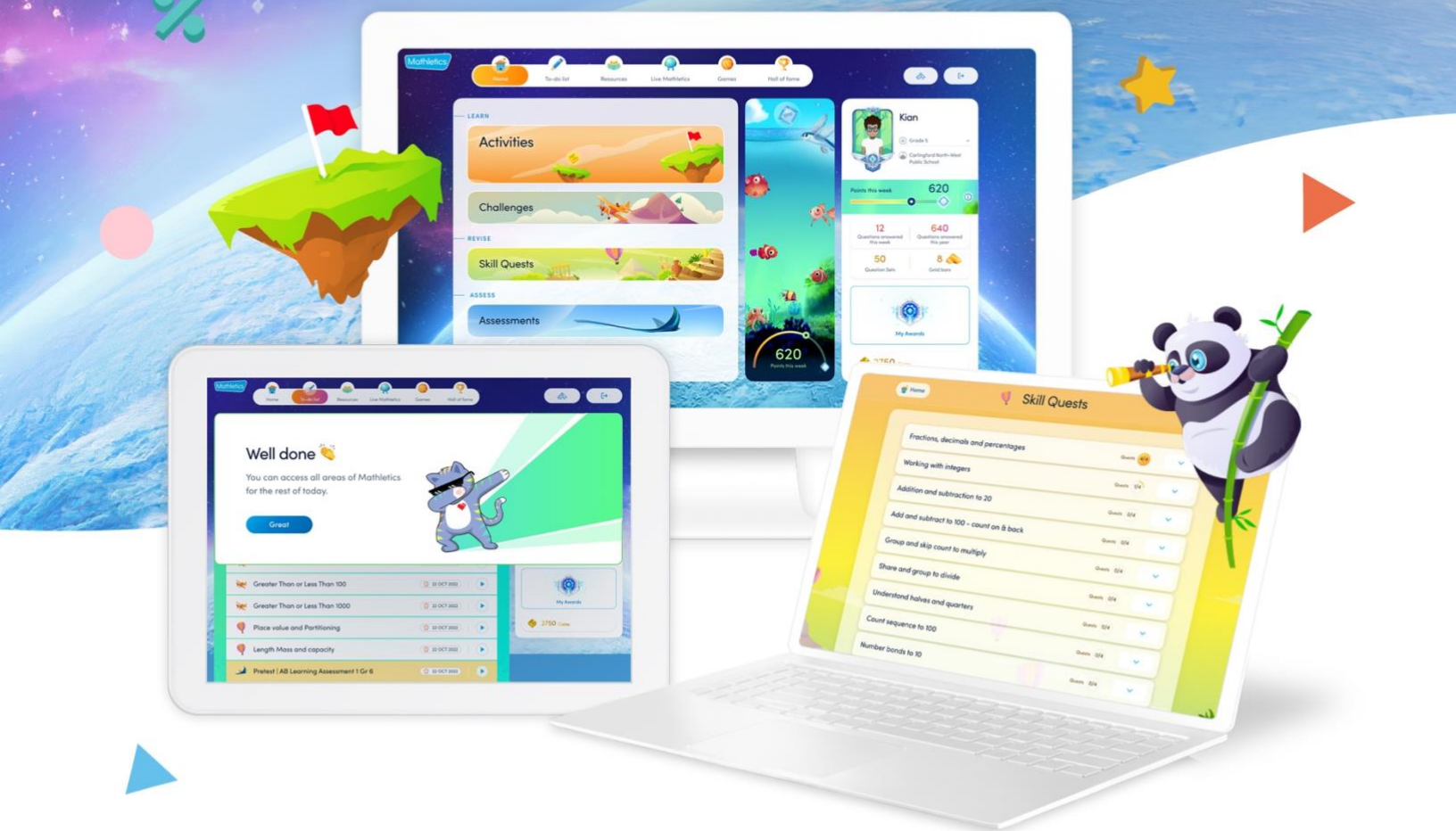
Mathletics

Alberta Program of Studies

Activities (Courses) and Skill Quests



Grades 4-6

July, 2025

Mathletics

Grade 4

1 Number: Quantity is measured with numbers that enable counting, labelling, comparing, and operating

4.N.Decimal numbers Students apply place value to decimal numbers	
Course Topics	**Activities**
Decimals	Decimal Place Value
	Decimals from Words to Digits 1
	Rounding Decimals 1
	Decimals on the Number Line
	Comparing Decimals 1
	Decimal Order 1
Topics	**Skill Quests**
Decimals to hundredths	Introducing decimal notation
	Decimal tenths
	Decimal hundredths
	Rounding decimals
	Comparing decimals
	Partitioning decimals

4.N.Add and subtract within 10 000 Students add and subtract within 10 000, including decimal numbers to hundredths	
Course Topics	**Activities**
Add & Subtract to 10 000	Estimate Sums
	Compensation – Add
	Add 3-Digit Numbers
	Add 3-Digit Numbers: Regroup
	Estimate Differences
	Compensation – Subtract
	3-Digit Differences
	3-Digit Differences: 1 Regrouping
	3-Digit Differences: 2 Regroupings
	3-Digit Differences with Zeros
	Add Decimals 1
	Estimate Decimal Sums 1
	Estimate Decimal Sums 2
	Subtract Decimals 1
	Subtract Decimals 2
	Estimate Decimal Differences 2
	Adding and Subtracting Decimals
	Decimal Complements
Topics	**Skill Quests**

Addition to 10 000	Adding up to 1000 bar models
	Adding up to 10 000 jump strategy
	Adding up to 10 000 split strategy
	Adding up to 10 000 round & compensate
	Adding up to 10 000 mental strategies
	Adding up to 10 000 using algorithm
Subtraction to 10 000	Subtracting up to 1000 bar models
	Subtracting up to 10 000 jump strategy
	Subtracting up to 10 000 split strategy
	Subtracting up to 10 000 place value partitioning
	Subtracting up to 10 000 rounding & compensating
	Subtracting up to 10 000 mental strategies
	Subtracting up to 10 000 algorithms
Solve add sub word problems	Solving addition & subtraction word problems
Check accuracy with estimation	Estimating addition & subtraction
Add & subtract decimals to hundredths	Adding decimals to tenths
	Subtracting decimals
Use decimals in the context of money	Using decimals in money
	Estimating & calculating change
	Solving money word problems

4.N.Prime and composite numbers Students explain properties of prime and composite numbers using multiplication and division	
Course Topics	**Activities**
Prime & Composite number properties	Factors
	Prime or Composite Numbers
	Multiples of
	Greatest Common Factor
Topics	**Skill Quests**
Prime & composite numbers	Introducing prime & composite numbers
Find factors & multiples	Finding multiples up to 100, including LCM
Find LCM of 2 whole numbers	Finding LCM of 2 whole numbers
	Finding factors & GCF to 100
	Situational questions, factors & multiples

4.N.Multiply and divide within 10 000 Students multiply and divide natural numbers within 10 000	
Course Topics	**Activities**
Multiply & Divide within 10 000	Times Tables
	Multiplication Grids (CAN)
	Related Facts 2
	Fact Families: Multiply and Divide
	Division Facts to Twelve
	Multiplying Whole Numbers by 10, 100, and 1000
	Dividing by 10, 100, 1000
	Remainders by Tables
	Divide: 1-Digit Divisor 1

	Divide: 1-Digit Divisor 2
	Estimation: Multiply and Divide
	Long Multiplication 1
	Problems: Multiply and Divide
Topics	**Skill Quests**
Multiplication & division facts for 6	Multiplying by 6
	Dividing by 6
	Multiplying & dividing by 6
Multiplication & division facts for 7	Multiplying by 7
	Dividing by 7
	Multiplying & dividing by 7
Multiplication & division facts for 8	Multiplying by 8
	Dividing by 8
	Multiplying & dividing by 8
Multiplication & division facts for 9	Multiplying by 9
	Dividing by 9
	Multiplying & dividing by 9
Multiplication & division facts for 11	Multiplying by 11
	Dividing by 11
	Multiplying & dividing by 11
Multiplication & division facts for 12	Multiplying by 12
	Dividing by 12
	Multiplying & dividing by 12
Multiplication & division patterns	Multiplying & dividing with multiples of 10 or 100
Multiplication, 2- or 3-digit by 1-digit	Multiplying 2- or 3-digits by 1-digit, place value
	Multiplying 2- or 3-digits by 1-digit, doubling
	Multiplying 2- or 3-digits by 1-digit, area model
	Multiplying 2- or 3-digits by 1-digit, factoring
	Multiplying 2- or 3-digits by 1-digit, algorithm
	Multiply to 3-digits x 1-digit, expanded algorithm
	Multiply to 3-digits x 1-digit, round to estimate
	Multiplying by multiples of 10 & 100
Multiplication strategies	Selecting multiplying strategies
Division, 2-digit by 1-digit	Dividing 2-digits by 1-digit, models
	Dividing 2-digits by 1-digit, halving
	Dividing 2-digits by 1-digit, related facts
	Dividing 2-digits by 1-digit, inverse relationship
	Dividing 2-digit by 1-digit, extended algorithm
	Dividing 2-digit by 1-digit, algorithm
	Dividing 2-digit by 1-digit, round to estimate
	Dividing by 1 using bar models
Division strategies	Selecting dividing strategies
Multiplication & division word problems	Solving multiplication & division word problems

4.N.Equivalence of fractions Students apply equivalence to the interpretation of fractions	
Course Topics	**Activities**
Fractions & equivalence	Selecting Equivalent Fractions
	Equivalent Fractions on a Number Line 2
	Equivalent Fraction Wall 1
	Equivalent Fraction Wall 2
	The Equivalent Fraction
	Ordering Fractions 1
	Compare Fractions 2
	Simplify Fractions
	Fractions to Decimals
Topics	**Skill Quests**
Equivalent fractions	Using models to find equivalent fractions
	Using mult div to find equivalent fractions
	Using a number line to find equivalent fractions
Compare & order fractions	Comparing unit fractions
	Comparing & ordering proper fractions
Relate decimals & fractions	Relating decimals & fractions up to thousandths
Simplify proper fractions	Using common factors to simplify fractions

4.N.Percentages Students interpret percentages	
Course Topics	**Activities**
Percentages	Modelling Percentages
	Percents to Fractions
	Percentages to Fractions (with and without simplification)
	Match Decimals and Percentages
	Percent of a Number (Mental)
	Percents and Decimals
	Complementary Percentages
Topics	**Skill Quests**
Whole-number percentages	Introducing percentages
Express percentage representations	Fractions as percentages
	Decimals as percentages
	Comparing & ordering percentages
	Representing fractions & decimals

2 Algebra: Equations express relationships between quantities.

4.A.Equality Students represent and apply equality in multiple ways	
Course Topics	**Activities**
Equality	Balance Additions to 20
	Order of Operations 1 (PEDMAS)
	Problems: Times and Divide
	Equivalent Facts: Multiply
Topics	**Skill Quests**
Introduce order of operations	Order of operations (addition & subtraction)
	Order of operations (multiplication & division)
	Order of operations (grouping symbols)
	Order of operations (all operations & symbols)
Equations	Determining missing numbers in equations
	Solving multi-step equations
	Balancing number sentences
	Expressing word problems to one-step equations

3 Geometry: Shapes are defined and related by geometric attributes.

4.G.Geometric properties Students analyze and explain geometric properties	
Course Topics	**Activities**
Geometric Properties	What Line am I?
	Sides, Angles and Diagonals
	Faces, Edges, and Vertices 1
	Triangles: Acute, Right, Obtuse
	Triangle – Tasters
	Transformations
	Rotational Symmetry of Shapes
	Relate Shapes and Solids
Topics	**Skill Quests**
Features of 2-D shapes & 3-D objects	Identifying features on 3-D objects
Compare, describe & name 3-D shapes	Comparing, describing & naming 3-D shapes
Identify & sort quadrilaterals	Sorting & naming quadrilaterals
	Classifying quadrilaterals
Classify triangles	Classifying triangles by their sides & angles
Classify & sort plane shapes	Classifying plane shapes by spatial features
	Sorting plane shapes by spatial features
	Sorting polygons

4 Measurement: Attributes such as length, area, volume, and angle are quantified by measurement.

4.M.Area Students interpret and express area	
Course Topics	**Activities**
Area	Biggest Shape
	Equal Areas
	Area of Shapes
	Area of Squares and Rectangles
Topics	**Skill Quests**
Measure the area	Estimating & comparing area non-rectilinear shapes
	Calculating area of composite shapes
	Estimating & measuring areas of rectangles
	Comparing & ordering rectangular areas
	Finding the area of a rectangle, arrays
	Finding the area of a rectangle, area model
	Finding the area of rectangles, formula

4.M.Angles Students determine and express angles using standard units	
Course Topics	**Activities**
Angles	What Type of Angle?
	Classifying Angles
	Measuring Angles
	Estimating Angles
	Labelling Angles
Topics	**Skill Quests**
Measure & classify angles	Measuring & estimating angles
	Classifying angles
	Measuring angles with a circular protractor

5 Patterns: Awareness of patterns supports problem solving in various situations

4.P.Sequences Students interpret and explain arithmetic and geometric sequences	
Course Topics	**Activities**
Sequences	Pick the Next Number
	Describing Patterns
	Table of Values
	Terms: Arithmetic Progressions
	Sum: Arithmetic Progressions
	Terms: Geometric Progressions 1
	Terms: Geometric Progressions 2
	Sum: Geometric Progressions
Topics	**Skill Quests**
Represent, analyze & apply patterns	Additive & subtractive number patterns
	Generating add/subtract patterns from a given rule
	Working with repeating number & shape patterns
	Multiplication & division number patterns
	Modelling number patterns from a table of values
	Working with shape patterns & rules
	Manipulate sets of numbers using a rule
	Describing pattern rules

6 Time: Duration is described and quantified by time.

4.T.Time Students communicate duration with standard units of time	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Duration of events	Introducing timelines
	Using timetables
	Calculating elapsed time
	Converting units of time

7 Statistics: The science of collecting, analyzing, visualizing, and interpreting data can inform understanding and decision making

4.S.Data Students evaluate the use of scale in graphical representations of data	
Course Topics	**Activities**
Scales in Data	Bar Graphs 1
	Bar Graphs 2
	Picture Graphs: with scale & half symbols
	Making Picture Graphs: With Scale
Topics	**Skill Quests**
Data collection	Collecting & sorting data
Graphs using many-to-one correspondence	Using bar graph with many-to-one correspondence
	Using line graph with many-to-one correspondence
	Column graphs with many-to-one correspondence
	Picture graphs with many-to-one correspondence
	Using strip graphs
	Using stem-and-leaf plots
Evaluate & compare data	Evaluating & comparing data
	Comparing pictographs - different correspondence

Grade 5

1 Number: Quantity is measured with numbers that enable counting, labelling, comparing, and operating

5.N.Patterns in place value Students analyze patterns in place value	
Course Topics	**Activities**
Place Value	Expanded Notation
	Place Value – Millions
	Decimals from Words to Digits 2
	Numbers from Words to Digits 2
	Decimal Order 2
Topics	**Skill Quests**
Decimals to thousandths	Understanding decimals to thousandths
	Connecting tenths & hundredths
Compare & order decimals to thousandths	Comparing & ordering decimals to thousandths
Dividing by multiples of 10	Dividing whole numbers by multiples of 10
	Partitioning decimals to thousandths
Number concepts to 1 000 000	Understanding the role of place value
	Reading & writing numbers up to 6 digits
	Comparing & ordering numbers up to 6 digits
	Identifying place value of 6-digit numbers
	Using place value to partition 6-digit numbers
Number concepts to 10 000 000	Counting up to 10 000 000
	Reading & writing numbers to 8 digits
	Identifying place value 8-digit numbers
	Using place value to partition 7-digit numbers
	Comparing & ordering numbers up to 7 digits
	Rounding numbers up to 7 digits
Strategies for estimation	Rounding 4- & 5-digit numbers
	Rounding numbers up to 6-digits
	Rounding decimals

5.N.Add and subtract within 1 000 000 Students add and subtract within 1 000 000, including decimal numbers to thousandths, using standard algorithms	
Course Topics	**Activities**
Add & subtract including decimals	Split Add and Subtract
	Add 3-Digit Numbers
	Add 3-Digit Numbers: Regroup
	3-Digit Differences

	3-Digit Differences: 1 Regrouping
	Estimate Sums
	Estimation: Add and Subtract
Topics	**Skill Quests**
Strategies for computation	Using compensation to add & subtract
	Round numbers to estimate - multiply & divide
	Checking calculations when multiplying & dividing
	Adding using place value partitioning to 1 000 000
Formal algorithm for addition	Formal algorithm for addition (no regrouping)
	Formal algorithm for addition (with regrouping)
	Formal algorithm with 3 or more addends
Subtraction up to 1 000 000	Subtracting using compensation up to 1 000 000
	Subtracting using partitioning up to 1 000 000
Formal algorithm for subtraction	Formal algorithm for subtraction (no decomposing)
	Formal algorithm for subtraction (decomposition)
Strategies for addition & subtraction	Adding & subtracting using a bar model
	Applying strategies for addition & subtraction
	Using add/sub facts to calculate mentally
Add & subtract decimals to thousandths	Adding decimals to thousandths
	Subtracting decimals to thousandths
	Adding & subtracting decimal word problems
	Solving decimal word problems, 4 operations
Round to estimate sums & differences	Rounding to estimate to the nearest 100 or 1000
	Estimating sums & differences to thousandths
	Checking calculations when adding & subtracting
	Estimating decimal sums & differences

5.N.Divisibility Students determine divisibility of natural numbers	
Course Topics	**Activities**
Divisibility	Divisibility – Tests
	Tests of Divisibility 1
	Divisibility Tests (2, 5, 10)
	Divisibility Tests (3, 4, 9)
	Factors
Topics	**Skill Quests**
Divisibility rules	Introducing divisibility rules for dividing by 2
	Introducing divisibility rules for dividing by 3
	Introducing divisibility rules for dividing by 4
	Introducing divisibility rules for dividing by 5
	Introducing divisibility rules for dividing by 6
	Introducing divisibility rules for dividing by 8
	Introducing divisibility rules for dividing by 9
	Introducing divisibility rules for dividing by 10
	Divisibility rules: dividing by 2, 3, 4, 5, 6, 10
5.N.Multiply and divide within 100 000 Students multiply and divide natural numbers within 100 000, including with standard algorithms	
Course Topics	**Activities**

Multiply & Divide	Grid Methods 1
	Grid Methods 2
	Grid Methods 3
	Multiply: 2-Digit by 1-Digit
	Multiply: 1-Digit Number, Regroup
	Long Multiplication
	Divide: 1-Digit Divisor 1
	Long Division 1
	Divide: 1-Digit Divisor 2
	Divide: 1-Digit Divisor, Remainder
	Estimation: Multiply and Divide

Topics	Skill Quests
Divide up to 3-digits by 1-digit	Dividing up to 3-digit by 1-digit, no remainders
	Dividing up to 3-digit by 1-digit, with remainders
	Dividing by partitioning, no remainders
	Dividing 3-digits by 1-digit, factoring
	Finding the remainder, 2-digits by 1-digit
	Dividing by partitioning with remainders
	Dividing 3-digits by 1-digit, formal algorithm
Multiply & divide by multiples of 1000	Multiplying 1-digit numbers with multiples of 1000
	Dividing 1-digit numbers with multiples of 1000
Multiply 4-digit by 1-digit	Multiply 4-digits by 1-digit using split method
	Multiply 4-digits by 1-digit using area model
	Multiply 4-digits by 1 using expanded algorithm
	Multiply 4-digits by 1-digit contracted algorithm
Multiply & divide 2-digits by 2-digits	Multiplying 2-digits by 2-digits, area model
	Multiplying 2-digits by 2-digits, factorizing
	Multiplying 2-digits by 2-digits, use known facts
	Multiply or divide with multiples of 10 or 100
	Multiplying 2-digits by 2-digits, formal algorithm
Multiply 3-digits by 2-digits	Multiplying 3-digits by 2-digits
	Multiplying 3-digits by 3-digits using area model
Multiply using rounding & compensating	Multiplying using rounding & compensating
Multiplication & division word problems	Solving multiplication word problems
	Solving division word problems

5.N.Improper fractions Students interpret improper fractions	
Course Topics	**Activities**
Fractions and ratio	Mixed and Improper Fractions on a Number Line
	Mixed to Improper

	Converting Mixed and Improper
	Improper to Mixed
	What Mixed Number Is Shaded?
Topics	**Skill Quests**
Classify fractions	Identifying fractions
Improper fractions & mixed numbers	Comparing & ordering mixed numbers
	Comparing & ordering improper fractions
	Comparing & ordering fractions & mixed numbers
	Converting improper fractions to mixed numbers
	Converting mixed numbers to improper fractions

5.N.Add and subtract fractions Students add and subtract fractions with common denominators	
Course Topics	**Activities**
Fractions and ratio	Counting with Fractions on a Number Line
	Add: Common Denominator
	Subtract: Common Denominator
	Common Denominator
	One Take Fraction
	Add Like Mixed Numbers
Topics	**Skill Quests**
Add fractions & mixed numbers	Adding fractions, like denominator
	Adding a whole number & a fraction
	Adding improper fractions, like denominator
	Adding mixed numbers, like denominator
Subtract fractions & mixed numbers	Subtracting fractions, like denominator
	Subtracting a fraction from a whole number
	Subtracting improper fractions, like denominator
	Subtracting with mixed numbers, like denominator
Add & subtract fractions	Adding & subtracting fractions, like denominator
Fractions & mixed numeral problems	Solving proper fractions & mixed numeral problems

5.N.Ratios Students employ ratios to represent relationships between quantities	
Course Topics	**Activities**
Fractions and ratio	Word Problems: Ratio
	Modelling Percentages
	Percent of a Number (Mental)
Topics	**Skill Quests**
Introduction to ratios	Introducing ratios

2 Algebra: Equations express relationships between quantities

5.A.Numerical and algebraic expressions Students interpret numerical and algebraic expressions.	
Course Topics	**Activities**

Algebra: relationships between quantities	Writing Algebraic Expressions
	Simple Substitution
	Simple Substitution 2
	Order of Operations 1 (BIDMAS)/Order of Operations 1 (BEDMAS)
Topics	**Skill Quests**
Introduction to algebraic expressions	Introducing algebraic expressions
Evaluate an expression	Evaluating expressions using substitution
Linear equations, integers	Solving linear equations with integers
Equations with letter variables	Expressing word problems as equations
One-step equations with variables	Writing one-step equations using variables
	Solving one-step equations & word problems
	Solving one-step equations using bar model
Write multi-step numerical expressions	Writing multi-step numerical expressions

3 Geometry: Shapes are defined and related by geometric attributes.

5.G.Symmetry Students investigate symmetry as a geometric property	
Course Topics	**Activities**
Geometry	Symmetry
	Symmetry or Not?
	Rotational Symmetry
Topics	**Skill Quests**
Recognize & draw line symmetry	Recognizing line symmetry
	Identifying & drawing lines of symmetry
Recognise rotational symmetry	Recognising rotational symmetry
Order rotational symmetry	Ordering rotational symmetry

4 Coordinate Geometry: Location and movement of objects in space can be communicated using a coordinate grid.

5.CG.Location and position Students relate location to position on a grid	
Course Topics	**Activities**
Geometry	Following Directions
	Coordinate Meeting Place
	Map Coordinates
	Coordinate Graphs: 1st Quadrant
Topics	**Skill Quests**
Introduction to grid references	Introducing grid references
The coordinate grid, first quadrant	Plotting points in the first quadrant
	Plotting points that create a shape

5 Measurement: Attributes such as length, area, volume, and angle are quantified by measurement

5.M.Area Students estimate and calculate area using standard units	
Course Topics	**Activities**
Area	Area of Shapes
	Area: Squares and Rectangles
	Perimeter: Squares and Rectangles
Topics	**Skill Quests**
Introduction of formal units for area	Introducing the square centimetre & square metre
Perimeters of rectangles	Calculating the perimeters of rectangles
Estimate & measure areas of rectangles	Areas of rectangles in square cm or m
Relationship between area & perimeter	Solving perimeter & area problems
Area of rectangles	Finding the area of rectangles

6 Patterns: Awareness of patterns supports problem solving in various situations

5.P.Sequences Students relate terms to position within an arithmetic sequence	
Course Topics	**Activities**
Sequences & Coordinates	Reading Values from a Line
	Table of Values
Topics	**Skill Quests**
Patterns in tables of values & graphs	Creating a table of values, visual pattern
	Representing linear patterns, tables & graphs
Relationships within tables	Determining missing values in a table of values
Manipulate sets of numbers given a rule	Manipulating sets of numbers using a given rule
Linear growth pattern	Making predictions about linear growing patterns
Algebraic expressions for patterns	Algebraic expressions for patterns

7 Statistics: The science of collecting, analyzing, visualizing, and interpreting data can inform understanding and decision making.

5.S.Data Students analyze frequency in categorical data	
Course Topics	**Activities**
Data & frequency	Grouping data and modal class
	Mode
	Mode from Frequency Table
	Mode from Stem and Leaf Plot
	Histograms
	Column Graphs
	Dot Plots
	Line Graphs: Reading
Topics	**Skill Quests**
Theoretical & experimental probability	Comparing observed & expected frequencies
Data collection	Data collection: questionnaires
Select & interpret data displays	Selecting data displays
	Interpreting data & solving problems

Grade 6

1 Number: Quantity is measured with numbers that enable counting, labelling, comparing, and operating

6.N.Positive and negative numbers Students investigate magnitude with positive and negative numbers	
Course Topics	**Activities**
Integers	Integers on a Number Line
	Ordering Integers (Number Line)
	Comparing Integers (<, =, >)
Topics	**Skill Quests**
Read & represent integers	Investigating integers
	Understanding integers in real-life contexts
	Comparing & ordering integers
	Describing the direction & magnitude of integers
	Understanding opposites in context
Add & subtract integers	Adding & subtracting integers
	Adding & subtracting integers, word problems
	Adding & subtracting integers visually
	Adding & subtracting integers on a number line
	Adding integers
	Subtracting integers
	Adding & subtracting integers, order of operations

6.N.Addition and subtraction algorithms Students solve problems using standard algorithms for addition and subtraction	
Course Topics	**Activities**
Addition & subtraction	Add Two 2-Digit Numbers
	Add Two 2-Digit Numbers: Regroup
	Column Addition 2
	Add 3-Digit Numbers: Regroup
	Add Multi-Digit Numbers 1
	Adding Colossal Columns
	2-Digit Differences
	2-Digit Differences: Regroup
	Column Subtraction Method
	3-Digit Differences: 1 Regrouping
	3-Digit Differences: 2 Regroupings
	3-Digit Differences with Zeros
	Subtracting Colossal Columns
Topics	**Skill Quests**
Create add sub number sentences	Creating addition & subtraction number sentences
	Solving addition word problems

Addition & subtraction word problems	Solving subtraction word problems
	Solving addition & subtraction word problems

6.N.Prime factors and exponents Students analyze numbers using prime factorization and exponentiation	
Course Topics	**Activities**
Prime Factors & Exponents	Factors
	Lowest Common Multiple
	Product of Prime Factors
	Divisibility Tests
	Index Notation/Exponent notation
	Prime factorisation with Indices
	Multiply Decimals: 10, 100, 1000
	Divide Decimals: 10, 100, 1000
Topics	**Skill Quests**
Prime factors	Using prime factors
	Using index notation to identify prime factors
	Finding GCM from prime factors

6.N.Multiplication and division algorithms Students apply standard algorithms to multiplication and division of decimal and natural numbers	
Course Topics	**Activities**
Multiplication and division	Multiply: 2-Digit Number, Regroup
	Long Multiplication
	Multiply Decimal by Whole Number
	Divide: 1-Digit Divisor 2
	Long Division
	Multiply and Divide Problems 1
	Estimate Products
	Estimate Quotients
	Estimation: Multiply and Divide
Topics	**Skill Quests**
Multiply whole numbers & decimals	Multiply 4 digits by 1- & 2-digit whole numbers
	Multiplying decimals
	Multiplying decimals using place value
Division of whole numbers & decimals	Divide up to 4 digits by a 2-digit divisor
	Dividing decimals

6.N.Fractions to quotients Students relate fractions to quotients	
Course Topics	**Activities**
Fractions	Simplifying Fractions
	Improper to Mixed
	Mixed to Improper
	Converting Mixed and Improper
	Fraction Length Models 1

	Fraction Length Models 2
Topics	**Skill Quests**
Divide to convert fractions to decimals	Converting fractions to decimals using division

6.N.Add and subtract fractions Students add and subtract fractions with denominators within 100	
Course Topics	**Activities**
Fractions	Add: No Common Denominator
	Subtract: No Common Denominator
	Add Like Mixed Numbers
	Add Unlike Mixed Numbers
Topics	**Skill Quests**
Mixed numerals with common denominators	Adding mixed numerals with common denominators
	Subtract mixed numerals with common denominators
Proper fractions - unlike denominators	Adding proper fractions with unlike denominators
	Subtract proper fractions - unlike denominators
Improper fractions - unlike denominators	Adding improper fractions with unlike denominators
	Subtract improper fractions - unlike denominators

6.N.Multiply by fractions Students interpret the multiplication of natural numbers by fractions	
Course Topics	**Activities**
Fractions	Model Fractions to Multiply
	Multiply Fraction by Whole Number
	Multiply: Whole Number and Fraction
Topics	**Skill Quests**
Multiply fractions	Multiplying unit fractions by whole numbers
	Multiplying proper fractions by whole numbers
	Multiplying mixed numerals by whole numbers
	Multiplying improper fractions by whole numbers
	Multiplying various fractions

6.N.Ratios and rates Students apply equivalence to the interpretation of ratios and rates	
Course Topics	**Activities**
Ratio, percentage & rates	Simplify Ratios: 2 Whole numbers
	Simplify Ratios: 3 Whole Numbers
	Ratio
	Ratios
	Equivalent Ratios
	Ratio and Proportion
	Simplify Ratios: Decimals
	Simplify Ratios: Fractions
	Rates Word Problems
	Ratio Word Problems

	Rates Calculations
	Unitary Method
	Calculating Percentages (Mental)
	Calculating Percentages 1
Topics	**Skill Quests**
Introduction to ratios	Simplifying ratios
	Dividing a quantity into a given ratio
	Identifying equivalent ratios
Calculate percentages of whole numbers	Calculating simple percentages
Percents, fractions & decimals	Solving word problems involving percentages

2 Algebra: Equations express relationships between quantities

6.A.Algebraic equations Students analyze expressions and solve algebraic equations	
Course Topics	**Activities**
Expressions & equations	Solve Equations: Add, Subtract 1
	Solve Equations: Add, Subtract 2
	Solve Equations: Multiply, Divide 1
	Solve Equations: Multiply, Divide 2
	Solving Simple Equations
	Solve Two-Step Equations
Topics	**Skill Quests**
Patterns, expressions & equations	Writing an equation to represent a table of values
	Writing expressions, rule for a pattern
Understand variables	Matching equations & word problems
	Writing & solving equations given a problem
Preservation of equality	Solving 1-step equations
	Solving 1-step equations using a balance
	Solving 1-step equations using algebra tiles
	Understanding the preservation of equality
	Creating equivalent forms of an equation
Order of operations	Order of operations, addition & subtraction
	Apply order of operations to evaluate expressions
Simplify algebraic expressions	Simplifying algebraic expressions
Create algebraic expressions	Creating algebraic expressions

3 Geometry: Shapes are defined and related by geometric attributes.

6.G.Symmetry and congruence Students analyze shapes through symmetry and congruence	
Course Topics	**Activities**
Shape, symmetry & location	Congruent Figures (Grid)
	Congruent Figures (Dot Grid)
Topics	**Skill Quests**
Combinations of transformations	Identifying combinations of transformations
Rotational symmetry	Determining rotational symmetry
Recognize tessellations	Recognizing tessellations
Introduction of congruence	Introducing congruence

4 Coordinate Geometry: Location and movement of objects in space can be communicated using a coordinate grid

6.CG.Cartesian plane Students explain location and movement in relation to position in the Cartesian plane	
Course Topics	**Activities**
Shape, symmetry & location	Transformations
	Ordered Pairs
	Number Plane
	Transformations: Coordinate Plane
	Rotations: Coordinate Plane
	Horizontal and Vertical Change
Topics	**Skill Quests**
The Cartesian plane	Introducing Cartesian coordinates
	Drawing shapes on the coordinate plane
	Plotting & stating the coordinates of a point
Transformations in the first quadrant	Investigating translations in the first quadrant
	Identifying reflections in the first quadrant
	Identifying rotations in the first quadrant
Record positions of reflected points	Recording the positions of reflected points

5 Measurement: Attributes such as length, area, volume, and angle are quantified by measurement

6.M.Area Students analyze areas of parallelograms and triangles	
Course Topics	**Activities**
Area	Area: Triangles
	Converting Units of Area
	Area: Right Angled Triangles
	Area: Quadrilaterals
	Area: Parallelograms (Metric)
	Area: Composite Shapes
Topics	**Skill Quests**
Determine the area	Determining the area of a triangle
	Determining the area of a parallelogram

6.M.Volume Students interpret and express volume	
Course Topics	**Activities**
Volume	How Full?
	Filling Fast!
	How many Blocks?
	Volume of Solids and Prisms - 1 cm3 blocks
	Volume: Rectangular Prisms 1
	Volume: Rectangular Prisms 2
	Volume: Cuboid 1
Topics	**Skill Quests**
Measure volume in cubic units	Using unit cubes to measure volume
	Using cubic cm & m to measure volume
	Estimating volume using cubic cm & m
Volume of prisms	Finding the volume of rectangular prisms
	Finding the volume of any prism
	Finding the missing dimension, rectangular prisms

6 Patterns: Awareness of patterns supports problem solving in various situations

6.P.Functions Students investigate functions to enhance understanding of change.	
Course Topics	**Activities**
Functions	Find the Pattern Rule
	Function Rules and Tables
	Powers and Patterns
	Writing Equations
Topics	**Skill Quests**
Teacher Directed	

7 Statistics: The science of collecting, analyzing, visualizing, and interpreting data can inform understanding and decision making

6.S.Data Students investigate relative frequency using experimental data	
Course Topics	**Activities**
Frequency	Relative Frequency
Topics	**Skill Quests**
Theoretical & experimental probability	Probability of 0 & 1
	Predicting the probability of a specific outcome
	Listing the sample space for an event
	Understanding independent events
	Determining theoretical probability, tree diagrams
	Exploring fair games
Probability: decimals/ fractions/ percents	Probability: decimals, fractions & percents
Relative frequency	Understanding & calculating relative frequency
	Representing data using relative frequency

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