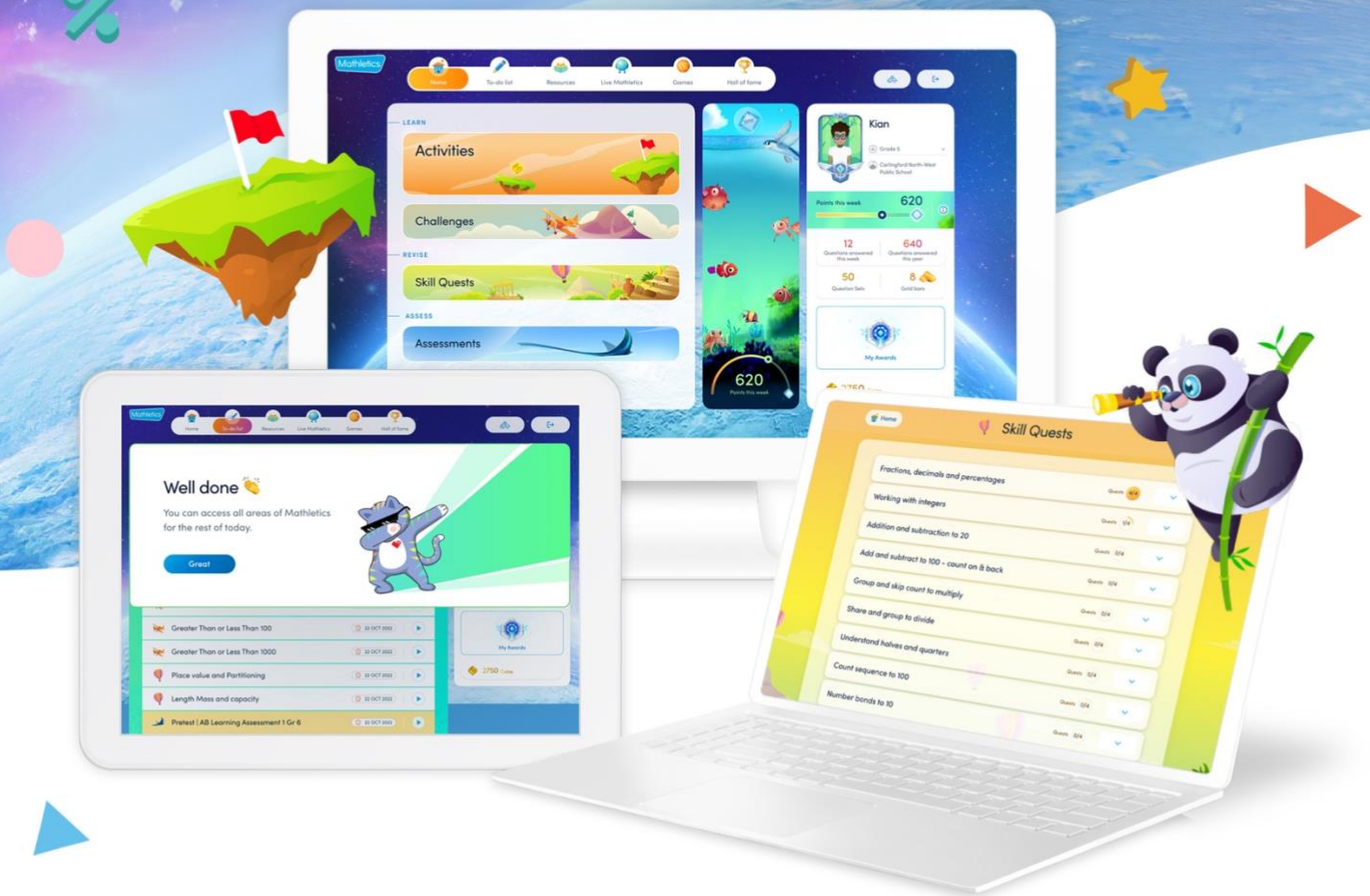
Mathletics

Nova Scotia Curriculum

Activities (Courses) and Skill Quests



Grades 3-6

July, 2025

Mathletics

Grade 3

1 Number

1.1 Students will be expected to develop number sense.

3.N01 Students will be expected to say the number sequence forward and backward by: 1s through transitions to 1000; 2s, 5s, 10s, or 100s, using any starting point to 1000; 3s, using starting points that are multiples of 3 up to 100; 4s, using starting points that are multiples of 4 up to 100; 25s, using starting points that are multiples of 25 up to 200.	
Skill Quests	**Skills**
Count to 1000	Counting by 5s to 1000, forward & backward
	Counting by 10s to 1000, forward & backward
	Counting by 100s to 1000, forward & backward
	Counting by 1s to 1000
	Skip counting by 3s
	Skip counting by 4s
	Skip counting by 25s
Course Topic	**Activities Title**
Numbers to 1000	Counting by Fives
	Counting by Tens
	Skip Counting
	Skip Counting with coins

3.N02 Students will be expected to represent and partition numbers to 1000.	
Skill Quests	**Skills**
Represent & describe numbers to 1000	Representing & describing numbers to 1000
	Connecting multiples of 10 & 100 to number words
Course Topic	**Activities Title**
Read & write numbers to 1000	Model Numbers
	Place Value 2
	Understanding Place Value 1

3.N03 Students will be expected to compare and order numbers up to 1000.	
Skill Quests	**Skills**
Compare & order numbers to 1000	Identifying numbers before & after within 1000
	Comparing numbers to 1000
	Ordering numbers to 1000
Course Topic	**Activities Title**
Numbers to 1000	Which is Bigger?
	Which is Smaller?
	Ascending Order
	Descending Order
	Compare Numbers to 100

3.N04 Students will be expected to estimate quantities less than 1000 using referents.	
Skill Quests	**Skills**
Estimate quantities less than 1000	Estimating quantities using referents
Course Topic	**Activities Title**
Estimation	Nearest 10?
	Nearest 100?

3.N05 Students will be expected to illustrate, concretely and pictorially, the meaning of place value for numerals to 1000.	
Skill Quests	**Skills**
Place value of numbers up to 1000	Identifying place value of numbers to 1000
	Using place value to partition 3-digit numbers
	Non-standard partitioning, 3-digit numbers
	Solving place value number problems
Course Topic	**Activities Title**
Read & write numbers to 1000	Model Numbers
	Place Value 2
	Understanding Place Value 1

3.N06 Students will be expected to describe and apply mental mathematics strategies for adding two 2-digit numerals.	
Skill Quests	**Skills**
Add 2-digit numbers, mental strategies	Adding 2-digit numbers, jump strategy
	Adding 2-digit numbers, split strategy
	Adding 2-digit numbers, bridge to ten
	Adding 2-digit numbers, using place value
	Adding 2-digit numbers, rounding & compensating
	Adding tens to a 2-digit number, models

Course Topic	Activities Title
2-digit addition	Commutative Property of Addition
	Add Numbers: Regroup a Ten
	Add Two 2-Digit Numbers
	Add Two 2-Digit Numbers: Regroup
	Column Addition 1

3.N07 Students will be expected to describe and apply mental mathematics strategies for subtracting two 2-digit numerals.	
Skill Quests	**Skills**
Subtract 2-digit numbers, mental methods	Subtracting 2-digit numbers, jump strategy
	Subtracting 2-digit numbers, split strategy
	Subtracting 2-digit numbers, bridging to ten
	Subtracting 2-digit numbers, round & compensate
	Subtracting tens from a 2-digit number, models
Course Topic	**Activities Title**
2-digit subtraction	Subtract Numbers
	Subtract Numbers: Regroup
	Column Subtraction
	Columns that Subtract
	2-Digit Differences
	2-Digit Differences: Regroup
	Repartition to Subtract

3.N08 Students will be expected to apply estimation strategies to predict sums and differences of 1-, 2-, and 3-digit numerals in a problem-solving context.	
Skill Quests	**Skills**
Estimate: two 2-digit number problems	Estimating with two 2-digit number problems
Course Topic	**Activities Title**
Estimation	Estimate Sums
	Estimate Differences
	Estimation: Add and Subtract

3.N09 Students will be expected to demonstrate an understanding of addition and subtraction of numbers (limited to 1-, 2-, and 3-digit numerals) with answers to 1000 by: using personal strategies for adding and subtracting with and without the support of manipulatives; creating and solving problems in context that involve addition and subtraction of numbers concretely, pictorially, and symbolically.	
Skill Quests	**Skills**
Addition & subtraction to 1000	Adding up to 1000 using jump strategy
	Adding up to 1000 using bridging to ten
	Adding up to 1000 using split strategy
	Adding up to 1000 using rounding & compensating
	Adding up to 1000 using formal algorithm
	Subtracting up to 1000 using jump strategy
	Subtracting up to 1000 using split strategy
	Subtracting up to 1000 using bridging to ten
	Subtracting up to 1000 - rounding & compensating
	Subtracting up to 1000 using formal algorithm
	Adding & subtracting to 1000 using jump strategy
	Adding & subtracting to 1000 using split strategy
	Representing add/subtract problems using bar model
	Solving addition & subtraction word problems
Course Topic	**Activities Title**
2-digit addition	Add Numbers: Regroup a Ten
	Add Two 2-Digit Numbers
	Add Two 2-Digit Numbers: Regroup
	Column Addition 1
	Columns that Add
	Strategies for Column Addition
	Complements to 50 and 100
	Pyramid Puzzles 1
	Pyramid Puzzles 2
2-digit subtraction	Subtract Numbers
	Subtract Numbers: Regroup
	Column Subtraction
	Columns that Subtract
	2-Digit Differences
	2-Digit Differences: Regroup
	Repartition to Subtract
	Bar model problems 1
	Bar Model Problems 2

3.N10 Students will be expected to apply mental mathematics strategies and number properties to develop quick recall of basic addition facts to 18 and related basic subtraction facts.	
Skill Quests	**Skills**
Mental strategies - add/sub facts to 18	Using the commutative property of addition
	Adding 3 single-digit numbers to 18
	Finding the difference between 2 numbers
	Using doubles & near doubles to add & subtract
	Mental strategies for addition & subtraction facts
	Adding & subtracting zero
Course Topic	**Activities Title**
Recall addition & subtraction facts	Addition Facts
	Magic Mental Addition
	Subtraction Facts to 18
	Magic Mental Subtraction
	Related Facts 1
	Fact Families: Add and Subtract

3.N11 Students will be expected to demonstrate an understanding of multiplication to 5 × 5 by: representing and explaining multiplication using equal grouping and arrays; creating and solving problems in context that involves multiplication; modelling multiplication using concrete and visual representations and recording the process symbolically; relating multiplication to repeated addition; relating multiplication to division.	
Skill Quests	**Skills**
Multiplication concepts to 5 x 5	Using repeated addition to multiply
	Exploring multiplication by 2
	Exploring multiplication by 3
	Exploring multiplication by 4
	Exploring multiplication by 5
	Recalling multiplication facts to 5 x 5
Course Topic	**Activities Title**
Multiplication & division	Groups of Two
	Groups of Three
	Groups of Four
	Groups of Five
	Groups
	Multiplication Arrays
	Model Multiplication to 5 × 5
	Frog Jump Multiplication

3.N12 Students will be expected to demonstrate an understanding of division by: representing and explaining division using equal sharing and equal grouping; creating and solving problems in context that involve equal sharing and equal grouping; modelling equal sharing and equal grouping using concrete and visual representations, and recording the process symbolically; relating division to repeated subtraction; relating division to multiplication (Limited to division related to multiplication facts up to 5 × 5.)	
Skill Quests	**Skills**
Division concepts (up to 5 x 5 facts)	Using repeated subtraction to divide
	Dividing by 2
	Dividing by 3
	Dividing by 4
	Dividing by 5
Relate multiplication & division	Modelling multiplication & division relationship
	Solving problems using arrays
	Multiplication & division word problems
Course Topic	**Activities Title**
Multiplication & division	Dividing Twos
	Dividing Threes
	Dividing Fours
	Dividing Fives
	Divide Into Equal Groups
	Fill the Jars

3.N13 Students will be expected to demonstrate an understanding of fractions by: explaining that a fraction represents a part of a whole; describing situations in which fractions are used; comparing fractions of the same whole with like denominators.	
Skill Quests	**Skills**
Fraction concepts	Finding halves
	Finding fourths
	Working with halves & fourths
	Working with thirds
	Working with sixths
	Working with thirds & sixths
	Working with fifths
	Working with eighths
	Working with halves, fourths & eighths
	Working with halves, thirds, fourths
	Representing simple fractions
	Ordering & comparing fractions
Course Topic	**Activities Title**
Fractions	Halve it!
	Is it Half?
	Halves and Quarters
	Shade Fractions
	Model Fractions
	Compare Fractions 1a
	Compare Fractions 1b

2 Patterns and Relations (Patterns)

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

3.PR01 Students will be expected to demonstrate an understanding of increasing patterns by describing, extending, comparing, and creating numerical (numbers to 1000) patterns and non-numerical patterns using manipulatives, diagrams, sounds, and actions.	
Skill Quests	**Skills**
Increasing patterns	Working with increasing number patterns to 100
	Working with increasing number patterns to 1000
	Working with visual patterns
Course Topic	**Activities Title**
Patterns	Simple Patterns
	Count Forward Patterns
	Increasing Patterns
	Describing Patterns

3.PR02 Students will be expected to demonstrate an understanding of decreasing patterns by describing, extending, comparing, and creating numerical (numbers to 1000) patterns and non-numerical patterns using manipulatives, diagrams, sounds, and actions.	
Skill Quests	**Skills**
Decreasing patterns	Working with decreasing number patterns within 100
	Working with decreasing number pattern within 1000
Course Topic	**Activities Title**
Patterns	Count Backward Patterns
	Decreasing Patterns
	Describing Patterns

3 Patterns and Relations (Variables and Equations)

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

3.PR03 Students will be expected to solve one-step addition and subtraction equations involving symbols representing an unknown number.	
Skill Quests	**Skills**
One-step add/sub problems with unknowns	One-step number problems with unknowns up to 20
	One-step number problems with unknowns up to 100
Course Topic	**Activities Title**
Patterns	Missing Values
	Problems: Add and Subtract
	Word problems with letters

4 Measurement

4.1 Students will be expected to use direct and indirect measurement to solve problems.

3.M01 Students will be expected to relate the passage of time to common activities using non-standard and standard units (minutes, hours, days, weeks, months, years).	
Skill Quests	**Skills**
Understand passage of time	Understanding passage of time concepts
	Using calendars
Course Topic	**Activities Title**
Time	Days of the Week
	Months of the Year
	Using a Calendar

3.M02 Students will be expected to relate the number of seconds to a minute, the numbers of minutes to an hour, the numbers of hours to a day, and the number of days to a month in a problem-solving context.	
Skill Quests	**Skills**
Understand measures of time	Introducing time in hours, minutes & seconds
	Solving problems related to units of time
Course Topic	**Activities Title**
Time	Tell Time to the Hour
	Tell Time to the Half Hour
	Five Minute Times
	What is the Time?
	Time Mentals
	What Time Will it Be?
	Elapsed Time

3.M03 Students will be expected to demonstrate an understanding of measuring length (cm, m) by: selecting and justifying referents for the units centimetre or metre (cm, m); modelling and describing the relationship between the units centimetre or metre (cm, m); estimating length using referents; measuring and recording length, width, and height.	
Skill Quests	**Skills**
Understand & measure length (m, cm)	Measuring in standard units: cm & m
	Selecting units of measurement: m, cm
	Ordering & comparing lengths: m, cm
	Converting between m & cm
	Estimating & measuring in cm
	Measuring length of 3-D objects
Course Topic	**Activities Title**
Length	Measuring Length
	How Long is That?

	Everyday Length
	Compare Length
	Compare Length 1
	Comparing Length

3.M04 Students will be expected to demonstrate an understanding of measuring mass (g, kg) by: selecting and justifying referents for the units gram and kilogram (g, kg); modelling and describing the relationship between the units gram and kilogram (g, kg); estimating mass using referents; measuring and recording mass.	
Skill Quests	**Skills**
Understand & measure mass (kg, g)	Measuring mass: kilograms
	Measuring mass: grams
	Selecting units of measurement: kg, g
	Understanding relationships between kg & g
Course Topic	**Activities Title**
Length	How Heavy?
	Everyday Mass

3.M05 Students will be expected to demonstrate an understanding of perimeter of regular, irregular, and composite shapes by: estimating perimeter using referents for centimetre or metre (cm, m); measuring and recording perimeter (cm, m); create different shapes for a given perimeter (cm, m) to demonstrate that many shapes are possible for a perimeter.	
Skill Quests	**Skills**
Understand & measure perimeter	Understanding & calculating perimeter
Course Topic	**Activities Title**
Perimeter	Perimeter
	Perimeter: Squares and Rectangles
	Perimeter: Triangles
	Perimeter Detectives 1

5 Geometry (3-D Objects and 2-D Shapes)

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

3.G01 Students will be expected to describe 3-D objects according to the shape of the faces.	
Skill Quests	**Skills**
3-D objects	Introducing faces
	Introducing cubes
	Introducing cylinders
	Introducing spheres
	Introducing cones
	Introducing prisms & pyramids
	Describing the attributes of 3-D objects
	Comparing & sorting 3-D objects
	Making basic models of 3-D objects
Course Topic	**Activities Title**
2-D shapes & 3-D objects	How many Corners?
	How many Edges?
	How many Faces?
	Faces, Edges and Vertices

3.G02 Students will be expected to name, describe, compare, create, and sort regular and irregular polygons, including triangles, quadrilaterals, pentagons, hexagons, and octagons according to the number of sides.	
Skill Quests	**Skills**
Sort & identify 2-D shapes	Comparing 2-D shapes
	Identifying & naming 2-D shapes
	Sorting 2-D shapes
Regular & irregular polygons	Understanding regular & irregular polygons
Course Topic	**Activities Title**
2-D shapes & 3-D objects	Collect the Polygons

6 Statistics and Probability (Data Analysis)

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

3.SP01 Students will be expected to collect first-hand data and organize it using tally marks, line plots, charts, and lists to answer questions.	
Skill Quests	**Skills**
Organize first-hand data	Understanding & using line plots
	Understanding & using data in lists & tables
	Understanding the statistical process
Course Topic	**Activities Title**
Collect, display & analyze data	Analyzing Data
	Line Plots

3.SP02 Students will be expected to construct, label, and interpret bar graphs to solve problems.	
Skill Quests	**Skills**
Bar graphs	Understanding & using bar graphs
Course Topic	**Activities Title**
Collect, display & analyze data	Bar Graphs 1
	Bar Graphs 2
	Interpreting Data Tables

Grade 4

1 Number

1.1 Students will be expected to develop number sense.

4.N01 Students will be expected to represent and partition whole numbers to 10 000.	
Skill Quests	**Skills**
Number concepts to 10 000	Reading & writing numbers to 10 000
	Understanding place value, 4-digit numbers
	Partitioning 4-digit numbers
Course Topic	**Activities Title**
Numbers to 10 000	Expanding Numbers
	Expanded Notation
	Place Value to Thousands
	Place value 3
	Understanding Place Value 2
	Numbers from Words to Digits 1
	Numbers from Words to Digits 2

4.N02 Students will be expected to compare and order numbers to 10 000.	
Skill Quests	**Skills**
Compare & order numbers to 10 000	Identifying numbers before & after to 10 000
	Identifying missing numbers to 10 000
	Comparing & ordering numbers to 10 000
Course Topic	**Activities Title**
Numbers to 10 000	Ascending Order
	Descending Order
	Which Is Greater?
	Which Is Less?

4.N03 Students will be expected to demonstrate an understanding of addition and subtraction of numbers with answers to 10 000 (limited to three- and four-digit numerals) by: using personal strategies for adding and subtracting; estimating sums and differences; solving problems involving addition and subtraction.	
Skill Quests	**Skills**
Addition to 10 000	Adding up to 10 000 using number line
	Adding up to 10 000 using place value
	Adding up to 10 000 using a split strategy
	Adding up to 10 000 using rounding & compensating
	Adding up to 10 000 using algorithm

	Choosing mixed addition strategies
Subtraction to 10 000	Subtracting up to 10 000 using number line
	Subtracting up to 10 000 using place value
	Subtracting up to 10 000 using a split strategy
	Subtracting up to 10 000 using round & compensate
	Subtracting up to 10 000 using algorithms
	Choosing mixed subtraction strategies
Add & subtract word problems to 10 000	Solving addition & subtraction word problems
Course Topic	**Activities Title**
3-digit addition & subtraction	Add 3-Digit Numbers
	Add 3-Digit Numbers: Regroup
	Add Three 2-Digit Numbers: Regroup
	Add Three 3-Digit Numbers: Regroup
	Add Multi-Digit Numbers 1
	Adding Colossal Columns
	Estimate Sums
	Estimate Differences
	Estimation: Add and Subtract
	3-Digit Differences
	3-Digit Differences with Zeros
	3-Digit Differences: 1 Regrouping
	3-Digit Differences: 2 Regroupings
	Subtracting Colossal Columns
	Budgeting

4.N04 Students will be expected to apply and explain the properties of 0 and 1 for multiplication and the property of 1 for division.	
Skill Quests	**Skills**
Multiply by 0 & 1, divide by 1	Multiplying by 1 or 0
	Dividing by 1
Course Topic	**Activities Title**
Teacher directed	

4.N05 Students will be expected to describe and apply mental mathematics strategies, to recall basic multiplication facts to 9 × 9, and to determine related division facts.	
Skill Quests	**Skills**
Multiplication facts to 9 x 9	Exploring multiplication by 2
	Exploring multiplication by 3
	Exploring multiplication by 4
	Exploring multiplication by 5
	Exploring multiplication by 6
	Exploring multiplication by 7
	Exploring multiplication by 8
	Exploring multiplication by 9

	Recalling multiplication facts to 7 x 7
Division facts to 81 ÷ 9	Dividing by 2 & 5
	Dividing by 3 & 6
	Dividing by 4 & 8
	Dividing by 9
Multiplication & division facts	Recall multiplication & division facts to 7 x 7
	Understand relationship, multiplication & division
Course Topic	**Activities Title**
Multiplication	Multiplication Arrays
	Times Tables
	Groups of Six
	Groups of Seven
	Groups of Eight
	Groups of Nine
	Groups of Ten
Division	Division Facts to Twelve
	Division Facts 1
	Dividing Twos
	Dividing Threes
	Dividing Fours
	Dividing Fives
	Dividing Sixes
	Dividing Sevens
	Dividing Eights
	Dividing Nines
Strategies to multiply & divide	Arrays 1
	Multiplication Grids
	Missing Numbers: x and ÷ facts
	Equivalent Facts: Multiply
	Fact Families: Multiply and Divide

4.N06	
Students will be expected to demonstrate an understanding of multiplication (one-, two-, or three-digit by one-digit numerals) to solve problems by: using personal strategies for multiplication, with and without concrete materials; using arrays to represent multiplication; connecting concrete representations to symbolic representations; estimating products; applying the distributive property.	
Skill Quests	**Skills**
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
Course Topic	**Activities Title**
Multiplication	Multiply: 1-Digit Number
	Multiply: 1-Digit Number, Regroup

	Multiply: 2-Digit by 1-Digit
	Multiply Multiples of 10
	Multiply More Multiples of 10
	Double and Halve to Multiply
	Estimate Products
Strategies to multiply & divide	Arrays 1
	Multiply 3 single-digit numbers
	Multiplication Grids
	Equivalent Facts: Multiply
	Multiply and Divide Problems 1
	Estimation: Multiply and Divide
	Problems: Multiply and Divide

4.N07 Students will be expected to demonstrate an understanding of division (one-digit divisor and up to two-digit dividend) to solve problems by: using personal strategies for dividing, with and without concrete materials; estimating quotients; relating division to multiplication.	
Skill Quests	**Skills**
Division, 2-digits 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-digits by 1-digit, extended algorithm
	Dividing 2-digits by 1-digit, algorithm
	Dividing 2-digits by 1-digit, round to estimate
	Dividing by 1 using bar models
Course Topic	**Activities Title**
Division	Remainders by Arrays
	Divide: 1-Digit Divisor 1
	Divide: 1-Digit Divisor 2
	Divide: 1-Digit Divisor, Remainder
	Short Division
	Long Division
	Estimate Quotients
Strategies to multiply & divide	Multiply and Divide Problems 1
	Estimation: Multiply and Divide
	Problems: Multiply and Divide

4.N08 Students will be expected to demonstrate an understanding of fractions less than or equal to 1 by using concrete, pictorial, and symbolic representations to: name and record fractions for the parts of one whole or a set; compare and order fractions; model and explain that for different wholes, two identical fractions may not represent the same quantity; provide examples of where fractions are used.	
Skill Quests	**Skills**
Represent fractions less than/equal to 1	Introducing the terms numerator & denominator
	Understanding fractions
	Representing halves, fourths & eighths

	Representing thirds & sixths
	Representing fifths
	Representing tenths
	Representing eighths
Compare & order fractions	Comparing & ordering unit fractions with models
	Comparing & ordering common fractions with models
	Comparing fractions with the same numerator
	Comparing fractions with the same denominator
Course Topic	**Activities Title**
Fractions	What Fraction is Shaded?
	Comparing Fractions 1
	Identifying Fractions on a Number Line
	Compare Fractions 1a
	Compare Fractions 1b
	Compare Fractions 2
	Equivalent Fractions
	Fraction Fruit Sets 1
	Partition into Equal Parts
	Counting with Fractions on a Number Line
	Ordering Fractions 1
	Equivalent Fraction Wall 1
	Part-Whole Rods 2

4.N09 Students will be expected to describe and represent decimals (tenths and hundredths) concretely, pictorially, and symbolically.	
Skill Quests	**Skills**
Decimals to hundredths	Introducing decimal notation
	Introducing decimal tenths
	Introducing decimal hundredths
Course Topic	**Activities Title**
Decimals	Decimals on the Number Line
	Decimal Order 1
	Decimal Place Value
	Comparing Decimals 1
	Decimals from Words to Digits 1
	Rounding Decimals 1
	Nearest Whole Number
	Decimal Complements

4.N10 Students will be expected to relate decimals to fractions and fractions to decimals (to hundredths).	
Skill Quests	**Skills**
Connect decimals & fractions	Connecting decimals & fractions, tenths
	Connecting decimals & fractions, hundredths
	Connecting decimals & fractions, up to hundredths
Course Topic	**Activities Title**
Decimals	Decimals to Fractions 1
	Decimals to Fractions 2
	Fractions to Decimals

4.N11 Students will be expected to demonstrate an understanding of addition and subtraction of decimals (limited to hundredths) by: estimating sums and differences; using mental mathematics strategies to solve problems; using personal strategies to determine sums and differences.	
Skill Quests	**Skills**
Add & subtract decimals to hundredths	Adding decimals to tenths
	Subtracting decimals to tenths
	Adding decimals to hundredths
	Subtracting decimals to hundredths
	Estimating decimal sums & differences
	Adding & subtracting decimal word problems
Use decimals in the context of money	Using decimals in money
	Estimating & calculating change
	Solving word problems involving money
Course Topic	**Activities Title**
Decimals	Add Decimals 1
	Subtract Decimals 1

2 Patterns and Relations (Patterns)

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

4.PR01 Students will be expected to identify and describe patterns found in tables and charts, including a multiplication chart.	
Skill Quests	**Skills**
Patterns in tables & charts	Exploring increasing number patterns
	Identifying number patterns up to 1000
	Investigating number sequences
Course Topic	**Activities Title**
Patterns & Equations	Decreasing Patterns
	Increasing Patterns
	Describing Patterns
	Pick the Next Number

4.PR02 Students will be expected to translate among different representations of a pattern (a table, a chart, or concrete materials).	
Skill Quests	**Skills**
Different representations in patterns	Relating patterns to tables or charts
	Creating addition patterns from a given rule
	Creating multiplication patterns from a given rule
Course Topic	**Activities Title**
Teacher directed	

4.PR03 Students will be expected to represent, describe, and extend patterns and relationships, using charts and tables, to solve problems.	
Skill Quests	**Skills**
Use patterns to solve problems	Using patterns to solve problems
	Identifying & describing additive number patterns
Course Topic	**Activities Title**
Teacher directed	

4.PR04 Students will be expected to identify and explain mathematical relationships, using charts and diagrams, to solve problems.	
Skill Quests	**Skills**
Use Venn & Carroll diagrams	Introducing Venn diagrams
	Introducing Carroll diagrams
	Relating Carroll & Venn diagrams
	Describing pattern rules
Course Topic	**Activities Title**
Patterns & Equations	I am Thinking of a Number!
	Magic Symbols 1

3 Patterns and Relations (Variables and Equations)

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

4.PR05 Students will be expected to express a given problem as an equation in which a symbol is used to represent an unknown number.	
Skill Quests	**Skills**
Express a problem as an equation	Matching equations to word problems
	Using symbols to represent unknown numbers
Course Topic	**Activities Title**
Patterns & Equations	Problems: Add and Subtract
	Problems: Multiply and Divide 1

4.PR06 Students will be expected to solve one-step equations involving a symbol to represent an unknown number.	
Skill Quests	**Skills**
One-step equations using all operations	Finding missing numbers: add & subtract equations
	One-step equations: addition & subtraction
	One-step equations: multiplication & division
	One-step equations: balancing number sentences
Course Topic	**Activities Title**
Patterns & Equations	Missing Numbers: Variables
	Missing Values
	Find the Missing Number 1

4 Measurement

4.1 Students will be expected to use direct and indirect measurement to solve problems.

4.M01 Students will be expected to read and record time using digital and analog clocks, including 24- hour clocks.	
Skill Quests	**Skills**
Read & record time	Telling time to the hour & half hour
	Telling time to the quarter hour
	Telling time to 5 minutes
	Telling time to the minute
	Using am & pm notation
	Using 24-hour time
Course Topic	**Activities Title**
Time	24 Hour Time
	Five Minute Times
	What is the Time?
	Time Mentals
	What Time Will it Be?
	Hours and Minutes
	Elapsed Time

4.M03 Students will be expected to demonstrate an understanding of area of regular and irregular 2-D shapes by: recognizing that area is measured in square units; selecting and justifying referents for the units square centimetre (cm2) or square metre (m2); estimating area using referents for cm2 or m2; determining and recording area (cm2 or m2); constructing different rectangles for a given area (cm2 or m2) in order to demonstrate that many different rectangles may have the same area.	
Skill Quests	**Skills**
Understand area	Measuring area using non-standard units
	Introducing formal units for area: cm^2
	Introducing formal units for area: m^2
Measure the area of rectangles	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
Approximate area, non-rectilinear shapes	Approximating areas, non-rectilinear shapes
Course Topic	**Activities Title**
Area	Area of Shapes
	Area: Squares and Rectangles
	Equal Areas

5 Geometry (3-D Objects and 2-D Shapes)

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

4.G01 Students will be expected to describe and construct rectangular and triangular prisms.	
Skill Quests	**Skills**
Understand prisms	Introducing rectangular & triangular prisms
	Identifying prisms in the environment
	Comparing & describing prisms
	Connecting nets to rectangular & triangular prisms
Course Topic	**Activities Title**
Faces, corners & edges	How many Faces?
	How many Edges?
	How many Corners?
	Faces, Edges and Vertices
	Faces, Edges, and Vertices 1
	What Prism am I?

6 Geometry (Transformations)

6.1 Students will be expected to describe and analyze position and motion of objects and shapes

4.G03 Students will be expected to demonstrate an understanding of line symmetry by: identifying symmetrical 2-D shapes; creating symmetrical 2-D shapes; drawing one or more lines of symmetry in a 2-D shape.	
Skill Quests	**Skills**
Recognize & draw line symmetry	Recognizing line symmetry
	Identifying & drawing lines of symmetry
Course Topic	**Activities Title**
Symmetry	Symmetry
	Symmetry or Not?

7 Statistics and Probability (Data Analysis)

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

4.SP01 Students will be expected to demonstrate an understanding of many-to-one correspondence.	
Skill Quests	**Skills**
Understand many-to-one correspondence	Comparing pictographs - different correspondence
Course Topic	**Activities Title**
Teacher directed	

4.SP02 Students will be expected to construct and interpret pictographs and bar graphs involving many to-one correspondence to draw conclusions.	
Skill Quests	**Skills**
Graphs using many-to-one correspondence	Using pictographs with many-to-one correspondence
	Using bar graphs with many-to-one correspondence
Course Topic	**Activities Title**
Collect, display & analyze data	Picture graphs: with scale & half symbols
	Picture Graphs: More or Less
	Bar Graphs 1
	Bar Graphs 2
	Divided Bar Graphs
	Reading from a Bar Chart

Grade 5

1 Number

1.1 Students will be expected to develop number sense.

5.N01 Students will be expected to represent and partition whole numbers to 1 000 000.	
Skill Quests	**Skills**
Number concepts to 1 000 000	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
Course Topic	**Activities Title**
Numbers to 1 000 000	Numbers in Words
	Numbers from Words to Digits 1
	Numbers from Words to Digits 2
	Numbers from Words to Digits 3
	Place Value 3
	Place Value to Millions
	Expanding Numbers
	Understanding Place Value 3
	Expanded Notation
	Place Value 1 (×10 and ÷10)
	Place Value 2 (×10 and ÷10)

5.N02 Students will be expected to use estimation strategies, including front-end, front-end adjusted, rounding, and compatible numbers in problem-solving contexts.	
Skill Quests	**Skills**
Strategies for estimation & computation	Rounding numbers up to 6-digits
	Round numbers to estimate - addition & subtraction
	Checking calculations when adding & subtracting
	Using compensation to add & subtract
	Rounding numbers to estimate - multiply & divide
	Checking calculations when multiplying & dividing
Course Topic	**Activities Title**
Estimation	Estimation: Add and Subtract
	Estimation: Multiply and Divide
	Estimate Products
	Estimate Sums
	Estimate Differences
	Estimate Quotients
	Estimate Decimal Differences 1
	Estimate Decimal Differences 2
	Estimate Decimal Sums 1

	Estimate Decimal Sums 2
	Nearest 100?
	Nearest 1000?
	Nearest Whole Number
	Rounding Numbers

5.N03 Students will be expected to describe and apply mental mathematics strategies and number properties to recall, with fluency, answers for basic multiplication facts to 81 and related division facts.	
Skill Quests	**Skills**
Multiplication facts to 9 x 9	Multiplication facts for 2
	Multiplication facts for 3
	Multiplication facts for 4
	Multiplication facts for 5
	Multiplication facts for 6
	Multiplication facts for 7
	Multiplication facts for 8
	Multiplication facts for 9
	Multiplying by 1 or 0
	Recalling multiplication facts to 9 x 9
	Relationship between multiplication & division
Division facts to 81 ÷ 9	Dividing by 2 & 5
	Dividing by 3 & 6
	Dividing by 4 & 8
	Dividing by 9
	Recall multiplication & division facts to 9 x 9
Course Topic	**Activities Title**
Multiplication	Equivalent Facts: Multiply
	Related Facts 2
	Multiplication Arrays
	Multiplication Properties
Division	Division Facts 1
	Mental Methods Division
	Mental Methods Division 1
	Mental Methods Division 2

5.N04 Students will be expected to apply mental mathematics strategies for multiplication, including: multiplying by multiples of 10, 100, and 1000; halving and doubling; using the distributive property.	
Skill Quests	**Skills**
Mental strategies to multiply	Multiplying by multiples of 10, 100 & 1000
	Multiplying using doubling
	Multiplying using doubling & halving
	Multiplying using distributive property
Course Topic	**Activities Title**

Multiplication	Multiply: 1-Digit Number
	Multiply: 1-Digit Number, Regroup
	Multiply: 2-Digit by 1-Digit
	Double and Halve to Multiply
	Multiplying by 10, 100, 1000
	Multiply 2 Digits Area Model

5.N05 Students will be expected to demonstrate, with and without concrete materials, an understanding of multiplication (two-digit by two-digit) to solve problems.	
Skill Quests	**Skills**
Multiply 2-digits by up to 2-digits	Multiplying 2-digits by 2-digits, area model
	Multiplying 2-digits by 2-digits, factoring
	Multiplying 2-digits by 2-digits, formal algorithm
	Solving multiplication word problems
Course Topic	**Activities Title**
Multiplication	Mental Methods Multiplication 1
	Mental Methods Multiplication 2
	Mental Methods Multiplication 3

5.N06 Students will be expected to demonstrate, with and without concrete materials, an understanding of division (three-digit by one-digit), and interpret remainders to solve problems.	
Skill Quests	**Skills**
Divide up to 3-digits by 1-digit	Dividing up to 3-digit by 1-digit, no 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
Course Topic	**Activities Title**
Division	Divide: 1-Digit Divisor 1
	Divide: 1-Digit Divisor 2
	Divide: 1-Digit Divisor, Remainder
	Compatible Numbers
	Remainders by Arrays
	Short Division

5.N07 Students will be expected to demonstrate an understanding of fractions by using concrete, pictorial, and symbolic representations to: create sets of equivalent fractions; compare and order fractions with like and unlike denominators.	
Skill Quests	**Skills**
Equivalent fractions	Finding equivalent fractions with models
	Finding equivalent fractions using multiplication
	Finding equivalent fractions using a number line
Compare & order fractions	Comparing unit fractions, different denominators
	Comparing & ordering proper fractions
Course Topic	**Activities Title**
Fractions	Shading Equivalent Fractions
	Ordering Fractions 1
	Simplifying Fractions
	Comparing Fractions 1
	Comparing Fractions 2
	Equivalent Fractions
	Equivalent Fractions on a Number Line 1
	Equivalent Fraction Wall 2
	Fractions to Decimals
	Fractions to Decimals 2
	Fraction to Terminating Decimal
	Fractions of a Collection 1
	Fractions of a Collection 2
	Fraction Length Models 1

5.N08 Students will be expected to describe and represent decimals (tenths, hundredths, and thousandths) concretely, pictorially, and symbolically.	
Skill Quests	**Skills**
Decimals to thousandths	Understanding decimals to thousandths
	Partitioning decimal numbers to thousandths
Course Topic	**Activities Title**
Decimals	Rounding Decimals
	Rounding Decimals 1
	Rounding Decimals 2
	Decimal Place Value
	Decimals on a Number Line
	Decimal Complements
	Decimals on the Number Line
	Decimals from Words to Digits 2

5.N09 Students will be expected to relate decimals to fractions and fractions to decimals (to thousandths).	
Skill Quests	**Skills**
Relate decimals & fractions	Relating decimals & fractions up to thousandths
Course Topic	**Activities Title**
Decimals	Decimals to Fractions 1
	Decimals to Fractions 2

5.N10 Students will be expected to compare and order decimals (to thousandths) by using benchmarks, place value, and equivalent decimals.	
Skill Quests	**Skills**
Compare & order decimals to thousandths	Comparing & ordering decimals to thousandths
Course Topic	**Activities Title**
Decimals	Comparing Decimals 1
	Comparing Decimals 2
	Decimal Order
	Comparing Decimals

5.N11 Students will be expected to demonstrate an understanding of addition and subtraction of decimals (limited to thousandths).	
Skill Quests	**Skills**
Add & subtract decimals to thousandths	Adding decimals to thousandths
	Subtracting decimals to thousandths
	Adding & subtracting decimal word problems
	Estimating sums & differences to thousandths
Course Topic	**Activities Title**
Add & subtract decimals	Subtract Decimals 1
	Subtracting Decimals
	Subtract Decimals 2
	Add Decimals 1
	Add Decimals 2
	Adding and Subtracting Decimals
	Adding Decimals

2 Patterns & Relations (Patterns)

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

5.PR01 Students will be expected to determine the pattern rule to make predictions about subsequent terms.	
Skill Quests	**Skills**
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
	Writing pattern rules as algebraic expressions
	Working with shape patterns & rules
Course Topic	**Activities Title**
Patterns & Equations	Describing Patterns

3 Patterns & Relations (Variables & Equations)

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

5.PR02 Students will be expected to solve problems involving single-variable, one-step equations with whole number coefficients and whole number solutions.	
Skill Quests	**Skills**
One-step equations with variables	Writing one-step equations using variables
	Solving one-step equations & word problems
	Solving one-step equations using bar model
Equations with letter variables	Expressing word problems as equations
Course Topic	**Activities Title**
Patterns & Equations	Solve Equations: Multiply, Divide 1
	Find the Missing Number 1
	Find the Missing Number 2
	Missing Values
	Missing Numbers

4 Measurement

4.1 Students will be expected to use direct and indirect measurement to solve problems.

5.M01 Students will be expected to design and construct different rectangles, given a perimeter or an area or both (whole numbers), and make generalizations.	
Skill Quests	**Skills**
Perimeter of rectangles	Introducing perimeter
Area of rectangles, formula	Finding the area of rectangles, formula
Relationship between area & perimeter	Solving perimeter & area problems
Course Topic	**Activities Title**
Teacher directed	

5.M02 Students will be expected to demonstrate an understanding of measuring length (mm) by: selecting and justifying referents for the unit millimetre (mm); modelling and describing the relationship between millimetre (mm) and centimetre (cm) units, and between millimetre (mm) and metre (m) units.	
Skill Quests	**Skills**
Measure length in millimetres	Introducing millimetres
	Recording length in decimal notation
Relationship between mm, cm & m	Comparing & ordering lengths in mm & cm
	Converting between mm & cm
	Converting between m & cm
	Selecting appropriate units of length: mm, cm & m
Course Topic	**Activities Title**
Convert metric units	Measuring Length
	Centimetres and Metres
	Converting cm and mm
	Converting Units of Length

5.M03 Students will be expected to demonstrate an understanding of volume by: selecting and justifying referents for cubic centimetre (cm3) or cubic metre (m3) units; estimating volume using referents for cubic centimetre (cm3) or cubic metre (m3); measuring and recording volume (cm3 or m3); constructing rectangular prisms for a given volume.	
Skill Quests	**Skills**
Measure volume in cubic units	Using unit cubes to measure volume
	Using cubic cm & m to measure volume
	Estimating volume using cubic cm & m
Course Topic	**Activities Title**
Volume	Volume: Cuboid 1
	Volume: Rectangular Prisms 1

5.M04 Students will be expected to demonstrate an understanding of capacity by: describing the relationship between millilitre (mL) and litre (L) units; selecting and justifying referents for millilitre (mL) and litre (L) units; estimating capacity using referents for millilitre (mL) and litre (L); measuring and recording capacity (mL or L).	
Skill Quests	**Skills**
Measure capacity in L & mL	Introducing litres & millilitres
	Using millilitres & litres as references
	Measuring capacity in mL
	Estimating capacity using mL & L
	Selecting units to measure capacity (mL, L)
Course Topic	**Activities Title**
Volume	Millilitres and Litres
	Capacity Word Problems

5 Geometry (3-D Objects & 2-D Shapes)

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

5.G01 Students will be expected to describe and provide examples of edges and faces of 3-D objects, and sides of 2-D shapes that are parallel, intersecting, perpendicular, vertical, and horizontal.	
Skill Quests	**Skills**
Features of 2-D shapes & 3-D objects	Identifying features on 3-D objects
	Identifying features on 2-D shapes
Course Topic	**Activities Title**
2-D shapes & 3-D objects	Faces, Edges, and Vertices 1
	Faces, Edges and Vertices
	Collect the Shapes 2
	Collect the Objects 2
	Shapes
	Collect the Polygons

6 Geometry (Transformations)

6.1 Students will be expected to describe and analyze position and motion of objects and shapes

5.G03 Students will be expected to perform a single transformation (translation, rotation, or reflection) of a 2-D shape (with and without technology) and draw and describe the image.	
Skill Quests	**Skills**
Teacher directed	
Course Topic	**Activities Title**
Teacher directed	

5.G05 Students will be expected to identify right angles.	
Skill Quests	**Skills**
Identify 90º angles	Introducing right angles
	Identifying right angles in quadrilaterals
Course Topic	**Activities Title**
2-D shapes & 3-D objects	Right Angle Relation

7 Statistics & Probability (Data Analysis)

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

5.SP01 Students will be expected to differentiate between first-hand and second-hand data.	
Skill Quests	**Skills**
Teacher directed	
Course Topic	**Activities Title**
Teacher directed	

5.SP02 Students will be expected to construct and interpret double bar graphs to draw conclusions.	
Skill Quests	**Skills**
Double bar graphs	Interpreting data, double bar graphs
	Representing data, double bar graphs
Course Topic	**Activities Title**
Teacher directed	

8 Statistics & Probability (Chance & Uncertainty)

8.1 Students will be expected to use experimental or theoretical probabilities to represent and solve problems involving uncertainty.

5.SP03 Students will be expected to describe the likelihood of a single outcome occurring, using words such as impossible, possible, and certain.	
Skill Quests	**Skills**
Likelihood of single outcomes	Exploring the language of probability
Course Topic	**Activities Title**
Introduction to probability	Most likely and Least likely

5.SP04 Students will be expected to compare the likelihood of two possible outcomes occurring, using words such as less likely, equally likely, or more likely.	
Skill Quests	**Skills**
Likelihood of 2 possible outcomes	Describing chances of everyday events
	Understanding chance experiments, equal outcomes
	Understanding chance experiments, unequal outcomes
	Understand chance experiments, independent events
Course Topic	**Activities Title**
Introduction to probability	Chance Dial
	Chance Gauge
	Probability Scale

Grade 6

1 Number

1.1 Students will be expected to develop number sense.

6.N01 Students will be expected to demonstrate an understanding of place value for numbers greater than one million and less than one-thousandth.	
Skill Quests	**Skills**
Place value to billions	Reading & writing numbers up to billions
	Identifying place value up to billions
Place value smaller than thousandths	Place value smaller than thousandths
Situational questions	Situational questions, larger than one million
	Situational questions, smaller than one thousandth
Course Topic	**Activities Title**
Place value – extended	Place Value to Billions
	Numbers from Words to Digits 3
	Place Value 1 (×10 and ÷10)
	Place Value 2 (×10 and ÷10)
	Comparing Numbers
	Comparing Decimals

6.N02 Students will be expected to solve problems involving whole numbers and decimal numbers.	
Skill Quests	**Skills**
Solve problems: whole numbers & decimals	Multiplying decimals & whole numbers
	Dividing decimals & whole numbers
	Adding decimals & whole numbers
	Subtracting decimals & whole numbers
Course Topic	**Activities Title**
Operations with numbers	Estimate Sums
	Estimate Differences
	Estimate Products
	Estimate Quotients
	Adding Colossal Columns
	Subtracting Colossal Columns
	Long Multiplication
	Multiplying by 10, 100, 1000
	Dividing by 10, 100, 1000
	Short Division
Decimals	Decimals on the Number Line
	Comparing Decimals 1
	Comparing Decimals 2
	Decimal Order 1

	Decimal Order 2
	Estimate Decimal Sums 1
	Estimate Decimal Differences 1
	Estimate Decimal Differences 2
	Estimate Decimal Operations

6.N03 Students will be expected to demonstrate an understanding of factors and multiples by: determining multiples and factors of numbers less than 100; identifying prime and composite numbers; solving problems using multiples and factors	
Skill Quests	**Skills**
Prime & composite numbers	Introducing prime & composite numbers
Prime factors	Using prime factors
Find factors & multiples	Finding multiples up to 100, including LCM
	Finding factors up to 100, including GCF
	Situational questions, factors & multiples
Course Topic	**Activities Title**
Multiples & Factors	Greatest Common Factor
	Find the Factor
	Factors
	Multiples of
	Least Common Multiple
	Prime or Composite?
	Product of Prime Factors
	Prime Factoring
	Fit the Conditions 1

6.N04 Students will be expected to relate improper fractions to mixed numbers and mixed numbers to improper fractions.	
Skill Quests	**Skills**
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
Course Topic	**Activities Title**
Fractions	What Mixed Number Is Shaded?
	Converting Mixed and Improper
	Mixed to Improper
	Improper to Mixed
	Identifying fractions beyond 1
	Mixed and Improper Numbers on a Number Line

6.N05 Students will be expected to demonstrate an understanding of ratio, concretely, pictorially, and symbolically.	
Skill Quests	**Skills**
Introduction to ratios	Introducing ratios
	Simplifying ratios
	Dividing a quantity into a given ratio
	Identifying equivalent ratios
Course Topic	**Activities Title**
Ratios	Ratio
	Ratios
	Simplify Ratios: 2 Whole Numbers
	Equivalent Ratios
	Solve Proportions
	Proportional Relationships
	Ratio and Proportion

6.N06 Students will be expected to demonstrate an understanding of percent (limited to whole numbers) concretely, pictorially, and symbolically.	
Skill Quests	**Skills**
Whole-number percentages	Introducing percentages
Percentage equivalents	Representing percentage & fraction equivalents
	Representing percentage & decimal equivalents
	Fraction, decimal & percentage equivalents
Calculate percentages of whole numbers	Calculating simple percentages
Calculate percentage discounts	Calculating percentage discounts
Course Topic	**Activities Title**
Percents	Modelling Percentages
	Common Fractions as Percentages
	Fractions to Percentages (Non-Calculator)
	Percents to Fractions
	Decimal to Percentage
	Percents and Decimals
	Match Decimals and Percentages
	Percent of a Number (Mental)
	Calculating Percentages 1
	Percentages of a quantity (>100%)
	Complementary Percentages
	Percentage Word Problems

6.N07 Students will be expected to demonstrate an understanding of integers contextually, concretely, pictorially, and symbolically.	
Skill Quests	**Skills**
Read & represent integers	Investigating integers
	Understanding integers in real-life contexts
	Comparing & ordering integers
Course Topic	**Activities Title**
Integers	Integers on a Number Line
	Ordering Integers (Number Line)
	Comparing Integers

6.N08 Students will be expected to demonstrate an understanding of multiplication and division of decimals (one-digit whole number multipliers and one-digit natural number divisors).	
Skill Quests	**Skills**
Multiply decimals to thousandths	Multiplying decimals to thousandths
	Multiplying decimals & whole numbers, base 10
Divide decimals to thousandths	Dividing decimals & whole numbers, base 10
	Dividing decimals to thousandths
Course Topic	**Activities Title**
Operations with decimals	Multiply Decimals and Powers of 10
	Multiply Decimals: 10, 100, 1000
	Decimal by Whole Number
	Divide Decimal by Whole Number
	Divide Decimals: 10, 100, 1000
	Missing Values: Decimals
	Rounding Decimals 1
	Rounding Decimals 2
	Money Problems: Four Operations

6.N09 Students will be expected to explain and apply the order of operations, excluding exponents, with and without technology (limited to whole numbers).	
Skill Quests	**Skills**
Order of operations with whole numbers	Order of operations, addition & subtraction
	Order of operations, multiplication & division
	Order of operations, 4 operations
	Order of operations, grouping symbols
	Situational questions, order of operations
Course Topic	**Activities Title**
Order of operations	Commutative Property of Addition
	Multiplication Properties
	Order of Operations 1 (BEDMAS)
	Identifying Errors in Applying the Order of Operations

2 Patterns & Relations (Patterns)

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

6.PR01 Students will be expected to demonstrate an understanding of the relationships within tables of values to solve problems.	
Skill Quests	**Skills**
Relationships within tables	Determining missing values in a table of values
	Making predictions about linear growing patterns
Course Topic	**Activities Title**
Patterns, Tables & Graphs	Table of Values
	Pattern Rules and Tables
	Find the Pattern Rule

6.PR02 Students will be expected to represent and describe patterns and relationships, using graphs and tables.	
Skill Quests	**Skills**
Patterns in tables of values & graphs	Creating a table of values, visual pattern
	Representing linear patterns, tables & graphs
Course Topic	**Activities Title**
Patterns, Tables & Graphs	Coordinate Graphs: 1st Quadrant
	Coordinate Graphs
	Graphing from a Table of Values
	Reading Values from a Line

3 Patterns & Relations (Variables & Equations)

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

6.PR03 Students will be expected to represent generalizations arising from number relationships using equations with letter variables.	
Skill Quests	**Skills**
Patterns, expressions & equations	Writing an equation to represent a table of values
	Writing expressions, rule for a pattern
Course Topic	**Activities Title**
Patterns, Tables & Graphs	Increasing Patterns
	Decreasing Patterns
	Pick the Next Number
	Describing patterns

6.PR04 Students will be expected to demonstrate and explain the meaning of preservation of equality concretely, pictorially, and symbolically.	
Skill Quests	**Skills**
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
Course Topic	**Activities Title**
Patterns, Tables & Graphs	Missing Values
	Missing Numbers: Variables

4 Measurement

4.1 Students will be expected to use direct and indirect measurement to solve problems.

6.M01 Students will be expected to demonstrate an understanding of angles by: identifying examples of angles in the environment; classifying angles according to their measure; estimating the measure of angles using 45°, 90°, and 180° as reference angles; determining angle measures in degrees; drawing and labelling angles when the measure is specified.	
Skill Quests	**Skills**
Angle measurement & classification	Classifying angles
	Measuring angles with a circular protractor
Course Topic	**Activities Title**
Angles	What Type of Angle?
	Classifying Angles
	Right Angle Relation
	Estimating Angles
	Labelling Angles
	Measuring Angles

6.M02 Students will be expected to demonstrate that the sum of interior angles is 180° in a triangle and 360° in a quadrilateral.	
Skill Quests	**Skills**
Sum of interior angles	Finding the missing angle of a triangle
	Finding the missing angle of a quadrilateral
Course Topic	**Activities Title**
Angles	Angle Measures in a Triangle
	Quadrilaterals: Angle Sum with Equations

6.M03 Students will be expected to develop and apply a formula for determining the: perimeter of polygons; area of rectangles, volume of right rectangular prisms.	
Skill Quests	**Skills**
Perimeter of polygons	Determining the perimeter of polygons
Area of rectangles	Finding the area of rectangles
Relationships between area & perimeter	Solving perimeter & area problems
Volume of rectangular prisms	Finding the volume of rectangular prisms
	Finding the missing dimension, rectangular prisms
Course Topic	**Activities Title**
Perimeter, area & volume	Perimeter Detectives 2
	Perimeter: Composite Shapes
	Area: Squares and Rectangles
	Volume: Cuboid 1
	Volume: Rectangular Prisms 1

5 Geometry (3-D Objects & 2-D Shapes)

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

6.G01 Students will be expected to construct and compare triangles, including scalene, isosceles, equilateral, right, obtuse, or acute in different orientations.	
Skill Quests	**Skills**
Classification of triangles	Classifying triangles by their sides & angles
Course Topic	**Activities Title**
Triangles	Triangle Tasters
	Triangles: Acute, Right, Obtuse

6 Geometry (Transformations)

6.1 Students will be expected to describe and analyze position and motion of objects and shapes.

6.G03 Students will be expected to perform a combination of translation(s), rotation(s), and/or reflection(s) on a single 2-D shape, with and without technology, and draw and describe the image.	
Skill Quests	**Skills**
Combinations of transformations	Identifying combinations of transformations
Course Topic	**Activities Title**
Transformations	Transformations

6.G04 Students will be expected to perform a combination of successive transformations of 2-D shapes to create a design and identify and describe the transformations.	
Skill Quests	**Skills**
Recognize tessellations	Recognizing tessellations
Course Topic	**Activities Title**
Teacher directed	

6.G05 Students will be expected to identify and plot points in the first quadrant of a Cartesian plane using whole number ordered pairs.	
Skill Quests	**Skills**
The Cartesian plane, first quadrant	Plotting points in the first quadrant
	Plotting points that create a shape
Course Topic	**Activities Title**
Transformations	Horizontal and Vertical Change

6.G06 Students will be expected to perform and describe single transformations of a 2-D shape in the first quadrant of a Cartesian plane (limited to whole number vertices).	
Skill Quests	**Skills**
Transformations in the first quadrant	Investigating translations in the first quadrant
	Identifying reflections in the first quadrant
	Identifying rotations in the first quadrant
Course Topic	**Activities Title**
Transformations	Transformations: Coordinate Plane
	Rotations: Coordinate Plane
	Congruent Figures

7 Statistics & Probability (Data Analysis)

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

6.SP01 Students will be expected to create, label, and interpret line graphs to draw conclusions.	
Skill Quests	**Skills**
Construct line graphs	Constructing a line graph
	Interpreting data in a line graph
	Choosing graphs, continuous vs discrete data
Course Topic	**Activities Title**
Collect, display & analyze data	Line Graphs: Interpretation

6.SP02 Students will be expected to select, justify, and use appropriate methods of collecting data, including questionnaires, experiments, databases, and electronic media.	
Skill Quests	**Skills**
Data collection	Collecting data: questionnaires
Course Topic	**Activities Title**
Teacher directed	

8 Statistics & Probability (Chance & Uncertainty)

8.1 Students will be expected to use experimental or theoretical probabilities to represent and solve problems involving uncertainty.

6.SP04 Students will be expected to demonstrate an understanding of probability by: identifying all possible outcomes of a probability experiment; differentiating between experimental and theoretical probability; determining the theoretical probability of outcomes in a probability experiment; determining the experimental probability of outcomes in a probability experiment; comparing experimental results with the theoretical probability for an experiment.	
Skill Quests	**Skills**
Theoretical & experimental probability	Comparing observed & expected frequencies
	Probability of 0 and 1
	Predicting the probability of a specific outcome
	Listing the sample space for an event
Course Topic	**Activities Title**
Probability	How many Combinations?
	Counting Techniques 1
	Counting Techniques 2
	Introductory Probability
	Simple Probability
	Find the Probability
	Fair Games

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