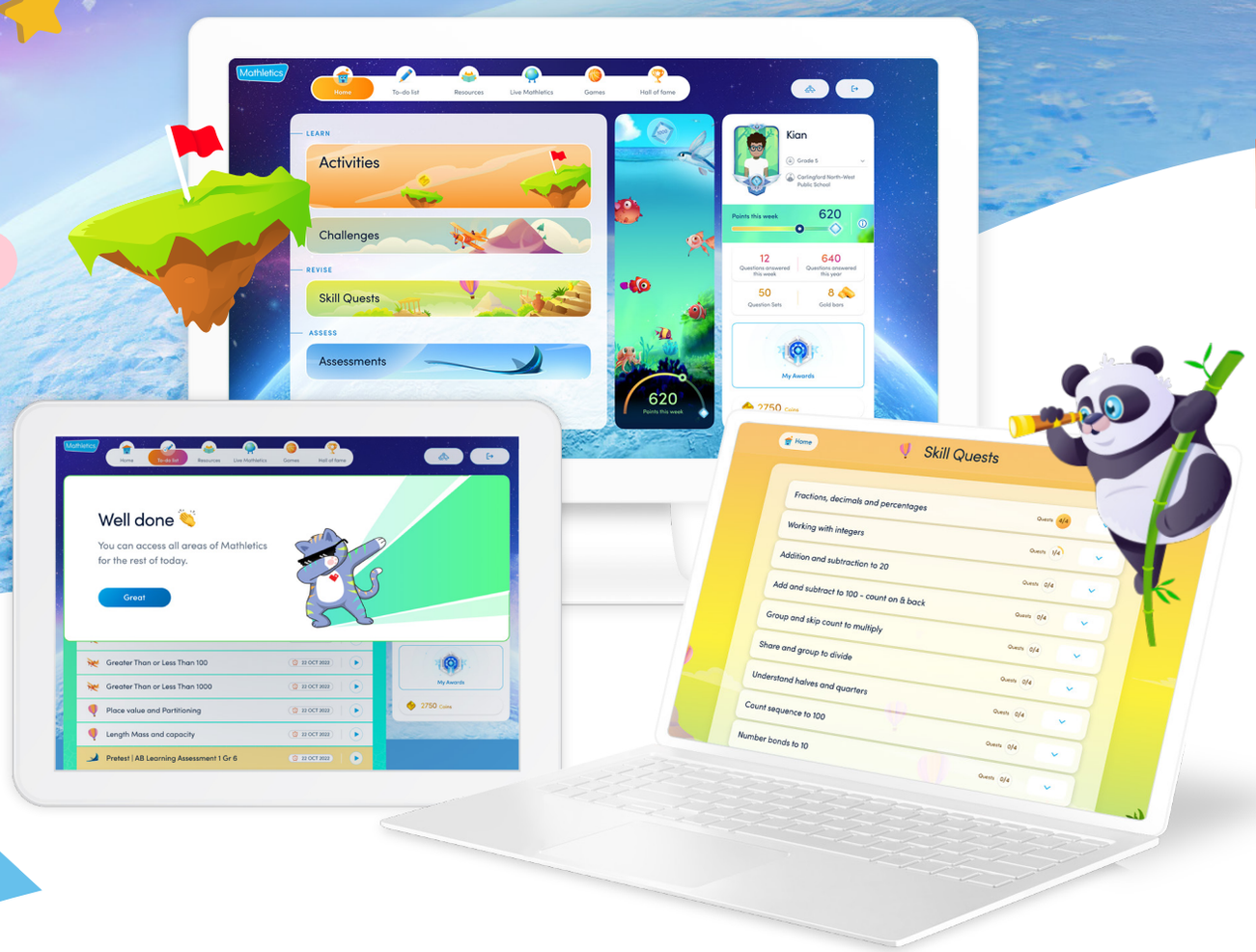
Mathletics

Nova Scotia Curriculum

Skill Quests & Activities



Grades 1-2

January 2024

Mathletics

Kindergarten

1 Number

1.1 Students will be expected to demonstrate number sense

Students will be expected to say the number sequence by: 1s, from 1 to 20, 1s, starting anywhere from 1 to 10 and from 10 to 1	
Course Topic	**Activities Title**
Count to 20	Order Numbers to 10
	Before, After and Between to 20
	Counting Up to 20
	Making Teen Numbers

Students will be expected to recognize, at a glance, and name the quantity represented by familiar arrangements of one to five objects or dots.	
Course Topic	**Activities Title**
Count to 20	Count to 5

Students will be expected to relate a numeral, 1 to 10, to its respective quantity.	
Course Topic	**Activities Title**
Count to 20	How Many?

Students will be expected to represent and describe numbers 2 to 10 in two parts, concretely and pictorially	
Course Topic	**Activities Title**
Count to 20	Matching Numbers to 10

Students will be expected to compare quantities, 1 to 10, using one-to-one correspondence.	
Course Topic	**Activities Title**
Count to 20	1 More, 2 Less
	Comparing Groups of Objects
	More, Less or the Same to 10

Students will be expected to demonstrate an understanding of counting to 10.	
Course Topic	**Activities Title**
Count to 20	Order Numbers to 10
	How Many?
	How many dots?

Students will be expected to demonstrate an understanding of repeating patterns (two or three elements) by identifying, reproducing, extending, and creating patterns using manipulatives, sounds, and actions.	
Course Topic	**Activities Title**
Patterns	Complete the Pattern
	Missing it!
	Colour Patterns
	Simple Patterns

Students will be expected to use direct comparison to compare two objects based on a single attribute, such as length, mass, volume, and capacity.	
Course Topic	**Activities Title**
Measurement	Which Holds More?
	Filling Fast!
	Everyday Length
	Everyday Mass
	Balancing Act
	Same and Different

Students will be expected to sort 3-D objects using a single attribute.	
Course Topic	**Activities Title**
3-D objects	Collect the Objects
	Match the Object
	Match the Solid 1
	Match the Solid 2

Students will be expected to build and describe 3-D objects.	
Course Topic	**Activities Title**
Teacher directed	Teacher directed

Grade 1

1 Number

1.1 Students will be expected to demonstrate number sense

Students will be expected to say the number sequence by: 1s, forward and backward between any two given numbers, 0 to 100; 2s to 20, forward starting at 0; 5s to 100, forward starting at 0, using a hundred chart or a number line; 10s to 100, forward starting at 0, using a hundred chart or a number line.	
Skill Quests	**Skills**
Number sequences to 100	Counting by 1s to 100
	Skip counting by 2s to 20
	Skip counting by 5s to 100
	Skip counting by 10s to 100
	Skip counting by 2s, 5s & 10s
Course Topic	**Activities Title**
Numbers to 100	1 to 30
	The Number Line
	Counting by Fives
	Counting by Tens
	Count by 2s, 5s and 10s
	Going Up
	Going Down
Compare & order to 20	Order Numbers to 20
	Before, After and Between to 20
	Number Line Order

Students will be expected to recognize, at a glance, and name the quantity represented by familiar arrangements of one to ten objects or dots.	
Skill Quests	**Skills**
Teacher directed	Teacher directed
Course Topic	**Activities Title**
Numbers to 100	How Many?
Compare & order to 20	Matching Numbers to 10

Students will be expected to demonstrate an understanding of counting to 20 by: indicating that the last number said identifies “how many”; showing that any set has only one count; using the counting-on strategy.	
Skill Quests	**Skills**
Counting strategies	Sequencing numbers to 20
	Counting collections to 20

Course Topic	Activities Title
Compare & order to 20	Matching Numbers to 10
	Matching Numbers to 20
	Before, After and Between to 20

Students will be expected to represent and partition numbers to 20.	
Skill Quests	**Skills**
Represent & partition numbers to 20	Represent & partition numbers to 20
Course Topic	**Activities Title**
Numbers to 100	Making Numbers Count
Compare & order to 20	Making Teen Numbers

Students will be expected to compare sets containing up to 20 objects to solve problems using referents and one-to-one correspondence.	
Skill Quests	**Skills**
Compare & order sets up to 20	Comparing & ordering sets up to 20
	Exploring change in quantity up to 20
Course Topic	**Activities Title**
Compare & order to 20	Picture Graphs: More or Less
	Comparing Groups of Objects

Students will be expected to estimate quantities to 20 by using referents.	
Skill Quests	**Skills**
Teacher directed	Teacher directed
Course Topic	**Activities Title**
Teacher directed	Teacher directed

Students will be expected to demonstrate an understanding of conservation of number for up to 20 objects.	
Skill Quests	**Skills**
Conservation of numbers to 20	Conservation of numbers to 20
	Skip counting by 2s to 20
	Skip counting by 5s to 100
Course Topic	**Activities Title**
Teacher directed	Teacher directed

Students will be expected to identify the number, up to 20, that is one more, two more, one less, and two less than a given number.	
Skill Quests	**Skills**
Numbers more than & less than	Numbers more than & less than

Course Topic	Activities Title
Numbers to 100	Counting Forward
Compare & order to 20	1 More, 2 Less

Students will be expected to demonstrate an understanding of the addition of two one-digit numbers and the corresponding subtraction, concretely, pictorially, and symbolically, in join, separate, equalize/compare, and part-part-whole situations.	
Skill Quests	**Skills**
Add & subtract two 1-digit numbers	Adding & subtracting two 1-digit numbers
Course Topic	**Activities Title**
Compare & order to 20	Balance Numbers to 10
	Balance Numbers to 20
Addition to 20	Adding to Ten
	Model Addition
	Adding to 10 Word Problems
	Addition Facts
	Addictive Addition
	Composing Additions to 20
	Adding to make 5 and 10
	Doubles and Halves to 10
	Doubles and Halves to 20
	Doubles and Near Doubles
Subtraction within 20	Subtract Tens
	Subtracting from Ten
	Subtraction facts to 18
	Subtracting from 20
	Simple Subtraction
	Model Subtraction
	All about Ten
	All about Twenty
	Add and Subtract Using Graphs
	Fact Families: Add and Subtract
	Related Facts 1

Students will be expected to use and describe strategies to determine sums and differences using manipulatives and visual aids. Strategies include: counting on or counting back; one more or one less; making ten; doubles or near doubles.	
Skill Quests	**Skills**
Number bonds to 10	Recognizing & recalling bonds to 10
	Doubles up to 10 + 10
Add & subtract using doubles	Adding using doubles
	Subtracting using doubles
Add & subtract using near doubles	Adding & subtracting using doubles

Course Topic	Activities Title
Addition to 20	Adding to Ten
	Model Addition
	Adding to 10 Word Problems
	Addition Facts
	Addictive Addition
	Composing Additions to 20
	Adding to make 5 and 10
	Doubles and Halves to 10
	Doubles and Halves to 20
	Doubles and Near Doubles
Subtraction within 20	Subtract Tens
	Subtracting from Ten
	Subtraction facts to 18
	Subtracting from 20
	Simple Subtraction
	Model Subtraction
	All about Ten
	All about Twenty
	Add and Subtract Using Graphs
	Fact Families: Add and Subtract
	Related Facts 1

2 Patterns and Relations

2.1 Students will be expected to use patterns to describe the world and solve problems.

Students will be expected to demonstrate an understanding of repeating patterns (two to four elements) by identifying, describing, reproducing, extending, and creating patterns using manipulatives, diagrams, sounds, and actions.	
Skill Quests	**Skills**
Repeating patterns	Recognizing repeating patterns
	Reproducing repeating patterns
	Manipulating repeating patterns
	Extending repeating patterns
	Replicating repeating patterns
	Describing creating repeating patterns
Course Topic	**Activities Title**
Patterns	Simple Patterns
	Missing it!
	Pattern Error
	Colour Patterns
	Increasing Patterns
	Decreasing Patterns

2.2 Students will be expected to represent algebraic expressions in multiple ways.

Students will be expected to describe equality as a balance and inequality as an imbalance, concretely and pictorially (0 to 20).	
Skill Quests	**Skills**
Equality inequality	Exploring equality inequality
Course Topic	**Activities Title**
Patterns	Balancing Act
	More, less or the same to 10
	More, less or the same to 20

Students will be expected to record equalities using the equal symbol.	
Skill Quests	**Skills**
Record equalities	Recording equalities
	Solving addition subtraction equality problems
Course Topic	**Activities Title**
Teacher directed	Teacher directed

3 Measurement

3.1 Students will be expected to use direct and indirect measure to solve problems.

Students will be expected to demonstrate an understanding of measurement as a process of comparing by: identifying attributes that can be compared; ordering objects; making statements of comparison; filling, covering, or matching.	
Skill Quests	**Skills**
Measurement	Exploring length
	Exploring area
	Exploring volume
	Exploring mass
Course Topic	**Activities Title**
Measurement	Biggest Shape
	Filling Fast!
	Which Holds More?
	Everyday Length
	Sort It

4 Geometry

4.1 Students will be expected to describe the characteristics of 3-D objects and 2-D shapes and analyze the relationships among them.

Students will be expected to sort 3-D objects and 2-D shapes using one attribute and explain the sorting rule.	
Skill Quests	**Skills**
Sort 2-D shapes & 3-D objects	Sorting 2-D shapes
	Sorting 3-D objects
Course Topic	**Activities Title**
2-D shapes & 3-D objects	Collect the Shapes
	Collect Simple Shapes
	Collect the Objects

Students will be expected to replicate composite 2-D shapes and 3-D objects.	
Skill Quests	**Skills**
Replicate composite 2-D shapes	Replicating composite 2-D shapes
Replicate composite 3-D objects	Replicating composite 3-D objects
Course Topic	**Activities Title**
2-D shapes & 3-D objects	Match the Object
	Match the Solid 1

Students will be expected to identify 2-D shapes in 3-D objects.	
Skill Quests	**Skills**
Compare 2-D shapes to 3-D objects	Comparing 2-D shapes to parts of 3-D objects
Course Topic	**Activities Title**
2-D shapes & 3-D objects	Relate Shapes and Solids

Grade 2

1 Number

1.1 Students will be expected to demonstrate number sense.

Students will be expected to say the number sequence by: 1s, forward and backward, starting from any point to 200; 2s, forward and backward, starting from any point to 100; 5s and 10s, forward and backward, using starting points that are multiples of 5 and 10 respectively to 100; 10s, starting from any point, to 100.	
Skill Quests	**Skills**
Number sequences	Counting by 1s to 200
	Counting by 2s to 100
	Counting by 2s to 100 from any number
	Counting by 5s to 100
	Counting by 10s to 100
	Counting by 10s to 100 from any number
	Counting in 2s, 5s or 10s
	Counting a sum of money to 100¢
Course Topic	**Activities Title**
Count in 2s, 5s & 10s	Counting by Twos
	Counting by Fives
	Counting by Tens
	Count by 2s, 5s and 10s
	Counting on a 100 grid
	Skip Counting
	Skip Counting with coins
	Going Up
	Going Down
	Reading Numbers to 30

Students will be expected to demonstrate if a number (up to 100) is even or odd.	
Skill Quests	**Skills**
Even odd numbers	Even odd numbers to 20
	Even odd numbers to 100
Course Topic	**Activities Title**
Compare & order to 100	Odd or Even
	Odd and Even Numbers 1

Students will be expected to represent and partition numbers to 100.	
Skill Quests	**Skills**
Represent and partition numbers to 100	Represent and partition numbers to 100
	Counting to 100

	Numbers to 100 using a tally
	Using coins to represent numbers to 100
Recognize number names to 100	Number names to 20
	Number names to 50
	Number names to 100
Course Topic	**Activities Title**
Compare & order to 100	Place value 1
	Making Numbers Count
	Making Big Numbers Count
	Make Numbers Count

Students will be expected to compare and order numbers up to 100.	
Skill Quests	**Skills**
Compare and order numbers to 100	Comparing and ordering numbers to 100
	Identifying numbers before and after up to 100
Course Topic	**Activities Title**
Compare & order to 100	Number Line Order
	Greater or Less to 100
	Before, After & Between to 100
	Arranging Numbers

Students will be expected to estimate quantities to 100 by using referents.	
Skill Quests	**Skills**
Teacher directed	Teacher directed
Course Topic	**Activities Title**
Subtraction within 100	Repartition to Subtract

Students will be expected to illustrate, concretely and pictorially, the meaning of place value for numerals to 100.	
Skill Quests	**Skills**
Place value partitioning up to 100	Place value partitioning of numbers to 50
	Non-standard partitioning of numbers to 100
Count collections to 100	Counting collections to 50
	Counting collections to 100
Solve 2-digit place value problems	Solving problems using place value
Course Topic	**Activities Title**
Compare & order to 100	Place value 1
	Making Numbers Count
	Making Big Numbers Count
	Make Numbers Count
	Repartition Two-digit Numbers

Students will be expected to demonstrate and explain the effect of adding zero to or subtracting zero from any number.	
Skill Quests	**Skills**
Add & subtract a zero	Adding a zero
	Subtracting a zero
Course Topic	**Activities Title**
Compare & order to 100	Concept of zero

Students will be expected to demonstrate an understanding of addition (limited to 1- and 2-digit numerals) with answers to 100 and the corresponding subtraction by: using personal strategies for adding and subtracting with and without the support of manipulates; creating and solving problems that involve addition and subtraction; explaining and demonstrating that the order in which numbers are added does not affect the sum; explaining and demonstrating that the order in which numbers are subtracted matters when finding a difference.	
Skill Quests	**Skills**
Addition within 100	Adding 2-digit & 1-digit numbers using place value
	Adding by bridging to 10 with 2 & 1-digit numbers
	Adding tens to a 2-digit number using models
	Adding two 2-digit numbers using place value
	Adding two 2-digit numbers using a number line
	Adding by compensating
	Adding using compatible numbers
	Using number bonds to 100
Subtraction within 100	Subtracting by bridging to 10
	Subtracting 2 & 1-digit numbers using place value
	Subtracting using mixed strategies
	Subtracting tens from a 2-digit number
	Subtracting two 2-digit numbers using place value
	Subtracting two 2-digit numbers, number line
	Subtracting by compensating
Addition & subtraction within 100	Adding up to find the difference
	Add/subtract place value patterns
	Add/subtract using mixed strategies
	Add/subtract two 2-digit numbers using place value
	Solving addition & subtraction word problems
	Number sentences to solve word problems
	Estimating sums & differences
	Judging the reasonableness of answers
Course Topic	**Activities Title**
Addition to 100	Add Three 1-Digit Numbers
	Commutative Property of Addition
	Adding In Any Order
	Complements to 10, 20, 50
	Add Two 2-Digit Numbers
	Adding to 2-digit numbers
	Columns that Add

	Bar Model Problems 1
	Model Addition
Subtraction within 100	Subtract Numbers
	Subtract Numbers: Regroup
	Magic Mental Subtraction
	Columns that Subtract

Students will be expected to apply mental mathematics strategies to quickly recall basic addition facts to 18 and determine related subtraction facts.	
Skill Quests	**Skills**
Addition & subtraction to 18	Addition & subtraction to 18
	Adding using doubles
	Subtracting using doubles
	Adding doubles or near doubles
	Finding fact families for addition & subtraction
	Using the commutative property of addition
	Counting on by bridging to 10
	Addition & subtraction facts — word problems
Course Topic	**Activities Title**
Addition to 100	Magic Mental Addition
	Addictive Addition
	Related Facts 1
	Doubles and Halves to 10
	Doubles and Halves to 20
	Doubles and Near Doubles
	Add 3 Numbers Using Bonds to 10
Subtraction within 100	Simple Subtraction

2 Patterns and Relations (Patterns)

2.1 Students will be expected to use patterns to describe the world and solve problems.

Students will be expected to demonstrate an understanding of repeating patterns (three to five elements) by describing, extending, comparing, and creating, patterns using manipulatives, diagrams, sounds, and actions.	
Skill Quests	**Skills**
Explore repeating patterns	Creating & extending repeating patterns
	Identifying repeating patterns
	Numeric patterns
Course Topic	**Activities Title**
Patterns	Simple Patterns
	Colour Patterns
	Pattern Error

Students will be expected to demonstrate an understanding of increasing patterns by describing, extending, and creating numerical patterns (numbers to 100) and non-numerical patterns using manipulatives, diagrams, sounds, and actions.	
Skill Quests	**Skills**
Explore increasing number patterns	Exploring addition & subtraction patterns to 100
	Exploring patterns to 100 using multiples
	Connecting objects & symbols to number patterns
	Exploring growing number patterns up to 100
Course Topic	**Activities Title**
Patterns	Count Backward Patterns
	Count Forward Patterns
	Increasing Patterns
	Decreasing Patterns
	Describing Patterns
	Missing it!
	Pick the Next Number
	Find the Missing Number 1
	I am Thinking of a Number!

2.2 Students will be expected to represent algebraic expressions in multiple ways.

Students will be expected to demonstrate and explain the meaning of equality and inequality by using manipulatives and diagrams (0 to 100).	
Skill Quests	**Skills**
Equality & inequality	Introducing equality & inequality
Course Topic	**Activities Title**
Patterns	Balancing Act
	Missing Values

Students will be expected to record equalities and inequalities symbolically, using the equal symbol or not equal symbol.	
Skill Quests	**Skills**
Use the equal & not-equal symbols	Using the equal & not-equal symbols
Course Topic	**Activities Title**
Patterns	Compare Numbers to 100
	Compare Numbers to 20

3 Shape and Space (Measurement)

3.1 Use direct and indirect measurement to solve problems.

Students will be expected to demonstrate an understanding of the calendar and the relationships among days, weeks, months, and years.	
Skill Quests	**Skills**
Explore the passing of time	Calendars
	Days of the week & months of the year
Course Topic	**Activities Title**
Time: Calendars	Using a Calendar
	Days of the Week
	Months of the Year

3.2 Students will be expected to use direct and indirect measure to solve problems.

Students will be expected to relate the size of a unit of measure to the number of units (limited to non-standard units) used to measure length and mass.	
Skill Quests	**Skills**
Non-standard measurement	Non-standard measurement of length
	Non-standard measurement of mass
Course Topic	**Activities Title**
Teacher directed	Teacher directed

Students will be expected to compare and order objects by length, height, distance around, and mass using non-standard units and make statements of comparison.	
Skill Quests	**Skills**
Compare & order objects	Comparing & ordering objects by length
	Comparing & ordering objects by mass
Course Topic	**Activities Title**
Length	Everyday Length
	Comparing Length
	Everyday Mass

Students will be expected to measure length to the nearest non-standard unit by using multiple copies of a unit.	
Skill Quests	**Skills**
Measure length using non-standard units	Measuring length using non-standard units
Course Topic	**Activities Title**
Length	How Long is That?
	Measuring Length with Blocks

4 Geometry

4.1 Students will be expected to describe the characteristics of 3-D objects and 2-D shapes and analyze the relationships among them.

Students will be expected to sort 2-D shapes and 3-D objects using two attributes and explain the sorting rule.	
Skill Quests	**Skills**
Sort 2-D shapes & 3-D objects	Sorting 2-D shapes
	Sorting 3-D objects
Course Topic	**Activities Title**
Teacher directed	Teacher directed

Students will be expected to recognize, name, describe, compare, and build 3-D objects, including cubes and other prisms, spheres, cones, cylinders, and pyramids.	
Skill Quests	**Skills**
3-D objects	Introducing cubes
	Introducing prisms
	Introducing cylinders
	Introducing pyramids
	Introducing cones
	Introducing spheres
	Identifying 3-D objects
	Identifying attributes of 3-D objects
	Comparing 3-D objects
Course Topic	**Activities Title**
2-D Shapes & 3-D objects	Collect the Shapes 1
	Collect the Shapes 2
	Collect the Objects 1

Students will be expected to recognize, name, describe, compare and build 2-D shapes, including triangles, squares, rectangles, and circles.	
Skill Quests	**Skills**
2-D shapes	Naming 2-D shapes
	Comparing 2-D shapes
Course Topic	**Activities Title**
2-D Shapes & 3-D objects	Collect the Objects 2

Students will be expected to identify 2-D shapes as part of 3-D objects in the environment.	
Skill Quests	**Skills**
Identify 2-D shapes in the environment	Identifying 2-D shapes in the environment
Course Topic	**Activities Title**
2-D Shapes & 3-D objects	Match the Solid 2

5 Statistics and Probability

5.1 Students will be expected to collect, display, and analyze data to solve problems.

Students will be expected to gather and record data about self and others to answer questions.	
Skill Quests	**Skills**
Gather & record data	Gathering, sorting & recording data
Course Topic	**Activities Title**
Collect, display & analyze data	Tallies

Students will be expected to construct and interpret concrete graphs and pictographs to solve problems.	
Skill Quests	**Skills**
Interpret data	Using pictographs
	Using basic graphs
	Using a tally
	Making a graph
	Answering questions about a graph
Course Topic	**Activities Title**
Collect, display & analyze data	Tally Charts
	Making Picture Graphs: With Scale
	Pictographs
	Picture Graphs: Single-Unit Scale
	Read Graphs

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