Before we start

1. 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 10-30, started ...

Grade 1 Planning Provincial Cohort
Session 2 Sept-Dec

October 13, 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 - December
- 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'
- 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.

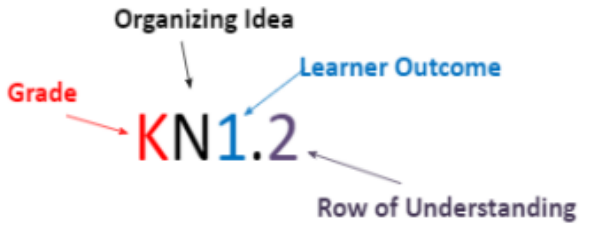
3

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

1N 2 Addition can be applied in various contexts, **including**
- combining parts to find the whole
- increasing an existing quantity

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

KM 1.1 Size can be interpreted in many ways(according to measurable attributes) such as,
- how much a container holds (**capacity**).

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

1N1.5 Comparisons of quantity can be described by using words **such as**
- equal
- not equal
- less
- more

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

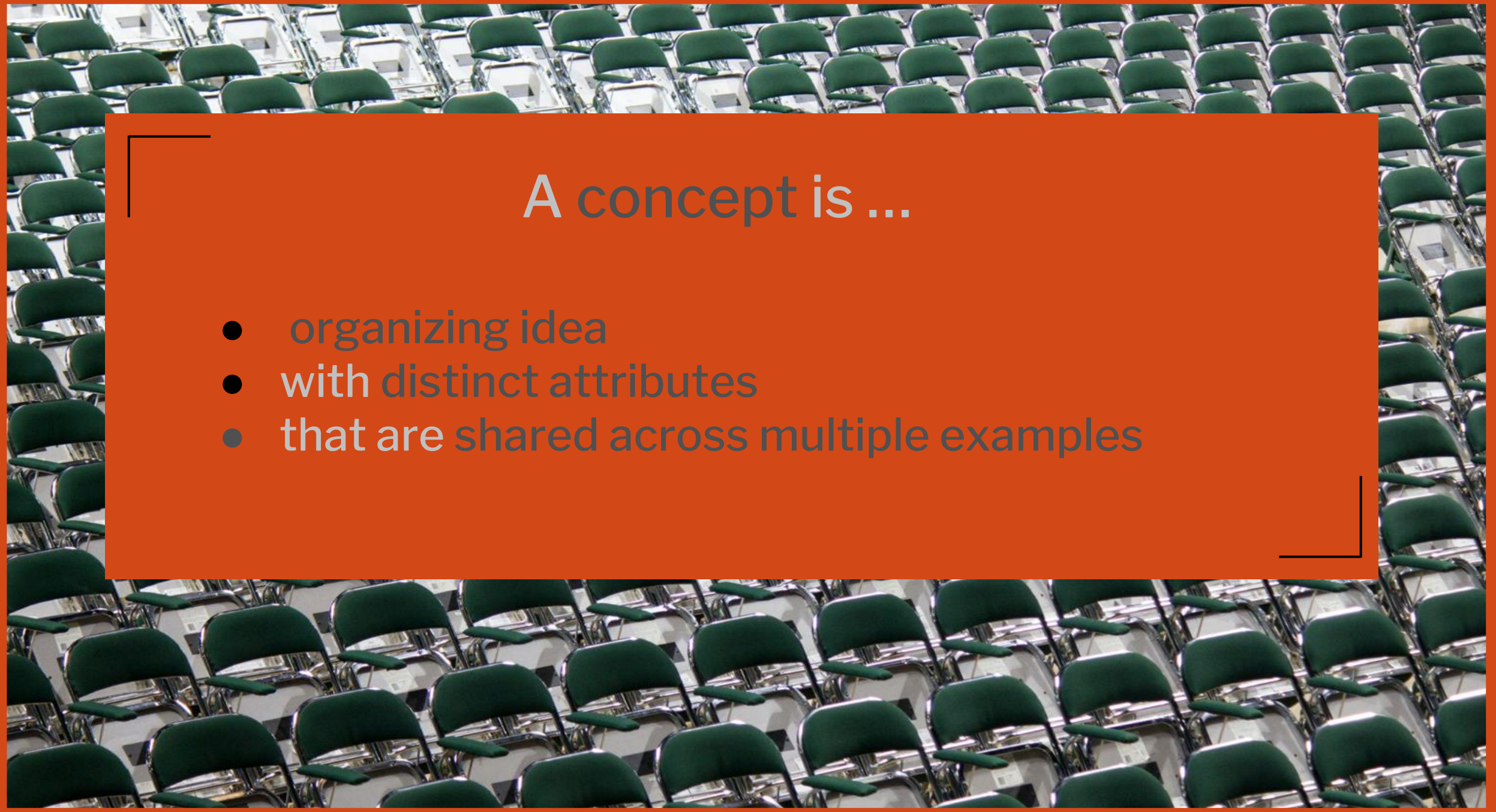
- Numeracy involves acquiring and applying the mathematical knowledge and skills needed to engage with quantitative and spatial information in a variety of situations.
- Numeracy is embedded in learning experiences across all subject areas
- **The Numeracy Progressions** identify knowledge and behaviours 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?

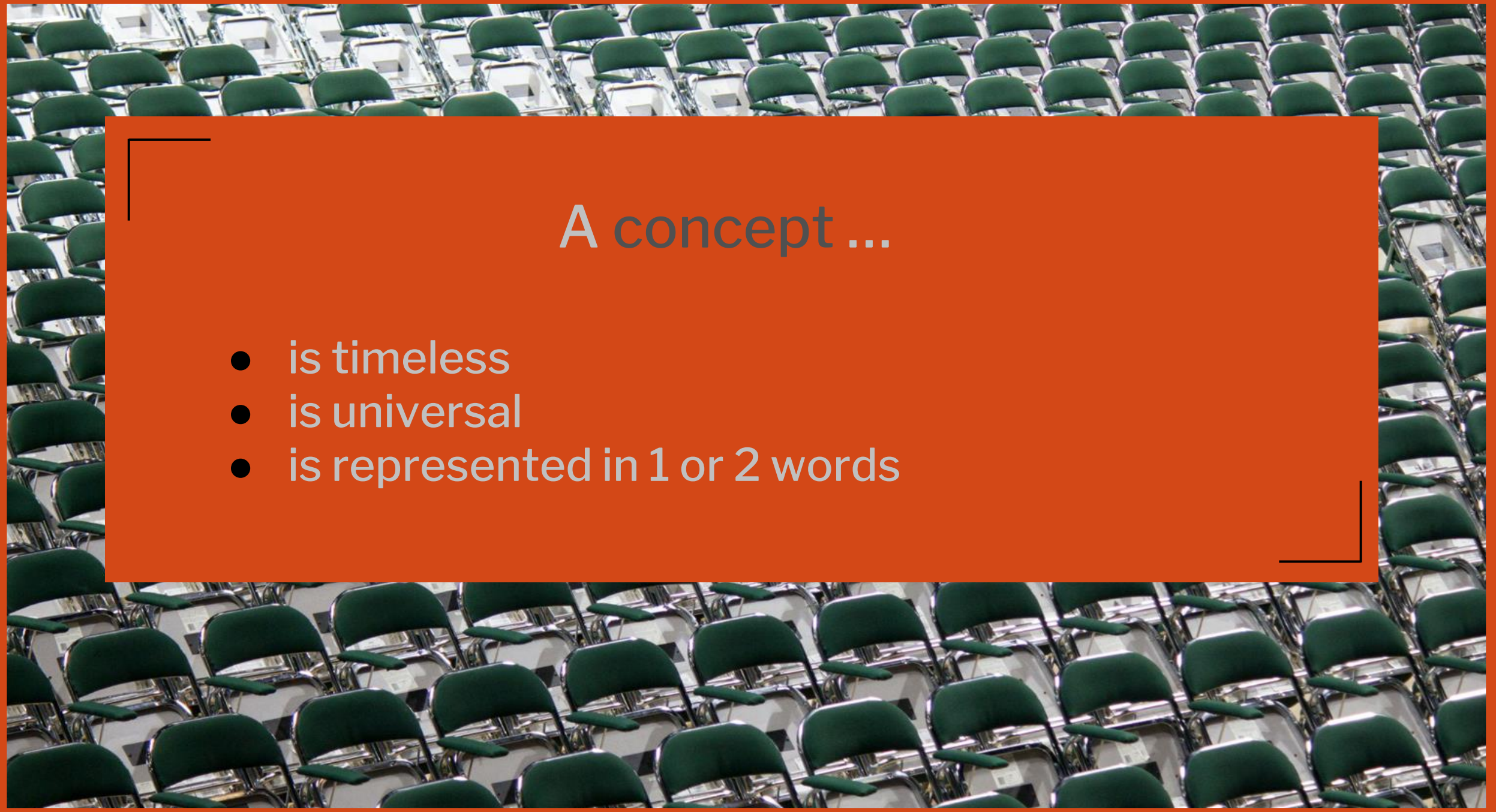


A concept is ...

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

Table is a concept

- organizing idea :table
- with distinct attributes 1) object 2) manufactured or designed for a surface with a purpose)
- that are shared across multiple examples



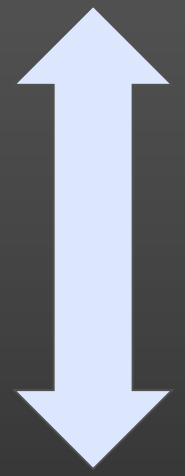
A concept ...

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

Levels of Concepts

Broad/General Idea or Understanding

Furniture



Table

More Specific Ideas or Understandings

Dining Table

Form

Function

Causation

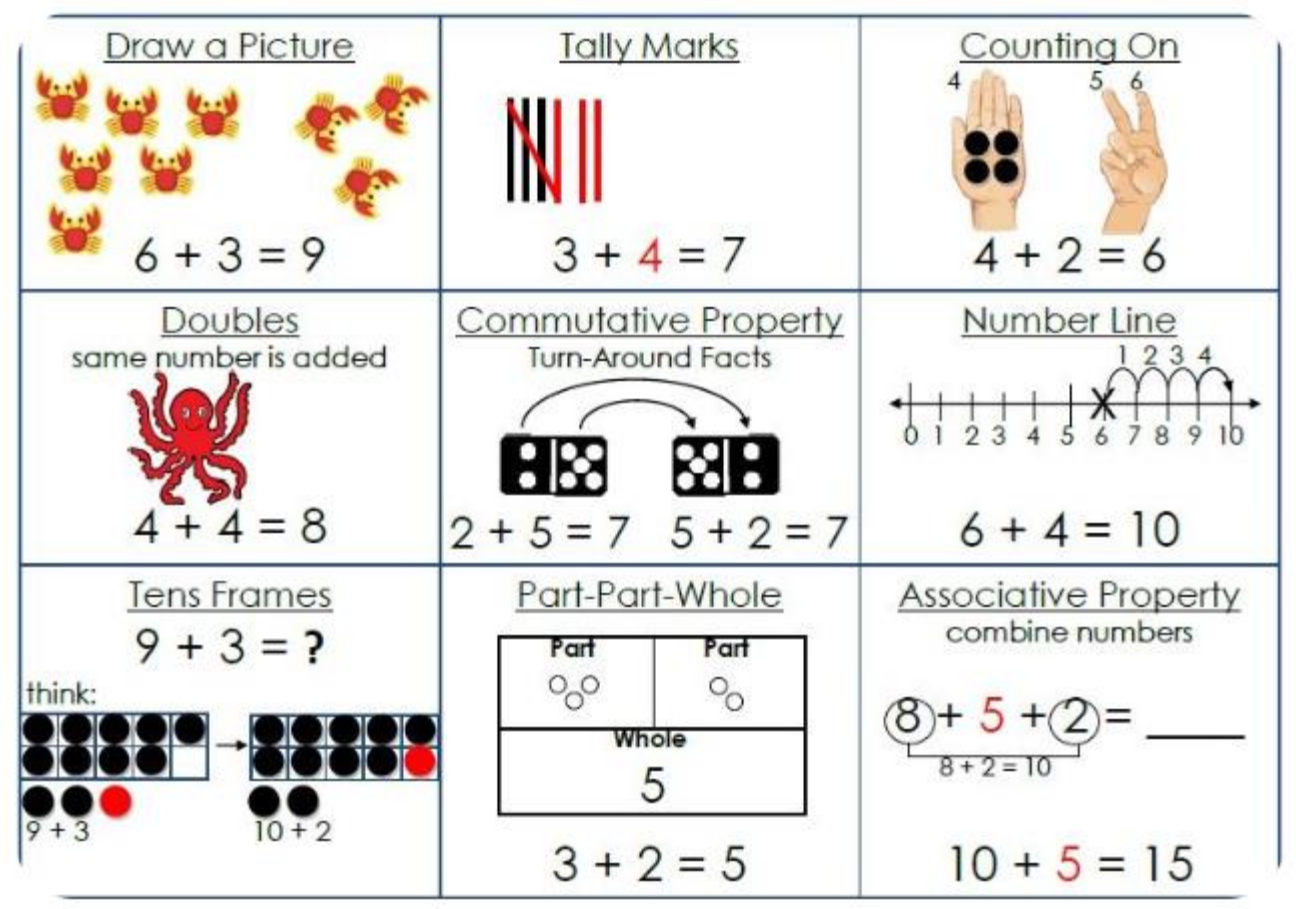
Connection

Reflection

Responsibility

Perspective

A Conceptual Lens

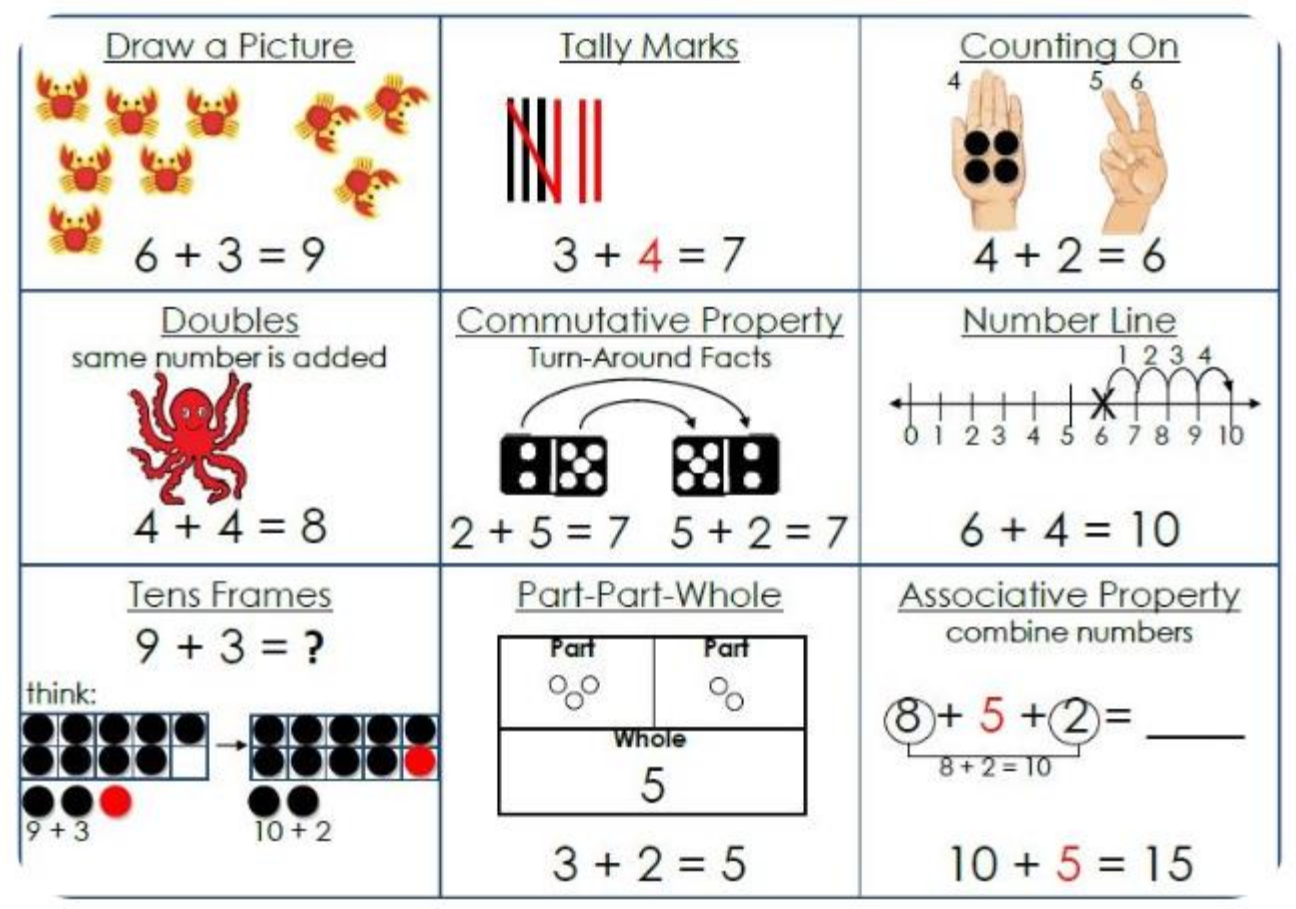


Lens

Math Concepts

- quantity
- addition
- modelling
- representation

A Conceptual Lens



Lens

Competencies

- critical thinking
- design

conceptual lens: concepts

1N 1.1 Learner Outcome: Students interpret and explain quantity to 100.		
Knowledge	**Understanding**	**Skills and Procedures**
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.

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conceptual lens: concepts

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conceptual lens: concepts

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Skills & Procedures

Kindergarten Math September - November

- **Investigate** equal and unequal quantities, including using a balance model. **Through Investigation, can identify equal and unequal quantities to ____.**
- **Model** addition and subtraction within 20 in various ways, including with a balance. Is able to model addition within ___. **Is able to model addition and subtraction within ____.**
- **Relate** addition and subtraction to various contexts involving composition or decomposition of quantity. **Is able to compose and decompose to ____ in various contexts.**
- **Represent** quantities using words, numerals, objects, or pictures. **Is able to represent quantities using words, numerals, objects and/or pictures to ___.**
- **Count** within 100, forward by 1s, starting at any number, according to the counting principles.
- **Count** - backward from 20 to 0 by 1s.
- **Describe** a shape using words such as...
- **Demonstrate** conservation of number when sharing or grouping.
- **Identify** numbers that are one more, two more, one less, and two less than a given number.
- **Represent** a quantity relative to another, including symbolically

Skills & Procedures

Kindergarten Math September - November

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- **Describe** a shape using words such as...
- **Demonstrate** conservation of number when sharing or grouping.
- **Identify** numbers that are one more, two more, one less, and two less than a given number.
- **Represent** a quantity relative to another, including symbolically.
- **Recognize** quantities to 10.
- **Visualize** quantities between 10 and 20 as compositions of 10 and another quantity

September	October	November
Number: Quantity is measured with numbers that enable counting, labelling, comparing and operating.		
1N1.2 Students interpret and explain quantities to 100.(to 20) • Each number counted includes all previous numbers (counting principle: hierarchical inclusion) • A quantity can be determined by counting more than one object in a set at a time. 1N1.3 Students interpret and explain quantities to 100.(to 20) • A quantity can be perceived as the composition of smaller quantities • Quantity can be partitioned by sharing or grouping. 1N1.1 Students interpret and explain quantities to 100.(to 20) • Quantity is expressed in words and numerals based on patterns. • Quantity in the world is represented in multiple ways. including with money. 1N1.5 Students interpret and explain quantities to 100.(to 20) • Two quantities are equal when there is the same number of objects in both sets. • Equality is a balance between two quantities.	1N1.2 Students interpret and explain quantities to 100.(to 20) • Each number counted includes all previous numbers (counting principle: hierarchical inclusion) • A quantity can be determined by counting more than one object in a set at a time. 1N1.3 Students interpret and explain quantities to 100.(to 20) • A quantity can be perceived as the composition of smaller quantities • Quantity can be partitioned by sharing or grouping. 1N1.1 Students interpret and explain quantities to 100.(to 20) • Quantity is expressed in words and numerals based on patterns. • Quantity in the world is represented in multiple ways. including with money. 1N1.5 Students interpret and explain quantities to 100.(to 20) • Two quantities are equal when there is the same number of objects in both sets. • Equality is a balance between two quantities.	1N1.2 Students interpret and explain quantities to 100.(to 50) • Each number counted includes all previous numbers (counting principle: hierarchical inclusion) • A quantity can be determined by counting more than one object in a set at a time. 1N1.3 Students interpret and explain quantities to 100.(to 50) • A quantity can be perceived as the composition of smaller quantities • Quantity can be partitioned by sharing or grouping. 1N1.1 Students interpret and explain quantities to 100.(to 50) • Quantity is expressed in words and numerals based on patterns. • Quantity in the world is represented in multiple ways. including with money. 1N1.4 Students interpret and explain quantities to 100.(to 50) • A quantity can be perceived as the composition of smaller quantities. 1N1.5 Students interpret and explain quantities to 100.(to 50)

September	October	November
(OLD) 1N3. Students represent equal sharing and grouping of quantities within 20.(starting with numbers 0-10) • Quantity can be partitioned by sharing or grouping. 1N2. 1 Students examine addition and subtraction within 20.(introduce) • Addition and subtraction are processes that describe the composition and decomposition of quantity.	(OLD) 1N3. Students represent equal sharing and grouping of quantities within 20.(starting with numbers 0-10) • Quantity can be partitioned by sharing or grouping. 1N2. 1 Students examine addition and subtraction within 20.(introduce) • Addition and subtraction are processes that describe the composition and decomposition of quantity.	• Two quantities are equal when there is the same number of objects in both sets. • Equality is a balance between two quantities. • Quantity can be partitioned by sharing or grouping. 1N2. 1 Students examine addition and subtraction within 20.(introduce) • Addition and subtraction are processes that describe the composition and decomposition of quantity.
Patterns: Awareness of patterns supports problem solving in various situations.		
1P1. Students examine patterns in cycles. • A pattern that appears to repeat may not repeat in the same way forever. • A cycle is a repeating pattern that repeats in the same way forever.	1P1. Students examine patterns in cycles. • A pattern that appears to repeat may not repeat in the same way forever. • A cycle is a repeating pattern that repeats in the same way forever.	1P1. Students examine patterns in cycles. • A pattern that appears to repeat may not repeat in the same way forever. • A cycle is a repeating pattern that repeats in the same way forever.
Time: Duration is described and quantified with time.		
• Cycles - summer to fall - introduce here • Calendar Time all year • Weekly cycles	1T1. Students explain time in relation to cycles. • Time is an experience of change • Time can be perceived as a cycle	1T1. Students explain time in relation to cycles. • Time is an experience of change • Time can be perceived as a cycle

December	January	February
Number: Quantity is measured with numbers that enable counting, labelling, comparing and operating.		
1N1.2 Students interpret and explain quantities to 100.(up to 30) • Each number counted includes all previous numbers (counting principle: hierarchical inclusion) • A quantity can be determined by counting more than one object in a set at a time. 1N1.3 Students represent equal sharing and grouping of quantities within 20. • Quantity can be partitioned by sharing or grouping. 1N1.1 Students interpret and explain quantities to 100. .(up to 30) • Quantity is expressed in words and numerals based on patterns. • Quantity in the world is represented in multiple ways. including with money. 1N1.4 Students interpret and explain quantities to 100. .(up to 30)) • A quantity can be perceived as the composition of smaller quantities. 1N1.5 Students interpret and explain quantities to 100 ...(up to 30)) • Two quantities are equal when there is the same number of objects in both sets.	1N1.2 Students interpret and explain quantities to .(up to 50) • Each number counted includes all previous numbers (counting principle: hierarchical inclusion) • A quantity can be determined by counting more than one object in a set at a time. 1N1.3 Students represent equal sharing and grouping of quantities within 20. • Quantity can be partitioned by sharing or grouping. 1N1.1 Students interpret and explain quantities to 100. • Quantity is expressed in words and numerals based on patterns. • Quantity in the world is represented in multiple ways. including with money. 1N1.4 Students interpret and explain quantities to 100. • A quantity can be perceived as the composition of smaller quantities. 1N1.5 Students interpret and explain quantities to 100. • Two quantities are equal when there is the same number of objects in both sets. • Equality is a balance between two quantities. 1N2. 1 Students examine addition and subtraction within 20. • Addition and subtraction are processes that describe the composition and decomposition of quantity	1N1.2 Students interpret and explain quantities to 100.(match to 100 days celebration) • Each number counted includes all previous numbers (counting principle: hierarchical inclusion) • A quantity can be determined by counting more than one object in a set at a time. 1N1.3 Students represent equal sharing and grouping of quantities within 20. • Quantity can be partitioned by sharing or grouping.. 1N1.1 Students interpret and explain quantities to 100. • Quantity is expressed in words and numerals based on patterns. • Quantity in the world is represented in multiple ways. including with money. 1N1.4 Students interpret and explain quantities to 100. • A quantity can be perceived as the composition of smaller quantities. 1N1.5 Students interpret and explain quantities to 100. • Two quantities are equal when there is the same number of objects in both sets. • Equality is a balance between two quantities.. 1N2. 1 Students examine addition and subtraction within 20.

December 2022 ———— January 2023

December	January	February
• Equality is a balance between two quantities. 1N2. 1 Students examine addition and subtraction within 20. • Addition and subtraction are processes that describe the composition and decomposition of quantity		• Addition and subtraction are processes that describe the composition and decomposition of quantity
Patterns: Awareness of patterns supports problem solving in various situations.		
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1T1. Students explain time in relation to cycles. • Time is an experience of change. • Time can be perceived as a cycle.	1T1. Students explain time in relation to cycles. • Time is an experience of change. • Time can be perceived as a cycle.	1T1. Students explain time in relation to cycles. • Time is an experience of change. • Time can be perceived as a cycle.
Measurement: Attributes such as length, area, volume, and angle are quantified by measurement.		

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.

September	October	November
Number: Quantity is measured with numbers that enable counting, labelling, comparing and operating.		
1N1.2 Students interpret and explain quantities to 100.(to 20) • Each number counted includes all previous numbers (counting principle: hierarchical inclusion) • A quantity can be determined by counting more than one object in a set at a time. 1N1.3 Students interpret and explain quantities to 100.(to 20) • A quantity can be perceived as the composition of smaller quantities • Quantity can be partitioned by sharing or grouping. 1N1.1 Students interpret and explain quantities to 100.(to 20) • Quantity is expressed in words and numerals based on patterns. • Quantity in the world is represented in multiple ways. including with money. 1N1.5 Students interpret and explain quantities to 100.(to 20) • Two quantities are equal when there is the same number of objects in both sets. • Equality is a balance between two quantities.	1N1.2 Students interpret and explain quantities to 100.(to 20) • Each number counted includes all previous numbers (counting principle: hierarchical inclusion) • A quantity can be determined by counting more than one object in a set at a time. 1N1.3 Students interpret and explain quantities to 100.(to 20) • A quantity can be perceived as the composition of smaller quantities • Quantity can be partitioned by sharing or grouping. 1N1.1 Students interpret and explain quantities to 100.(to 20) • Quantity is expressed in words and numerals based on patterns. • Quantity in the world is represented in multiple ways. including with money. 1N1.5 Students interpret and explain quantities to 100.(to 20) • Two quantities are equal when there is the same number of objects in both sets. • Equality is a balance between two quantities.	1N1.2 Students interpret and explain quantities to 100.(to 50) • Each number counted includes all previous numbers (counting principle: hierarchical inclusion) • A quantity can be determined by counting more than one object in a set at a time. 1N1.3 Students interpret and explain quantities to 100.(to 50) • A quantity can be perceived as the composition of smaller quantities • Quantity can be partitioned by sharing or grouping. 1N1.1 Students interpret and explain quantities to 100.(to 50) • Quantity is expressed in words and numerals based on patterns. • Quantity in the world is represented in multiple ways. including with money. 1N1.4 Students interpret and explain quantities to 100.(to 50) • A quantity can be perceived as the composition of smaller quantities. 1N1.5 Students interpret and explain quantities to 100.(to 50)

Grade 1

How can quantity be communicated? 20-50		
1N1.1 Students interpret and explain quantities to 100.		
Knowledge	Understanding	Skills & Procedures
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.

1N1.2

Grade 1		
1N1.2 Students interpret and explain quantities to 100.		
Knowledge	Understanding	Skills & Procedures
Counting can begin at any number. Counting more than one object at a time is called skip counting.	Each number counted includes all previous numbers (counting principle: hierarchical inclusion). A quantity can be determined by counting more than one object in a set at a time.	Count within 100, forward by 1s, starting at any number, according to the counting principles. Count backward from 20 to 0 by 1s. Skip count to 100, forward by 5s and 10s, starting at 0. Skip count to 20, forward by 2s, starting at 0.

1N 1.3 - 1.4

1N1.3 Students interpret and explain quantity to 100.		
Knowledge	Understanding	Skills & Procedures
Sharing involves partitioning a quantity into a certain number of groups. Grouping involves partitioning a quantity into groups of a certain size.	Quantity can be partitioned by sharing or grouping.	Partition a set of objects by sharing and grouping. Demonstrate conservation of number when sharing or grouping.

1N1.4 Students interpret and explain quantity to 100.		
Knowledge	Understanding	Skills & Procedures
Familiar arrangements of small quantities facilitate subitizing.	A quantity can be perceived as the composition of smaller quantities.	Recognize quantities to 10.

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1N 1.5

1N1.5 Students interpret and explain quantity to 100.		
Knowledge	Understanding	Skills & Procedures
Comparisons of quantity can be described by using words such as • equal • not equal • less • more Equality can be modelled using a balance. The equal sign, =, is used to show equality between two quantities. The unequal sign, ≠, is used to show that two quantities are not equal.	Two quantities are equal when there is the same number of objects in both sets. Equality is a balance between two quantities.	Investigate equal and unequal quantities, including using a balance model. Identify numbers that are one more, two more, one less, and two less than a given number. Represent a quantity relative to another, including symbolically

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

Patterns

Students examine patterns in cycles.

Knowledge	Understanding	Skills & Procedures
A cycle can express repetition of events or experiences. Cycles include • seasons • day/night • life cycles • calendars The same pattern can be represented with different elements. A pattern core is a sequence of one or more elements that repeats as a unit.	A pattern that appears to repeat may not repeat in the same way forever. A cycle is a repeating pattern that repeats in the same way forever.	Recognize cycles encountered in daily routines and nature. Investigate cycles found in nature that inform First Nations, Métis, or Inuit practices. Identify the 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.

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

Arrays for addition/subtraction
equal, not equal

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

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

Review May video

Money - Manipulative or Concept?

Money - Manipulative or Concept?

What is a COIN?

Do you have any coins?

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.

The Story of Our Coins

Hi! I'm the Penny

Pennies can help you learn to count!

Queen Elizabeth II on the back of the Penny.

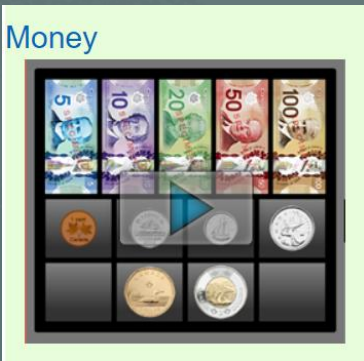
Did you know they do not make me anymore!

Maple leafs: On the front of the Penny

I am worth 1 ¢

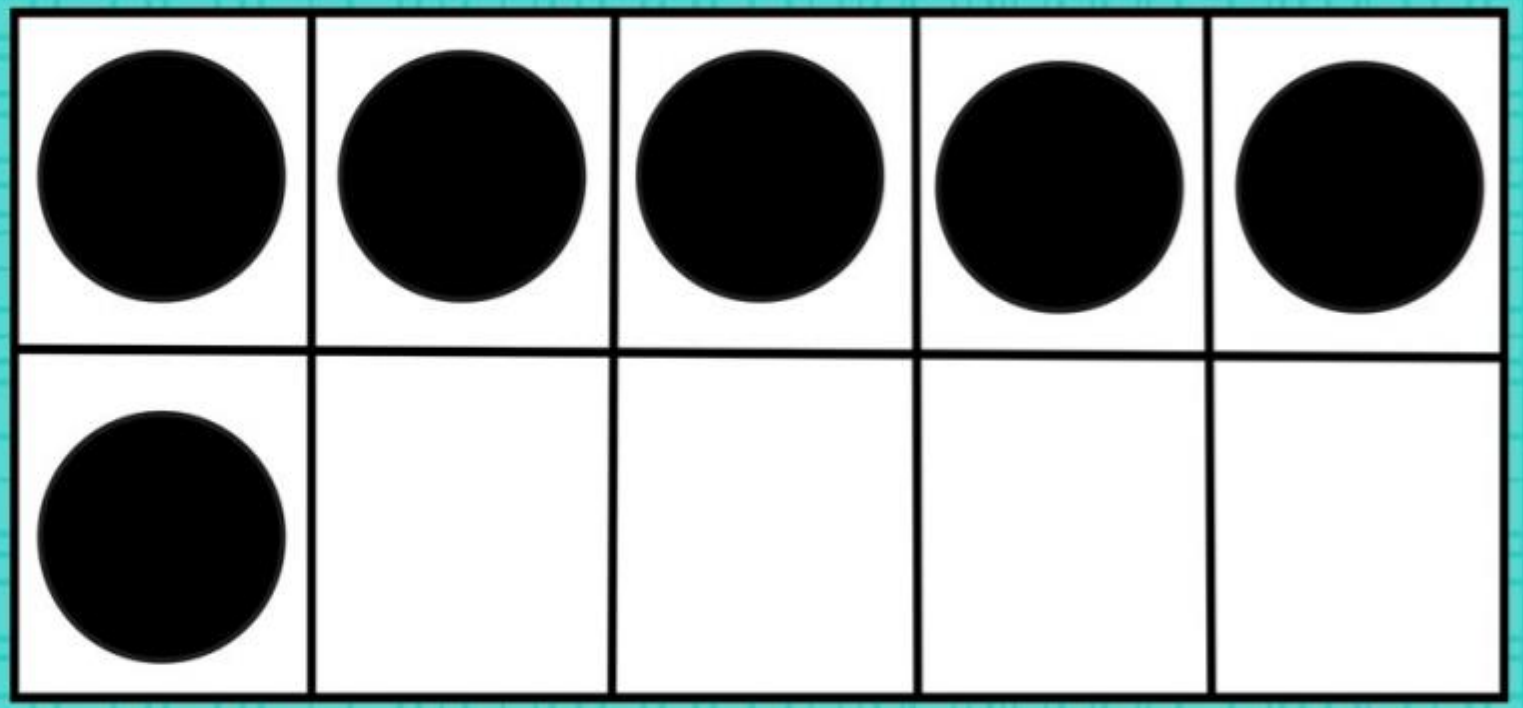
Suggest purchasing this money resource

- 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!*



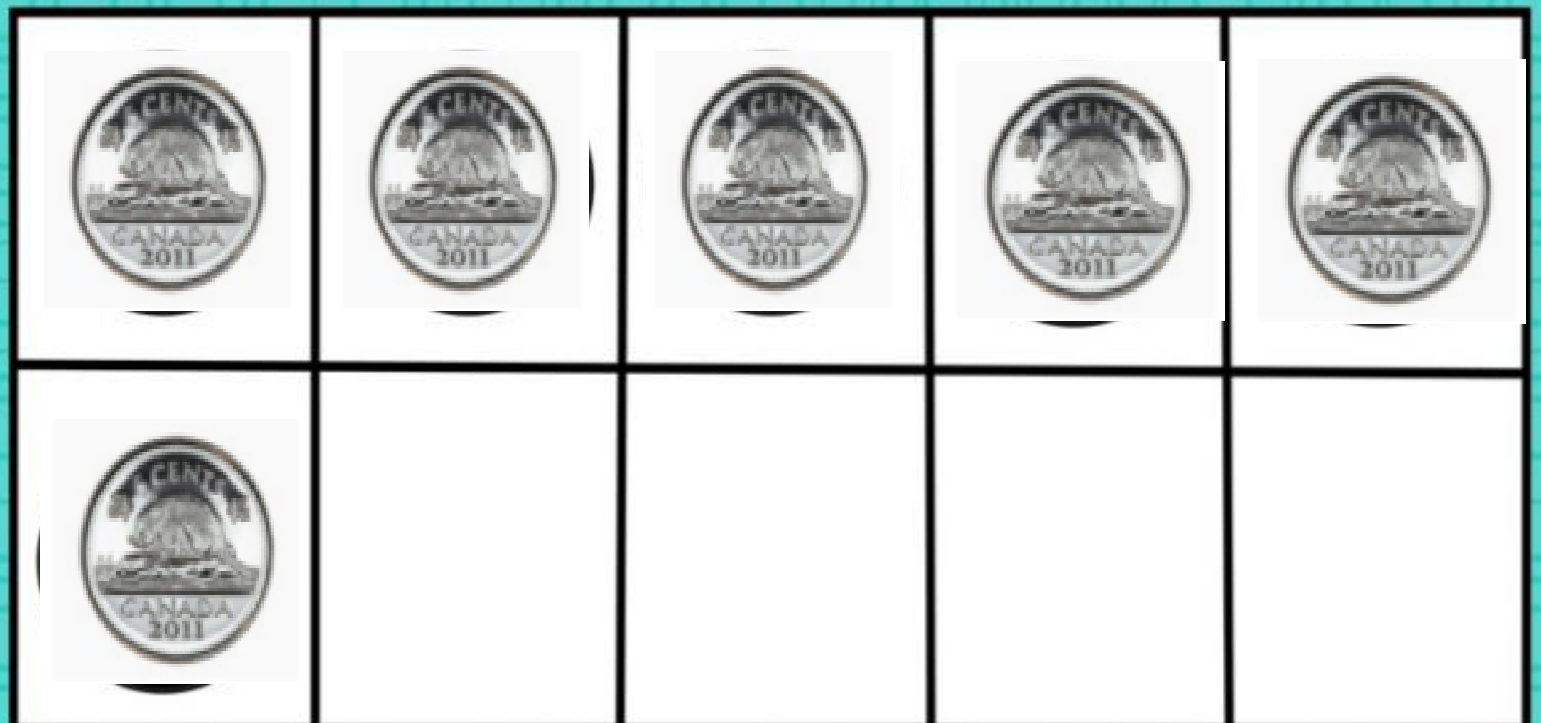
What number is this?

Drag and drop the number here

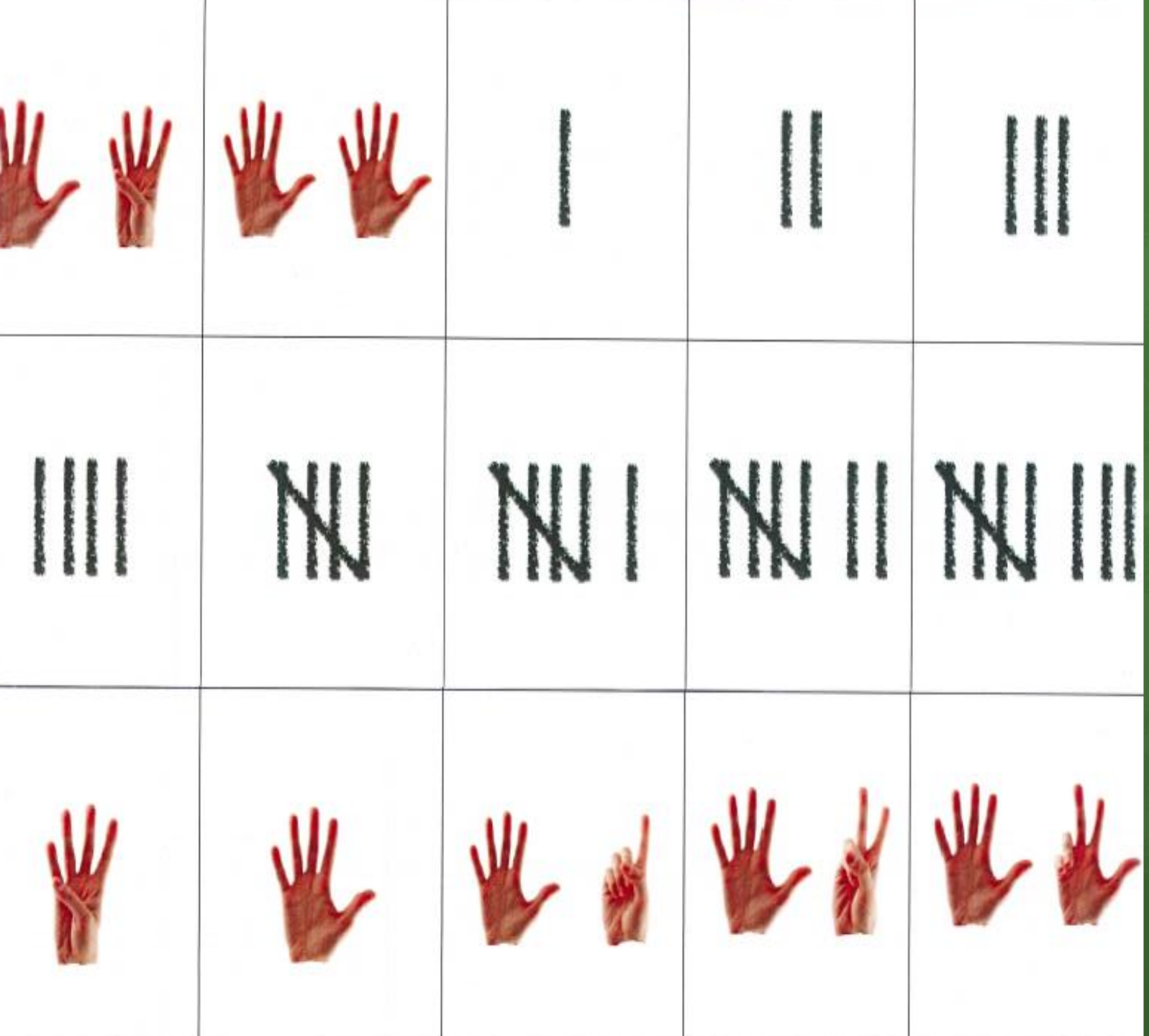


What number is this?

Drag and drop the number here

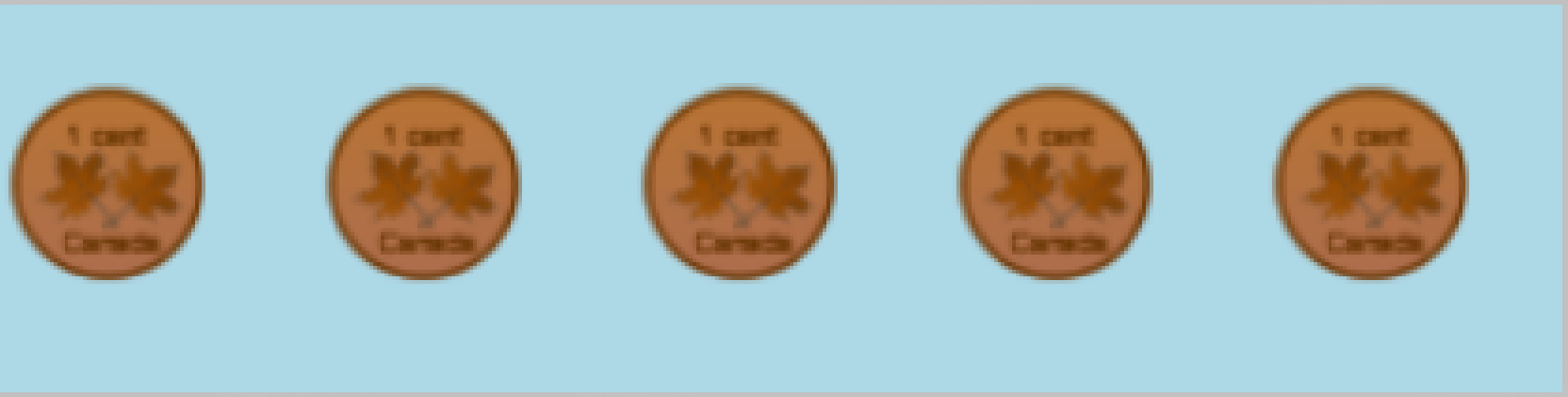


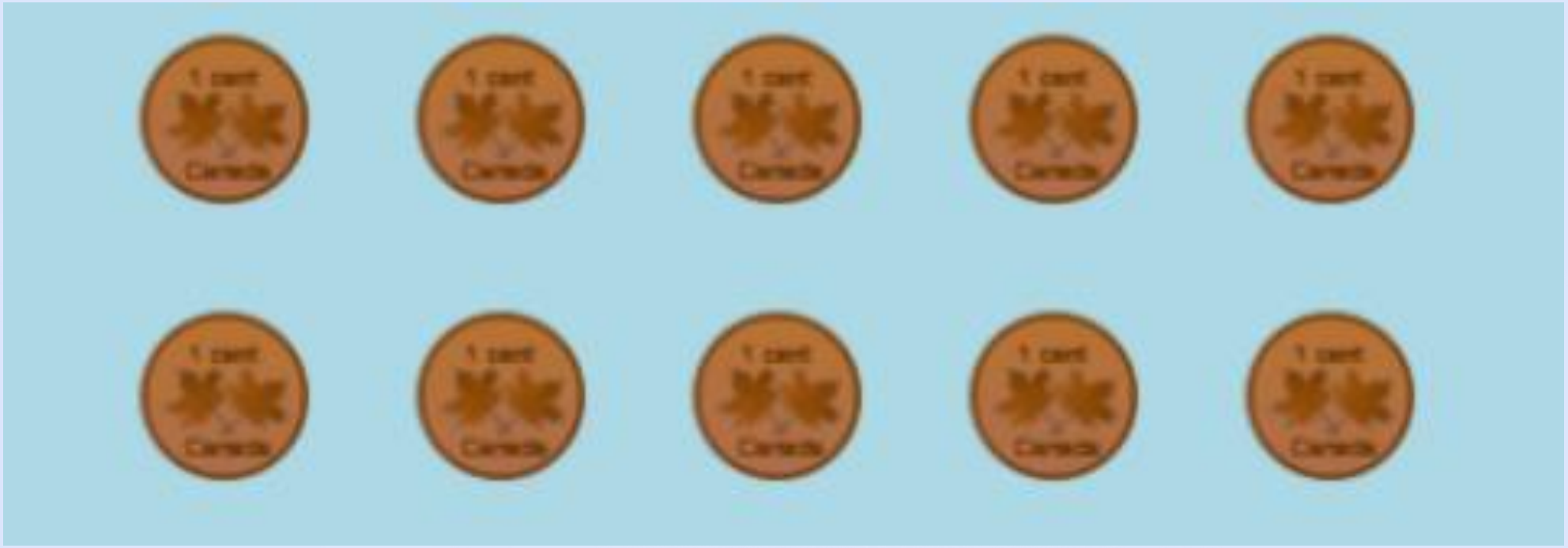

twenty
three
4

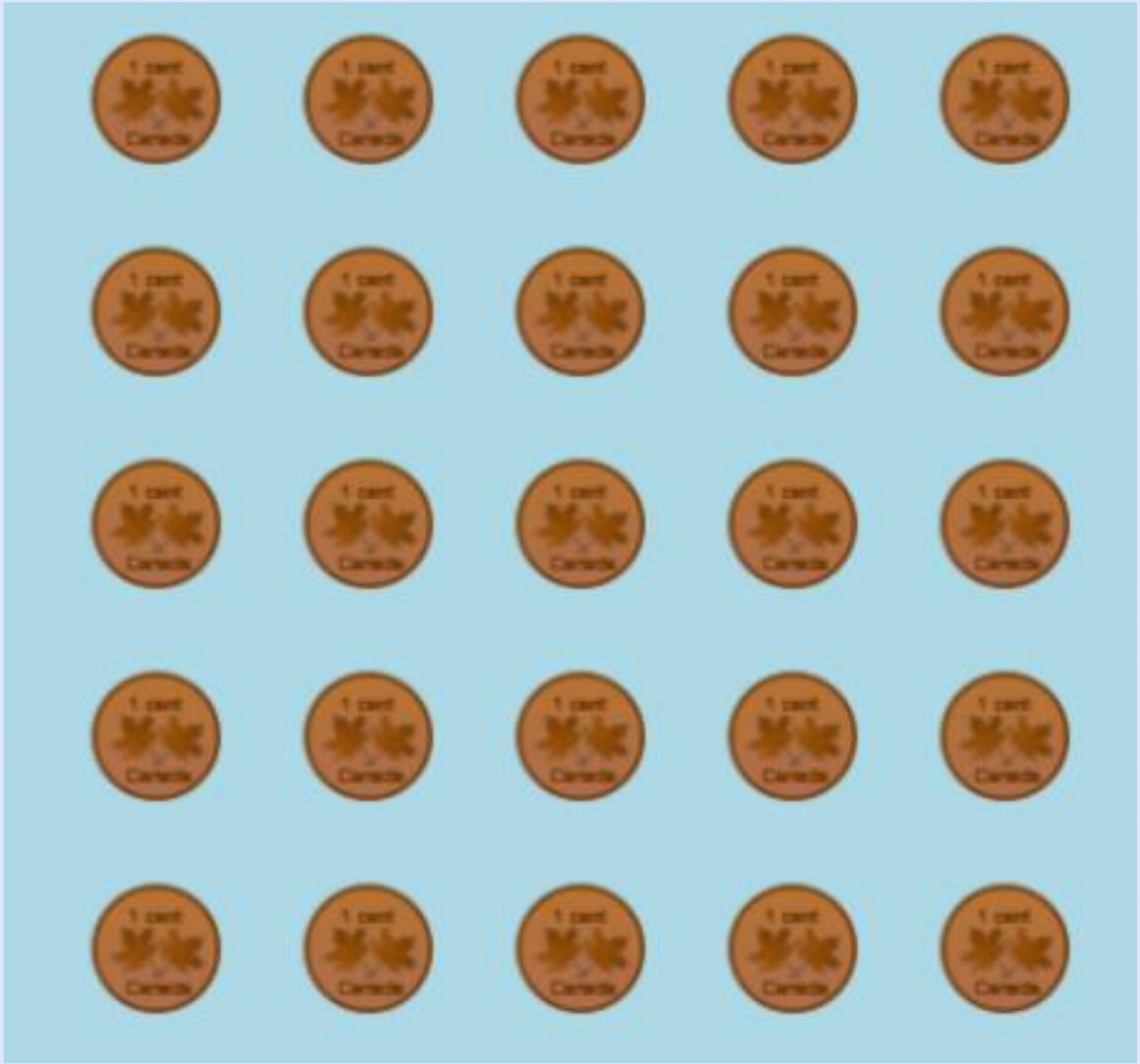


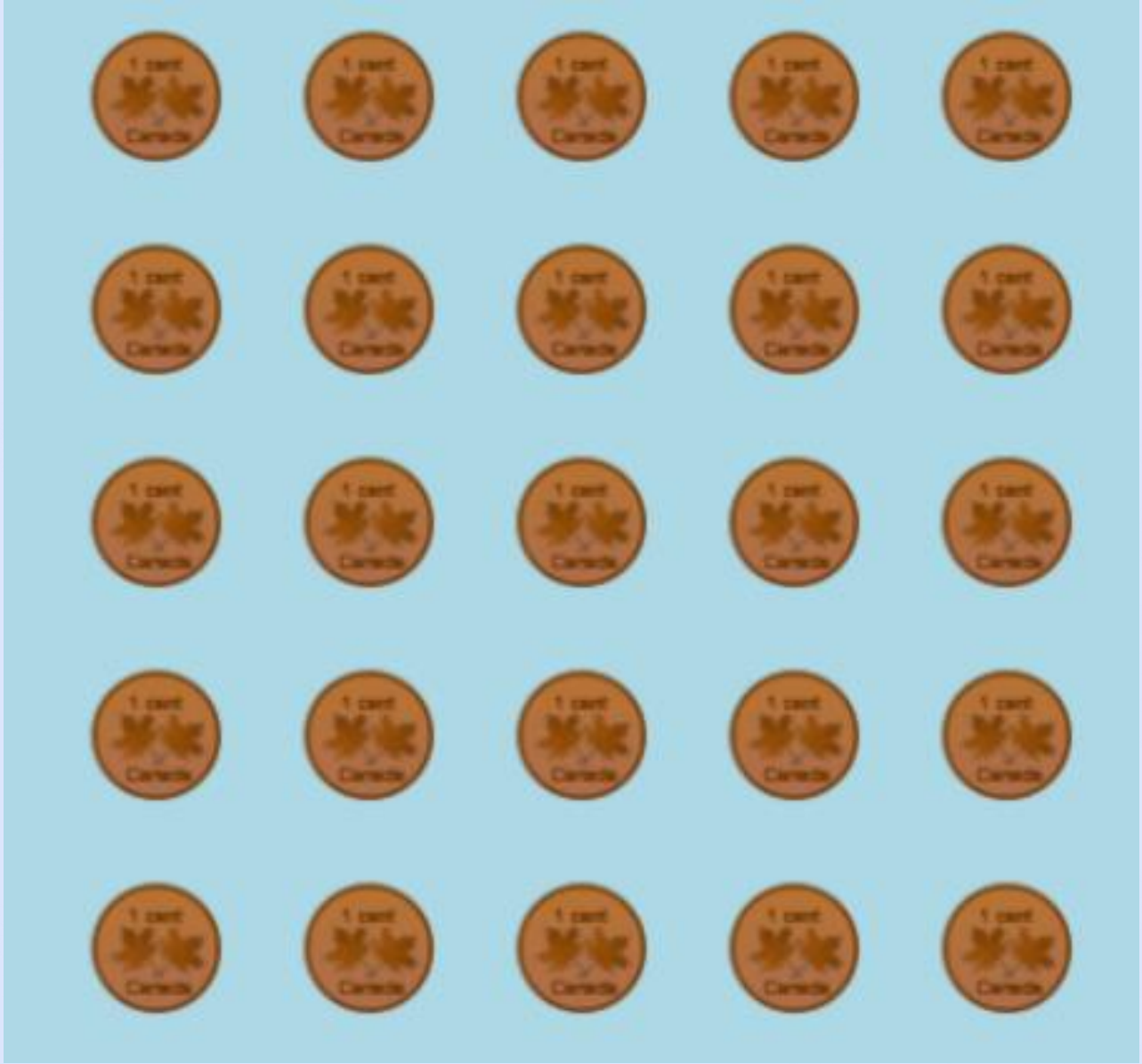
Every child should have their own subitizing cards!

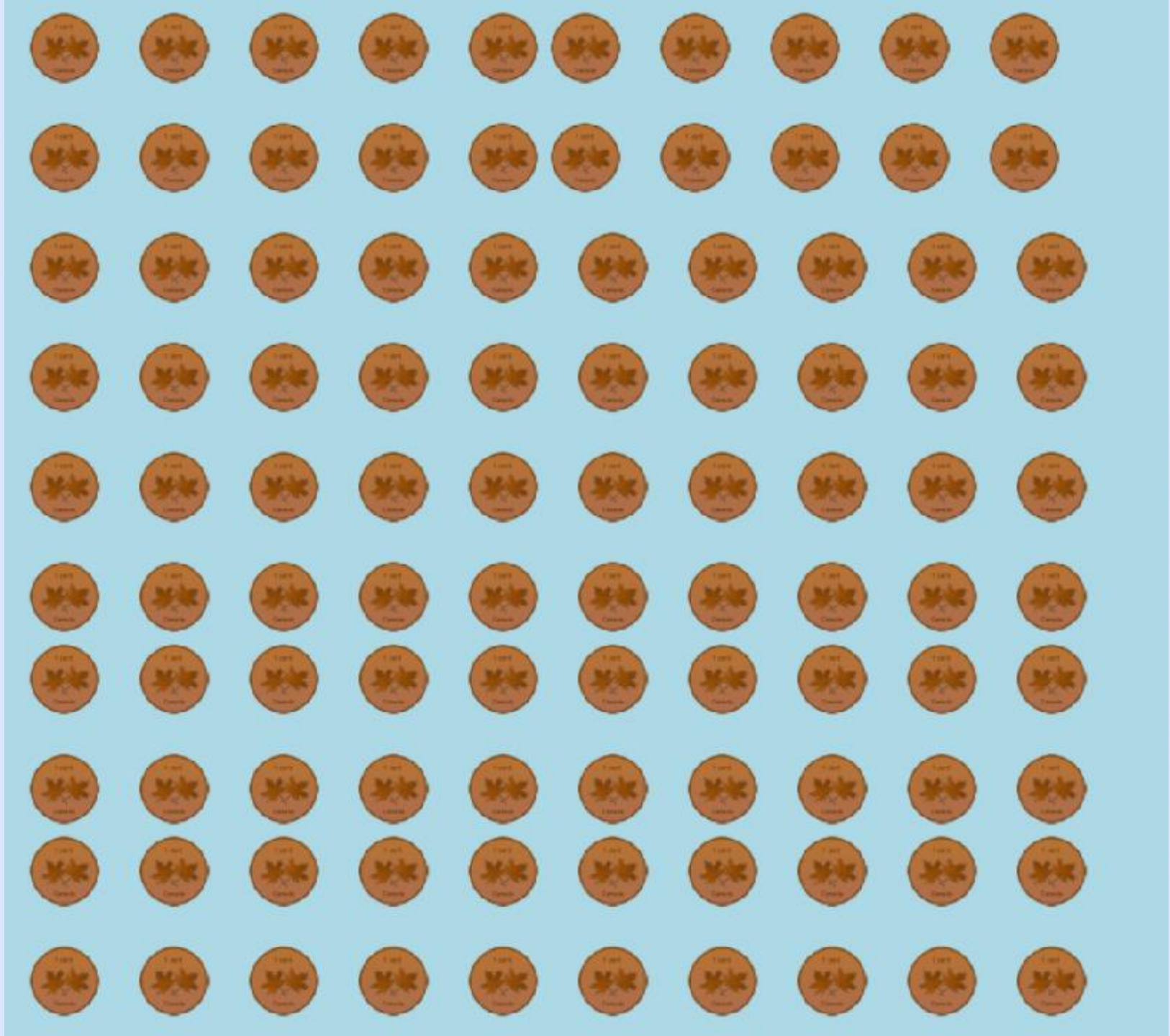
Understanding Place value


1 cent
Canada
1 cent
Canada
1 cent
Canada
1 cent
Canada
1 cent
Canada

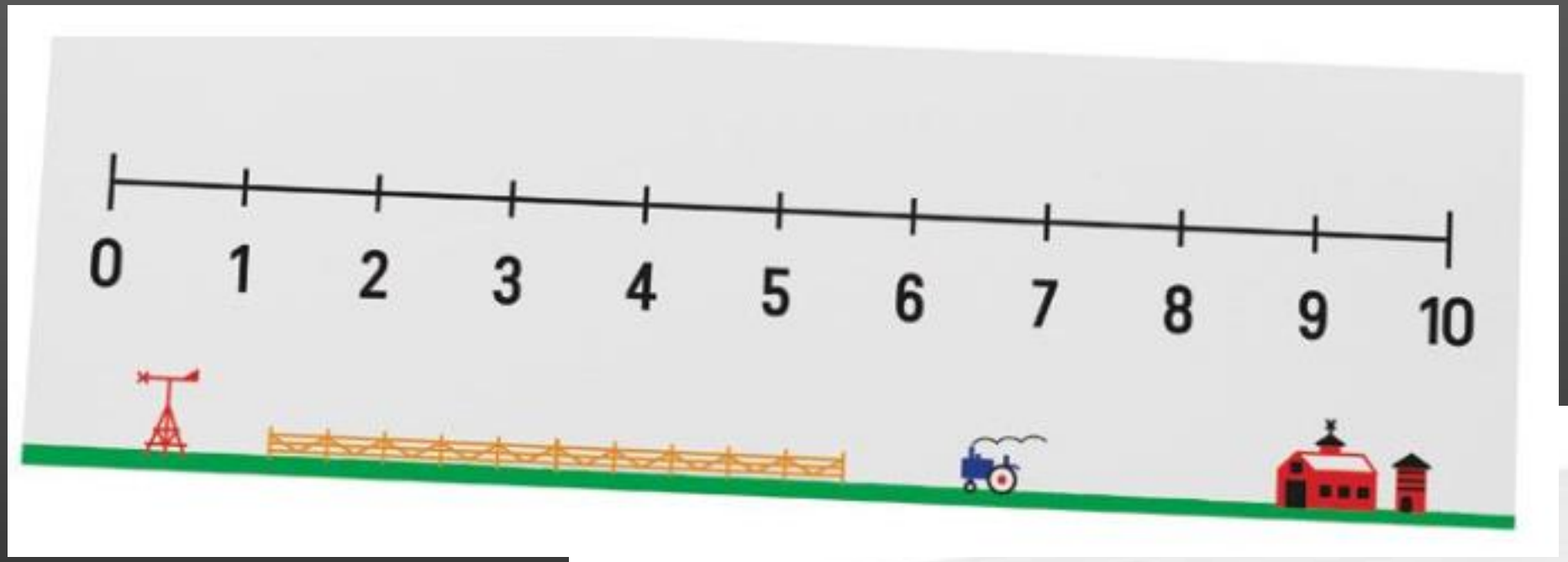

1 cent
Canada

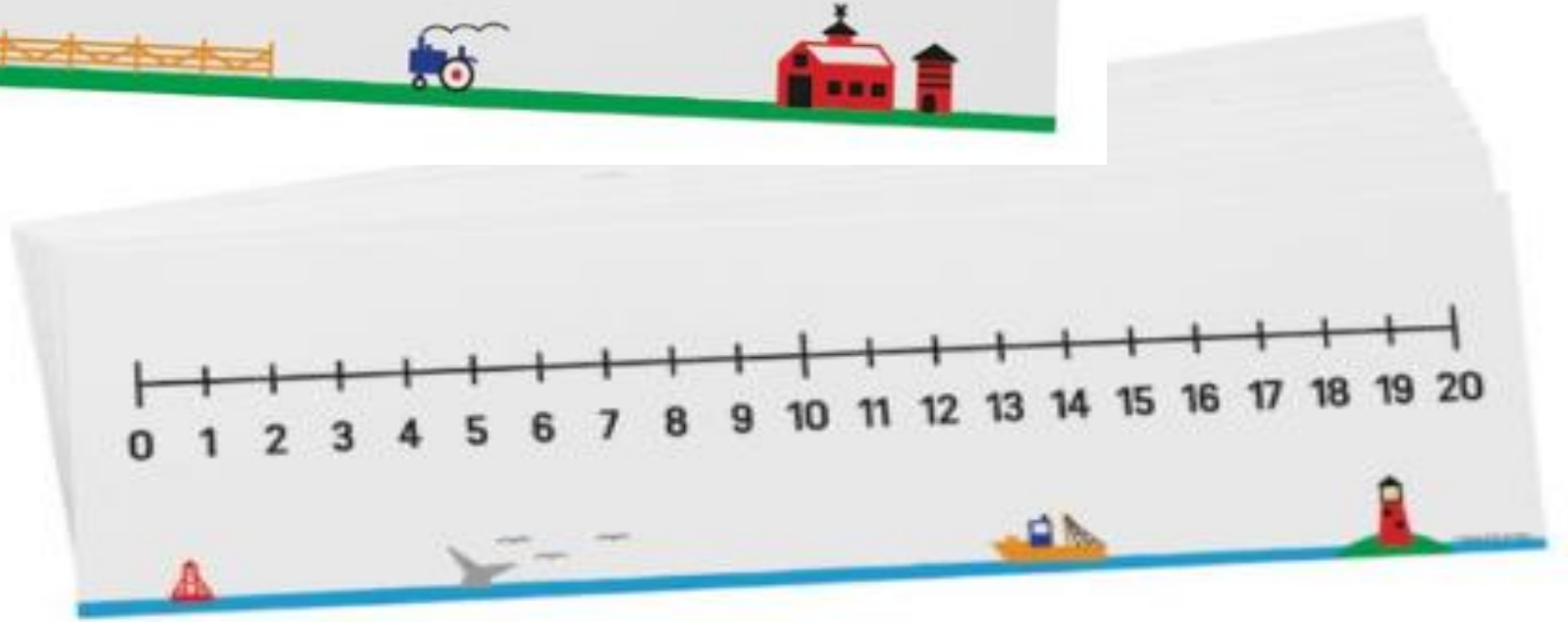

1 cent
Canada



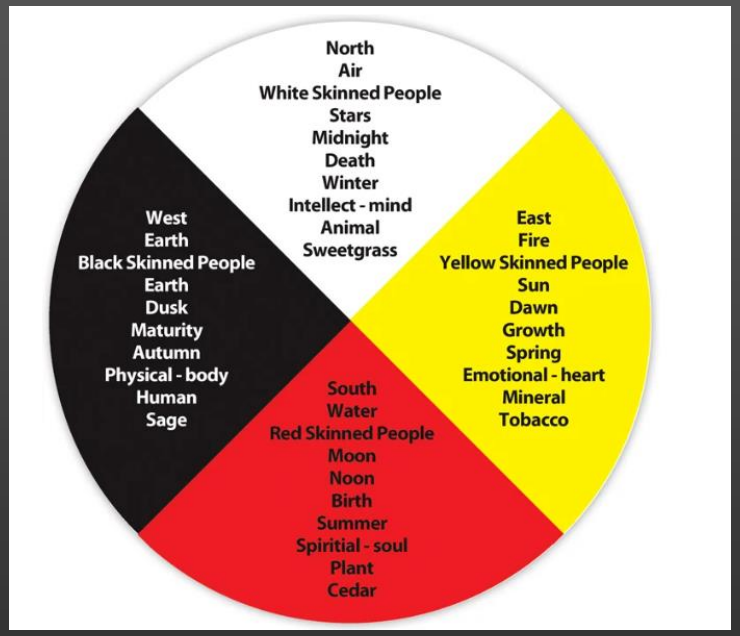


Didax Numberline



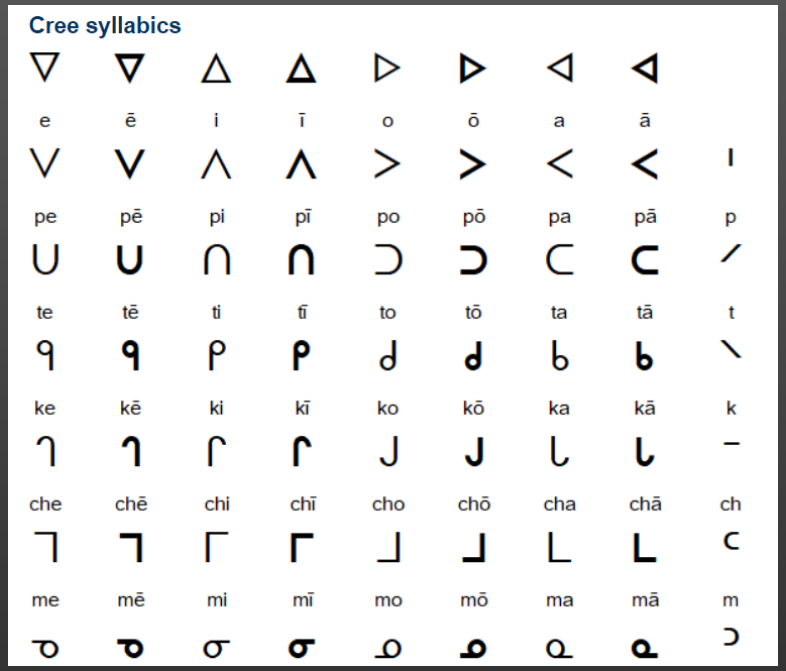


Shapes of Meaning to First Nations, Metis and Inuit



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

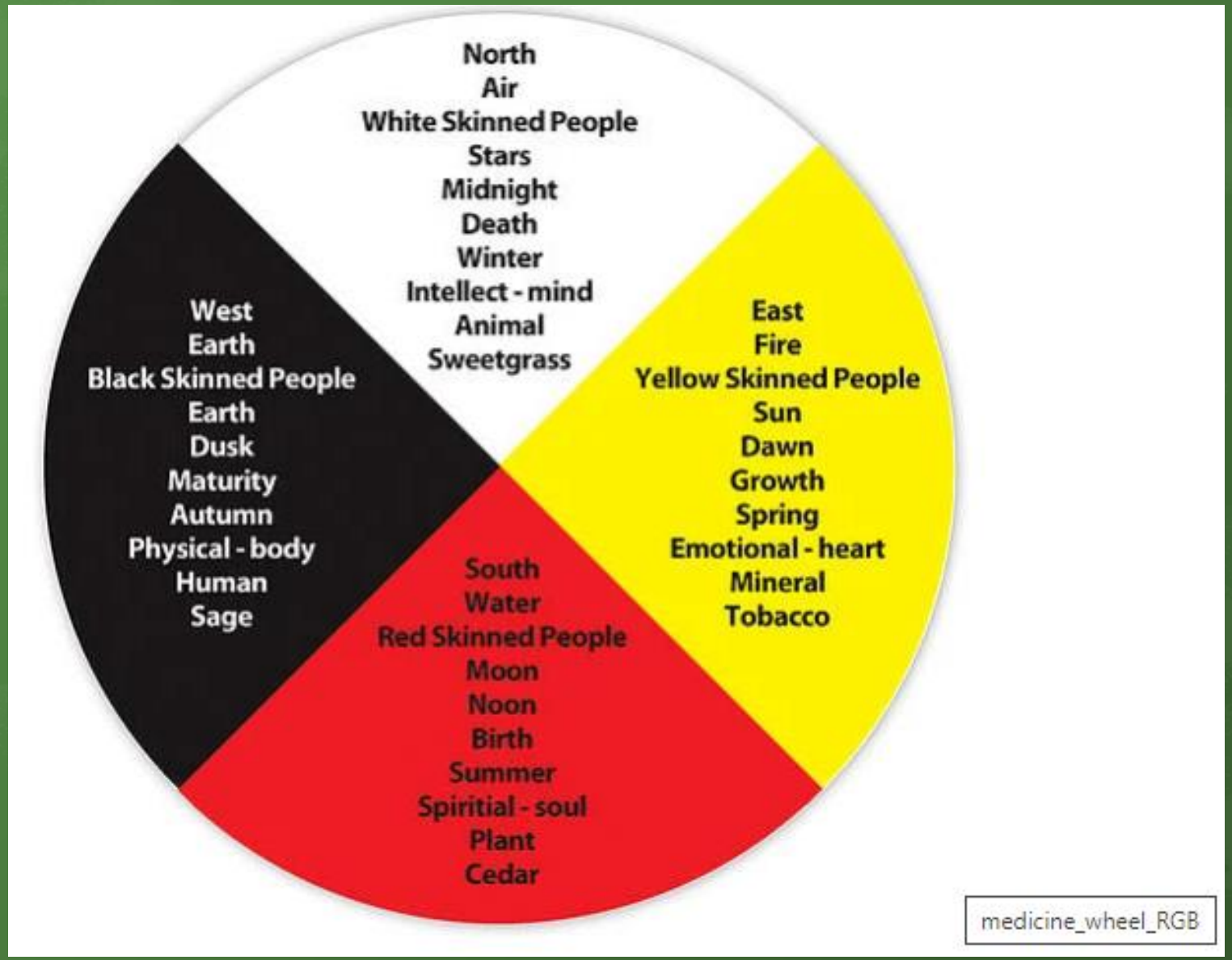
Christine Massan - Nature and Indigenous Patterns







Leah Dorion


North
Air
White Skinned People
Stars
Midnight
Death
Winter
Intellect - mind
Animal
Sweetgrass
East
Fire
Yellow Skinned People
Sun
Dawn
Growth
Spring
Emotional - heart
Mineral
Tobacco
South
Water
Red Skinned People
Moon
Noon
Birth
Summer
Spiritial - soul
Plant
Cedar
West
Earth
Black Skinned People
Earth
Dusk
Maturity
Autumn
Physical - body
Human
Sage
medicine_wheel_RGB

Mother Earth

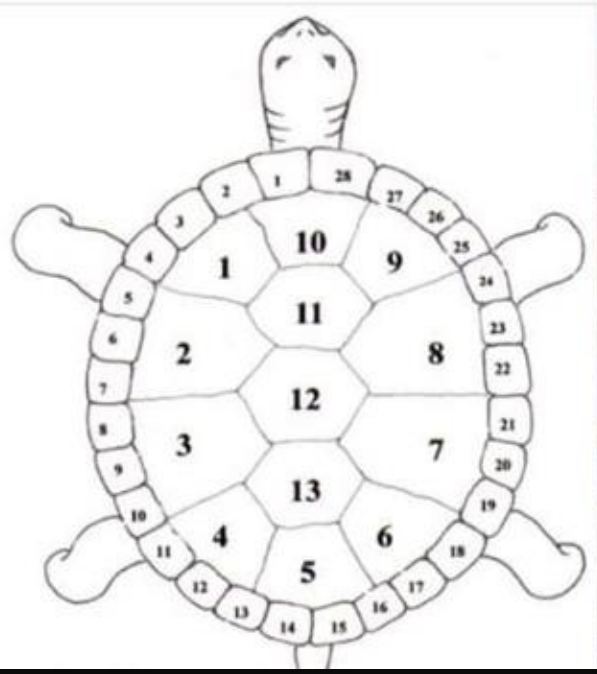
Source:
https://www.voicesofyouth.org/blog/mother-natures-plea

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

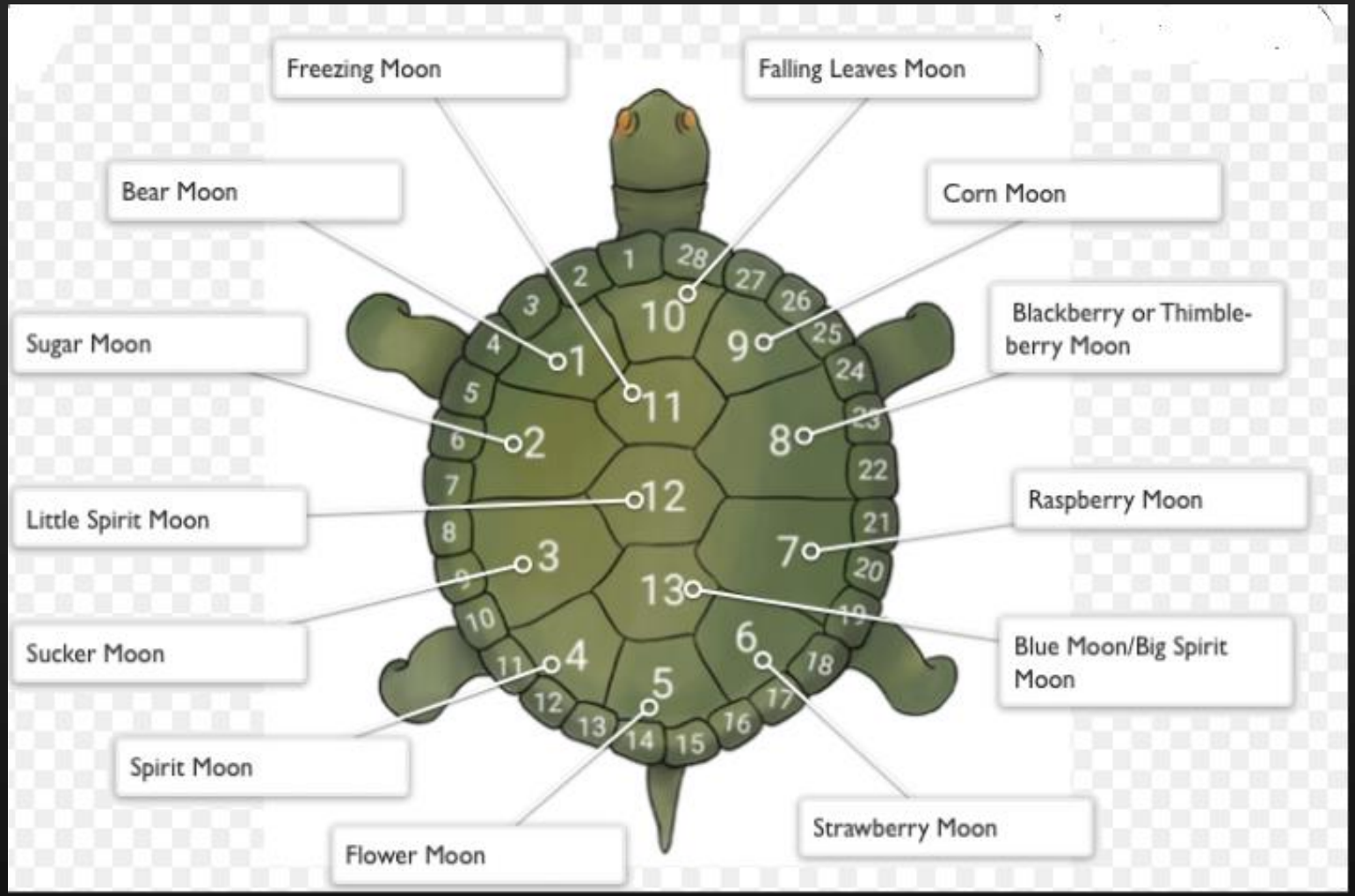
Cree and Blackfoot Tipi's

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 pages you use.

Subitizing Cards

Slide Deck for Money

First Nations KTCEA Curriculum - Use for Cycles - Time Idea

Grade 1 Math Kit (look in Additional Resources)


3
Math in Nature
Sizing Up Winter
written by
Lizann Flatt
illustrated by
Ashley Barron
2
Math in Nature
Sorting through
Spring
written by
Lizann Flatt
illustrated by
Ashley Barron
1
Math in Nature
Counting on Fall
written by
Lizann Flatt
illustrated by
Ashley Barron
4
Math in Nature
Shaping Up
Summer
written by
Lizann Flatt
illustrated by
Ashley Barron

Muddy, Muddy Mess

Written by
James Burnett
and Calvin Irons

ORIGO Big Books
MATHEMATICS

A book about 3D Objects and 2D Shapes

In November we will look at Fractions and also use Cuisenaire rods for composing, decomposing, (part-part-whole work) and skip counting. If you have rods at the school, bring them to the session. If not, no worries, we will do them virtually!

Central Alberta Regional Consortium

Thank You

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

Chris Zarski
czarski@carcpd.ab.ca

Central Alberta Regional Consortium