle • 360° in a quadrilateral		
	3. Develop and apply a formula for determining the: • perimeter of polygons • area of rectangles • volume of right rectangular prisms		
	SHAPE AND SPACE– 3-D OBJECTS AND 2-D SHAPES AT A GLANCE Describe and compare sides and angles of polygons		
Shape and Space-2D and 3D objects can be constructed, described, classified, analyzed by their attributes.	**4. Construct and compare triangles, including: scalene, isosceles, equilateral, right, obtuse, acute in different orientations.**		
	5. Describe and compare the sides and angles of regular and irregular polygons.		

Big Idea, Major Concepts, GLOs	Specific Learning Outcomes ELOs are bold	Season	Nehiyaw Ways of Knowing
SHAPE AND SPACE – TRANSFORMATIONS AT A GLANCE Identify, describe and perform multiple transformations including individual designs; and on cartisian planes			
Transformations-objects in space can be transformed in an infinite number of ways. Transformations can be described and analyzed mathematically.	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.		
	7. Perform a combination of successive transformations of 2-D shapes to create a design, and identify and describe the transformations.		
	8. Identify and plot points in the first quadrant of a Cartesian plane, using whole number ordered pairs.		
	9. Perform and describe single transformations of a 2-D shape in the first quadrant of a Cartesian plane (limited to whole number vertices).		
 **STATISTICS AND PROBABILITY** **AT A GLANCE** **Create, label and interpret line graphs; graph collected data; analyze graph to solve problems**			
Data Collection-the question to be answered determines the data that needs to be collected and how best to collect it. Data Representation-data can be represented and interpreted visually using tables, charts, and graphs.	**1. Create, label and interpret line graphs to draw conclusions.**		
	2. Select, justify and use appropriate methods of collecting data, including: questionnaires, experiments, databases, electronic media.		
	3. Graph collected data, and analyze the graph to solve problems.		
CHANCE AND UNCERTAINTY AT A GLANCE			
Chance-the chance of an event occurring can be describe numerically. (probability)	**4. Demonstrate an understanding of probability by:** • **identifying all possible outcomes of a probability experiment** • **differentiating between experimental and theoretical probability** • **determining the theoretical probability of outcomes in a probability experiment** • **determining the experimental probability of outcomes in a probability experiment** • **comparing experimental results with the theoretical probability for an experiment.**		

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