Before we start

While you are waiting for everyone to sign in, place a very brief summary of where you are at in the curriculum now. (example, counting 20-50, started ...

Grade 2 Provincial Cohort
Session 2

October 17, 2022

Chris Zarski

Central Alberta Regional Consortium

Acknowledgment of Land and People

In the spirit of reconciliation, we want to acknowledge that this gathering is taking place on traditional lands across the province of Alberta, home to many diverse Indigenous, Métis and Inuit peoples. We especially acknowledge the Cree, Dene and Metis who have walked and marked these lands for generations. We acknowledge that this land is a traditional meeting ground giving voice to its original peoples and the story of creation of this country in a way that history has forgotten.

Welcome back!
Agenda:

- Review of where we are - Looking at September - November
- Outcomes and Concepts - what does it mean?
- How do the Concepts link to assessment?
- Money and how we might leverage it for our journey to '20-50, 50-100'
- Activities to engage and reinforce learning
- Exploring the website - where will find the resources? What about New Learn Alberta?

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Success Criteria

This session will be successful if, at the end, you will ...

1

Confidence

... feel confident in navigating the new Math curriculum and its associated resources.

2

Direction

... have a sense of direction in moving forward with implementing the new curriculum.

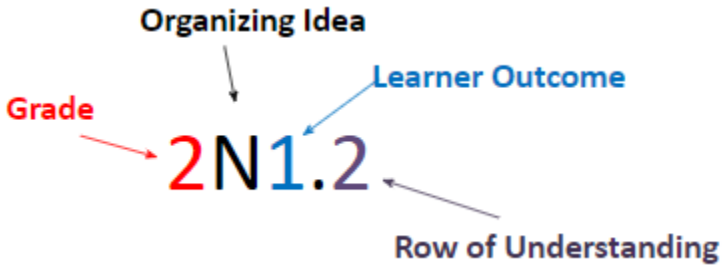
3

Efficacy

... have a sense of efficacy that you have the skillset and resources to make the implementation work.

Organizing Idea

- statement of the learning
- spans all or most grades
- main concepts



	Kindergarten			Grade 1			Grade 2		
Organizing Idea	Number: Quantity is measured with numbers that enable counting, labelling, comparing, and operating.								
Guiding Question	How can quantity contribute meaning to daily life?			How can quantity be communicated?			How can quantity contribute to a sense of number?		
Learning Outcome	KN1.1 Children investigate quantities to 10.			1N1.1 Students interpret and explain quantities to 100.			2N 1.1 Students analyze quantity to 1000.		
	Knowledge	Understanding	Skills & Procedures	Knowledge	Understanding	Skills & Procedures	Knowledge	Understanding	Skills & Procedures
	Quantity can be represented using objects pictures words numerals	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.	A numeral is a symbol or group of symbols used to represent a number. The absence of quantity is represented by 0.	Quantity is expressed in words and numerals based on patterns. Quantity in the world is represented in multiple ways.	Represent quantities using words, numerals, objects, or pictures. Identify a quantity of 0 in familiar situations.	Any number of objects in a set can be represented by a natural number. The values of the places in a four-digit natural number are thousands, hundreds, tens, and ones. Places that have no value within a given number use zero as a placeholder. The number line is a spatial representation of quantity.	There are infinitely many natural numbers. Every digit in a natural number has a value based on its place. Each natural number is associated with exactly one point on the number line.	Represent quantities using words and natural numbers. Identify the digits representing thousands, hundreds, tens, and ones based on place in a natural number. Relate a number, including zero, to its position on the number line.

A Note on Wording

2N 1.5 Words that can describe a comparison between two unequal quantities **include**

- not equal
- greater than
- less than

2N 2.1 A shape can change orientation or position through slides (**translations**), turns (**rotations**), or flips (**reflections**).

2ST 1.2 A graph includes features **such as**

- a title
- a legend
- axes
- axis
- labels

All that follows "include" must be taught, but other examples can be added.

Parenthesized words are words students need to know but can be interchanged with the alternate wording during discussions. (Age appropriateness)

What follows "such" are examples and don't have to all be covered or can be replaced with alternatives.

Progressions

Link

Competencies

- Critical Thinking
- Problem Solving
- Research and Managing Information
- Creativity and Innovation
- Communication
- Collaboration
- Citizenship
- Personal Growth and Well-being

Literacy

- Literacy involves acquiring and applying the understanding and skills necessary to decode, evaluate, and logically communicate ideas and build meaning, using oral, written, visual, and multimedia sources.
- Literacy is embedded in learning across all subject areas. It is foundational, allowing students to live, learn, and work as knowledgeable, active participants in a democratic society.
- **The Literacy Progressions** identify knowledge and behaviours that students may demonstrate by the end of each divisional age range.

Numeracy

- Numeracy involves acquiring and applying the mathematical knowledge and skills needed to engage with quantitative and spatial information in a variety of situations.
- Numeracy is embedded in learning experiences across all subject areas
- **The Numeracy Progressions** identify knowledge and behaviours that students may demonstrate by the end of each divisional age range.

Looking at the curriculum through the lens of concepts.

¡Concepts

!

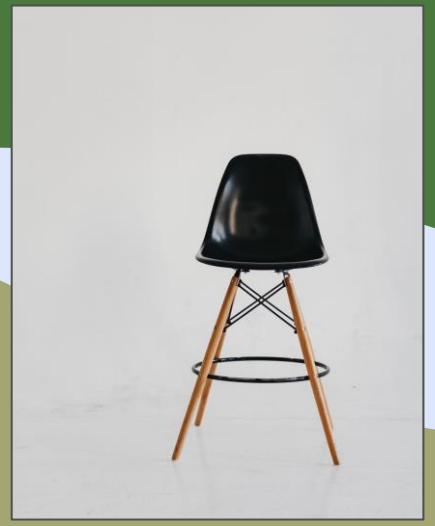
What is a concept?

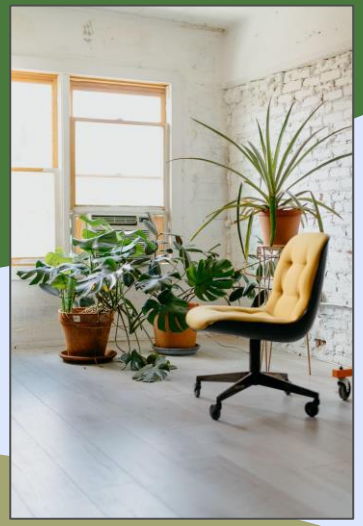
A concept is ...

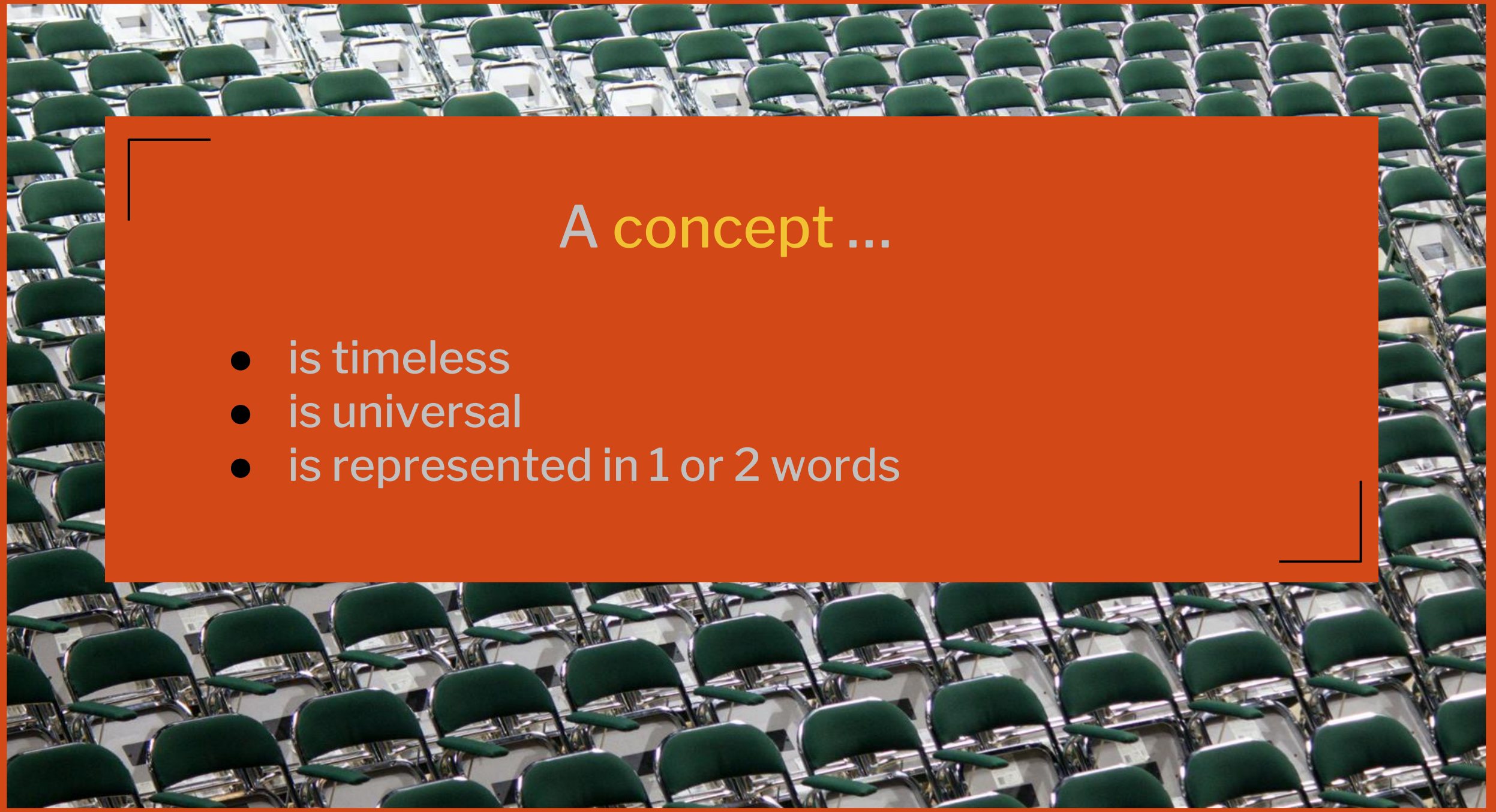
- organizing idea
- with distinct attributes
- that are shared across multiple examples

Chair is a concept

- **organizing idea : Chair**
- **with distinct attributes 1) object 2) manufactured or designed for sitting)**
- **that are shared across multiple examples**







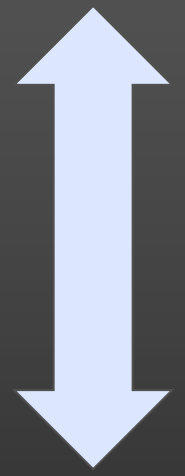
A concept ...

- is timeless
- is universal
- is represented in 1 or 2 words

Levels of Concepts

Broad/General Idea or Understanding

Furniture



Chair

More Specific Ideas or Understandings

Dining Chair

Form

Function

Causation

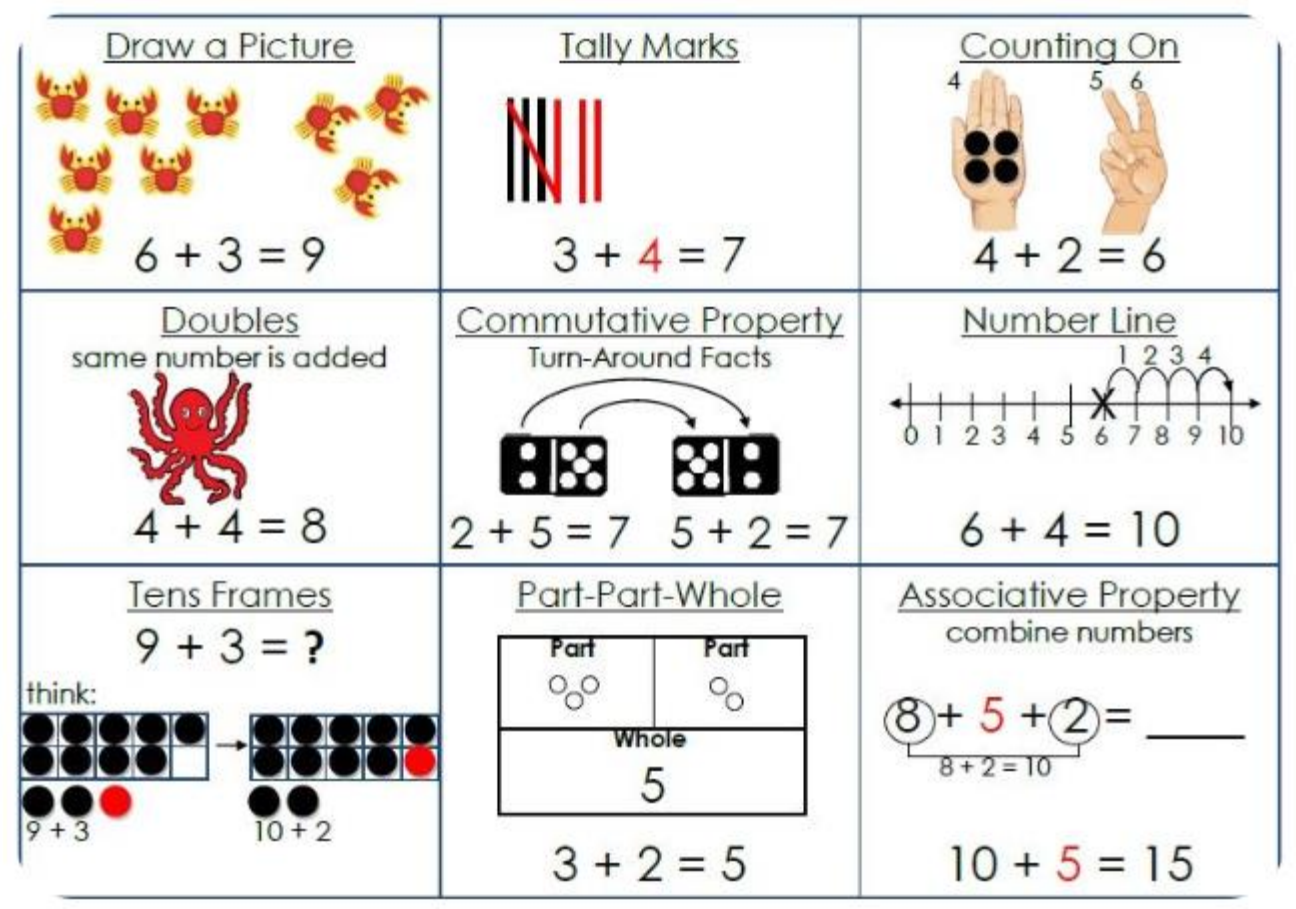
Connection

Reflection

Responsibility

Perspective

A Conceptual Lens

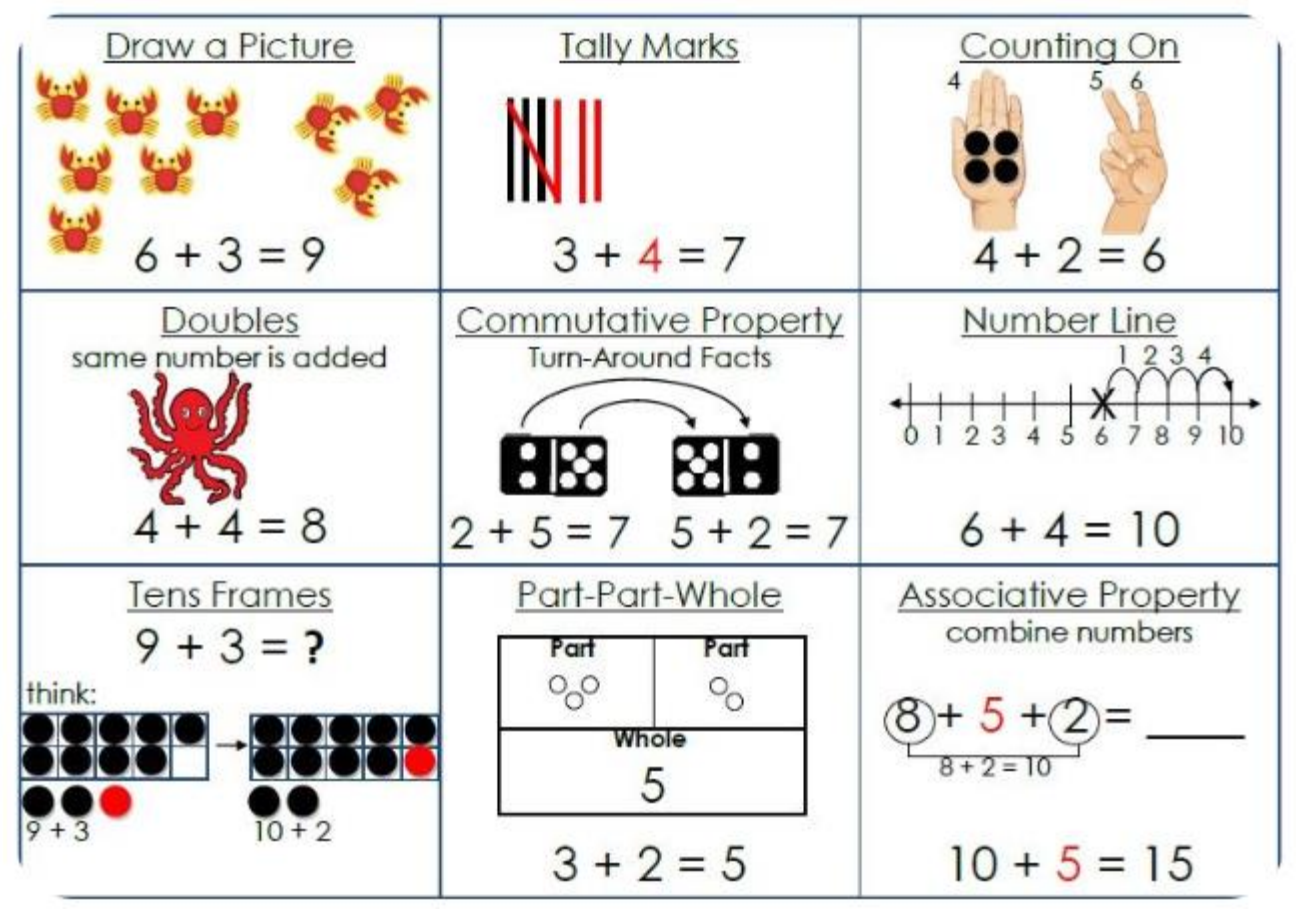


Lens

Math Concepts

- quantity
- addition
- modelling
- representation

A Conceptual Lens



Lens

Competencies

- critical thinking
- design

conceptual lens: concepts

2N 1.1 Learner Outcome: Students analyze quantity to 1000. (20-50)

Knowledge	Understanding	Skills and Procedures
Any number of objects in a set can be represented by a natural number. The values of the places in a four-digit natural number are thousands, hundreds, tens, and ones.	There are infinitely many natural numbers. Every digit in a natural number has a value based on its place. Each natural number is associated with exactly one point on the number line.	Represent quantities using words and natural numbers. Identify the digits representing thousands, hundreds, tens, and ones based on place in a natural number.
Places that have no value within a given number use zero as a placeholder.		Relate a number, including zero, to its position on the number line.
The number line is a spatial representation of quantity.		

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conceptual lens: concepts

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conceptual lens: concepts

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Skills & Procedures

Grade 2 Math September - November

- **Model** even and odd quantities by sharing and grouping.
- **Compare** the same unit fractions of the same whole, limited to denominators of 10 or less.
- **Relate** a number, including zero, to its place on a number line.
- **Represent** quantities using words, numerals, objects, or pictures.
- **Count** within 1000, forward and backward by 1s, starting at any number.
- **Skip Count** by 20s, 25s, or 50s starting at 0.
- **Compose** a sum in multiple ways, including with more than two addends.
- **Decompose** quantities into groups of 100s, 10s and 1s.
- **Determine** the value of collection of coins or bills of the same denomination by skip counting.
- **Describe** a quantity as even or odd.
- **Demonstrate** conservation of number when sharing or grouping.
- **Identify** the digits representing *thousands*, hundreds, tens and ones based on place in a natural number
- **Visualize** 100 as a composition of multiples of 10 in various ways.
- **Partition** a set of objects by sharing or grouping, with or without remainders.
- **Estimate** quantities using benchmarks.

Skills & Procedures

Grade 2 Math September - November

- **Model** even and odd quantities by sharing and grouping. **Is able to model odd and even quantities to _____.**
- **Compare** the same unit fractions of the same whole, limited to denominators of 10 or less.
- **Relate** a number, including zero, to its place on a number line. **Is able to relate a number up to _____ to its place on a number line.**
- **Represent quantities to _____ using words, numerals, objects, or pictures.**
- **Count within _____, forward and backward by 1s, starting at any number.**
- **Skip Count** by 20s, 25s, or 50s starting at 0. Check Grade 1 and report his first.
- **Compose** a sum in multiple ways, including with more than two addends.
- **Decompose** quantities into groups of 100s, 10s and 1s.
- **Determine** the value of collection of coins or bills of the same denomination by skip counting.
- **Describe** a quantity as even or odd.
- **Demonstrate** conservation of number when sharing or grouping.
- **Identify** the digits representing *thousands*, hundreds, tens and ones based on place in a natural number
- **Visualize** 100 as a composition of multiples of 10 in various ways.
- **Partition** a set of objects by sharing or grouping, with or without remainders.
- **Estimate** quantities using benchmarks

September	October	November
Number: Quantity is measured with numbers that enable counting, labelling, comparing and operating.		
2N1.1 Students analyze quantity to 1000. (20-50) • There are infinitely many natural numbers. • Every digit in a natural number has a value based on its place. • Each natural number is associated with exactly one point on the number line. 2N1.3 Students analyze quantity to 1000.(100) • All natural numbers are either even or odd.	2N1.1 Students analyze quantity to 1000.(100) • There are infinitely many natural numbers. • Every digit in a natural number has a value based on its place. • Each natural number is associated with exactly one point on the number line. 2N1.2 Students analyze quantity to 1000.(20-50) • A quantity can be interpreted as a composition of groups. 2N1.3 Students analyze quantity to 1000.(100) • All natural numbers are either even or odd.	2N1.1 Students analyze quantity to 1000. • There are infinitely many natural numbers. • Every digit in a natural number has a value based on its place. • Each natural number is associated with exactly one point on the number line. 2N1.2 Students analyze quantity to 1000.(100) • A quantity can be interpreted as a composition of groups. 2N1.3 Students analyze quantity to 1000.(100) • All natural numbers are either even or odd. 2N1.4 Students analyze quantity to 1000.(100) • A quantity can be estimated when an exact count is not needed. 2N2.1 Students investigate addition and subtraction within 100. • A sum can be composed in multiple ways. (no regrouping) 2N3.1 Students interpret part whole relationships using unit fractions. • Fractions can represent part-to- whole relationships. • One whole can be interpreted as a number of unit fractions. (example: 2 50 cents pieces make 100 • 10 dimes $\frac{1}{10}$ $\frac{1}{10}$ $\frac{1}{10}$ $\frac{1}{10}$ $\frac{1}{10}$ …)

Sample Year Plan: Mathematics - Grade 2

September 2022 ---------- November 2022

September	October	November
Patterns: Awareness of patterns supports problem solving in various situations.		
		2P1.1 Students explain and generalize patterns in a variety of contexts.. • A pattern can show increasing or decreasing change. • A pattern is more evident when the elements are represented, organized, aligned, or oriented in familiar ways.
Time: Duration is described and quantified with time.		
2T1.1 Students relate duration to time. • Time can be communicated in various ways. • Duration is the measure of an amount of time from beginning to end. Ongoing	2T1.1 Students relate duration to time. • Time can be communicated in various ways. • Duration is the measure of an amount of time from beginning to end. Ongoing	2T1.1 Students relate duration to time. • Time can be communicated in various ways. • Duration is the measure of an amount of time from beginning to end. Ongoing
Measurement: Attributes such as length, area, volume, and angle are quantified by measurement		
Geometry: Shapes are defined by geometric attributes.		
2G1.1a Students analyze and explain geometric attributes of shape. • Shapes are defined according to geometric attributes.	2G1.1a Students analyze and explain geometric attributes of shape. • Shapes are defined according to geometric attributes.	2G1.1a Students analyze and explain geometric attributes of shape. • Shapes are defined according to geometric attributes.

Assessment

We have Number, Time, Geometry and Patterns (Nov) running at entry levels for September - November.

Given the look at "concepts" form a skill level along with the concept of quantity,

- what does success 'sound' like
- 'look' like

Identify achievement 'indicators' for the three months.

Grade 2

How can quantity contribute to a sense of number? 20-50		
2N 1.1 Students analyze quantity to 1000.		
Knowledge	Understanding	Skills & Procedures
Any number of objects in a set can be represented by a natural number. The values of the places in a four-digit natural number are thousands, hundreds, tens, and ones. Places that have no value within a given number use zero as a placeholder. The number line is a spatial representation of quantity.	There are infinitely many natural numbers. Every digit in a natural number has a value based on its place. Each natural number is associated with exactly one point on the number line.	Represent quantities using words and natural numbers. Identify the digits representing thousands, hundreds, tens, and ones based on place in a natural number. Relate a number, including zero, to its position on the number line.

2N1.2

2N 1.2 Students analyze quantity to 1000. **20-50 50-100**		
Knowledge	Understanding	Skills & Procedures
A quantity can be skip counted in various ways according to context. Quantities of money can be skip counted in amounts that are represented by coins and bills (denominations).	A quantity can be interpreted as a composition of groups.	Decompose quantities into groups of 100s, 10s, and 1s. Count within 1000, forward and backward by 1s, starting at any number. Skip count by 20s, 25s, or 50s, starting at 0. Skip count by 2s and 10s, starting at any number. Determine the value of a collection of coins or bills of the same denomination by skip counting.

2N 1.3 - 1.4

2N 1.3 Students analyze quantity to 1000. **20-50 50-100**		
Knowledge	Understanding	Skills & Procedures
An even quantity will have no remainder when partitioned into two equal groups or groups of two. An odd quantity will have a remainder of one when partitioned into two equal groups or groups of two.	All natural numbers are either even or odd.	Model even and odd quantities by sharing and grouping. Describe a quantity as even or odd. Partition a set of objects by sharing or grouping, with or without remainders.

2N 1.4 Students analyze quantity to 1000. **20-50 50-100**		
Knowledge	Understanding	Skills & Procedures
A benchmark is a known quantity to which another quantity can be compared.	A quantity can be estimated when an exact count is not needed.	Estimate quantities using benchmarks.

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2N 2.1

How can addition and subtraction be interpreted?		
2N2.1 Students investigate addition and subtraction within 100.		
Knowledge	Understanding	Skills & Procedures
The order in which more than two numbers are added does not affect the sum (associative property).	A sum can be composed in multiple ways.	Visualize 100 as a composition of multiples of 10 in various ways. Compose a sum in multiple ways, including with more than two addends.

money

Cuisenaire rods

Part Part Whole

2N 3

Cuisenaire rods for modeling unit fractions. Don't use "fraction" upfront.

Relationship between two rods. Words "halves and quarters" - see them through illustrations, through money

5 cents to 10 cents

dime to a dollar

50 cents to a loonie

loonie to a toonie

quarters to a dollar

$5 to a $10

$10 to a $20

$20 to $100

In what ways can parts compose a whole?		
2N3 Students interpret part-whole relationships using unit fractions.		
Knowledge	Understanding	Skills & Procedures
A whole can be a whole set of objects, or a whole object, that can be partitioned into a number of equal parts. The whole can be any size and is designated by context. A unit fraction describes any one of the equal parts that compose a whole.	Fractions can represent part-to-whole relationships. One whole can be interpreted as a number of unit fractions.	Model a unit fraction by partitioning a whole object or whole set into equal parts, limited to 10 or fewer equal parts. Compare different unit fractions of the same whole, limited to denominators of 10 or less. Compare the same unit fractions of different wholes, limited to denominators of 10 or less. Model one whole, using a given unit fraction, limited to denominators of 10 or less.

Hold off on big moves with unit fractions until we meet again in November - will be a main focus.

2G 1.1 a) only for the first 3 months

How can shape influence perception of space?		
2G1.1 a & b Students analyze and explain geometric attributes of shape.		
Knowledge	**Understanding**	**Skills & Procedures**
Common geometric attributes include • sides • vertices • faces or • surfaces Two-dimensional shapes may have sides that are line segments. Three-dimensional shapes may have faces that are two-dimensional shapes.	a. Shapes are defined according to geometric attributes. b. A shape can be visualized as a composition of other shapes.	Sort shapes according to two geometric attributes and describe the sorting rule. Relate the faces of three-dimensional shapes to two-dimensional shapes. Create a picture or design with shapes from verbal instructions, visualization, or memory.

2D initial Focus

https://www.youtube.com/watch?v=4iAY1-3onRI&t=129s

2P 1.1 (starting in Nov)

Patterns

2P1.1 Students explain and analyze patterns in a variety of contexts.		
Knowledge	Understanding	Skills & Procedures
Change can be an increase or a decrease in the number and size of elements. A hundreds chart is an arrangement of natural numbers that illustrates multiple patterns. Patterns can be fou and created in cultu designs.	A pattern can show increasing or decreasing change. A pattern is more evident when the elements are represented, organized, aligned, or oriented in familiar ways.	Describe non-repeating patterns encountered in surroundings, including in art, architecture, cultural designs, and nature. Investigate patterns in a hundreds chart. Create and express growing patterns using sounds, objects, pictures, or actions.

Financial Literacy: Informed financial decision making contributes to the well-being of individuals, groups, and communities.					
What is money?			In what ways can money be used?		
Children explore money.			Students explore money and how it is used for everyday living.		
Knowledge	Understanding	Skills & Procedures	Knowledge	Understanding	Skills & Procedures
Canadian money comes in many forms, such as • coins • bills Canadian coins and bills come in different denominations, such as • loonies • toonies • $5 • $10 Canadian coins and bills have different features, such as • colour • number • images • size	Money has unique features to represent its value.	Explore the value of Canadian coins and bills. Identify features of Canadian coins and bills.	Canadian money comes in many forms, such as • coins • bills • debit cards • credit cards Canadian coins and bills come in different denominations, such as • nickels • dimes • quarters • loonies • toonies • $5 • $10 • $20 • $50 • $100 Images on Canadian coins and bills include • wildlife • sports • boats • emblems • historic figures Money can be • shared • earned • saved • spent • borrowed Goods are things that	Money can be used to exchange for goods and services. Money has value and purpose in everyday living. Money has unique features to represent its value.	Explore the value of Canadian coins and bills. Sort Canadian coins and bills. Identify goods and services that can be exchanged for money.

Counter first

Skip counting by 2, 5, 10, 20, 50, …

Arrays for addition/subtraction equal, not equal

Financial Literacy will start when money is well understood. “spending, saving, earning, wants and needs”

Guiding Question	What is money?		
Learning Outcome	Children explore money.		
	Knowledge	Understanding	Skills & Procedures
They begin as our "counters" Shapes Colour - comparative language Canadian Living Things - animals	Canadian money comes in many forms, such as • coins • bills Canadian coins and bills come in different denominations, such as • loonies • toonies • $5 • $10 Canadian coins and bills have different features, such as • colour • number • images • size	Money has unique features to represent its value. Money APP	Explore the value of Canadian coins and bills. Identify features of Canadian coins and bills.

In what ways can money be used?		
Students explore money and how it is used for everyday living.		
Knowledge	**Understanding**	**Skills & Procedures**
Canadian money comes in many forms, such as • coins • bills • debit cards • credit cards Canadian coins and bills come in different denominations, such as • nickels • dimes • quarters • loonies • toonies • $5 • $10 • $20 • $50 • $100 Images on Canadian coins and bills include • wildlife • sports • boats • emblems • historic figures Money can be • shared • earned • saved • spent • borrowed Goods are things that are made and produced and can be touched, such as	Money can be used to exchange for goods and services. Money has value and purpose in everyday living. Money has unique features to represent its value.	Explore the value of Canadian coins and bills. Sort Canadian coins and bills. Identify goods and services that can be exchanged for money.

How would you model, exemplify or teach the following using money?

Kindergarten:

- Quantities using objects, words, pictures, numbers
- Counting objects
- Subitize to 5/10
- “like/unlike/more/less/same”/enough/too many/too few
- Compose quantities within 10 in various ways
- “Share” - this is the beginning of fractions
- Describe a shape using words such as flat, curved, straight, or round.
- Sort shapes according to one attribute and describe the sorting rule.
- Measurable attributes can include • length • area • capacity • mass
- “longer • taller • shorter • heavier • lighter • bigger • smaller • big enough • too big • too small”
- 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.
- Identify the pattern core, up to three elements, in a repeating pattern.
- Predict the next elements in a repeating pattern. Create a repeating pattern with a pattern core of up to three elements.

How would you model, exemplify or teach the following using money?

Grade 1

No quantity represented by 0
Know all coins and bills including 100
Know value of each coin and bill
Skip count to 100 by 5, 10; 20 by 2”s
Symbols for equal, not equal
Words greater than, less than, Compose quantities within 20 in various ways
Model transactions with money, limited to dollar values within 20
In a part-part-whole relationship, the sum represents the whole and the difference represents a missing part.
Sharing involves partitioning a quantity into a certain number of groups.
½, one- half of the whole quantity.(not using fraction)
Length may refer to the size of any one dimensional measurable attribute of an object, including: • height • width • depth • diameter
Compare the length, area, mass, or capacity of two objects directly, or indirectly using a third object.
Describe the size of an object in relation to another object, using comparative language.
Pattern core, up to four elements, in a cycle. Identify a missing element in a repeating pattern or cycle. Describe change and constancy in repeating patterns and cycles.
Create different representations of the same repeating pattern or cycle, limited to a pattern core of up to four elements.
Extend a sequence of elements in various ways to create repeating patterns

Grade 2

Decompose into groups of 100

Skip count by 20, 25, 50, (review skip counting by 1’s, 2’s, 5’s,10’s)

Determine the value of bills or coins of the same denomination by skip counting

<,>, =

sum composed in multiple ways

Model transactions with money, limited to dollar values within $100 or 100 cents

½ , ¼ and unit fractions with denominators or 10 or less

Common geometric attributes include. • sides • vertices • faces or surfaces

Length can be measured with nonstandard units or standard units (e.g., centimetres).

Identify referents for a centimetre. Estimate length by visualizing the iteration of a referent for a centimetre.

Change can be an increase or a decrease in the number and size of elements.

Create and express a repeating pattern with a pattern core of up to four elements that change by more than one attribute.

What did we see when we emptied our bowl on the table?

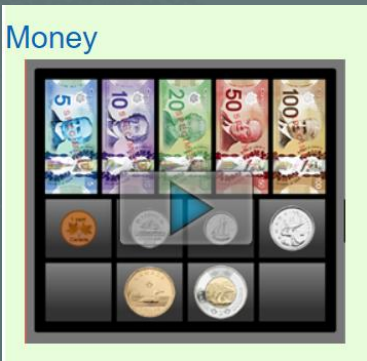
Review May video

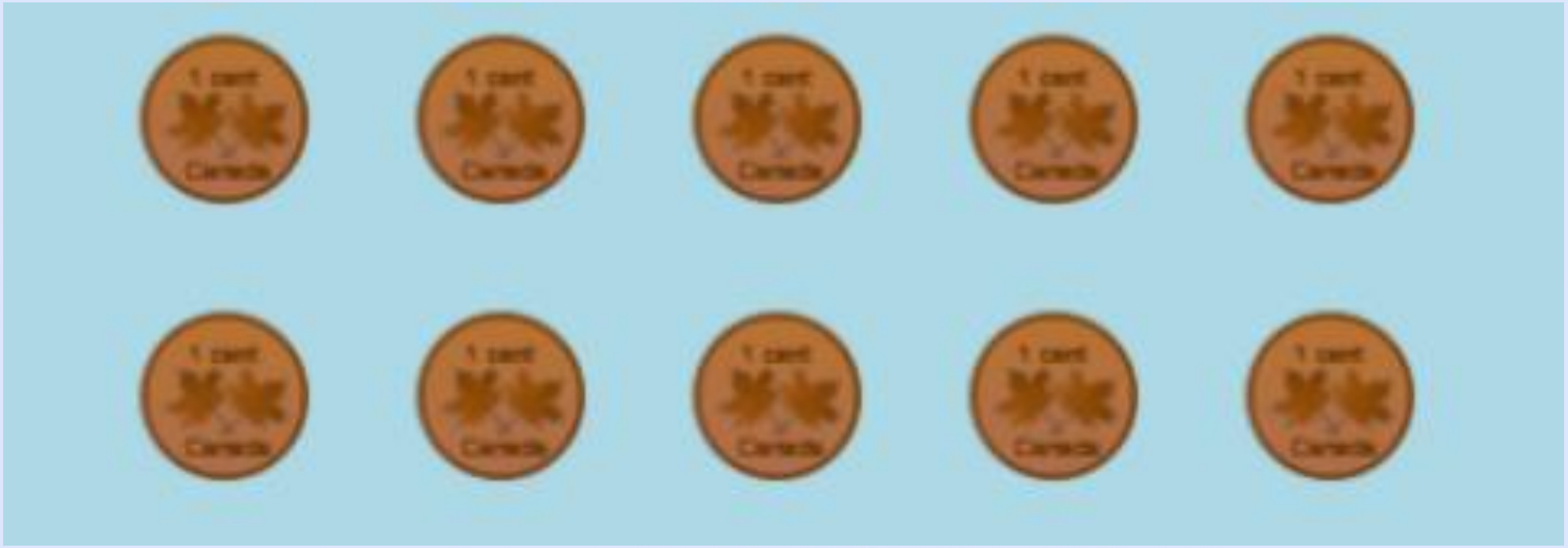
What is a COIN?

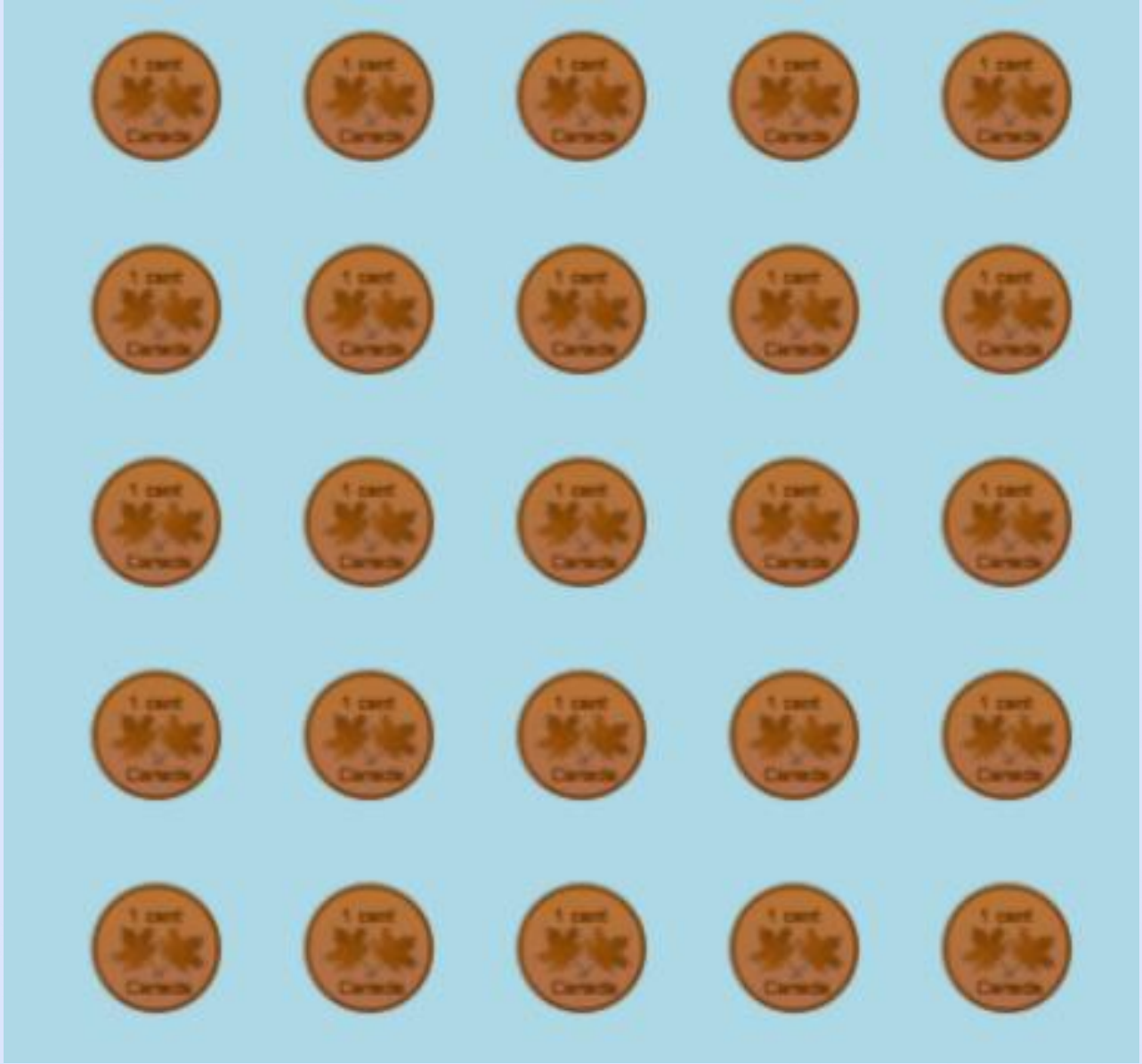
Do you have any coins?

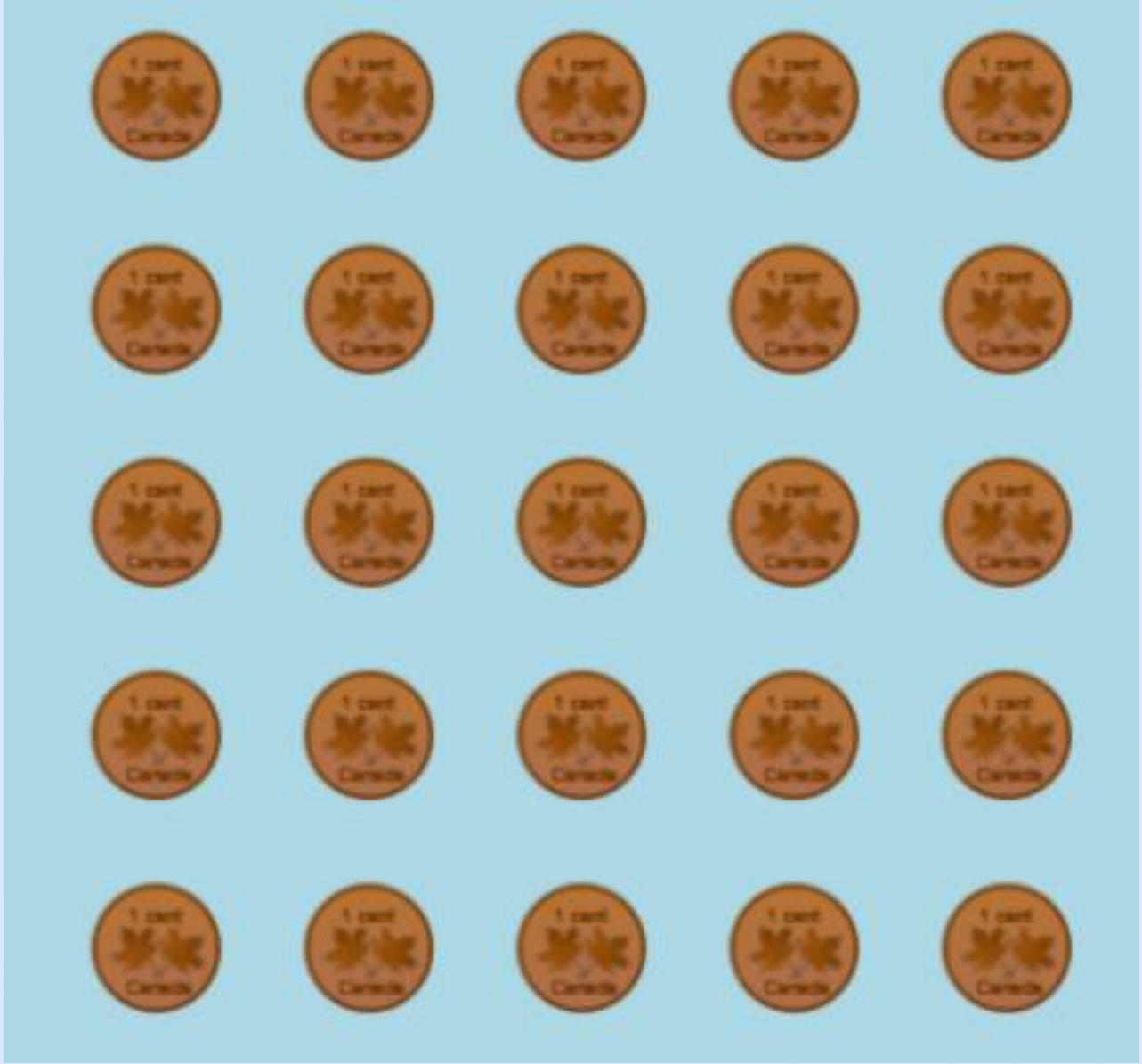
The Story of Our Coins

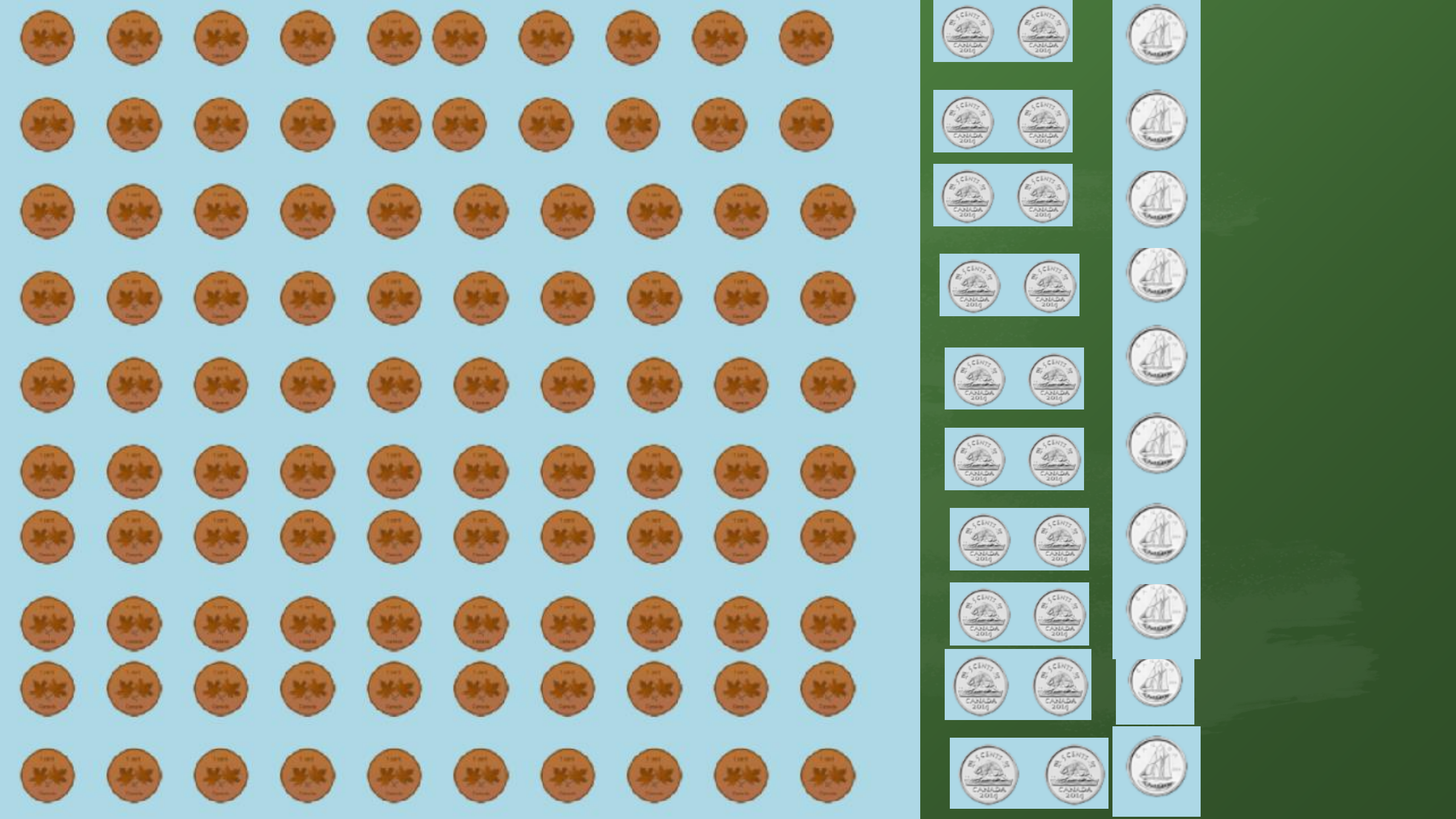
- Understanding “Money” and its role in many other concepts.
- Understanding how it connects between grades and end goals.
- “Money is a Leader”
- A Physical “tool” - should be related to other “tools”
- Culturally Common - Common Context regardless of language
- Note: Canadian Money has colour as part of its identification - try to use stay away from black/white unless there are no other options and then ensure the coins are *realistic!*




1 cent
Canada







Spectrum Number Lines

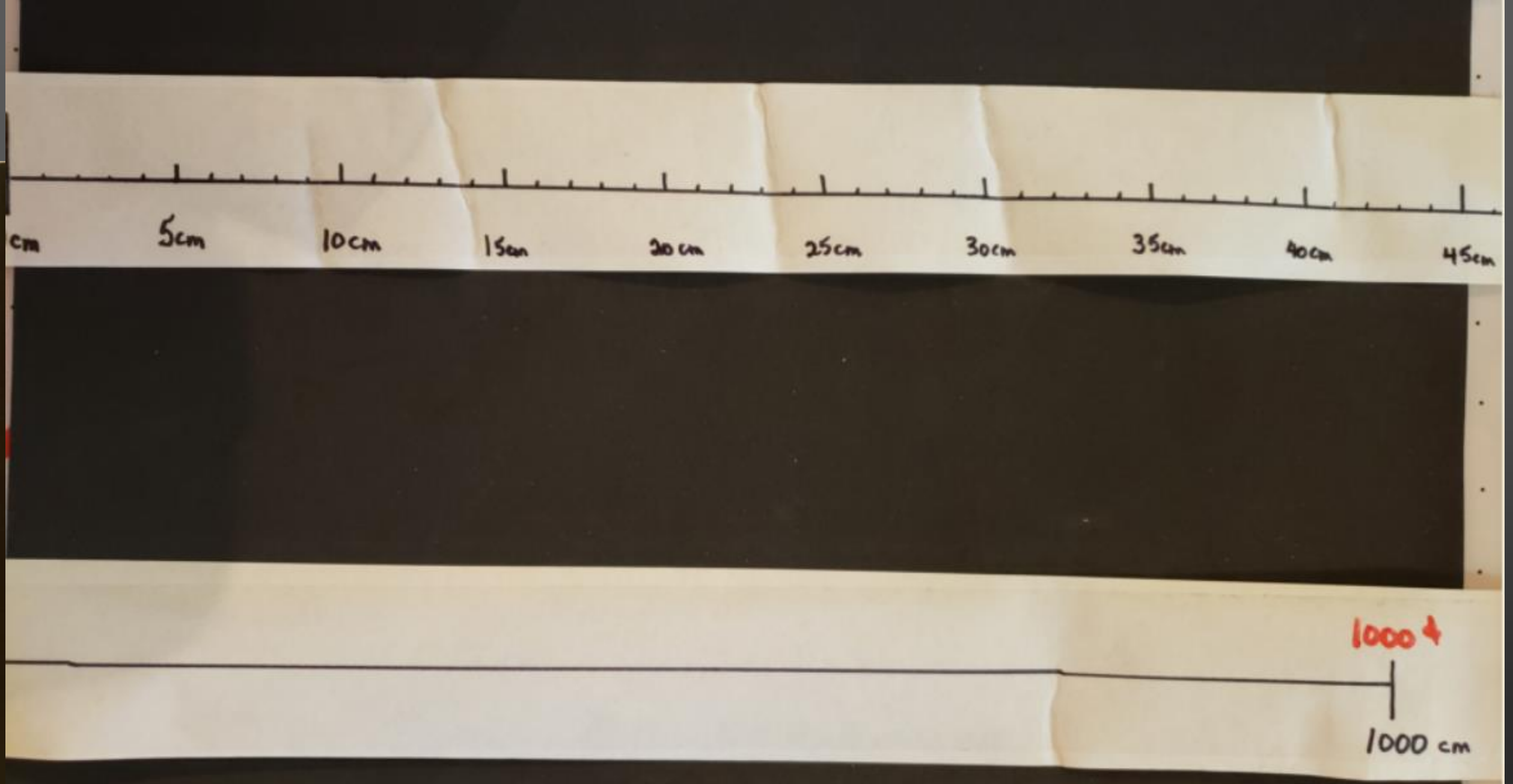
Create the Unit Fractions Visually - no fraction terminology

Suggested amounts of Money for each Ziplock Bag

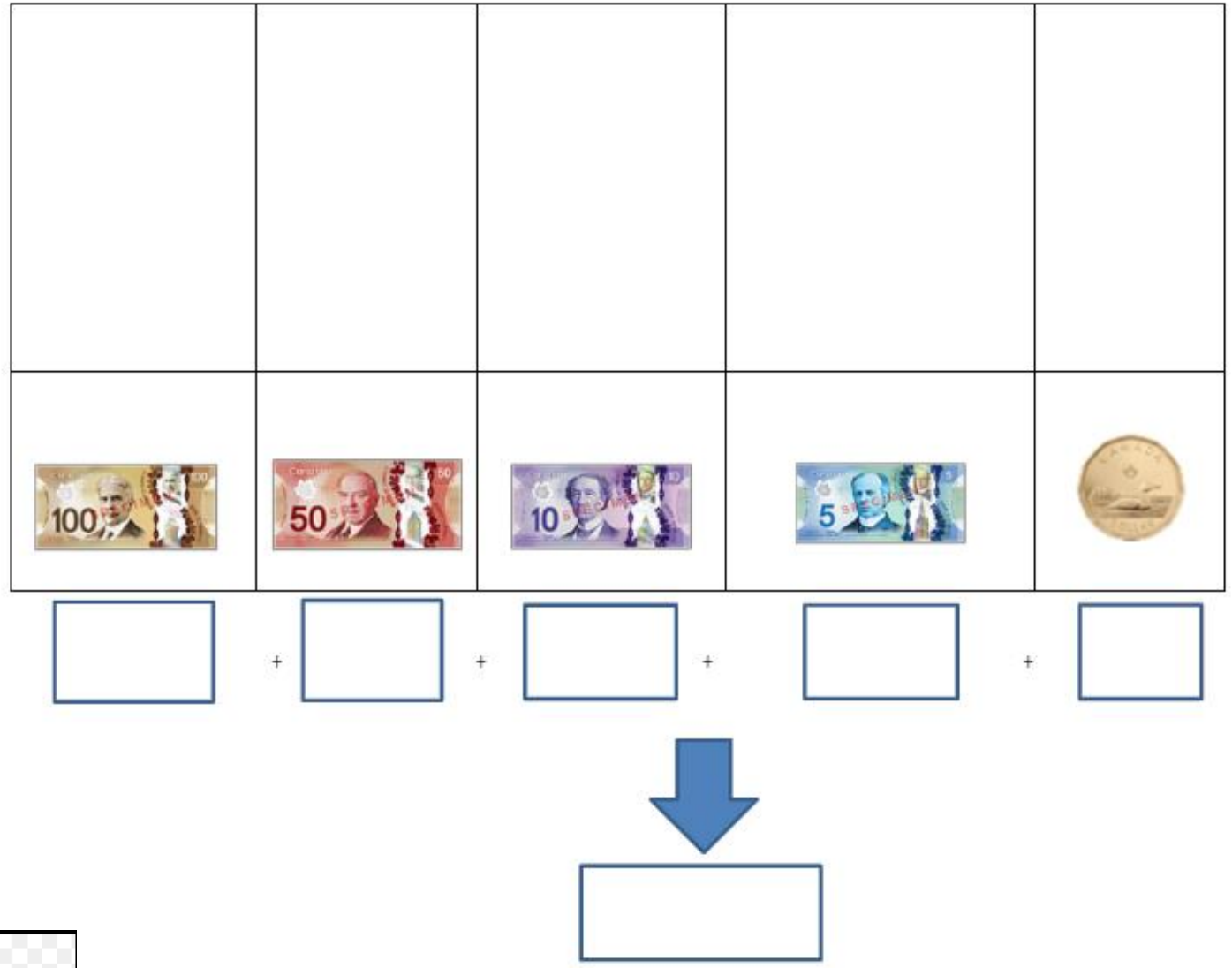
10 pennies
6 nickels
10 dimes
6 quarters
4 loonies
3 toonies
2 x $5.00
2 x $10.00
2 x $20.00
2 x $50.00
1 x $100.00

Additional cash, if needed, can be retrieved from the “Bank”

www.movingforwardcurriculum.ca


cm
5cm
10cm
15cm
20 cm
25cm
30cm
35cm
40cm
45cm
1000 ↓
1000 cm

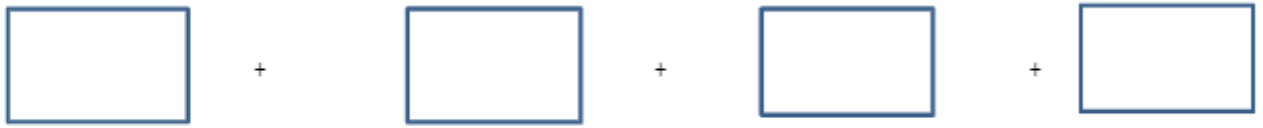
Place Value Chart Beginning with Money (Loonie, $5, $10, $50, $100)



All templates are available on the www.movingforwardcurriculum.ca website under Math Kits

Place Value Chart Beginning with Money (Loonie, $5, $10, $100, $1000)

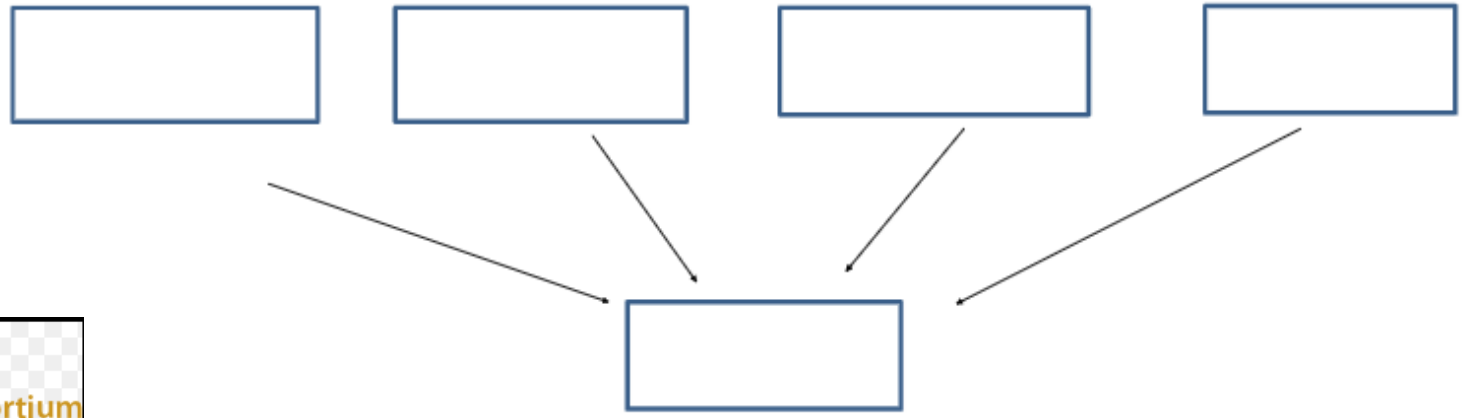
THOUSAND ($1000.00)			



$1000.00 = 100 000¢

Place Value Chart Beginning with Money (Penny, Nickel, Dime, Quarters)

Quarter 	Dime 	Nickel 	Penny 



Leah Dorion

The University is honoured to be gifted with a Buffalo Winter Count Robe

By University Advancement and Communications ***Posted:*** *April 7, 2022 3:00 p.m.*

The Office of Indigenous Engagement held a special ceremony on Thursday to celebrate the gift of a traditional Buffalo Winter Count Robe to the University of Regina. The robe was painted by knowledge keeper Wayne Goodwill from Standing Buffalo Dakota Nation, one of the last known robe painters in the province.

The robe tells the story of the Indigenous experience from pre colonial days to the present. It will be used as a teaching tool to support the University and surrounding community on the path of truth and reconciliation.

"This Buffalo Winter Count Robe symbolizes what happened in the past 200 years to the First Nations people on the plains," said Goodwill.

At the event, President and Vice-Chancellor Dr. Jeff Keshen shared with attendees that the University is truly honoured to welcome through ceremony this Buffalo Winter Count Robe.

As these painted robes have traditionally been used to record historic events and keep alive stories of long ago, the robe will play an integral role in the University's efforts to address the Truth and Reconciliation Commission of Canada's *Calls to Action*.

"The stories embedded in this robe help expose the truth of Canada's colonial past and the impact on the original inhabitants of this land," said Lori Campbell, Associate Vice-President (Indigenous Engagement). "These stories are also a celebration of the remarkable strength and perseverance of those who have gone before us, those who are walking with us, and those who will lead the way in the future."

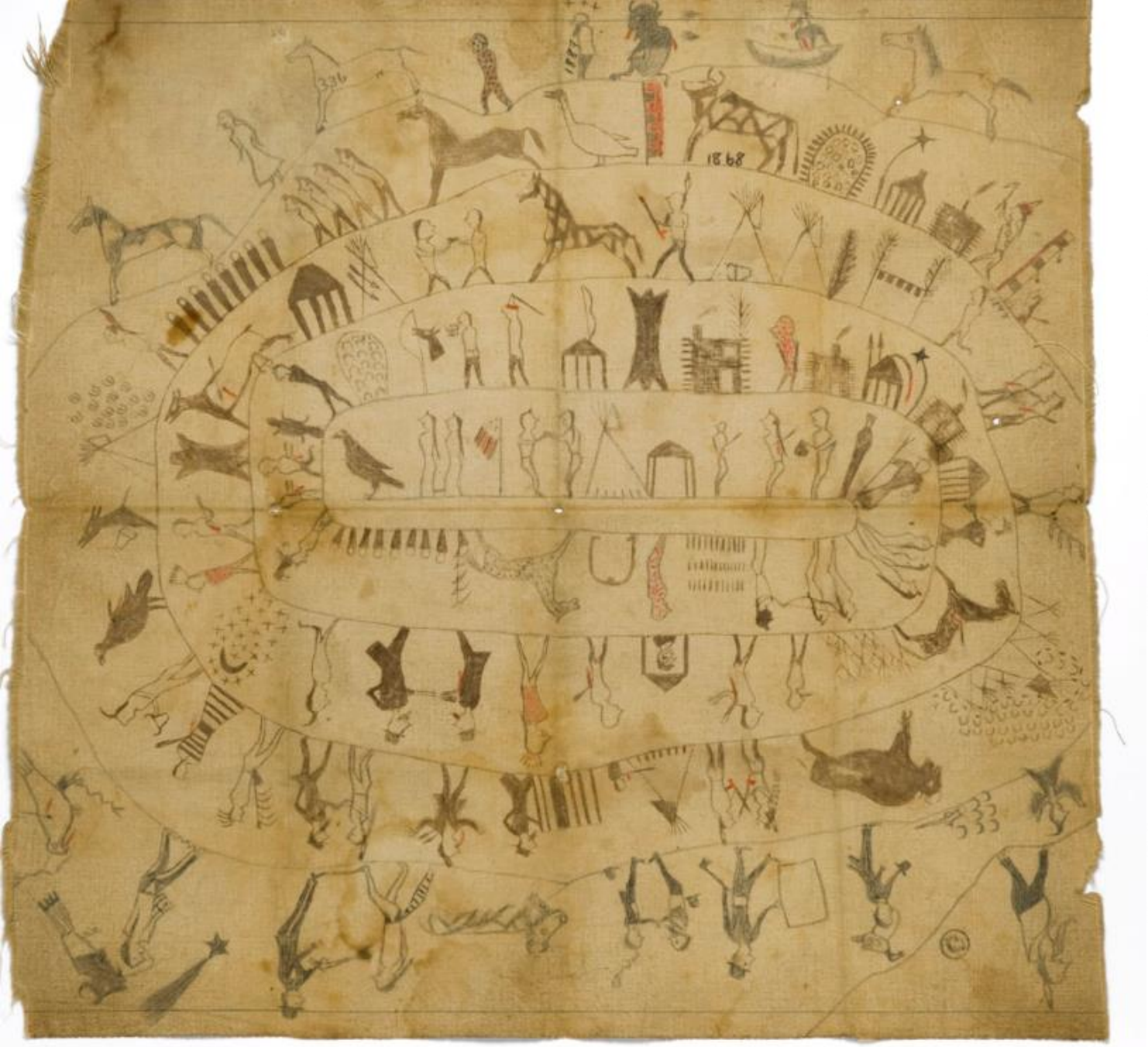
Source: Source: https://www.uregina.ca/external/communications/feature-stories/current/2022/04-07.html

L to R: President and Vice-Chancellor Dr. Jeff Keshen, artist and knowledge keeper Wayne Goodwill, His Honour the Honourable Russ Mirasty, S.O.M., M.S.M., Lieutenant Governor of Saskatchewan, and Her Honour Ms. Donna Mirasty *University Advancement and Communications*

Source: https://www.uregina.ca/external/communications/feature-stories/current/2022/04-07.html

Winter Count—a series of pictographs drawn on buffalo hide, cloth, or paper that was used **to help remember community history among some tribes of the Northern Great Plains**.

Groups of people record their history even when they do not have written languages. They do so by passing down events orally or by recording them pictorially. The Lakota people recorded their history by creating winter counts, which are **drawings of historical events on animal hides or muslin**.



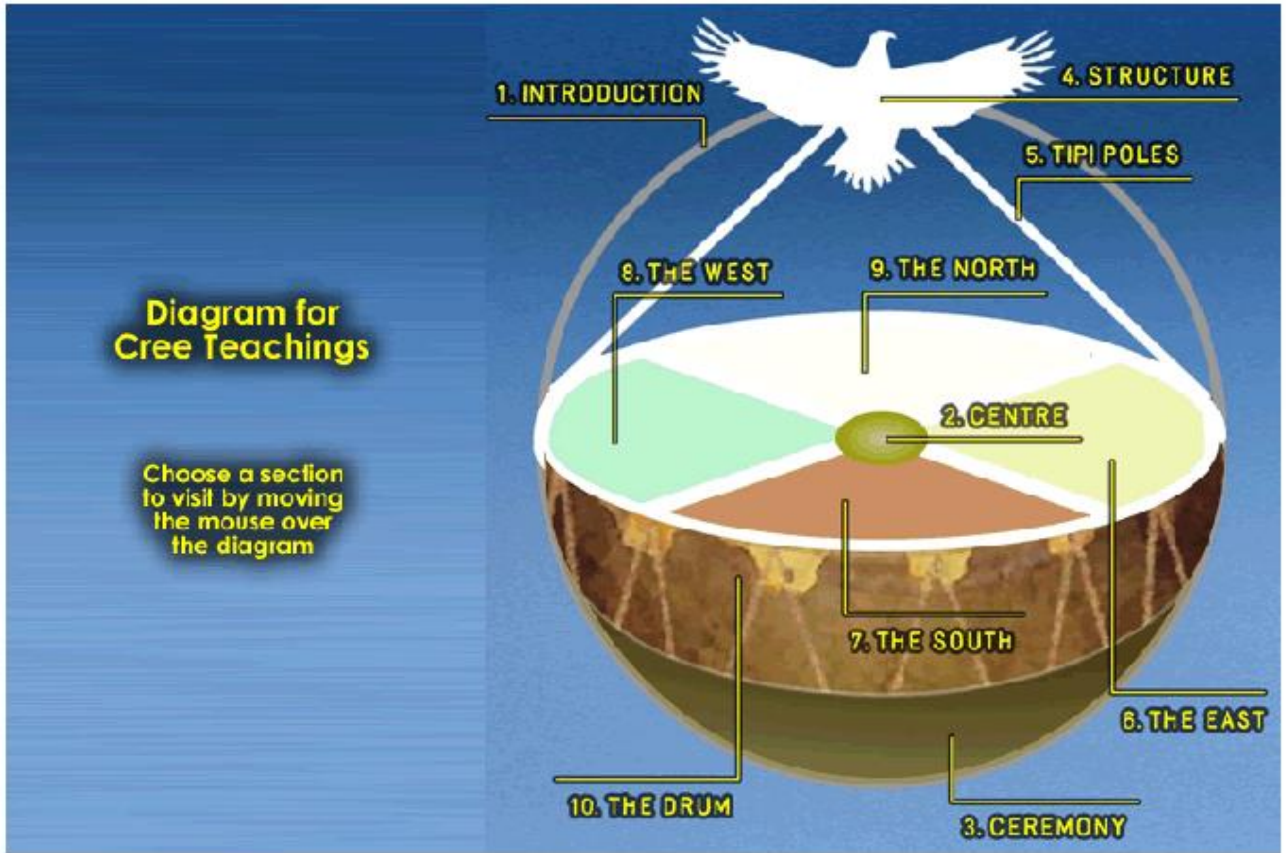
spiraling story of the Chief Martin White Horse Winter Count documents significant events in Lakota history each year from 1789 to 1910. AC.7923/DMNS

See your Grade folder for lesson plans and explanations of Winter Count

Source https://www.sapiens.org/column/curiosities/culture-time/

FOUR DIRECTIONS TEACHINGS.com

CREE (NEHIYAWAK) TEACHING
ELDER: MARY LEE



Source: Cree Teachings - Four Directions Teachings
Audio narration

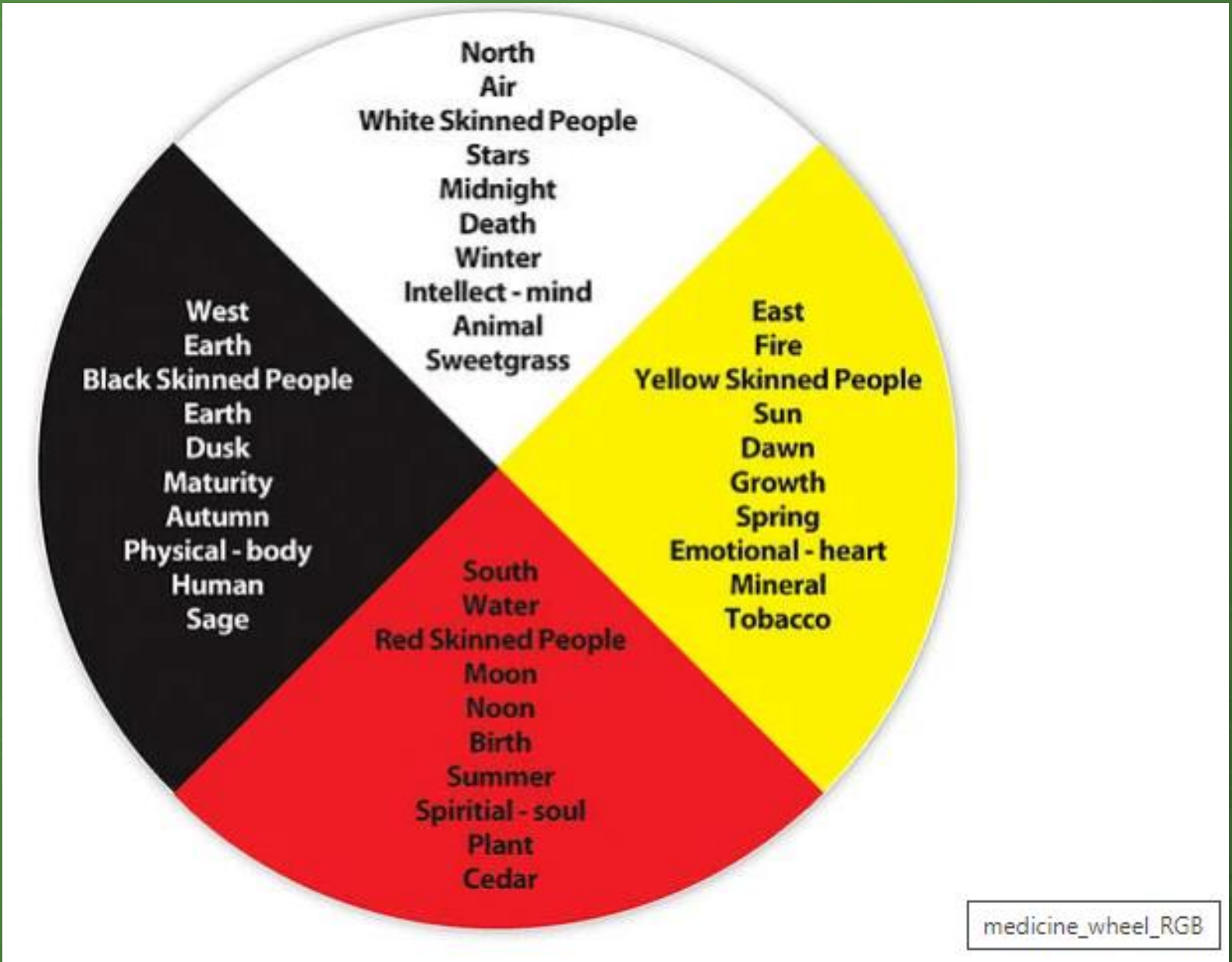
INFUSING INDIGENOUS KNOWLEDGE INTO CURRICULUM

ALBERTA GRADES 1 TO 9

This website shares documents for Grades 1 to 9 English Language Arts, Social Studies, Science and Math that aim to provide:

- Clarity and consistency related to the Grades 1 to 9 Essential Learning Outcomes in the four core subject areas in Alberta Education's Programs of Study
- Understandings of curriculum sequencing from grade to grade for each of the identified subject areas
- Understandings of what must be assessed (for and of) in each of the identified subject areas per grade
- Common and consistent curriculum across an authority

Kee Tas Kee Now Tribal Council Educational Authority, identified ELOs by viewing curriculum through the lens of **land based learning (LBL)**, **Cree ways of knowing and being (Nehiyaw Ways of Knowing)**, and the learning needs of students in their communities. https://sites.google.com/arpdc.ab.ca/infusingindigenousknowledge



Seasonal Wheels by the Kwakiutl (BC Indigenous)

IKWC (Indigenous Knowledge and Wisdom Centre

Wilfred Buck

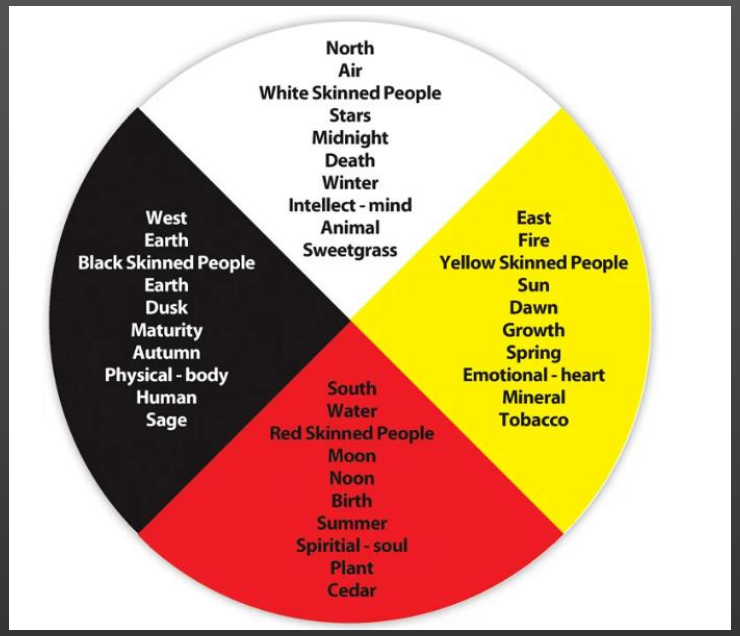
Learning to Do (scroll to the bottom and select Grade 2 Math)

Mother Earth

Source:
https://www.voicesofyouth.org/blog/mother-natures-plea

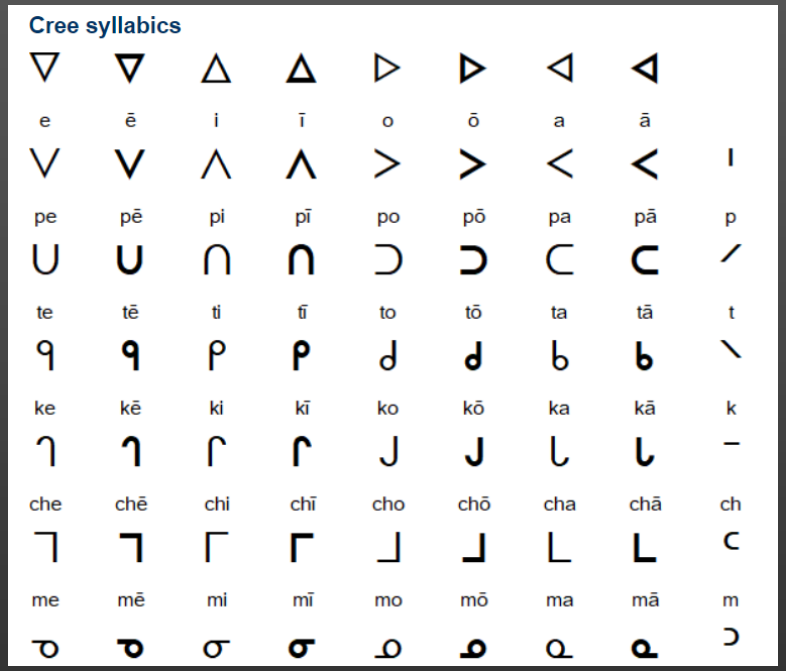
Source:
https://www.pinterest.ca/honoringmother/

Shapes of Meaning to First Nations, Metis and Inuit



Circle, Medicine Wheel and the Number 4

Drumming: The Heartbeat of Mother Earth



Cree Syllabics

Healing Circle

Sharing Circles and the Talking Stick

Teacher information and Lesson on the Talking Circle

Christine Massan - Nature and Indigenous Patterns





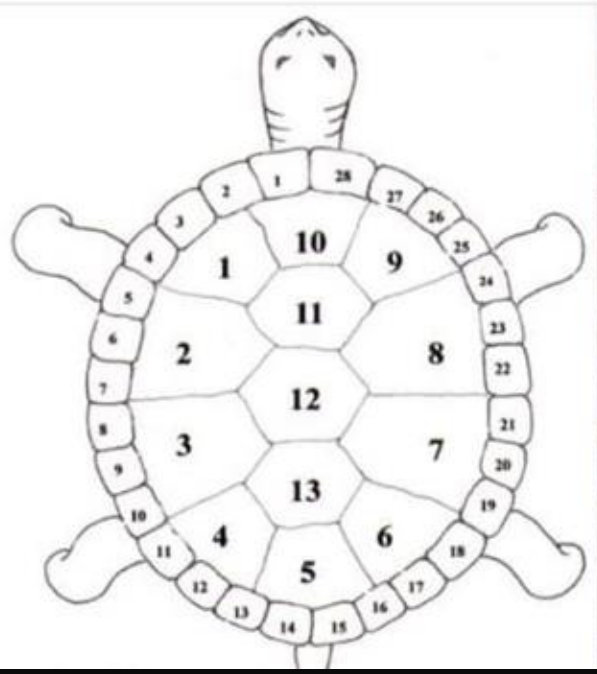


Leah Dorion

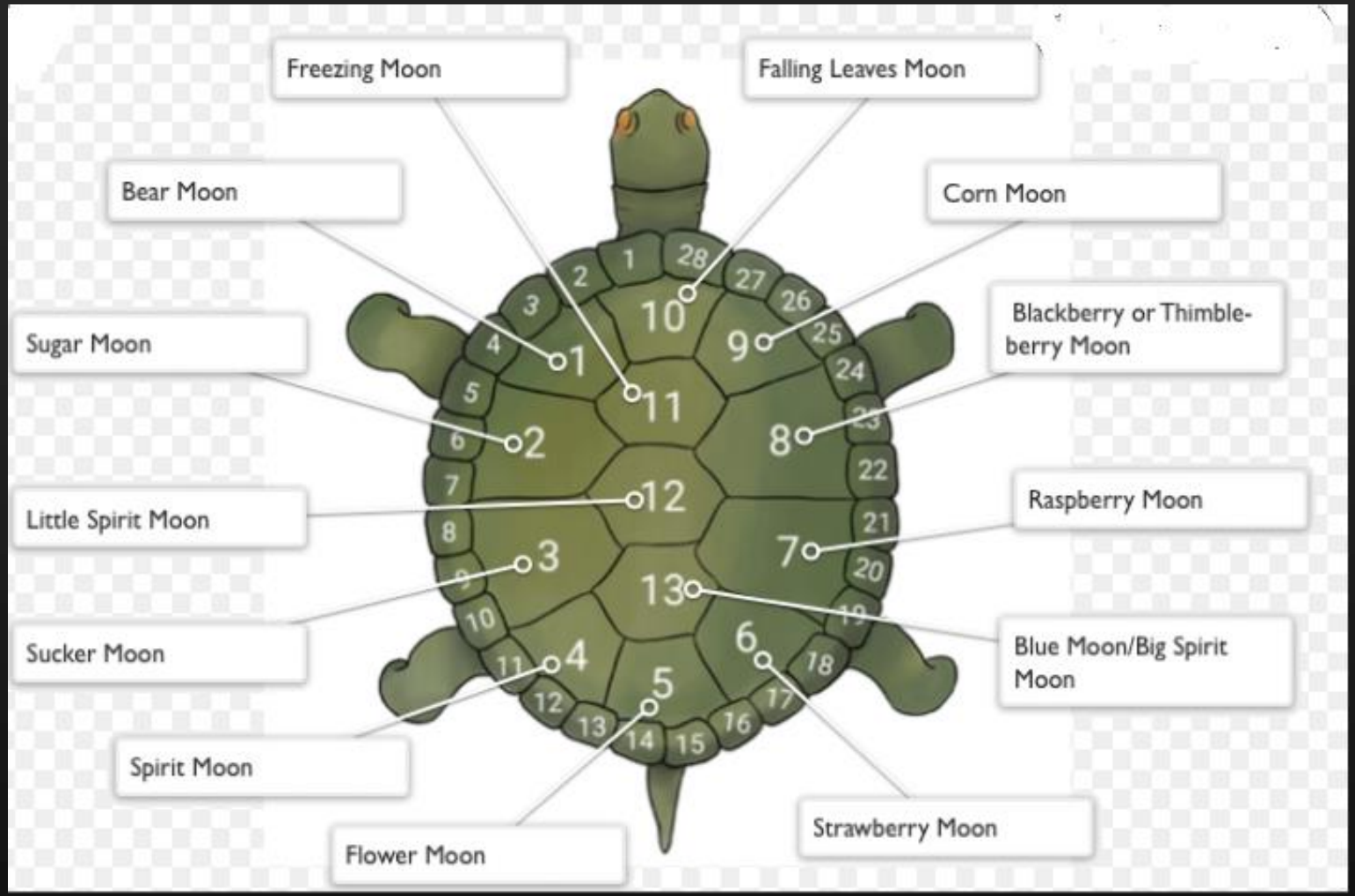
Cree and Blackfoot Tipi's

13 moons & 28 days on all turtle shells. This equals 364 days, plus one day of rest. All indigenous people around the world knew the wisdom of the turtle and followed a 13 month calendar; after all, there are 13 moon cycles in a year & 27-29 days per cycle.

It's almost as if white man subtracted one month in order sever the connection between the people and the sun, moon & stars, which are themselves a giant clock.



Source: https://earthhaven.ca/blog/13-moons-on-turtles-back/208



Source: https://ecampusontario.pressbooks.pub/indigstudies/chapter/13-grandmother-moons/
Source: https://earthhaven.ca/blog/13-grandmother-moons/207

Money App

Exploring Bank Notes

Show Me the Money

Bingo - Coin Identification

- Cards
- Call sheet
- Instructions

Coin sorting by Letter

Alberta Education Planning Guide - Numbers to 10

Copy of structured Interview with rubric (Step 3)

Alberta Education Planning Guide - Grade 1 - Basic Facts to 18

Alberta Education PLanning Guide - Grade 1 - Numbers 1-20

Alberta Education Planning Guide - Grade 2 - Adding and Subtracting Numbers to 100

Canadian Money Big Book - Grades K-2 - Note: You may use this but not house it on your computer unless you have a membership in "Access Copyright" - scroll below the slide deck to download and open. Be sure to cite any uses.

Subitizing Cards

Slide Deck for Money

First Nations KTCEA Curriculum - Use for Cycles - Time Idea

Grade 2 Math Kit (look in Additional Resources)

It will be important to have students familiar with money as we will introduce Place Value and Unit Fractions using money in November. We will also do some work with cuisenaire rods so if you have them in the school, bring them to the session!

Thank You

Do not hesitate to reach out for anything you might need.

Chris Zarski
czarski@carcpd.ab.ca

Central Alberta Regional Consortium