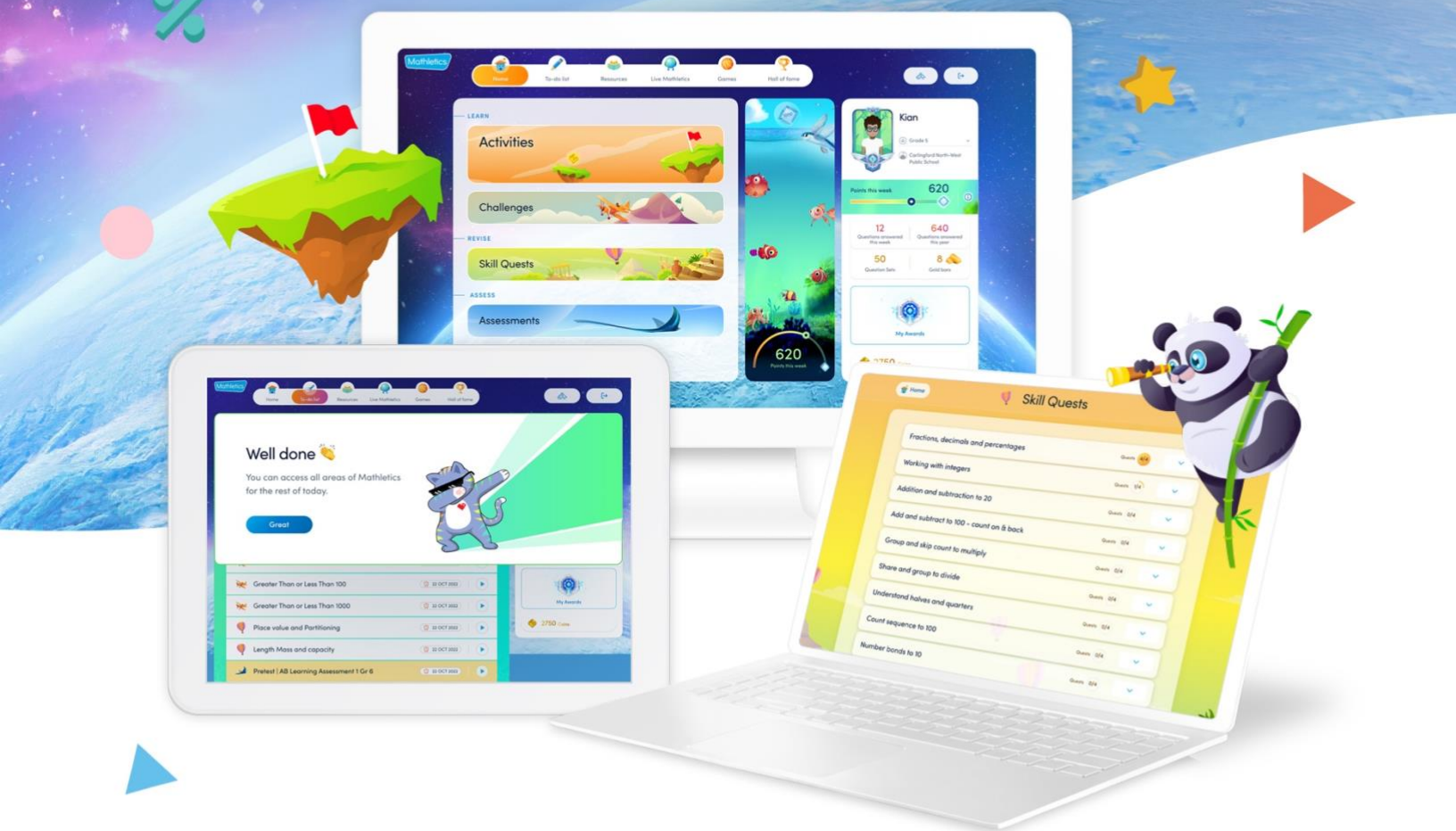
Mathletics

Ontario Curriculum

Activities (Courses) and Skill Quests



Grades K-3

July, 2025

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Activities (Courses) & Skill Quests

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Kindergarten

1 Number

1.1 Understanding number

OE15 demonstrate an understanding of numbers, using concrete materials to explore and investigate counting, quantity, and number relationships	
Course Topics	**Activities**
Number Sense and Numeration	More, Less or the Same to 10
	How Many?
	How Many Dots?
	Count to 5
	Order Numbers to 10
	Dot Display
	Adding to Make 5 and 10
	Model Addition
	Model Subtraction
	Adding to 5
	Subtracting From 5

2 Measurement

2.1 Measurement

OE16 measure, using non-standard units of the same size, and compare objects, materials, and spaces in terms of their length, mass, capacity, area, and temperature, and explore ways of measuring the passage of time, through inquiry and play-based learning	
Course Topics	**Activities**
Measurement	Everyday Length
	Everyday Mass
	Compare Length
	Hot or Cold?
	Which Holds More?

3 Shape and space

3.1 Shape and space

OE17 describe, sort, classify, build, and compare two-dimensional shapes and three-dimensional figures, and describe the location and movement of objects, through investigation	
Course Topics	**Activities**
Geometry and Spatial Sense	Collect the Shapes
	Collect the Objects
	Match the Solid 1
	Match the Object
	Where is it?
	Left or Right?
	Relate Shapes and Solids

4 Patterns

4.1 Patterns

OE18 recognize, explore, describe, and compare patterns, and extend, translate, and create them, using the core of a pattern and predicting what comes next	
Course Topics	**Activities**
Patterning and Algebra	Simple Patterns
	Color Patterns
	Complete the Pattern

5 Data

5.1 Data

OE19 collect, organize, display, and interpret data to solve problems and to communicate information, and explore the concept of probability in everyday contexts	
Course Topics	**Activities**
Data Management and Probability	Picture Graphs: More or Less
	Picture Graphs: single-unit scale
	Picture Graphs: Who has the Goods?

Grade 1

B. Number

B1. Number Sense: Whole Numbers

1.B1.1 read and represent whole numbers up to and including 50, and describe various ways they are used in everyday life	
Course Topics	**Activities**
B1 Whole Numbers	Matching Numbers to 10
	Making Teen Numbers
	1st to 31st
	Reading Numbers to 30
	Making Numbers Count
	Ordinal Numbers
Topics	**Skill Quests**
Read and represent whole numbers to 50	Connect number names, numerals & collections to 50

1.B1.2 compose and decompose whole numbers up to and including 50, using a variety of tools and strategies, in various contexts	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Compose and decompose numbers to 50	Partitioning 2-digit numbers to 50
	Non-standard partitioning: 2-digit numbers to 50

1.B1.3 compare and order whole numbers up to and including 50, in various contexts	
Course Topics	**Activities**
B1 Whole Numbers	Compare Numbers to 20
	Order Numbers to 20
	1 to 30
	Compare Numbers to 50
Topics	**Skill Quests**
Compare and order whole numbers to 50	Comparing collections and numerals to 50
	Ordering collections and numerals to 50

1.B1.4 estimate the number of objects in collections of up to 50, and verify their estimates by counting	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Teacher directed	Teacher directed

1.B1.5 count to 50 by 1s, 2s, 5s, and 10s, using a variety of tools and strategies	
Course Topics	**Activities**
B1 Whole Numbers	Counting Up to 20
	Counting Back Within 20
	Before, After and Between to 20
	Make Numbers Count
	Counting Backward
	Counting Forward
	Count by Twos
	Count by Fives
	Count by Tens
	How Many Dots?
Topics	**Skill Quests**
Count to 50	Counting by 1s to 50, forward and backward
	Counting by 2s to 50, forward and backward
	Counting by 5s to 50, forward and backward
	Counting by 10s to 50, forward and backward
	Counting by 2s, 5s, 10s to 50

B1. Number Sense: Fractions

1.B1.6 use drawings to represent and solve fair-share problems that involve 2 and 4 sharers, respectively, and have remainders of 1 or 2	
Course Topics	**Activities**
B1 Fractions	Making Equal Groups
	Dividing Twos
	Dividing Fours
Topics	**Skill Quests**
Fair-share problems, 2 and 4 sharers	Solving fair-share problems, 2 and 4 sharers

1.B1.7 recognize that one half and two fourths of the same whole are equal, in fair-sharing contexts	
Course Topics	**Activities**
B1 Fractions	Is it Half?
	Halves and Quarters
Topics	**Skill Quests**
Equivalence, one half and two fourths	Introducing the concept of half

1.B1.8 use drawings to compare and order unit fractions representing the individual portions that result when a whole is shared by different numbers of sharers, up to a maximum of 10	
Course Topics	**Activities**
B1 Fractions	Shade Fractions
Topics	**Skill Quests**
Compare and order unit fractions	Comparing and ordering unit fractions with models

B2. Operations: Properties and Relationship

1.B2.1 use the properties of addition and subtraction, and the relationship between addition and subtraction, to solve problems and check calculations	
Course Topics	**Activities**
B2 Addition & Subtraction	Adding In Any Order
	Add 3 Single Digit Numbers
Topics	**Skill Quests**
Add/subtract properties & relationship	Introducing the commutative property of addition
	Fact families: addition/subtraction, within 30

B2. Operations: Math Facts

1.B2.2 recall and demonstrate addition facts for numbers up to 10, and related subtraction facts	
Course Topics	**Activities**
B2 Addition & Subtraction	Adding to Make 5 and 10
	Adding to Ten
	Model Subtraction
	Subtracting from Ten
B2 Multiplication & Division	Doubles and Halves to 10
Topics	**Skill Quests**
Addition/subtraction facts to 10	Recognizing and recalling bonds to 10
	Adding and subtracting within 10 fluently
	Modelling and recording combinations to 5
	Modelling and recording combinations to 6
	Modelling and recording combinations to 7
	Modelling and recording combinations to 8
	Modelling and recording combinations to 9

B2. Operations: Mental Math

1.B2.3 use mental math strategies, including estimation, to add and subtract whole numbers that add up to no more than 20, and explain the strategies used	
Course Topics	**Activities**
B2 Addition & Subtraction	Addition Facts
	All about Twenty
	Add 3 Single Digit Numbers
	Doubles and Near Doubles
	Addictive Addition
	Subtraction Facts to 18
	Subtracting from 20
	Adding to 10 Word Problems
Topics	**Skill Quests**
Mental math: add/subtract to 20	Mental strategies: addition and subtraction to 18

B2. Operations: Addition and Subtraction

1.B2.4 use objects, diagrams, and equations to represent, describe, and solve situations involving addition and subtraction of whole numbers that add up to no more than 50	
Course Topics	**Activities**
B2 Addition & Subtraction	Adding to Make 5 and 10
	Adding to Ten
	Addition Facts
	All about Twenty
	Doubles and Near Doubles
	Subtracting from Ten
	Subtraction Facts to 18
	Adding to 10 Word Problems
Topics	**Skill Quests**
Add and subtract to 50	Bridging to ten to add, models
	Adding doubles or near doubles
	Adding using compatible numbers
	Adding 2-digit and 1-digit numbers, place value
	Bridging to ten to subtract, models
	Subtracting using doubles
	Addition and subtraction word problems within 20

B2. Operations: Multiplication and Division

1.B2.5 represent and solve equal-group problems where the total number of items is no more than 10, including problems in which each group is a half, using tools and drawings	
Course Topics	**Activities**
B2 Multiplication & Division	Doubles and Halves to 10
Topics	**Skill Quests**
Represent and solve equal-group problems	Representing and solving equal-group problems

C. Algebra

C1. Patterns and Relationships: Patterns

1.C1.1 identify and describe the regularities in a variety of patterns, including patterns found in real-life contexts	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Identify and describe patterns	Identifying & describing repeating patterns
	Recognizing repeating patterns

1.C1.2 create and translate patterns using movements, sounds, objects, shapes, letters, and numbers	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Create patterns	Creating repeating patterns

1.C1.3 determine pattern rules and use them to extend patterns, make and justify predictions, and identify missing elements in patterns	
Course Topics	**Activities**
C1 Patterns & Relationships	Complete the Pattern
	Simple Patterns
	Missing it!
	Color Patterns
	Pattern Error
Topics	**Skill Quests**
Patterns: extend, predict, identify	Extending a simple repeating pattern
	Identifying errors & missing elements in patterns

1.C1.4 create and describe patterns to illustrate relationships among whole numbers up to 50	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Create/describe patterns, numbers to 50	Copy/extend additive & subtractive number patterns

C2. Equations and Inequalities: Variables

1.C2.1 identify quantities that can change and quantities that always remain the same in real-life contexts	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Teacher directed	Teacher directed

C2. Equations and Inequalities: Equalities and Inequalities

1.C2.2 determine whether given pairs of addition and subtraction expressions are equivalent or not	
Course Topics	**Activities**
C2 Equalities & Inequalities	Composing Numbers to 10
	Composing Numbers to 20
Topics	**Skill Quests**
Equivalence: addition and subtraction	Recognizing equality in addition and subtraction

1.C2.3 identify and use equivalent relationships for whole numbers up to 50, in various contexts	
Course Topics	**Activities**
C2 Equalities & Inequalities	Composing Numbers to 10
	Composing Numbers to 20
Topics	**Skill Quests**
Identify & use equivalent relationships	Recognize the concept of equality, numbers to 50

C3. Coding: Coding skills

1.C3.1 solve problems and create computational representations of mathematical situations by writing and executing code, including code that involves sequential events	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Write/execute code: sequential events	Write/execute code: sequential events

1.C3.2 read and alter existing code, including code that involves sequential events, and describe how changes to the code affect the outcomes	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Read/alter code: sequential events	Read/alter code: sequential events

D. Data

D1. Data Literacy: Data Collection and Organization

1.D1.1 sort sets of data about people or things according to one attribute, and describe rules used for sorting	
Course Topics	**Activities**
D1 Data	Add and Subtract Using Graphs
	Sort It
Topics	**Skill Quests**
Sorting sets of data	Grouping simple data using 1 attribute

1.D1.2 collect data through observations, experiments, and interviews to answer questions of interest that focus on a single piece of information; record the data using methods of their choice; and organize the data in tally tables	
Course Topics	**Activities**
D1 Data	Tallies
Topics	**Skill Quests**
Data collection and recording	Asking simple questions to gather data

D1. Data Literacy: Data Visualization

1.D1.3 display sets of data, using one-to-one correspondence, in concrete graphs and pictographs with proper sources, titles, and labels	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Represent data using simple displays	Representing data using simple displays

D1. Data Literacy: Data Analysis

1.D1.4 order categories of data from greatest to least frequency for various data sets displayed in tally tables, concrete graphs, and pictographs	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Order category data	Ordering category data

1.D1.5 analyse different sets of data presented in various ways, including in tally tables, concrete graphs, and pictographs, by asking and answering questions about the data and drawing conclusions, then make convincing arguments and informed decisions	
Course Topics	**Activities**
D1 Data	Analyzing Data
	Picture Graphs: More or Less
	Comparing Groups of Objects
	Picture Graphs: single-unit scale
	Make graphs
Topics	**Skill Quests**
Interpret basic data displays	Interpreting basic data displays

D2 Probability

1.D2.1 use mathematical language, including the terms “impossible”, “possible”, and “certain”, to describe the likelihood of events happening, and use that likelihood to make predictions and informed decisions	
Course Topics	**Activities**
D2 Probability	Will it Happen?
Topics	**Skill Quests**
Use the basic language of probability	Using the basic language of probability

1.D2.2 make and test predictions about the likelihood that the categories in a data set from one population will have the same frequencies in data collected from a different population of the same size	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Teacher directed	

E. Spatial Sense

E1. Geometric and Spatial Reasoning: Geometric Reasoning

1.E1.1 sort three-dimensional objects and two-dimensional shapes according to one attribute at a time, and identify the sorting rule being used	
Course Topics	**Activities**
E1 Geometry	Collect Simple Shapes
	Collect the Shapes
	Collect the Shapes 1
	Count Sides and Corners
Topics	**Skill Quests**
Sort 3D objects and 2D shapes	Sorting 3D objects, 1 attribute
	Sorting 3D objects, more than 1 attribute
	Sorting basic 2D shapes, 1 attribute
	Sorting basic 2D shapes, more than 1 attribute

1.E1.2 construct three-dimensional objects, and identify two-dimensional shapes contained within structures and objects	
Course Topics	**Activities**
E1 Geometry	Relate Shapes and Solids
	How Many Faces?
	How many Edges?
	How many Corners?
Topics	**Skill Quests**
Construct three-dimensional structures	Constructing three-dimensional structures

1.E1.3 construct and describe two-dimensional shapes and three-dimensional objects that have matching halves	
Course Topics	**Activities**
E1 Geometry	Symmetry
Topics	**Skill Quests**
Teacher directed	

E1. Geometric and Spatial Reasoning: Location and Movement

1.E1.4 describe the relative locations of objects or people, using positional language	
Course Topics	**Activities**
E1 Geometry	Where is it?
	Left or Right?
	Following Directions
Topics	**Skill Quests**
Describe relative locations	Describing position and movement
	Distinguishing between left and right

1.E1.5 give and follow directions for moving from one location to another	
Course Topics	**Activities**
E1 Geometry	Where is it?
	Left or Right?
	Following Directions
Topics	**Skill Quests**
Give and follow directions	Giving directions

E2. Measurement: Attributes

1.E2.1 identify measurable attributes of two-dimensional shapes and three-dimensional objects, including length, area, mass, capacity, and angle	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Identify measurable attributes	Introducing the attribute of length
	Introducing the attribute of mass
	Introducing the attributes of volume and capacity
	Introducing the attribute of area
	Introducing angles as a measurable attribute

1.E2.2 compare several everyday objects and order them according to length, area, mass, and capacity	
Course Topics	**Activities**
E2 Measurement	Everyday Length
	Comparing Length
	Balancing Objects
	Everyday Mass
	Which Holds More?
	How Full?
	Filling Fast!
Topics	**Skill Quests**
Compare and order objects by attributes	Compare areas using direct comparison
	Compare/order mass of 2 objects, pan balance
	Compare/order volume and capacity, informal units
	Compare capacities, direct comparison

1.E2.3 read the date on a calendar, and use a calendar to identify days, weeks, months, holidays, and seasons	
Course Topics	**Activities**
E2 Measurement	Days of the Week
	Months of the Year
	Calendar: Days and Dates
	Tomorrow and Yesterday (Scaffolded)
	Using a Calendar
The calendar	Introducing the days of the week
	Introducing the months of the year
	Introducing the seasons
	Using calendars

F. Financial Literacy

F.1 Money & Finances: Money concepts

1.F1.1 identify the various Canadian coins up to 50¢ and coins and bills up to $50, and compare their values	
Course Topics	**Activities**
F1 Financial Literacy	Everyday Money
Topics	**Skill Quests**
Identifying coins and bills	Identifying coins
	Identifying bills

Grade 2

B. Number

B1. Number Sense: Whole Numbers

2.B1.1 read, represent, compose, and decompose whole numbers up to and including 200, using a variety of tools and strategies, and describe various ways they are used in everyday life	
Course Topics	**Activities**
B1 Whole Numbers	Matching Numbers to 20
	Making Big Numbers Count
	Number Lines
	Place Value 1
	Repartition Two-digit Numbers
	1 More, 2 Less
	1 More, 10 Less
Topics	**Skill Quests**
Numbers up to 200	Reading and writing 3-digit numbers to 200
	Reading and writing 2-digit numbers
	Using place value to partition 2-digit numbers
	Identifying place value: 2-digit numbers
	Partitioning 3-digit numbers to 200
	Identifying place value: 3-digit numbers to 200
	Non-standard partitioning: 2-digit numbers
	Non-standard partitioning: 3-digit numbers to 200

2.B1.2 compare and order whole numbers up to and including 200, in various contexts	
Course Topics	**Activities**
B1 Whole Numbers	Arranging Numbers
	Which is Bigger?
	Which is Smaller?
	Greater or Less to 100
	Compare Numbers to 100
	Number Line Order
Topics	**Skill Quests**
Compare and order numbers to 200	Comparing and ordering numbers to 200

2.B1.3

estimate the number of objects in collections of up to 200 and verify their estimates by counting	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Teacher directed	

2.B1.4 count to 200, including by 20s, 25s, and 50s, using a variety of tools and strategies	
Course Topics	**Activities**
B1 Whole Numbers	Going Up
	Going Down
	Before, After & Between to 100
Topics	**Skill Quests**
Count to 200	Counting by 1s to 200, forward and backward
	Counting by 10s to 200, forward and backward
	Counting by 2s to 200, forward and backward
	Counting by 5s to 200, forward and backward
	Counting by 20s to 200, forward and backward
	Counting by 25s to 200, forward and backward
	Counting by 50s to 200, forward and backward

2.B1.5 describe what makes a number even or odd	
Course Topics	**Activities**
B1 Whole Numbers	Odd or Even
	Odd and Even Numbers 1
Topics	**Skill Quests**
Odd and even numbers	Modelling odd and even number patterns up to 20

B1. Number Sense: Fractions

2.B1.6 use drawings to represent, solve, and compare the results of fair-share problems that involve sharing up to 10 items among 2, 3, 4, and 6 sharers, including problems that result in whole numbers, mixed numbers, and fractional amounts	
Course Topics	**Activities**
B1 Fractions	Halves and Quarters
	Thirds and Sixths
	Dividing Threes
	Dividing Sixes
	Make Fair Shares
	Fractions of a Collection 1
Topics	**Skill Quests**

Fair-share problems: 2, 3, 4, 6 sharers	Fair-share problems with models, 2 or 4 sharers
	Fair-share problems with models, 3 sharers
	Fair-share problems with models, 6 sharers

2.B1.7 recognize that one third and two sixths of the same whole are equal, in fair-sharing contexts	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Equivalence, one third and two sixths	Equivalence, one third and two sixths

B2. Operations: Properties and Relationships

2.B2.1 use the properties of addition and subtraction, and the relationships between addition and multiplication and between subtraction and division, to solve problems and check calculations	
Course Topics	**Activities**
B2 Addition & Subtraction to 100	Related Facts 1
Topics	**Skill Quests**
Properties and operational relationships	Using the commutative property of addition to 20
	Using repeated addition to multiply
	Using repeated subtraction to divide

B2. Operations: Math Facts

2.B2.2 recall and demonstrate addition facts for numbers up to 20, and related subtraction facts	
Course Topics	**Activities**
B2 Addition & Subtraction to 100	All about Twenty
	Subtracting from 20
	Addition
	Simple Subtraction
Topics	**Skill Quests**
Addition/subtraction facts to 20	Adding and subtracting within 20 fluently

B2. Operations: Mental Math

2.B2.3 use mental math strategies, including estimation, to add and subtract whole numbers that add up to no more than 50, and explain the strategies used	
Course Topics	**Activities**
B2 Addition & Subtraction to 100	Addition
	Add 3 Numbers Using Bonds to 10
	Complements to 10, 20, 50
	Simple Subtraction
Topics	**Skill Quests**
Mental math: add/subtract to 50	Bridging to ten to mentally add or subtract
	Using place value to mentally add numbers

B2. Operations: Addition and Subtraction

2.B2.4 use objects, diagrams, and equations to represent, describe, and solve situations involving addition and subtraction of whole numbers that add up to no more than 100	
Course Topics	**Activities**
B2 Addition & Subtraction to 100	Model Addition
	Add and Subtract Problems
	Subtract Tens
	Decompose Numbers to Subtract
	Bar Model Problems 1
	Bar Model Problems 2
	Add 3 Numbers: Bonds to Multiples of 10
Topics	**Skill Quests**
Add and subtract to 100	Add/subtract numbers using efficient strategies
	Add 2-digit numbers, number line
	Subtract 2-digit numbers, number line
	Add tens to a 2-digit number, models

B2. Operations: Multiplication and Division

2.B2.5 represent multiplication as repeated equal groups, including groups of one half and one fourth, and solve related problems, using various tools and drawings	
Course Topics	**Activities**
B2 Multiplication & Division	Groups
	Multiplication Arrays
Topics	**Skill Quests**
Multiplication as repeated equal groups	Use repeated addition with arrays (2, 5, 10)
	Connect multiplication, arrays, repeated addition
	Repeated addition with one half and one fourth

2.B2.6 represent division of up to 12 items as the equal sharing of a quantity, and solve related problems, using various tools and drawings	
Course Topics	**Activities**
B2 Multiplication & Division	Making Equal Groups
	Fill the Jars
	Divide Into Equal Groups
Topics	**Skill Quests**
Represent division up to 12	Sharing objects to divide up to 12, models

C. Algebra

C1. Patterns and Relationships: Patterns

2.C1.1 identify and describe a variety of patterns involving geometric designs, including patterns found in real-life contexts	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Identify/describe geometric patterns	Exploring visual patterns
	Exploring simple patterns with transformations

2.C1.2 create and translate patterns using various representations, including shapes and numbers	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Create patterns with shapes and numbers	Create repeating shape patterns
	Identify/extend/describe repeating number patterns

2.C1.3 determine pattern rules and use them to extend patterns, make and justify predictions, and identify missing elements in patterns represented with shapes and numbers	
Course Topics	**Activities**
C1 Patterns	Count by Twos
	Count by Fives
	Count by Tens
	Count by 2s, 5s and 10s
	Counting on a 100 grid
	Color Patterns
	Pattern Error
	Missing it!
	Count Forward Patterns
	Count Backward Patterns
Topics	**Skill Quests**
Pattern rules, repeating patterns	ID errors/missing elements, repeating patterns
	Identify the structure of repeating patterns
	Extend repeating patterns

2.C1.4 create and describe patterns to illustrate relationships among whole numbers up to 100	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Create/describe patterns, numbers to 100	Growing/shrinking/repeating number patterns to 100
	Identify and describe number patterns to 100

C2. Equations and Inequalities: Variables

2.C2.1 identify when symbols are being used as variables, and describe how they are being used	
Course Topics	**Activities**
C2 Equations & Inequalities	Missing Values
Topics	**Skill Quests**
Teacher directed	

C2. Equations and Inequalities: Equalities and Inequalities

2.C2.2 determine what needs to be added to or subtracted from addition and subtraction expressions to make them equivalent	
Course Topics	**Activities**
C2 Equations & Inequalities	Composing Numbers to 20
	Missing Values
	All about Ten
	Fact Families: Add and Subtract
Topics	**Skill Quests**
Explore equality, addition/subtraction	Exploring equality, addition/subtraction

2.C2.3 identify and use equivalent relationships for whole numbers up to 100, in various contexts	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Equivalent relationships to 100	Equivalent addition/subtraction relationships

C3. Coding: Coding Skills

2.C3.1 solve problems and create computational representations of mathematical situations by writing and executing code, including code that involves sequential and concurrent events	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Write code: sequential/ concurrent events	Write/execute code: sequential/concurrent events

2.C3.2 read and alter existing code, including code that involves sequential and concurrent events, and describe how changes to the code affect the outcomes	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Read code: sequential/ concurrent events	Read/alter code: sequential/concurrent events

D. Data

D1. Data Literacy: Data Collection and Organization

2.D1.1 sort sets of data about people or things according to two attributes, using tables and logic diagrams, including Venn and Carroll diagrams	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Sort data according to 2 attributes	Introducing Venn diagrams
	Introducing Carroll diagrams
	Relating Carroll and Venn diagrams
	Sorting data using logic diagrams

2.D1.2 collect data through observations, experiments, or interviews to answer questions of interest that focus on two pieces of information, and organize the data in two-way tally tables	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Collect/organize data, two-way tables	Organizing data in a two-way tally table

D1. Data Literacy: Data Visualization

2.D1.3 display sets of data, using one-to-one correspondence, in concrete graphs, pictographs, line plots, and bar graphs with proper sources, titles, and labels	
Course Topics	**Activities**
D1 Data Collection & organisation	Tally Charts
Topics	**Skill Quests**
Pictographs, line plots, and bar graphs	Representing and reading data in pictographs
	Representing and reading data in line plots
	Representing and reading data in bar graphs

D1. Data Literacy: Data Analysis

2.D1.4 identify the mode(s), if any, for various data sets presented in concrete graphs, pictographs, line plots, bar graphs, and tables, and explain what this measure indicates about the data	
Course Topics	**Activities**
D1 Data Collection & organisation	Mode
Topics	**Skill Quests**
Identify and explain the mode	Identifying and explaining the mode

2.D1.5 analyse different sets of data presented in various ways, including in logic diagrams, line plots, and bar graphs, by asking and answering questions about the data and drawing conclusions, then make convincing arguments and informed decisions	
Course Topics	**Activities**
D1 Data Collection & organisation	Read Graphs
	Column Graphs
	Interpreting Tables
	Line Plots
Topics	**Skill Quests**
Analyse data	Analysing data in a line plot
	Analysing data in a bar graph
	Analysing data in a logic diagram

D2. Probability: Probability

2.D2.1 use mathematical language, including the terms “impossible”, “possible”, and “certain”, to describe the likelihood of complementary events happening, and use that likelihood to make predictions and informed decisions	
Course Topics	**Activities**
D2 Probability	Will it Happen?
	Fair Games
Topics	**Skill Quests**
Probability: complementary events	Exploring complementary events
	Using probability language, complementary events

2.D2.2 make and test predictions about the likelihood that the mode(s) of a data set from one population will be the same for data collected from a different population	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Teacher directed	

E. Spatial Sense

E1. Geometry: Geometric Reasoning

2.E1.1 sort and identify two-dimensional shapes by comparing number of sides, side lengths, angles, and number of lines of symmetry	
Course Topics	**Activities**
E1 Geometry	Count Sides and Corners
	Sides, Angles and Diagonals
	Collect the Shapes 2
	Shapes
	Symmetry
Topics	**Skill Quests**
Sort and identify two-dimensional shapes	Comparing two-dimensional shapes
	Identifying and naming two-dimensional shapes
	Sorting two-dimensional shapes
	Recognizing line symmetry

2.E1.2 compose and decompose two-dimensional shapes, and show that the area of a shape remains constant regardless of how its parts are rearranged	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Teacher directed	

2.E1.3 identify congruent lengths and angles in two-dimensional shapes by mentally and physically matching them, and determine if the shapes are congruent	
Course Topics	**Activities**
E1 Geometry	Congruent Figures (Dot Grid)
	Equal Areas
Topics	**Skill Quests**
Introduce congruent shapes	Introducing congruent shapes

E1. Geometry: Location and Movement

2.E1.4 create and interpret simple maps of familiar places	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Create and interpret simple maps	Creating and interpreting simple maps

2.E1.5 describe the relative positions of several objects and the movements needed to get from one object to another	
Course Topics	**Activities**
E1 Geometry	Where is it?
	Left or Right?
Topics	**Skill Quests**
Describe relative positions & movements	Describing relative positions & movements

E2. Measurement: Length

2.E2.1 choose and use non-standard units appropriately to measure lengths, and describe the inverse relationship between the size of a unit and the number of units needed	
Course Topics	**Activities**
E2 Measurement	Measuring Length with Blocks
	Compare Length
	Compare Length 1
Topics	**Skill Quests**
Measure length, non-standard units	Measuring length, non-standard units
	Measuring length using unit iteration

2.E2.2 explain the relationship between centimetres and metres as units of length, and use benchmarks for these units to estimate lengths	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Introduce centimetres and metres	Introducing formal units for length: centimetres

2.E2.3 measure and draw lengths in centimetres and metres, using a measuring tool, and recognize the impact of starting at points other than zero	
Course Topics	**Activities**
E2 Measurement	How Long is That?
Topics	**Skill Quests**
Measure in metres and centimetres	Measuring in metres and centimetres

E2. Measurement: Time

2.E2.4 use units of time, including seconds, minutes, hours, and non-standard units, to describe the duration of various events	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Use units of time to describe duration	Introducing formal units for time: hours
	Introducing formal units for time: minutes
	Introducing formal units for time: seconds

F. Financial Literacy

F1. Money and Finances: Money Concepts

2.F1.1 identify different ways of representing the same amount of money up to Canadian 200¢ using various combinations of coins, and up to $200 using various combinations of $1 and $2 coins and $5, $10, $20, $50, and $100 bills	
Course Topics	**Activities**
F1 Money Concepts	Skip Counting with Coins
	Money
	Who's got the Money?
Topics	**Skill Quests**
Represent amounts of money	Using bills and coins to make amounts

Grade 3

B. Number

B1. Number Sense: Whole Numbers

3.B1.1 read, represent, compose, and decompose whole numbers up to and including 1000, using a variety of tools and strategies, and describe various ways they are used in everyday life	
Course Topics	**Activities**
B1 Whole Number	Model Numbers
	Place Value 2
	Understanding Place Value 1
	Place Value Partitioning
Topics	**Skill Quests**
Numbers up to 1000	Reading and writing 3-digit numbers
	Using place value to partition 3-digit numbers
	Non-standard partitioning, 3-digit numbers

3.B1.2 compare and order whole numbers up to and including 1000, in various contexts	
Course Topics	**Activities**
B1 Whole Number	Which is Bigger?
	Which is Smaller?
	Ascending Order
	Descending Order
Topics	**Skill Quests**
Compare and order numbers to 1000	Comparing numbers to 1000
	Ordering numbers to 1000

3.B1.3 round whole numbers to the nearest ten or hundred, in various contexts	
Course Topics	**Activities**
B1 Whole Number	Nearest 100?
	Nearest 10?
Topics	**Skill Quests**
Round numbers up to 1000	Rounding numbers to the nearest ten
	Rounding numbers to the nearest hundred

3.B1.4 count to 1000, including by 50s, 100s, and 200s, using a variety of tools and strategies	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Count to 1000	Counting by 10s to 1000, forward and backward
	Counting by 2s to 1000, forward and backward
	Counting by 5s to 1000, forward and backward
	Counting by 100s to 1000, forward and backward
	Counting by 20s to 1000, forward and backward
	Counting by 50s to 1000, forward and backward
	Counting by 200s to 1000, forward and backward

3.B1.5 use place value when describing and representing multi-digit numbers in a variety of ways, including with base ten materials	
Course Topics	**Activities**
B1 Whole Number	Model Numbers
	Place Value 2
	Place Value Partitioning
Topics	**Skill Quests**
Place value to 1000	Identifying place value: 3-digit numbers
	Solving place value problems: 3-digit numbers

B1. Number Sense: Fractions

3.B1.6 use drawings to represent, solve, and compare the results of fair-share problems that involve sharing up to 20 items among 2, 3, 4, 5, 6, 8, and 10 sharers, including problems that result in whole numbers, mixed numbers, and fractional amounts	
Course Topics	**Activities**
B1 Fractions	Dividing Threes
	Dividing Fours
	Dividing Fives
	Dividing Sixes
	Dividing Eights
	Dividing Tens
Topics	**Skill Quests**
Fair-share problems	Fair-share problems

3.B1.7 represent and solve fair-share problems that focus on determining and using equivalent fractions, including problems that involve halves, fourths, and eighths; thirds and sixths; and fifths and tenths	
Course Topics	**Activities**
B1 Fractions	Fractions of a Collection 2
	Fractions of a Collection
Topics	**Skill Quests**
Equivalent fraction fair-share problems	Equivalent fraction fair-share problems
	Investigating equivalent fractions

B2. Operations: Properties and Relationships

3.B2.1 use the properties of operations, and the relationships between multiplication and division, to solve problems and check calculations	
Course Topics	**Activities**
B2 Multiplication & Division	Multiplication Grids
	Related Facts 2
	Fact Families: Multiply and Divide
Topics	**Skill Quests**
Multiplication & division relationships	Properties of multiplication
	Understanding division, unknown-factor problem
	Modelling multiplication & division relationships

B2. Operations: Math Facts

3.B2.2 recall and demonstrate multiplication facts of 2, 5, and 10, and related division facts	
Course Topics	**Activities**
B2 Multiplication & Division	Groups of Two
	Groups of Five
	Groups of Ten
Topics	**Skill Quests**
Multiplication/division facts: 2, 5, 10	Multiplication facts: 2
	Multiplication facts: 5
	Multiplication facts: 10
	Division facts: 2
	Division facts: 5
	Division facts: 1

B2. Operations: Mental Math

3.B2.3 use mental math strategies, including estimation, to add and subtract whole numbers that add up to no more than 1000, and explain the strategies used	
Course Topics	**Activities**
B2 Addition & Subtraction	Estimate Sums
	Estimate Differences
	Jump Add and Subtract
	Split Add and Subtract
	Compensation – Add
	Add 3 Numbers: Bonds to 100
	Mental Subtraction
	Compensation - Subtract
Topics	**Skill Quests**
Mental math: add/subtract to 1000	Add 2-/3-digit numbers mentally, place value
	Subtract 2-/3-digit numbers mentally, place value
	Add and subtract 2-/3-digit number, place value
	Subtract two 3-digit numbers mentally, place value
	Estimation: addition/subtraction

B2. Operations: Addition and Subtraction

3.B2.4 demonstrate an understanding of algorithms for adding and subtracting whole numbers by making connections to and describing the way other tools and strategies are used to add and subtract	
Course Topics	**Activities**
B2 Addition & Subtraction	Add Three 1-Digit Numbers
	Columns that Add
	Column Addition 1
	Add Two 2-Digit Numbers: Exchanging (UK)
	Add 3-Digit Numbers
	Subtract Numbers
	Subtract Numbers: Regroup
	Columns that Subtract
	Column Subtraction Method
	2-Digit Differences
	3-Digit Differences
	3-Digit Differences: 1 Regrouping
Topics	**Skill Quests**
Teacher directed	Teacher directed

3.B2.5 represent and solve problems involving the addition and subtraction of whole numbers that add up to no more than 1000, using various tools and algorithms	
Course Topics	**Activities**
B2 Addition & Subtraction	Add Three 1-Digit Numbers
	Columns that Add
	Column Addition 1
	Add Two 2-Digit Numbers: Exchanging (UK)
	Add 3-Digit Numbers
	Subtract Numbers
	Subtract Numbers: Regroup
	Columns that Subtract
	Column Subtraction Method
	2-Digit Differences
	3-Digit Differences
	3-Digit Differences: 1 Regrouping
Topics	**Skill Quests**
Add and subtract within 1000	Create/solve addition & subtraction word problems
	Add/subtract using the number line
	Add/subtract using place value
	Add/subtract using rounding and compensating
	Add/subtract using expanded form
	Represent add/subtract problems using a bar model
	Add/subtract using an algorithm

B2. Operations: Multiplication and Division

3.B2.6 represent multiplication of numbers up to 10 × 10 and division up to 100 ÷ 10, using a variety of tools and drawings, including arrays	
Course Topics	**Activities**
B2 Multiplication & Division	Frog Jump Multiplication
	Frog Jump Division
	Multiplication Grids
	Related Facts 2
	Fact Families: Multiply and Divide
	Bar Model ×÷
	Model Multiplication to 5 × 5
	Multiplication Arrays
	Arrays 1
	Arrays 2
	Groups of Two
	Groups of Five
	Groups of Ten
Topics	**Skill Quests**
	Introducing and describing arrays

Represent multiplication/ division to 100	Using arrays to add or subtract another group
	Representing multiplication up to 10 × 10, models
	Representing division up to 100 ÷ 10, models

3.B2.7 represent and solve problems involving multiplication and division, including problems that involve groups of one half, one fourth, and one third, using tools and drawings	
Course Topics	**Activities**
B2 Multiplication & Division	Make Fair Shares
	Fraction Fruit Sets 1
Topics	**Skill Quests**
Solve multiplication/division problems	Use repeated addition to multiply
	Divide by sharing and grouping
	Create/solve problems, sharing and grouping
	Use repeated subtraction to divide
	Multiply/divide, models (2x, 5x, 10x)
	Solve multiplication problems, sharing/grouping
	Solve multiplication/division problems, arrays
	Repeated addition/subtraction, unit fractions

3.B2.8 represent the connection between the numerator of a fraction and the repeated addition of the unit fraction with the same denominator using various tools and drawings, and standard fractional notation	
Course Topics	**Activities**
B2 Fractions	Model Fractions
	Uneven partitioned shapes 1
	Uneven partitioned shapes 2
Topics	**Skill Quests**
Understand the numerator	Using models to add unit fractions

3.B2.9 use the ratios of 1 to 2, 1 to 5, and 1 to 10 to scale up numbers and to solve problems	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Use ratios to scale up numbers	Using ratios to scale up numbers with models

C. Algebra

C1. Patterns and Relationships: Patterns

3.C1.1 identify and describe repeating elements and operations in a variety of patterns, including patterns found in real-life contexts	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Identify/describe repeating patterns	Identify/describe repeating number patterns

3.C1.2 create and translate patterns that have repeating elements, movements, or operations using various representations, including shapes, numbers, and tables of values	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Create repeating patterns	Creating repeating patterns using given attributes
	Identifying and creating number patterns

3.C1.3 determine pattern rules and use them to extend patterns, make and justify predictions, and identify missing elements in patterns that have repeating elements, movements, or operations	
Course Topics	**Activities**
C1 Patterns	Pick the Next Number
	Describing Patterns
	Increasing Patterns
	Decreasing Patterns
Topics	**Skill Quests**
Create/extend/describe repeating pattern	Creating/extending/describing repeating patterns

3.C1.4 create and describe patterns to illustrate relationships among whole numbers up to 1000	
Course Topics	**Activities**
C1 Patterns	Odd and Even Numbers 1
Topics	**Skill Quests**
Describe patterns in numbers to 1000	Describing/recognizing patterns in numbers to 1000

C2. Equations and Inequalities: Variables

3.C2.1 describe how variables are used, and use them in various contexts as appropriate	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Teacher directed	

C2. Equations and Inequalities: Equalities and Inequalities

3.C2.2 determine whether given sets of addition, subtraction, multiplication, and division expressions are equivalent or not	
Course Topics	**Activities**
C2 Variables	Equivalent Facts: Multiply
Topics	**Skill Quests**
Recognize equivalent expressions	Recognizing equivalent expressions, 4 operations

C3. Coding: Coding Skills

3.C3.1 solve problems and create computational representations of mathematical situations by writing and executing code, including code that involves sequential, concurrent, and repeating events	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Write code for different types of events	Write code for different types of events

3.C3.2 read and alter existing code, including code that involves sequential, concurrent, and repeating events, and describe how changes to the code affect the outcomes	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Read code for different types of events	Read code for different types of events

D. Data

D1. Data Literacy: Data Collection and Organization

3.D1.1 sort sets of data about people or things according to two and three attributes, using tables and logic diagrams, including Venn, Carroll, and tree diagrams, as appropriate	
Course Topics	**Activities**
D1 Data	Venn Diagram 1
	Carroll Diagram
	Tree Diagram
Topics	**Skill Quests**
Sort data according to 2–3 attributes	Carroll and Venn diagrams
	Tree diagrams
	Sorting data in logic diagrams

3.D1.2 collect data through observations, experiments, and interviews to answer questions of interest that focus on qualitative and quantitative data, and organize the data using frequency tables	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Collect and organize data in tables	Collecting and organizing data in tables

D1. Data Literacy: Data Visualization

3.D1.3 display sets of data, using many-to-one correspondence, in pictographs and bar graphs with proper sources, titles, and labels, and appropriate scales	
Course Topics	**Activities**
D1 Data	Making Picture Graphs: With Scale
	Tally Charts
Topics	**Skill Quests**
Graphs: pictographs, bar graphs	Bar graphs, many-to-one correspondence
	Pictographs, many-to-one correspondence

D1. Data Literacy: Data Analysis

3.D1.4 determine the mean and identify the mode(s), if any, for various data sets involving whole numbers, and explain what each of these measures indicates about the data	
Course Topics	**Activities**
D1 Data	Mode
	Mode from Frequency Table
Topics	**Skill Quests**
Mean and mode	Determining and explaining the mean
	Determining and explaining the mode

3.D1.5 analyse different sets of data presented in various ways, including in frequency tables and in graphs with different scales, by asking and answering questions about the data and drawing conclusions, then make convincing arguments and informed decisions	
Course Topics	**Activities**
D1 Data	Column Graphs
	Reading from a Column Graph
	Picture Graphs: with scale & half symbols
	Interpreting Tables
	Line Plots
	Mode from Frequency Table
Topics	**Skill Quests**
Analyse data, various data displays	Analysing data in pictographs, different scales
	Analysing data in bar graphs, different scales
	Analysing data in tables and lists

D2. Probability: Probability

3.D2.1 use mathematical language, including the terms “impossible”, “unlikely”, “equally likely”, “likely”, and “certain”, to describe the likelihood of events happening, and use that likelihood to make predictions and informed decisions	
Course Topics	**Activities**
D2 Probability	Chance Gauge
	Will it Happen?
	Most Likely and Least Likely
	Possible Outcomes
Topics	**Skill Quests**
Use the language of probability	Using the language of probability

3.D2.2 make and test predictions about the likelihood that the mean and the mode(s) of a data set will be the same for data collected from different populations	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Teacher directed	

E. Spatial Sense

E1. Geometric and Spatial Reasoning: Geometric and Spatial Reasoning

3.E1.1 sort, construct, and identify cubes, prisms, pyramids, cylinders, and cones by comparing their faces, edges, vertices, and angles	
Course Topics	**Activities**
E1 Geometric & Spatial Reasoning	Faces, Edges and Vertices
	Collect the Objects
	Collect the Objects 2
	What Prism am I?
	What Pyramid am I?
	Naming 3D Objects
Topics	**Skill Quests**
Three-dimensional objects	Introducing cones
	Introducing cubes
	Introducing cylinders
	Introducing prisms
	Introducing pyramids
	Comparing, sorting, and naming prisms and pyramids
	Making basic models of three-dimensional objects
	Faces, edges, and vertices
	Sorting three-dimensional objects
	Comparing three-dimensional objects

3.E1.2 compose and decompose various structures, and identify the two-dimensional shapes and three-dimensional objects that these structures contain	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Teacher directed	

3.E1.3 identify congruent lengths, angles, and faces of three-dimensional objects by mentally and physically matching them, and determine if the objects are congruent	
Course Topics	**Activities**
E1 Geometric & Spatial Reasoning	Congruent Figures: Find Values
Topics	**Skill Quests**
Identify congruency in 3D objects	Identifying congruency in 3D objects

E1. Geometric and Spatial Reasoning: Location and Movement

3.E1.4 give and follow multistep instructions involving movement from one location to another, including distances and half- and quarter-turns	
Course Topics	**Activities**
E1 Geometric & Spatial Reasoning	Following Directions
Topics	**Skill Quests**
Give and follow multistep instructions	Giving instructions

E2. Measurement: Length, Mass, and Capacity

3.E2.1 use appropriate units of length to estimate, measure, and compare the perimeters of polygons and curved shapes, and construct polygons with a given perimeter	
Course Topics	**Activities**
E2 Measurement	Perimeter of Shapes
	Perimeter: Triangles 2
	Which Unit of Measurement?
	Which Measuring Tool?
Topics	**Skill Quests**
Perimeter: polygons and curved shapes	Introducing perimeter
	Calculating the perimeters of regular polygons

3.E2.2 explain the relationships between millimetres, centimetres, metres, and kilometres as metric units of length, and use benchmarks for these units to estimate lengths	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Length: mm, cm, m, km	Introducing formal units for length: millimetres
	Introducing formal units for length: kilometres
	Metres and centimetres
3.E2.3 use non-standard units appropriately to estimate, measure, and compare capacity, and explain the effect that overfilling or underfilling, and gaps between units, have on accuracy	
Course Topics	**Activities**
E2 Measurement	Using a Litre
Topics	**Skill Quests**
Capacity: non-standard units	Comparing and ordering capacity

E2. Measurement: Mass

3.E2.4 compare, estimate, and measure the mass of various objects, using a pan balance and non-standard units	
Course Topics	**Activities**
E2 Measurement	How Heavy?
Topics	**Skill Quests**
Compare, estimate, and measure mass	Compare and order mass, informal units
	Compare, describe, and order mass, pan balance

3.E2.5 use various units of different sizes to measure the same attribute of a given item, and demonstrate that even though using different-sized units produces a different count, the size of the attribute remains the same	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Teacher directed	

E2. Measurement: Time

3.E2.6 use analog and digital clocks and timers to tell time in hours, minutes, and seconds	
Course Topics	**Activities**
E2 Measurement	Five Minute Times
Topics	**Skill Quests**
Tell time	Telling time to the hour
	Telling time to the hour and half hour
	Telling time to the quarter hour
	Telling time to five minutes
	Telling time to the minute

E2. Measurement: Area

3.E2.7 compare the areas of two-dimensional shapes by matching, covering, or decomposing and recomposing the shapes, and demonstrate that different shapes can have the same area	
Course Topics	**Activities**
E2 Measurement	Equal Areas
	Bigger or Smaller Shape
Topics	**Skill Quests**
Compare areas using direct comparison	Comparing areas using direct comparison

3.E2.8 use appropriate non-standard units to measure area, and explain the effect that gaps and overlaps have on accuracy	
Course Topics	**Activities**
E2 Measurement	Equal Areas
	Bigger or Smaller Shape
Topics	**Skill Quests**
Measure area using non-standard units	Measuring area using non-standard units

3.E2.9 use square centimetres (cm2) and square metres (m2) to estimate, measure, and compare the areas of various two-dimensional shapes, including those with curved sides	
Course Topics	**Activities**
E2 Measurement	Area of Shapes
Topics	**Skill Quests**
Estimate/measure/compare area: cm^2, m^2	Introducing formal units for area: cm^2
	Introducing formal units for area: m^2
	Estimate and measure areas of rectangles
	Compare and order rectangular areas
	Approximate/compare areas, non-rectilinear shapes

F Financial Literacy

F1 Money and Finances: Money Concepts

3.F1.1 estimate and calculate the change required for various simple cash transactions involving whole-dollar amounts and amounts of less than one dollar	
Course Topics	**Activities**
F1 Financial Literacy	How much Change?
Topics	**Skill Quests**
Estimate and calculate change	Estimating and calculating change

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