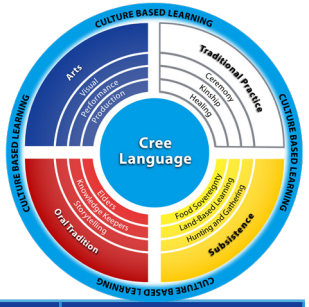
Math



Knowledge	Understanding	Skills & Procedures	ᓀᐦᐃᔭᐤ Nehiyaw Ways of Knowing	Other Suggestions
ORGANIZING IDEA **Number (N): Quantity is measured with numbers that enable counting, labelling, comparing, and operating.**				
GUIDING QUESTION **How can quantity contribute meaning to daily life?**				
LEARNING OUTCOME **KN 1 Children investigate quantity to 10.**				
Quantity can be represented using • **objects** • **pictures** • **words** • **numerals**	**KN 1.1** Quantity can be the number of objects in a set.	Recognize a number of familiar objects as a quantity. Represent a quantity in different ways. Relate a numeral to a specific quantity.	**Tipi Teachings Series and 13 Moons Teachings: Make connections between the 13 poles and the 13 moons.**	**The Number Song**
LEARNING OUTCOME **KN 1.2 Children investigate quantity to 10.**				
Quantity can be determined by counting.	**KN 1.2a** A quantity is always counted using the same sequence of words (counting principle: stable order). **KN 1.2b** A quantity remains the same no matter the order in which the objects are counted (counting principle: order irrelevance). **KN 1.2c A quantity can be determined by counting each object in a set once and only once (counting principle: one-to-one correspondence).** [continued]	Count within 10, forward and backward, starting at any number, according to the counting principles.	**Distance – Concept of Zero** **Legend of Night and Day**	

| Essential Learning Outcomes (ELOs) are identified in these charts in **bold**. Educational authorities from different regions of Alberta may identify different ELOs, based on their context. All outcomes in Alberta Education's Program of Studies must be taught, but what is deemed essential may look different.

Knowledge	Understanding	Skills & Procedures	ᓂᐦᐃᔭᐤ Nehiyaw Ways of Knowing	Other Suggestions
LEARNING OUTCOME KN 1 Children investigate quantity to 10.				
	[continued] **KN 1.2d** The last number used to count represents the quantity (counting principle: cardinality). **KN 1.2e** Any quantity of like or unlike objects can be counted as a set (counting principle: abstraction).			
LEARNING OUTCOME KN 1 Children investigate quantity to 10.				
A small quantity can be recognized at a glance (subitized).	**KN 1.3** Quantity can be determined without counting.	Subitize quantities to 5.		
LEARNING OUTCOME KN 1 Children investigate quantity to 10.				
Comparisons of quantity can be described by using words such as • **more** • **less** • **same** • **enough** • **not enough**	**KN 1.4** A quantity can be described relative to another quantity. **KN 1.4** A quantity can be described in relation to a purpose or need.	Compare the size of two sets using one-to-one correspondence. Describe quantities relative to each other using comparative language. Describe a quantity in relation to a purpose or need using comparative language. Solve problems in familiar situations by counting.	**Why Moose Looks the Way He Does (Told in Cree)** **How Moose Came to Be: Examine antler size.**	
GUIDING QUESTION In what ways can quantity be composed?				
LEARNING OUTCOME KN 2 Children interpret compositions of quantities within 10.				
Quantity can be arranged in various ways.	**KN 2.1** A quantity remains the same no matter how the objects are grouped or arranged (counting principle: conservation).	**Identify a quantity in various groups or arrangements.** Compose quantities within 10. Recognize various ways to make 5 and 10.	**Mixing and Measuring Common Medicines (2 videos)**	

Knowledge	Understanding	Skills & Procedures	ᓀᐦᐃᔭᐤ Nehiyaw Ways of Knowing	Other Suggestions
ORGANIZING IDEA **Geometry (G): Shapes are defined and related by geometric attributes.**				
GUIDING QUESTION **How can shape bring meaning to the space in an environment?**				
LEARNING OUTCOME **KG 1 Children investigate shape.**				
A shape can be represented using objects, pictures, or words. Familiar two- and three-dimensional shapes can be found in nature, such as • circles • triangles • cubes • cylinders First Nations, Métis, and Inuit relate specific shapes to those found in nature.	**KG 1.1** Shape is structured two-dimensional or three-dimensional space.	Relate shapes in nature to various two-dimensional and three-dimensional shapes. Identify familiar two- and three-dimensional shapes. Investigate three-dimensional shapes by rolling, stacking, or sliding. Describe a shape using words such as flat, curved, straight, or round.	Tipi Teachings Series: PDF Resource Beading Series: Loom	

| Essential Learning Outcomes (ELOs) are identified in these charts in **bold**. Educational authorities from different regions of Alberta may identify different ELOs, based on their context. All outcomes in Alberta Education's Program of Studies must be taught, but what is deemed essential may look different.

Knowledge	Understanding	Skills & Procedures	ᓂᐦᐃᔭᐤ Nehiyaw Ways of Knowing	Other Suggestions
ORGANIZING IDEA **Measurement (M): Attributes such as length, area, volume, and angle are quantified by measurement.**				
GUIDING QUESTION **In what ways can size be distinguished?**				
LEARNING OUTCOME **KM 1 Children explore size through direct comparison.**				
Size can be interpreted in many ways (according to measurable attributes), such as: • the length of an object • how much flat space an object covers (area) • how much a container holds (capacity) • the heaviness of an object (weight)	**KM 1.1** Size describes the amount of one measurable attribute of an object or a space.	Identify measurable attributes of familiar objects to which size may refer		
LEARNING OUTCOME **KM 1 Children explore size through direct comparison.**				
Comparisons of size can be described by using words such as • **longer** • **shorter** • **heavier** • **lighter** • **too big** • **too small**	**KM 1.2** Size may refer to only one measurable attribute at a time. **KM 1.2** The size of two objects can be compared directly. **KM 1.2** The size of an object can be described in relation to a purpose or need.	Compare the length, area, weight, or capacity of two objects directly. **Describe the size of an object in relation to another object, using comparative language.** Describe the size of an object in relation to a purpose or need, using comparative language.	**Tipi Teachings Series: Compare length of poles, number of poles, materials to use when making a tipi, warmth in winter, etc.** **Common Tree Names: Northern Boreal Series (9 videos): Make comparisons.**	

Knowledge	Understanding	Skills & Procedures	ᓂᐦᐃᔭᐤ Nehiyaw Ways of Knowing	Other Suggestions
ORGANIZING IDEA **Patterns (P): Awareness of patterns supports problem solving in various situations.**				
GUIDING QUESTION **How can patterns be recognized?**				
LEARNING OUTCOME **KP 1 Children identify and create repeating patterns.**				
Patterns exist everywhere. A pattern can involve elements such as • sounds • objects • pictures • symbols • actions Repeating patterns have one or more elements that repeat.	**KP 1.1** A pattern is characterized by how the elements change or remain constant	**Recognize repeating patterns encountered in daily routines and play, including songs or dances.** Recognize change or constancy between elements in a repeating pattern. Predict the next elements in a repeating pattern. **Create a repeating pattern with up to three repeating elements.**	Beading Series: Loom	
ORGANIZING IDEA **Time (T): Duration is described and quantified by time.**				
GUIDING QUESTION **In what ways can time be described?**				
LEARNING OUTCOME **KT 1 Children interpret time as a sequence of events.**				
Sequence in time can be described in words, such as • **first** • **next** • **today** Ordinal numbers can indicate order in time.	**KT 1.1** Time can be perceived as a sequence.	Sequence events, limited to two events, according to time using words or ordinal numbers. Describe daily events as occurring yesterday, today, or tomorrow.	Legend of Night and Day Tipi Teachings Series **and** 13 Moons Teachings**: Examine sequencing of poles and how they're named; how the moons are named with seasons.**	

| Essential Learning Outcomes (ELOs) are identified in these charts in **bold**. Educational authorities from different regions of Alberta may identify different ELOs, based on their context. All outcomes in Alberta Education's Program of Studies must be taught, but what is deemed essential may look different.