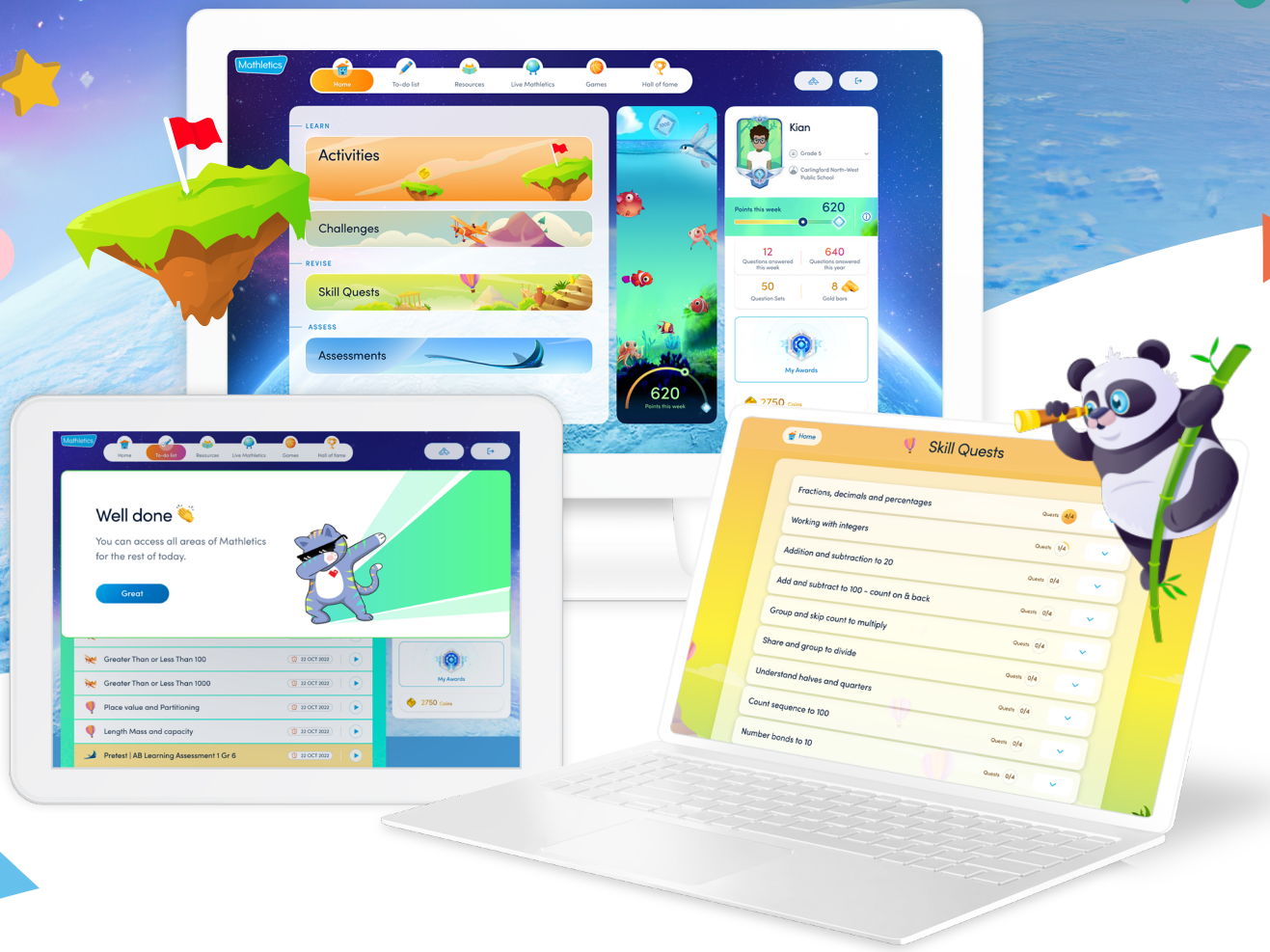
Mathletics

The Ontario Curriculum

Skill Quests & Activities



Grades 4-6

September 2023

Mathletics

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Skill Quests & Activities

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Grade 4

B. Number

B1 Number Sense: Whole Numbers

B1.1 Whole Numbers: read, represent, compose, and decompose whole numbers up to and including 10 000, using appropriate tools and strategies, and describe various ways they are used in everyday life	
Quests	**Content**
Numbers up to 10 000	Reading & writing 4-digit numbers
	Using place value to partition 4-digit numbers
	Identifying place value: 4-digit numbers
Course Topic	**Activities Title**
B1 Whole Number	Expanding Numbers
	Place Value to Thousands
	Place Value 3
	Understanding Place Value 2 (CAN)

B1.2 Whole Numbers: compare and order whole numbers up to and including 10 000, in various contexts	
Quests	**Content**
Compare & order 4-digit numbers	Comparing & ordering 4-digit numbers
Course Topic	**Activities Title**
B1 Whole Number	Put in Order 1
	Smallest and largest numbers
	Which Is Greater?
	Which Is Less?
	Greater Than or Less Than?
	Ascending Order
	Descending Order
	Missing Numbers 1
	Greater Than or Less Than 1

B1.3 Whole Numbers: round whole numbers to the nearest ten, hundred, or thousand, in various contexts	
Quests	**Content**
Round 4-digit numbers	Rounding 4-digit numbers
Course Topic	**Activities Title**
B1 Whole Number	Nearest Hundred?

	Nearest Thousand?

B1 Number Sense: Fractions & Decimals

B1.4 Fractions and Decimals: represent fractions from halves to tenths using drawings, tools, and standard fractional notation, and explain the meanings of the denominator and the numerator	
Quests	**Content**
Represent fractions, halves to tenths	Introducing the terms numerator & denominator
	Representing halves, fourths & eighths
	Representing thirds & sixths
	Representing fifths & tenths
Course Topic	**Activities Title**
B1 Fractions & Decimals	Compare Fractions 1a
	Counting with Fractions on a Number Line
	Partition into Equal Parts
	What fraction is Shaded 1

B1.5 Fractions and Decimals: use drawings and models to represent, compare, and order fractions representing the individual portions that result from two different fair-share scenarios involving any combination of 2, 3, 4, 5, 6, 8, and 10 sharers	
Quests	**Content**
Compare & order fractions with models	Comparing & ordering fractions with models
	Comparing fractions, same numerator or denominator
Course Topic	**Activities Title**
B1 Fractions & Decimals	Comparing Fractions 1
	Compare Fractions 1a
	Counting with Fractions on a Number Line
	Fractions of a Collection 2
	Uneven partitioned shapes 1
	Uneven partitioned shapes 2
	Fraction Length Models 1
	Fraction Fruit Sets 2

B1.6 Fractions and Decimals: count to 10 by halves, thirds, fourths, fifths, sixths, eighths, and tenths, with and without the use of tools	
Quests	**Content**
Counting in fractions	Counting up to 10 in halves & fourths
	Counting in thirds on a number line up to 3
	Counting in tenths

	Counting in fractions
Course Topic	**Activities Title**
B1 Fractions & Decimals	Counting with Fractions on a Number Line

B1.7 Fractions and Decimals: read, represent, compare, and order decimal tenths, in various contexts	
Quests	**Content**
Decimal tenths	Introducing decimal tenths
	Comparing & ordering decimal tenths
Course Topic	**Activities Title**
Teacher directed	Teacher directed

B1.8 Fractions and Decimals: round decimal numbers to the nearest whole number, in various contexts	
Quests	**Content**
Round decimal tenths	Round decimal tenths, nearest whole
Course Topic	**Activities Title**
Teacher directed	Teacher directed

B1.9 Fractions and Decimals: describe relationships and show equivalences among fractions and decimal tenths, in various contexts	
Quests	**Content**
Equivalence, fractions & decimal tenths	Connecting decimal tenths to common fractions
Course Topic	**Activities Title**
Teacher directed	Teacher directed

B2 Operations: Operations

B2.1 Properties and Relationships: use the properties of operations, and the relationships between addition, subtraction, multiplication, and division, to solve problems involving whole numbers, including those requiring more than one operation, and check calculations	
Quests	**Content**
Inverse operations & properties	The distributive property
	The commutative property
	The associative property
	Inverse relationships, addition & subtraction
	Inverse relationships, multiplication & division

Course Topic	Activities Title
B2 Multiplication & Division Facts	Multiplication Turn-Abouts
	Related Facts 2
	Fact Families: Multiply and Divide
B2 Addition and Subtraction	Fact Families: Add and Subtract

B2.2 Math Facts: recall and demonstrate multiplication facts for 1 × 1 to 10 × 10, and related division facts	
Quests	**Content**
Multiplication/division facts, 1–10	Recalling multiplication facts for 2, 5 & 10
	Recalling multiplication facts for 3, 6 & 9
	Recalling multiplication facts for 4 & 8
	Recalling multiplication facts for 7
	Recalling multiplication facts up to 10 × 10
	Recalling the division facts for 2, 5 & 10
	Recalling the division facts for 3, 6 & 9
	Recalling division facts for 4 & 8
	Recalling division facts for 7
Course Topic	**Activities Title**
B2 Multiplication & Division Facts	Groups of Three
	Groups of Four
	Groups of Six
	Groups of Seven
	Groups of Eight
	Groups of Nine
	Dividing by Seven
	Dividing by Eight
	Dividing by Nine
	Times Tables
	Multiplication Turn-Abouts
	Related Facts 2
	Fact Families: Multiply and Divide
	Division Facts 1
	Problems: Times and Divide
	Problems: Multiply and Divide 1
	Multiply Multiples of 10
	Multiplying Whole Numbers by 10, 100, and 1000
	Dividing Whole Numbers by 10, 100, 1000
	Remainders by Arrays

B2.3 Mental Math: use mental math strategies to multiply whole numbers by 10, 100, and 1000, divide whole numbers by 10, and add and subtract decimal tenths, and explain the strategies used	
Quests	**Content**
Mental math: add/subtract decimal tenths	Adding & subtracting tenths, mental strategies
Multiply & divide by 10, 100, 1000	Multiply/divide whole numbers by 10, 100 & 1000
	Dividing whole numbers by 10
Course Topic	**Activities Title**
B2 Multiplication & Division Facts	Groups of Three
	Groups of Four
	Groups of Six
	Groups of Seven
	Groups of Eight
	Groups of Nine
	Dividing by Seven
	Dividing by Eight
	Dividing by Nine
	Times Tables
	Multiplication Turn-Abouts
	Related Facts 2
	Fact Families: Multiply and Divide
	Division Facts 1
	Problems: Multiply and Divide 1
	Multiply and Divide Problems 1

B2.4 Addition and Subtraction: represent and solve problems involving the addition and subtraction of whole numbers that add up to no more than 10 000 and of decimal tenths, using appropriate tools and strategies, including algorithms	
Quests	**Content**
Add & subtract decimal tenths	Adding decimal tenths
	Subtracting decimal tenths
Add & subtract whole numbers to 10 000	Add numbers up to 5 digits, mental strategies
	Add numbers up to 4 digits, algorithm
	Subtract numbers up to 5 digits, mental strategies
	Subtract numbers up to 4 digits, algorithm
Course Topic	**Activities Title**
B2 Addition and Subtraction	Compensation – Add
	Compensation – Subtract
	Column Addition 2
	Add Two 2-Digit Numbers
	Add 3-Digit Numbers
	Add Two 2-Digit Numbers: Regroup

	Add Numbers: Regroup a Ten
	Add Three 2-Digit Numbers: Regroup
	Add 3-Digit Numbers: Regroup
	3-Digit Differences
	2-Digit Differences: Regroup
	3-Digit Differences: 1 Regrouping
	3-Digit Differences: 2 Regroupings
	3-Digit Differences with Zeros
	Estimation: Add and Subtract

B2.5 Multiplication and Division: represent and solve problems involving the multiplication of two- or three-digit whole numbers by one-digit whole numbers and by 10, 100, and 1000, using appropriate tools, including arrays

Quests	Content
Multiply 2-digit & 3-digit numbers	Multiplying by 100
	Multiplication strategies
Course Topic	**Activities Title**
B2 Multiplication & Division Facts	Problems: Times and Divide
	Multiply and Divide Problems 1
	Multiply Multiples of 10
	Multiplying Whole Numbers by 10, 100, and 1000
	Dividing Whole Numbers by 10, 100, 1000
	Remainders by Arrays

B2.6 Multiplication and Division: represent and solve problems involving the division of two- or three-digit whole numbers by one-digit whole numbers, expressing any remainder as a fraction when appropriate, using appropriate tools, including arrays

Quests	Content
Divide 2-digits & 3-digits by 1-digit	Division strategies
	Dividing using place value
	Dividing with remainders
Course Topic	**Activities Title**
Teacher directed	Teacher directed

B2.7 Multiplication and Division: represent the relationship between the repeated addition of a unit fraction and the multiplication of that unit fraction by a whole number, using tools, drawings, and standard fractional notation

Quests	Content
Multiply unit fractions by whole numbers	Multiply unit fractions by whole numbers, models
Teacher directed	Teacher directed

B2.8 Multiplication and Division: show simple multiplicative relationships involving whole-number rates, using various tools and drawings	
Quests	**Content**
Solve problems involving rates	Solving problems involving rates
Course Topic	**Activities Title**
Teacher directed	Teacher directed

C. Algebra

C1. Algebra: Patterns

C1.1 Patterns: identify and describe repeating and growing patterns, including patterns found in real-life contexts	
Quests	**Content**
ID/describe repeating & growing patterns	Identifying & describing growing patterns
	Identifying & describing repeating patterns
Course Topic	**Activities Title**
C1 Patterns	Table of Values

C1.2 Patterns: create and translate repeating and growing patterns using various representations, including tables of values and graphs	
Quests	**Content**
Create repeating & growing patterns	Creating growing patterns
	Creating repeating patterns
Course Topic	**Activities Title**
C1 Patterns	Table of Values

C1.3 Patterns: determine pattern rules and use them to extend patterns, make and justify predictions, and identify missing elements in repeating and growing patterns	
Quests	**Content**
Pattern rules: repeating & growing	Investigating number patterns
	Finding a rule for a given shape pattern
Course Topic	**Activities Title**
C1 Patterns	Find the Missing Number 1
	Find the Missing Number 2

C1.4 Patterns: create and describe patterns to illustrate relationships among whole numbers and decimal tenths	
Quests	**Content**
Patterns: whole numbers & decimal tenths	Patterns: whole numbers & decimal tenths
Course Topic	**Activities Title**
Teacher directed	Teacher directed

C.2 Algebra: Variables

C2.1 Variables: identify and use symbols as variables in expressions and equations	
Quests	**Content**
Teacher directed	Teacher directed
Course Topic	**Activities Title**
C2 Variables	Word Problems with Letters

C2. Algebra: Equalities & Inequalities

C2.2 Equalities and Inequalities: solve equations that involve whole numbers up to 50 in various contexts, and verify solutions	
Quests	**Content**
Solve equations	Solving 1-step equations
Course Topic	**Activities Title**
C2 Variables	Magic Symbols 1
	Magic Symbols 2
	Missing Numbers: Variables

C2.3 Equalities and Inequalities: solve inequalities that involve addition and subtraction of whole numbers up to 20, and verify and graph the solutions	
Quests	**Content**
Solve inequalities	Solving inequalities
Course Topic	**Activities Title**
Teacher directed	Teacher directed

C3. Algebra: Coding

C3.1 Coding Skills: solve problems and create computational representations of mathematical situations by writing and executing code, including code that involves sequential, concurrent, repeating, and nested events	
Quests	**Content**
Teacher directed	Teacher directed
Course Topic	**Activities Title**
Teacher directed	Teacher directed

C3.2 Coding Skills: read and alter existing code, including code that involves sequential, concurrent, repeating, and nested events, and describe how changes to the code affect the outcomes	
Quests	**Content**
Teacher directed	Teacher directed
Course Topic	**Activities Title**
Teacher directed	Teacher directed

D. Data

D1. Data: Data Literacy

D1.1 Data Collection and Organization: describe the difference between qualitative and quantitative data, and describe situations where each would be used	
Quests	**Content**
Qualitative & quantitative data	Identifying qualitative & quantitative data
Course Topic	**Activities Title**
Teacher directed	Teacher directed

D1.2 Data Collection and Organization: collect data from different primary and secondary sources to answer questions of interest that involve comparing two or more sets of data, and organize the data in frequency tables and stem-and-leaf plots	
Quests	**Content**
Collect & compare data	Collecting & recording category data in tables
	Stem-and-leaf plots
Course Topic	**Activities Title**
D1 Data	Line Graphs: Explanation
	Stem and Leaf Plots: Concept

D1.3 Data Visualization: select from among a variety of graphs, including multiple-bar graphs, the type of graph best suited to represent various sets of data; display the data in the graphs with proper sources, titles, and labels, and appropriate scales; and justify their choice of graphs	
Quests	**Content**
Graphs: multiple-bar graphs	Representing data in a multiple-bar graph
	Representing data in a pictograph
Course Topic	**Activities Title**
Teacher directed	Teacher directed

D1.4 Data Visualization: create an infographic about a data set, representing the data in appropriate ways, including in frequency tables, stem-and-leaf plots, and multiple-bar graphs, and incorporating any other relevant information that helps to tell a story about the data	
Quests	**Content**
Teacher directed	Teacher directed
Course Topic	**Activities Title**
Teacher directed	Teacher directed

D1.5 Data Analysis: determine the mean and the median 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	
Quests	**Content**
Mean, median & mode	Understanding & calculating the mean
	Understanding & calculating the median
	Understanding & calculating the mode
Course Topic	**Activities Title**
D1 Data	Median
	Median from Frequency Table
	Median from Stem and Leaf Plot
	Finding the Average
	The Mean
	Mode from Stem and Leaf Plot

D1.6 Data Analysis: analyse different sets of data presented in various ways, including in stem-and-leaf plots and multiple-bar graphs, by asking and answering questions about the data and drawing conclusions, then make convincing arguments and informed decisions	
Quests	**Content**
Analyse data	Analysing data in stem-and-leaf plots
	Analysing data in multiple-bar graphs

	Analysing data in bar graphs, pictographs & tables
Course Topic	**Activities Title**
D1 Data	Line Graphs: Explanation
	Median
	Median from Frequency Table
	Median from Stem and Leaf Plot
	Finding the Average
	The Mean
	Mode from Stem and Leaf Plot

D2. Data: Probability

D2.1 Probability: use mathematical language, including the terms "impossible", "unlikely", "equally likely", "likely", and "certain", to describe the likelihood of events happening, represent this likelihood on a probability line, and use it to make predictions and informed decisions	
Quests	**Content**
Probability language	Describe the chances of everyday events occurring
Course Topic	**Activities Title**
D2 Probability	What are the Chances?
	Introductory probability

D2.2 Probability: make and test predictions about the likelihood that the mean, median, and mode(s) of a data set will be the same for data collected from different populations	
Quests	**Content**
Teacher directed	Teacher directed
Course Topic	**Activities Title**
D2 Probability	What are the Chances?
	Introductory probability

E. Spatial Sense

E1. Geometric and Spatial Reasoning: Geometric reasoning

E1.1 identify geometric properties of rectangles, including the number of right angles, parallel and perpendicular sides, and lines of symmetry	
Quests	**Content**
Teacher directed	Teacher directed
Course Topic	**Activities Title**
E1 Geometry	What Line am I?
	Collect More Shapes

	Right Angle Relation

E1. Geometric and Spatial Reasoning: Location & Movement

E1.2 plot and read coordinates in the first quadrant of a Cartesian plane, and describe the translations that move a point from one coordinate to another	
Quests	**Content**
The Cartesian plane	The Cartesian coordinate system, 1st quadrant
	Investigating translations in the 1st quadrant
Course Topic	**Activities Title**
E1 Geometry	What Line am I?
	Coordinate Graphs: 1st Quadrant
	Coordinate Meeting Place
	Map Coordinates
	Transformations
	What Direction was That?
	More Directions!

E1.3 describe and perform translations and reflections on a grid, and predict the results of these transformations	
Quests	**Content**
Translations & reflections	Translations & reflections
Course Topic	**Activities Title**
Teacher directed	Teacher directed

E. Spatial Sense: The Metric System

E2.1 explain the relationships between grams and kilograms as metric units of mass, and between litres and millilitres as metric units of capacity, and use benchmarks for these units to estimate mass and capacity	
Quests	**Content**
Mass & capacity	Introducing units of mass: the gram & kilogram
	Introducing capacity units: millilitres & litres
	Estimating capacities using millilitres & litres
Course Topic	**Activities Title**
E2 Measure	Grams and Kilograms 1
	Millilitres and Litres
	Centimetres and Metres
	Kilogram Conversions
	Litre Conversions
	Which Unit of Measurement?
	Which Measuring Tool?

	Measure to the Nearest Half Centimetre

E2.2 use metric prefixes to describe the relative size of different metric units, and choose appropriate units and tools to measure length, mass, and capacity	
Quests	**Content**
Length, mass, capacity: units & tools	Select & use metric units & tools, mass
	Select & use metric units & tools, capacity
	Select metric units, length
Course Topic	**Activities Title**
E2 Measure	Grams and Kilograms 1
	Millilitres and Litres
	Centimetres and Metres
	Kilogram Conversions
	Litre Conversions
	Which Unit of Measurement?
	Which Measuring Tool?
	Measure to the Nearest Half Centimetre

E. Spatial Sense: Time

E2.3 solve problems involving elapsed time by applying the relationships between different units of time	
Quests	**Content**
Solve problems involving elapsed time	Calculating elapsed time
Course Topic	**Activities Title**
E2 Measure	Time Mentals
	Elapsed Time
	What Time Will it Be?

E. Spatial Sense: Angles

E2.4 identify angles and classify them as right, straight, acute, or obtuse	
Quests	**Content**
Identify & classify angles	Classifying angles
Course Topic	**Activities Title**
E2 Measure	What Type of Angle?
	What Type of Angle 2?

E. Spatial Sense: Area

E2.5 use the row and column structure of an array to measure the areas of rectangles and to show that the area of any rectangle can be found by multiplying its side lengths	
Quests	**Content**
Area of rectangles, models	Finding the area of a rectangle, arrays
	Finding the area of a rectangle, area model
Course Topic	**Activities Title**
E2 Measure	Area of Shapes
	Area: Squares and Rectangles

E2.6 apply the formula for the area of a rectangle to find the unknown measurement when given two of the three	
Quests	**Content**
Area of rectangles, formula	Finding the area of rectangles, formula
Course Topic	**Activities Title**
Teacher directed	Teacher directed

F. Financial Literacy

Money & Finances: Money Concepts

F1.1 identify various methods of payment that can be used to purchase goods and services	
Quests	**Content**
Teacher directed	Teacher directed
Course Topic	**Activities Title**
Teacher directed	Teacher directed

F1.2 estimate and calculate the cost of transactions involving multiple items priced in whole-dollar amounts, not including sales tax, and the amount of change needed when payment is made in cash, using mental math	
Quests	**Content**
Calculate the purchase cost & change	Calculating the purchase cost & change
Course Topic	**Activities Title**
F1 Financial Literacy	How much Change?
	Net Pay
	Money Problems: Four Operations

Money & Finances: Financial Management

F1.3 explain the concepts of spending, saving, earning, investing, and donating, and identify key factors to consider when making basic decisions related to each	
Quests	**Content**
Teacher directed	Teacher directed
Course Topic	**Activities Title**
Teacher directed	Teacher directed

F1.4 explain the relationship between spending and saving, and describe how spending and saving behaviours may differ from one person to another	
Quests	**Content**
Teacher directed	Teacher directed
Course Topic	**Activities Title**
Teacher directed	Teacher directed

Money & Finances: Consumer and Civic Awareness

F1.5 describe some ways of determining whether something is reasonably priced and therefore a good purchase	
Quests	**Content**
Teacher directed	Teacher directed
Course Topic	**Activities Title**
Teacher directed	Teacher directed

Grade 5

B Number

B1. Number sense: Whole Numbers

B1.1 read, represent, compose, and decompose whole numbers up to and including 100 000, using appropriate tools and strategies, and describe various ways they are used in everyday life	
Quests	**Content**
Numbers up to 100 000	Reading & writing 5-digit numbers
	Identifying place value: 5-digit numbers
	Using place value to partition 5-digit numbers
	Rounding 5-digit numbers
Course Topic	**Activities Title**
B1 Whole Number	Numbers in Words
	Numbers from Words to Digits 1
	Expanding Numbers
	Understanding Place Value 3 (CAN)
	Expanded Notation
	Factors
	Find the Factor

B1.2 compare and order whole numbers up to and including 100 000, in various contexts	
Quests	**Content**
Compare & order 5-digit numbers	Comparing & ordering 5-digit numbers
Course Topic	**Activities Title**
B1 Whole Number	Put in Order 1
	Missing Numbers 2
	Rounding Numbers

B1. Number sense: Fractions, Decimals, and Percents

B1.3 represent equivalent fractions from halves to twelfths, including improper fractions and mixed numbers, using appropriate tools, in various contexts	
Quests	**Content**
Equivalent fractions	Finding equivalent fractions using multiplication

	Finding equivalent fractions using a number line
Course Topic	**Activities Title**
B1 Fractions, Decimals, & Percents	Equivalent Fraction Wall 1
	Equivalent Fraction Wall 2
	Shading Equivalent Fractions
	Equivalent Fractions on a Number Line 1

B1.4 compare and order fractions from halves to twelfths, including improper fractions and mixed numbers, in various contexts	
Quests	**Content**
Compare & order fractions	Comparing & ordering fractions
	Comparing & ordering fractions using models
Course Topic	**Activities Title**
B1 Fractions, Decimals, & Percents	Part-Whole Rods 1
	Part-Whole Rods 2
	Fraction Length Models 2
	Mixed to Improper
	Improper to Mixed
	What Mixed Number Is Shaded?
	Mixed and Improper Fractions on a Number Line
	What Fraction is Shaded?
	Converting Mixed and Improper

B1.5 read, represent, compare, and order decimal numbers up to hundredths, in various contexts	
Quests	**Content**
Decimal hundredths	Introducing decimal hundredths
Course Topic	**Activities Title**
B1 Fractions, Decimals, & Percents	Decimals from Words to Digits 1
	Decimal Place Value
	Comparing Decimals 1

B1.6 round decimal numbers to the nearest tenth, in various contexts	
Quests	**Content**
Round decimal hundredths	Round decimal hundredths, nearest whole & tenth
Course Topic	**Activities Title**
B1 Fractions, Decimals, & Percents	Nearest Whole Number
	Rounding Decimals 1

B1.7 describe relationships and show equivalences among fractions, B1.7 decimal numbers up to hundredths, and whole number percents, using appropriate tools and drawings, in various contexts	
Quests	**Content**
Fractions, decimals & percents	Connecting decimals & fractions
	Representing fractions as percents
	Representing percents & decimals
	Fraction, decimal & percent equivalence
Course Topic	**Activities Title**
B1 Fractions, Decimals, & Percents	Modelling Percentages
	Match Decimals and Percentages
	Complementary Percentages

B2. Operations: Properties and Relationships

B2.1 use the properties of operations, and the relationships between operations, to solve problems involving whole numbers and decimal numbers, including those requiring more than one operation, and check calculations	
Quests	**Content**
Inverse operations & properties	Using inverse operations to solve problems
Course Topic	**Activities Title**
B2 Multiplication and Division	Mental Methods Multiplication 1
	Mental Methods Multiplication 2
B2 Addition and Subtraction	Estimate Decimal Differences 1
	Estimate Decimal Sums 2
	Adding Colossal Columns

B2. Operations: Maths Facts

B2.2 recall and demonstrate multiplication facts from 0 × 0 to 12 × 12, and related division facts	
Quests	**Content**
Multiplication & division facts, 0–12	Multiplication properties
	Multiplication facts for 2, 5 & 10
	Multiplication facts for 3, 6 & 9
	Multiplication facts for 4 & 8
	Multiplication facts for 7
	Multiplication facts for 11 & 12
	Division facts for 2, 5 & 10
	Division facts for 3, 6 & 9

	Division facts for 7
	Division facts for 4 & 8
	Division facts for 11 & 12
	Recalling multiplication facts up to 12 × 12
Course Topic	**Activities Title**
B2 Multiplication and Division	Multiplication Facts
	Division Facts 1

B2. Operations: Mental Maths

B2.3 use mental math strategies to multiply whole numbers by 0.1 and 0.01 and estimate sums and differences of decimal numbers up to hundredths, and explain the strategies used	
Quests	**Content**
Mental math strategies, decimals	Adding & subtracting decimals, mental strategies
	Dividing whole numbers by 10
	Multiplying whole numbers by 0.1 & 0.01
Course Topic	**Activities Title**
B2 Addition and Subtraction	Estimate Decimal Differences 1
	Estimate Decimal Sums 2

B2. Operations: Addition & Subtraction

B2.4 represent and solve problems involving the addition and subtraction of whole numbers that add up to no more than 100 000, and of decimal numbers up to hundredths, using appropriate tools, strategies, and algorithms	
Quests	**Content**
Add & subtract whole numbers & decimals	Adding & subtracting 5-digit numbers, algorithm
	Adding & subtracting 5-digit numbers, mentally
	Adding & subtracting decimals to hundredths
Course Topic	**Activities Title**
B2 Addition and Subtraction	Adding Colossal Columns
	Add Multi-Digit Numbers 1
	Add Decimals 1

B2.5 add and subtract fractions with like denominators, in various contexts	
Quests	**Content**
Add/subtract fractions, like denominator	Add fractions with like denominators
	Subtract fractions with like denominators

Course Topic	Activities Title
B2 Addition and Subtraction	Common Denominator
	One Take Fraction
	Subtract Like Fractions
	Add Subtract Fractions 1

B2. Operations: Multiplication & Division

B2.6 represent and solve problems involving the multiplication of two-digit whole numbers by two-digit whole numbers using the area model and using algorithms, and make connections between the two methods	
Quests	**Content**
Multiply 2-digit by 2-digit	Multiplying 2-digit numbers by 2-digit numbers
Course Topic	**Activities Title**
B2 Multiplication and Division	Grid Methods 2
	Multiply 2 Digits Area Model

B2.7 represent and solve problems involving the division of three-digit whole numbers by two-digit whole numbers using the area model and using algorithms, and make connections between the two methods, while expressing any remainder appropriately	
Quests	**Content**
Divide 3-digits by 2-digits	Dividing 2 & 3-digit numbers by 2-digit numbers
Course Topic	**Activities Title**
B2 Multiplication and Division	Long Division 1
	Divide: 2-Digit Divisor, Remainder

B2.8 multiply and divide one-digit whole numbers by unit fractions, using appropriate tools and drawings	
Quests	**Content**
Multiply & divide unit fractions	Multiplying unit fractions by whole numbers
	Dividing unit fractions by whole numbers
Course Topic	**Activities Title**
B2 Multiplication and Division	Unit Fractions
	Divide by a Unit Fraction

B2. Operations: Ratio

B2.9 represent and create equivalent ratios and rates, using a variety of tools and models, in various contexts	
Quests	**Content**
Equivalent ratios & rates	Equivalent ratios & rates
Course Topic	**Activities Title**
B2 Multiplication and Division	Ratio
	Ratios
	Equivalent Ratios
	Ratio Word Problems
	Rates Word Problems

C Algebra

C1. Patterns and Relationships: Patterns

C1.1 identify and describe repeating, growing, and shrinking patterns, including patterns found in real-life contexts	
Quests	**Content**
Identify & describe patterns	Identify/create growing & shrinking patterns
Course Topic	**Activities Title**
C1 Patterns	Pattern Rules and Tables
	Function Rules and Tables

C1.2 create and translate growing and shrinking patterns using various representations, including tables of values and graphs	
Quests	**Content**
Create growing & shrinking patterns	Creating growing & shrinking patterns
Course Topic	**Activities Title**
C1 Patterns	Function Rules and Tables

C1.3 determine pattern rules and use them to extend patterns, make and justify predictions, and identify missing elements in repeating, growing, and shrinking patterns	
Quests	**Content**
Determine rules & extend patterns	Extending repeating, growing & shrinking patterns
	Determining & using pattern rules
Course Topic	**Activities Title**
C1 Patterns	Pattern Rules and Tables

C1.4 create and describe patterns to illustrate relationships among whole numbers and decimal tenths and hundredths	
Quests	**Content**
Teacher directed	Teacher directed
Course Topic	**Activities Title**
C1 Patterns	Missing Values: Decimals

C2 Variables and Expressions: Variables and Expressions

C2.1 translate among words, algebraic expressions, and visual representations that describe equivalent relationships	
Quests	**Content**
Translate algebraic expressions	Translate among words & algebraic expressions
Course Topic	**Activities Title**
C2 Variables and Expressions	I am Thinking of a Number!
	Writing Algebraic Expressions
	Write an Equation: Word Problems

C2.2 evaluate algebraic expressions that involve whole numbers	
Quests	**Content**
Evaluate algebraic expressions	Evaluating algebraic expressions
Course Topic	**Activities Title**
C2 Variables and Expressions	Find the Missing Number 2

C2 Variables and Expressions: Equalities and Inequalities

C2.3 solve equations that involve whole numbers up to 100 in various contexts, and verify solutions	
Quests	**Content**
Solve equations, numbers up to 100	Solving equations
	Solving equations using models
Course Topic	**Activities Title**
C2 Variables and Expressions	I am Thinking of a Number!
	Find the Missing Number 2

C2.4 solve inequalities that involve one operation and whole numbers up to 50, and verify and graph the solutions	
Quests	**Content**
Solve inequalities	Solving inequalities
Course Topic	**Activities Title**
C2 Variables and Expressions	Inequalities on a Number Line: Basics
	Inequalities on a Number Line: Mixed Basics

D Data

D1 Data Literacy: Data Collection and Organization

D1.1 explain the importance of various sampling techniques for collecting a sample of data that is representative of a population	
Quests	**Content**
Teacher directed	Teacher directed
Course Topic	**Activities Title**
Teacher directed	Teacher directed

D1.2 collect data, using appropriate sampling techniques as needed, to answer questions of interest about a population, and organize the data in relative-frequency tables	
Quests	**Content**
Relative-frequency tables	Finding the relative frequency in a table
Course Topic	**Activities Title**
D1 Data	Relative Frequency

D1 Data Literacy: Data Visualization

D1.3 select from among a variety of graphs, including stacked-bar graphs, the type of graph best suited to represent various sets of data; display the data in the graphs with proper sources, titles, and labels, and appropriate scales; and justify their choice of graphs	
Quests	**Content**
Data displays	Understanding stacked-bar graphs
	Graphing relative frequency
Course Topic	**Activities Title**
Teacher directed	Teacher directed

D1.4 create an infographic about a data set, representing the data in appropriate ways, including in relative-frequency tables and stacked-bar graphs, and incorporating any other relevant information that helps to tell a story about the data	
Quests	**Content**
Teacher directed	Teacher directed
Course Topic	**Activities Title**
D1 Data	Frequency Histograms

D1 Data Literacy: Data Analysis

D1.5 determine the mean and the median and identify the mode(s), if any, for various data sets involving whole numbers and decimal numbers, and explain what each of these measures indicates about the data	
Quests	**Content**
Measures of central tendency	Understanding & calculating the mean
	Understanding & calculating the median
	Understanding & calculating the mode
Course Topic	**Activities Title**
D1 Data	Mean from Frequency Table
	Median from Frequency Table

D1.6 analyse different sets of data presented in various ways, including in stacked-bar graphs and in misleading graphs, by asking and answering questions about the data, challenging preconceived notions, and drawing conclusions, then make convincing arguments and informed decisions	
Quests	**Content**
Analyse data displays	Interpreting stacked-bar graphs
	Interpreting bar graphs
	Interpreting data in tables
	Interpreting line plots
Course Topic	**Activities Title**
D1 Data	Divided Bar Graphs
	Bar Chart

D2 Probability: Probability

D2.1 use fractions to express the probability of events happening, represent this probability on a probability line, and use it to make predictions and informed decisions	
Quests	**Content**
Express probability with fractions	Expressing probability on a probability line
	Expressing probability with fractions
Course Topic	**Activities Title**
D2 Probability	Possible Outcomes
	Find the Probability
	Probability Scale

D2.2 determine and compare the theoretical and experimental probabilities of an event happening	
Quests	**Content**
Theoretical & experimental probability	Comparing theoretical & experimental probability
Course Topic	**Activities Title**
D2 Probability	Find the Probability

E Spatial Sense

E1 Geometric and Spatial Reasoning: Geometric Reasoning

E1.1 identify geometric properties of triangles, and construct different types of triangles when given side or angle measurements	
Quests	**Content**
Classify triangles	Classifying triangles
Course Topic	**Activities Title**
E1 Geometry	Triangle Tasters

E1.2 identify and construct congruent triangles, rectangles, and parallelograms	
Quests	**Content**
Identify congruent shapes	Identifying congruent shapes
Course Topic	**Activities Title**
E1 Geometry	Congruent Figures (Grid)

E1.3 draw top, front, and side views of objects, and match drawings with objects	
Quests	**Content**
Top, front & side views of objects	Matching drawings with objects
	Top, front & side views of objects
Course Topic	**Activities Title**
Teacher directed	Teacher directed

E1 Geometric and Spatial Reasoning: Location and Movement

E1.4 plot and read coordinates in the first quadrant of a Cartesian plane using various scales, and describe the translations that move a point from one coordinate to another	
Quests	**Content**
The Cartesian plane, 1st quadrant	The Cartesian plane, 1st quadrant
	Investigating translations in the 1st quadrant
Course Topic	**Activities Title**
E1 Geometry	Coordinate Graphs: 1st Quadrant
	Using a key
	Map Coordinates
	More Directions!
	Scale

E1.5 describe and perform translations, reflections, and rotations up to 180° on a grid, and predict the results of these transformations	
Quests	**Content**
Translations, reflections & rotations	Translations, reflections & rotations
Course Topic	**Activities Title**
Teacher directed	Teacher directed

E2 Measurement: The Metric System

E2.1 use appropriate metric units to estimate and measure length, area, mass, and capacity	
Quests	**Content**
Measure in metric units	Measuring length using metric units
	Measuring mass using metric units
Course Topic	**Activities Title**
E2 Measurement	Measuring Length
	Perimeter: Squares and Rectangles
	Perimeter: Triangles

	Perimeter: Triangles 1
	Grams and Kilograms
	Converting Units of Mass
	Grams and Milligrams
	Mass Addition
	Litre Conversions

E2.2 solve problems that involve converting larger metric units into smaller ones, and describe the base ten relationships among metric units	
Quests	**Content**
Convert metric units	Converting metric units of length
	Converting metric units of mass
	Converting metric units of capacity
Course Topic	**Activities Title**
E2 Measurement	Centimetres and Metres
	Converting cm and mm
	Metres and Kilometres
	Converting Units of Length
	Capacity Addition

E2 Measurement: Angles

E2.3 compare angles and determine their relative size by matching them and by measuring them using appropriate non-standard units	
Quests	**Content**
Compare angles	Comparing angles
Course Topic	**Activities Title**
E2 Measurement	Converting Units of Area
E2 Angles	Equal Angles
	Comparing Angles

E2.4 explain how protractors work, use them to measure and construct angles up to 180°, and use benchmark angles to estimate the size of other angles	
Quests	**Content**
Teacher directed	Teacher directed
Course Topic	**Activities Title**
E2 Measurement	Converting Units of Area
E2 Angles	What Type of Angle?
	What Type of Angle 2?
	Classifying Angles
	Estimating Angles
	Labelling Angles

	Measuring Angles
	Angle Sum of a Triangle
	Exterior Angles of a Triangle

E2 Measurement: Area

E2.5 use the area relationships among rectangles, parallelograms, and triangles to develop the formulas for the area of a parallelogram and the area of a triangle, and solve related problems	
Quests	**Content**
Area: parallelograms & triangles	Finding the area of a triangle
	Finding the area of a parallelogram
Course Topic	**Activities Title**
E2 Measurement	Area: Squares and Rectangles
	Area: Triangles
	Area: Right Angled Triangles
	Area: Parallelograms (Metric)

E2.6 show that two-dimensional shapes with the same area can have different perimeters, and solve related problems	
Quests	**Content**
Area & perimeter relationships	Comparing area & perimeter of rectangles
	Solving perimeter & area problems
Course Topic	**Activities Title**
Teacher directed	Teacher directed

F. Financial Literacy

F1. Money and Finances: Money Concepts

F1.1 describe several ways money can be transferred among individuals, organizations, and businesses	
Quests	**Content**
Teacher directed	Teacher directed
Course Topic	**Activities Title**
Teacher directed	Teacher directed

F1.2 estimate and calculate the cost of transactions involving multiple items priced in dollars and cents, including sales tax, using various strategies	
Quests	**Content**
Money problems, dollars & cents	Solving money problems
Course Topic	**Activities Title**
F1 Financial Literacy	Money Problems: Four Operations
	Purchase Options
	Net Pay

F1. Money and Finances: Financial Management

F1.3 design sample basic budgets to manage finances for various earning and spending scenarios	
Quests	**Content**
Teacher directed	Teacher directed
Course Topic	**Activities Title**
F1 Financial Literacy	Budgeting

F1.4 explain the concepts of credit and debt, and describe how financial decisions may be impacted by each	
Quests	**Content**
Teacher directed	Teacher directed
Course Topic	**Activities Title**
Teacher directed	Teacher directed

F1. Money and Finances: Consumer and Civic Awareness

F1.5 calculate unit rates for various goods and services, and identify which rates offer the best value	
Quests	**Content**
Unit rate & best value	Calculating unit rate to determine the best value
Course Topic	**Activities Title**
Teacher directed	Teacher directed

F1.6 describe the types of taxes that are collected by the different levels of government in Canada, and explain how tax revenue is used to provide services in the community	
Quests	**Content**
Teacher directed	Teacher directed
Course Topic	**Activities Title**
Teacher directed	Teacher directed

Grade 6

B. Number

B1. Number Sense: Rational Numbers

B1.1 Rational Numbers: read and represent whole numbers up to and including one million, using appropriate tools and strategies, and describe various ways they are used in everyday life	
Quests	**Content**
Numbers to one million	Reading & writing 6-digit numbers
	Identifying place value: 6-digit numbers
	Using place value to partition 6-digit numbers
Course Topic	**Activities Title**
B1 Rational numbers, fractions, decimals & percents	Place Value to Millions
	Numbers from Words to Digits 1
	Numbers from Words to Digits 2
	Equal, Less or Greater than?

B1.2 read and represent integers, using a variety of tools and strategies, including horizontal and vertical number lines	
Quests	**Content**
Read & represent integers	Investigating integers
Course Topic	**Activities Title**
B1 Rational numbers, fractions, decimals & percents	Integers on a Number Line
	Ordering Integers (Number Line)
	Comparing Integers
	What's the Temperature (Celsius)?

B1.3 compare and order integers, decimal numbers, and fractions, separately and in combination, in various contexts	
Quests	**Content**
Compare/order: integer/decimal/fraction	Comparing & ordering integers
	Comparing & ordering fractions & mixed numbers
	Ordering fractions & decimals
Course Topic	**Activities Title**
B1 Rational numbers, fractions, decimals & percents	Comparing Integers
	Decimals on a Number Line
	Comparing Decimals
	Decimal Order 1

	Decimal Order
	Compare Fractions 1b

B1. Number Sense: Fractions, Decimals, and Percents

B1.4 read, represent, compare, and order decimal numbers up to thousandths, in various contexts	
Quests	**Content**
Decimals up to thousandths	Decimals up to thousandths
Course Topic	**Activities Title**
B1 Rational numbers, fractions, decimals & percents	Decimals from Words to Digits 2
	Nearest Whole Number

B1.5 round decimal numbers, both terminating and repeating, to the nearest tenth, hundredth, or whole number, as applicable, in various contexts	
Quests	**Content**
Round decimals: tenth, hundredth, whole	Rounding decimals: tenth, hundredth, whole
Course Topic	**Activities Title**
B1 Rational numbers, fractions, decimals & percents	Rounding Decimals 1

B1.6 describe relationships and show equivalences among fractions and decimal numbers up to thousandths, using appropriate tools and drawings, in various contexts	
Quests	**Content**
Relate fractions & decimals, thousandths	Relating fractions & decimals up to thousandths
Course Topic	**Activities Title**
B1 Rational numbers, fractions, decimals & percents	Fractions to Decimals
	Decimals to Fractions 1
	Decimals to Fractions 2
	Fraction to Terminating Decimal

B2. Operations: Properties & relationships

B2.1 use the properties of operations, and the relationships between operations, to solve problems involving whole numbers, decimal numbers, fractions, ratios, rates, and whole number percents, including those requiring multiple steps or multiple operations	
Quests	**Content**
Properties & inverse operations	Using inverse operations, whole numbers
	The commutative property
	The associative property
	The distributive property
Course Topic	**Activities Title**
B2 Operations - decimals, fractions, ratios & percents	Calculating Percentages (Mental)
	Percents and Decimals
	Percentage to Fraction
	Quantities to Percentages (no units)
	Fractions to Percentages (Non-Calculator)
	Adding Decimals
	Add Decimals 2
	Subtracting Decimals
	Subtract Decimals 2
	Adding and Subtracting Decimals
	Estimate Decimal Sums 1
	Estimate Decimal Differences 2
	Add: Common Denominator
	Subtract: Common Denominator
	Simplifying Fractions
	Add: No Common Denominator
	Subtract: No Common Denominator
B2 Multiplication & Division.	Divisibility Tests (2, 5, 10)
	Divisibility Tests (3, 4, 9)
	Divisibility Tests
	Tests of Divisibility 1

B2. Operations: Math Facts

B2.2 understand the divisibility rules and use them to determine whether numbers are divisible by 2, 3, 4, 5, 6, 8, 9, and 10	
Quests	**Content**
Divisibility rules	Divisibility rules for dividing by 2
	Divisibility rules for dividing by 3
	Divisibility rules for dividing by 4
	Divisibility rules for dividing by 5
	Divisibility rules for dividing by 6

	Divisibility rules for dividing by 8
	Divisibility rules for dividing by 9
	Divisibility rules for dividing by 10
	Divisibility rules: dividing by 2, 3, 4, 5, 6, 10
Course Topic	**Activities Title**
B2 Multiplication & Division.	Divisibility Tests (2, 5, 10)
	Divisibility Tests (3, 4, 9)
	Divisibility Tests
	Tests of Divisibility 1

B2. Operations: Mental Math

B2.3 use mental math strategies to calculate percents of whole numbers, including 1%, 5%, 10%, 15%, 25%, and 50%, and explain the strategies used	
Quests	**Content**
Calculate percents of whole numbers	Calculating simple percentages
Course Topic	**Activities Title**
B2 Operations - decimals, fractions, ratios & percents	Calculating Percentages (Mental)
	Percents and Decimals
	Percentage to Fraction
	Quantities to Percentages (no units)
	Fractions to Percentages (Non-Calculator)

B2. Operations: Addition & Subtraction

B2.4 represent and solve problems involving the addition and subtraction of whole numbers and decimal numbers, using estimation and algorithms	
Quests	**Content**
Add & subtract whole numbers & decimals	Adding whole numbers & decimals
	Subtracting whole numbers & decimals
Course Topic	**Activities Title**
B2 Operations - decimals, fractions, ratios & percents	Adding Decimals
	Add Decimals 2
	Subtracting Decimals
	Subtract Decimals 2
	Adding and Subtracting Decimals
	Estimate Decimal Sums 1
	Estimate Decimal Differences 2

B2.5 add and subtract fractions with like and unlike denominators, using appropriate tools, in various contexts	
Quests	**Content**
Add fractions	Adding fractions, like denominator
	Adding a whole number & a fraction
	Adding fractions, unlike denominator
Subtract fractions	Subtracting fractions, like denominator
	Subtracting a fraction from a whole number
	Subtracting fractions, unlike denominator
Course Topic	**Activities Title**
B2 Operations - decimals, fractions, ratios & percents	Add: Common Denominator
	Subtract: Common Denominator
	Simplifying Fractions
	Add: No Common Denominator
	Subtract: No Common Denominator

B2. Operations: Multiplication & Division

B2.6 represent composite numbers as a product of their prime factors, including through the use of factor trees	
Quests	**Content**
Prime & composite numbers	Introducing prime & composite numbers
Prime factors	Using prime factors
Course Topic	**Activities Title**
B2 Multiplication & Division.	Factors
	Find the Factor
	Highest Common Factor
	Multiples
	Lowest Common Multiple
	Prime or Composite?

B2.7 represent and solve problems involving the multiplication of three-digit whole numbers by decimal tenths, using algorithms	
Quests	**Content**
Multiply whole numbers by tenths	Multiplying 3-digit whole numbers by tenths
Course Topic	**Activities Title**
B2 Multiplication & Division.	Multiply Decimals: 10, 100, 1000
	Divide Decimals: 10, 100, 1000

B2.8 represent and solve problems involving the division of three-digit whole numbers by decimal tenths, using appropriate tools, strategies, and algorithms, and expressing remainders as appropriate	
Quests	**Content**
Divide whole numbers by tenths	Dividing 3-digit whole numbers by tenths
Course Topic	**Activities Title**
Teacher directed	Teacher directed

B2.9 multiply whole numbers by proper fractions, using appropriate tools and strategies	
Quests	**Content**
Multiply whole numbers & fractions	Multiplying whole numbers & proper fractions
Course Topic	**Activities Title**
B2 Multiplication & Division.	Model Fractions to Multiply
	Multiply Fraction by Whole Number
	More Fraction Problems

B2.10 divide whole numbers by proper fractions, using appropriate tools and strategies	
Quests	**Content**
Divide whole numbers by fractions	Dividing whole numbers by proper fractions
Course Topic	**Activities Title**
B2 Multiplication & Division.	Divide Whole Number by Fraction
	More Fraction Problems

B2.11 represent and solve problems involving the division of decimal numbers up to thousandths by whole numbers up to 10, using appropriate tools and strategies	
Quests	**Content**
Divide decimals by whole numbers	Dividing decimals to thousandths by whole numbers
Course Topic	**Activities Title**
Teacher directed	Teacher directed

B2.12 solve problems involving ratios, including percents and rates, using appropriate tools and strategies	
Quests	**Content**
Solve problems involving ratios	Solving problems with unit rates
	Solving ratio problems
	Expressing simple ratios as percents
	Dividing a quantity into a given ratio
	Simplifying & comparing rates
	Solving rate problems
Course Topic	**Activities Title**
B2 Multiplication & Division.	Rates Calculations
	Unitary Method
	Solve Proportions

C Algebra

C1 Patterns: Patterns

C1.1 identify and describe repeating, growing, and shrinking patterns, including patterns found in real-life contexts, and specify which growing patterns are linear	
Quests	**Content**
Identify linear growing patterns	Identifying linear growing patterns
Course Topic	**Activities Title**
C1 Patterns	Find the Pattern Rule

C1.2 create and translate repeating, growing, and shrinking patterns using various representations, including tables of values, graphs, and, for linear growing patterns, algebraic expressions and equations	
Quests	**Content**
Create patterns	Representing linear growing patterns
	Creating tables of values for linear relations
	Matching graphs & linear relations
Course Topic	**Activities Title**
C1 Patterns	Find the Pattern Rule

C1.3 determine pattern rules and use them to extend patterns, make and justify predictions, and identify missing elements in repeating, growing, and shrinking patterns, and use algebraic representations of the pattern rules to solve for unknown values in linear growing patterns	
Quests	**Content**
Linear pattern rules	Linear pattern rules
Course Topic	**Activities Title**
C1 Patterns	Pattern Rules and Tables
	Function Rules and Tables
	Linear Expressions for the Nth Term

C1.4 create and describe patterns to illustrate relationships among whole numbers and decimal numbers	
Quests	**Content**
Patterns with decimals	Multiplying decimals by 10, 100, 1000
	Dividing decimals by 10, 100, 1000
Course Topic	**Activities Title**
C1 Patterns	Number Sequences Up to 1 Million

C2 Equations and Inequalities: Variables and Expressions

C2.1 add monomials with a degree of 1 that involve whole numbers, using tools	
Quests	**Content**
Add monomials	Adding monomials
Course Topic	**Activities Title**
C2 Expressions, Equalities & Inequalities	Algebra Tiles

C2.2 evaluate algebraic expressions that involve whole numbers and decimal tenths	
Quests	**Content**
Evaluate algebraic expressions	Evaluating algebraic expressions
Course Topic	**Activities Title**
C2 Expressions, Equalities & Inequalities	Simple Substitution
	Simple Substitution 1
	Simple Substitution 2
	Simple Substitution 3
	Simplifying Expressions

C2 Equations and Inequalities: Equalities and Inequalities

C2.3 solve equations that involve multiple terms and whole numbers in various contexts, and verify solutions	
Quests	**Content**
Linear equations, whole numbers	Solving 1-step & 2-step equations
	Solving 1-step & 2-step equations, algebra tiles
	Modelling real-life scenarios using equations
Course Topic	**Activities Title**
C2 Expressions, Equalities & Inequalities	Solve One-Step Equations
	Solving More Equations

C2.4 solve inequalities that involve two operations and whole numbers up to 100 and verify and graph the solutions	
Quests	**Content**
Solve inequalities	Solving inequalities
Course Topic	**Activities Title**
C2 Expressions, Equalities & Inequalities	Graphing Inequalities 2
	Graphing Inequalities on a Number Line
	Solve One-Step Inequalities 1

C3 Coding: Coding Skills

C3.1 solve problems and create computational representations of mathematical situations by writing and executing efficient code, including code that involves conditional statements and other control structures	
Quests	**Content**
Teacher directed	Teacher directed
Course Topic	**Activities Title**
Teacher directed	Teacher directed

C3.2 read and alter existing code, including code that involves conditional statements and other control structures, and describe how changes to the code affect the outcomes and the efficiency of the code	
Quests	**Content**
Teacher directed	Teacher directed
Course Topic	**Activities Title**
Teacher directed	Teacher directed

D Data

D1. Data Literacy: Data Collection and Organization

D1.1 describe the difference between discrete and continuous data, and provide examples of each	
Quests	**Content**
Teacher directed	Teacher directed
Course Topic	**Activities Title**
Teacher directed	Teacher directed

D1.2 collect qualitative data and discrete and continuous quantitative data to answer questions of interest about a population, and organize the sets of data as appropriate, including using intervals	
Quests	**Content**
Statistical investigations	Conducting a statistical investigation
Course Topic	**Activities Title**
Teacher directed	Teacher directed

D1. Data Literacy: Data Visualization

D1.3 select from among a variety of graphs, including histograms and broken-line graphs, the type of graph best suited to represent various sets of data; display the data in the graphs with proper sources, titles, and labels, and appropriate scales; and justify their choice of graphs	
Quests	**Content**
Construct graphs	Constructing broken-line graphs
	Constructing histograms
	Selecting appropriate data displays
Course Topic	**Activities Title**
Teacher directed	Teacher directed

D1.4 create an infographic about a data set, representing the data in appropriate ways, including in tables, histograms, and broken-line graphs, and incorporating any other relevant information that helps to tell a story about the data	
Quests	**Content**
Teacher directed	Teacher directed
Course Topic	**Activities Title**
D1 Data	Grouping data and modal class

D1. Data Literacy: Data Analysis

D1.5 determine the range as a measure of spread and the measures of central tendency for various data sets, and use this information to compare two or more data sets	
Quests	**Content**
Measures of central tendency & spread	Measure of spread: range
	Comparing measures of central tendency & spread
	Recognising appropriate statistical measures
	Understand measures of central tendency & spread
Course Topic	**Activities Title**
D1 Data	Stem and Leaf Plots with Range
	Data Extremes and Range
	Which Measure of Central Tendency?
	Line Graphs: Interpretation

D1.6 analyse different sets of data presented in various ways, including in histograms and broken-line graphs and in misleading graphs, by asking and answering questions about the data, challenging preconceived notions, and drawing conclusions, then make convincing arguments and informed decisions	
Quests	**Content**
Analyse histograms & broken-line graphs	Evaluating graphs for misleading information
	Reading & interpreting data in a histogram
	Interpreting data in a broken-line graph
Course Topic	**Activities Title**
D1 Data	Line Graphs: Interpretation

D2. Probability: Probability

D2.1 use fractions, decimals, and percents to express the probability of events happening, represent this probability on a probability line, and use it to make predictions and informed decisions	
Quests	**Content**
Probability: fractions/decimals/percents	Probability: fractions, decimals & percents
Course Topic	**Activities Title**
D2 Probability	Dice and Coins
	Find the Probability
	Probability Tables
	Complementary Events
	Probability Scale

D2.2 determine and compare the theoretical and experimental probabilities of two independent events happening	
Quests	**Content**
Probability: two independent events	Identifying the sample space: 2 independent events
	Understanding independent events
	Interpreting & constructing tree diagrams
Course Topic	**Activities Title**
D2 Probability	Probability Scale

E Spatial Sense

E1 Geometric and Spatial Reasoning: Geometric Reasoning

E1.1 create lists of the geometric properties of various types of quadrilaterals, including the properties of the diagonals, rotational symmetry, and line symmetry	
Quests	**Content**
Properties of quadrilaterals	Classifying quadrilaterals
	Investigating diagonals of special quadrilaterals
	Line & rotational symmetry
Course Topic	**Activities Title**
E1 Geometry	Properties of Quadrilaterals
	Symmetry or Not?
	Rotational Symmetry
	Plane Figure Theorems

E1.2 construct three-dimensional objects when given their top, front, and side views	
Quests	**Content**
Teacher directed	Teacher directed
Course Topic	**Activities Title**
Teacher directed	Teacher directed

E.1 Geometric and Spatial Reasoning: Location and Movement

E1.3 plot and read coordinates in all four quadrants of a Cartesian plane, and describe the translations that move a point from one coordinate to another	
Quests	**Content**
The Cartesian plane, 4 quadrants	Plotting & reading coordinates in all 4 quadrants
	Translations of points on the Cartesian plane

Course Topic	Activities Title
E1 Geometry	Number Plane
	Ordered Pairs
	Vertical and horizontal shift

E1.4 describe and perform combinations of translations, reflections, and rotations up to 360° on a grid, and predict the results of these transformations	
Quests	**Content**
Combinations of transformations	Identifying combinations of transformations
Course Topic	**Activities Title**
E1 Geometry	Rotations: Coordinate Plane
	Transformations: Coordinate Plane

E2 Measurement: The Metric System

E2.1 measure length, area, mass, and capacity using the appropriate metric units, and solve problems that require converting smaller units to larger ones and vice versa	
Quests	**Content**
Convert metric units	Converting metric units of length
	Converting metric units of mass
	Converting metric units of capacity
Course Topic	**Activities Title**
E2 Measurement	Metres and Kilometres
	Converting Units of Length
	Converting Units of Area
	Converting Volume
	Capacity Word Problems

E2 Measurement: Angles

E2.2 use a protractor to measure and construct angles up to 360°, and state the relationship between angles that are measured clockwise and those that are measured counterclockwise	
Quests	**Content**
Measure angles	Measuring angles up to 360°
Course Topic	**Activities Title**
E2 Measurement	Measuring Angles
	Angles in a Revolution

E2.3 use the properties of supplementary angles, complementary angles, opposite angles, and interior and exterior angles to solve for unknown angle measures	
Quests	**Content**
Solve for unknown angle measures	Supplementary angles
	Complementary angles
	Opposite angles
	Interior & exterior angles of a triangle
Course Topic	**Activities Title**
E2 Measurement	Labelling Angles
	Equal, Complementary or Supplementary Angles
	Angle Sum of a Triangle
	Angle Measures in a Triangle
	Quadrilaterals: Angle Sum with Equations
	Exterior Angles of a Triangle
	Vertically Opposite Angles: Unknown Values

E2 Measurement: Area and Surface Area

E2.4 determine the areas of trapezoids, rhombuses, kites, and composite polygons by decomposing them into shapes with known areas	
Quests	**Content**
Area: quadrilaterals, composite polygons	Finding the area of a trapezoid
	Finding the area of a rhombus
	Finding the area of a kite
	Finding the area of composite shapes
Course Topic	**Activities Title**
E2 Measurement	Area: Quadrilaterals
	Area: Parallelograms (Metric)
	Prisms and Pyramids
	Nets
	Surface Area: Rectangular Prisms
	Surface Area: Triangular Prisms 1
	Surface Area: Square Pyramids

F Financial Literacy

F1. Money and Finances: Money Concepts

F1.1 describe the advantages and disadvantages of various methods of payment that can be used to purchase goods and services	
Quests	**Content**
Teacher directed	Teacher directed
Course Topic	**Activities Title**
F1 Financial Literacy	Best Buy

F1. Money and Finances: Financial Management

F1.2 identify different types of financial goals, including earning and saving goals, and outline some key steps in achieving them	
Quests	**Content**
Teacher directed	Teacher directed
Course Topic	**Activities Title**
Teacher directed	Teacher directed

F1.3 identify and describe various factors that may help or interfere with reaching financial goals	
Quests	**Content**
Teacher directed	Teacher directed
Course Topic	**Activities Title**
Teacher directed	Teacher directed

F1. Money and Finances: Consumer and Civic Awareness

F1.4 explain the concept of interest rates, and identify types of interest rates and fees associated with different accounts and loans offered by various banks and other financial institutions	
Quests	**Content**
Teacher directed	Teacher directed
Course Topic	**Activities Title**
F1 Financial Literacy	Comparing Loans

F1.5 describe trading, lending, borrowing, and donating as different ways to distribute financial and other resources among individuals and organizations	
Quests	**Content**
Teacher directed	Teacher directed
Course Topic	**Activities Title**
Teacher directed	Teacher directed

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