Mathletics
Ontario Curriculum

Activities (Courses) and Skill Quests

Grades 4-6

July, 2025

Mathletics

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Grade 4

B. Number

B1. Number Sense: Whole Numbers

4.B1.1	
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	
Course Topics	**Activities**
B1 Whole Number	Expanding Numbers
	Place Value – Thousands
	Place Value 3
	Understanding Place Value 2
	Smallest and largest numbers
Topics	**Skill Quests**
Numbers up to 10 000	Reading & writing 4-digit numbers
	Using place value to partition 4-digit numbers
	Identifying place value: 4-digit numbers

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

4.B1.3	
round whole numbers to the nearest ten, hundred, or thousand, in various contexts	
Course Topics	**Activities**
B1 Whole Number	Nearest Hundred?
	Nearest Thousand?
Topics	**Skill Quests**
Round 4-digit numbers	Rounding 4-digit numbers

B1. Number Sense: Fractions and Decimals

4.B1.4	
represent fractions from halves to tenths using drawings, tools, and standard fractional notation, and explain the meanings of the denominator and the numerator	
Course Topics	**Activities**
B1 Fractions	Compare Fractions 1a
	Counting with Fractions on a Number Line
	Uneven partitioned shapes 2
	What Fraction Is Shaded 1
	Fraction Length Models 1
Topics	**Skill Quests**
Represent fractions, halves to tenths	Introducing the terms numerator & denominator
	Representing halves, fourths & eighths
	Representing thirds & sixths
	Representing fifths & tenths

4.B1.5	
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	
Course Topics	**Activities**
B1 Fractions	Comparing Fractions 1
	Compare Fractions 1a
	Fractions of a Collection 2
	Partition into Equal Parts
	Fraction Fruit Sets 2
Topics	**Skill Quests**
Compare & order fractions with models	Comparing & ordering fractions with models
	Comparing fractions, same numerator or denominator

4.B1.6	
count to 10 by halves, thirds, fourths, fifths, sixths, eighths, and tenths, with and without the use of tools	
Course Topics	**Activities**
B1 Fractions	Counting with Fractions on a Number Line
Topics	**Skill Quests**
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

4.B1.7	
read, represent, compare, and order decimal tenths, in various contexts	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Decimal tenths	Introducing decimal tenths
	Comparing & ordering decimal tenths

4.B1.8	
round decimal numbers to the nearest whole number, in various contexts	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Comparing & ordering decimal tenths	Round decimal tenths, nearest whole

4.B1.9	
describe relationships and show equivalences among fractions and decimal tenths, in various contexts	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Equivalence, fractions & decimal tenths	Connecting decimal tenths to common fractions

B2. Operations: Properties and Relationships

4.B2.1	
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	
Course Topics	**Activities**
B2 Multiplication & Division Facts	Multiplication Turn-Abouts
	Related Facts 2
	Fact Families: Multiply and Divide
B2 Addition & Subtraction	Fact Families: Add and Subtract
Topics	**Skill Quests**
Inverse operations & properties	The distributive property
	The commutative property
	The associative property
	Inverse relationships, addition & subtraction
	Inverse relationships, multiplication & division

B2. Operations: Math Facts

4.B2.2	
recall and demonstrate multiplication facts for 1 × 1 to 10 × 10, and related division facts	
Course Topics	**Activities**
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
	Multiply and Divide Problems 1
	Remainders by Arrays
Topics	**Skill Quests**
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

B2. Operations: Mental Math

4.B2.3	
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	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
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

B2. Operations: Addition and Subtraction

4.B2.4
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

Course Topics	Activities
B2 Addition & Subtraction	Compensation – Add
	Compensation – Subtract
	Column Addition Method
	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

Topics	Skill Quests
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

B2. Operations: Multiplication and Division

4.B2.5
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

Course Topics	Activities
B2 Multiplication & Division Facts	Multiply Multiples of 10
	Multiplying Whole Numbers by 10, 100, and 1000

Topics	Skill Quests
Multiply 2-digit & 3-digit numbers	Multiplying by 100
	Multiplication strategies

4.B2.6

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

Course Topics	Activities
B2 Multiplication & Division Facts	Remainders by Arrays
Topics	**Skill Quests**
Divide 2-digits & 3-digits by 1-digit	Division strategies
	Dividing using place value
	Dividing with remainders

4.B2.7

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

Course Topics	Activities
Teacher directed	
Topics	**Skill Quests**
Multiply unit fractions by whole numbers	Multiply unit fractions by whole numbers, models

4.B2.8

show simple multiplicative relationships involving whole-number rates, using various tools and drawings

Course Topics	Activities
Teacher directed	
Topics	**Skill Quests**
Solve problems involving rates	Solving problems involving rates

C. Algebra

C1. Patterns and Relationships: Patterns

4.C1.1	
identify and describe repeating and growing patterns, including patterns found in real-life contexts	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
ID/describe repeating & growing patterns	Identifying & describing growing patterns
	Identifying & describing repeating patterns

4.C1.2	
create and translate repeating and growing patterns using various representations, including tables of values and graphs	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Create repeating & growing patterns	Creating growing patterns
	Creating repeating patterns

4.C1.3	
determine pattern rules and use them to extend patterns, make and justify predictions, and identify missing elements in repeating and growing patterns	
Course Topics	**Activities**
C1 and C2 Patterns & Variables	Table of Values
Topics	**Skill Quests**
Pattern rules: repeating & growing	Investigating number patterns
	Finding a rule for a given shape pattern

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

C2. Equations and Inequalities: Variables

<table>
<tr><td colspan="2">4.C2.1
identify and use symbols as variables in expressions and equations</td></tr>
<tr><td>Course Topics</td><td>Activities</td></tr>
<tr><td rowspan="5">C1 and C2 Patterns & Variables</td><td>Find the Missing Number 1</td></tr>
<tr><td>Find the Missing Number 2</td></tr>
<tr><td>Magic Symbols 1</td></tr>
<tr><td>Magic Symbols 2</td></tr>
<tr><td>Word Problems with Letters</td></tr>
<tr><td>Topics</td><td>Skill Quests</td></tr>
<tr><td>Teacher directed</td><td></td></tr>
</table>

C2. Equations and Inequalities: Equalities and Inequalities

<table>
<tr><td colspan="2">4.C2.2
solve equations that involve whole numbers up to 50 in various contexts, and verify solutions</td></tr>
<tr><td>Course Topics</td><td>Activities</td></tr>
<tr><td rowspan="3">C1 and C2 Patterns & Variables</td><td>Find the Missing Number 1</td></tr>
<tr><td>Find the Missing Number 2</td></tr>
<tr><td>Missing Numbers: Variables</td></tr>
<tr><td>Topics</td><td>Skill Quests</td></tr>
<tr><td>Solve equations</td><td>Solving 1-step equations</td></tr>
</table>

<table>
<tr><td colspan="2">4.C2.3
solve inequalities that involve addition and subtraction of whole numbers up to 20, and verify and graph the solutions</td></tr>
<tr><td>Course Topics</td><td>Activities</td></tr>
<tr><td colspan="2">Teacher directed</td></tr>
<tr><td>Topics</td><td>Skill Quests</td></tr>
<tr><td>Solve inequalities</td><td>Solving inequalities</td></tr>
</table>

C3. Coding: Coding Skills

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

4.C3.2	
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	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Teacher directed	

D. Data

D1. Data Literacy: Data Collection and Organization

4.D1.1	
describe the difference between qualitative and quantitative data, and describe situations where each would be used	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Qualitative & quantitative data	Identifying qualitative & quantitative data

4.D1.2	
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	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Collect & compare data	Collecting & recording category data in tables
	Stem-and-leaf plots

D1. Data Literacy: Data Visualization

4.D1.3	
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	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Graphs: multiple-bar graphs	Representing data in a multiple-bar graph
	Representing data in a pictograph

4.D1.4	
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	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Teacher directed	

4.D1.5
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

Course Topics	Activities
D1 Data	Median
	Median from Frequency Table
	Median from Stem and Leaf Plot
	Finding the Average
	The Mean
	Mode from Stem and Leaf Plot
Topics	**Skill Quests**
Mean, median & mode	Understanding & calculating the mean
	Understanding & calculating the median
	Understanding & calculating the mode

D1. Data Literacy: Data Analysis

4.D1.6
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

Course Topics	Activities
D1 Data	Line Graphs: Explanation
	Stem and Leaf Plots: Concept
Topics	**Skill Quests**
Analyse data	Analysing data in stem-and-leaf plots
	Analysing data in multiple-bar graphs
	Analysing data in bar graphs, pictographs & tables

D2. Probability: Probability

4.D2.1
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

Course Topics	Activities
D2 Probability	What are the Chances?
	Introductory Probability
Topics	**Skill Quests**
Probability language	Describe the chances of everyday events occurring

4.D2.2
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

Course Topics	Activities
Teacher directed	
Topics	**Skill Quests**
Teacher directed	

E. Spatial Sense

E1. Geometric and Spatial Reasoning: Geometric Reasoning

4.E1.1
identify geometric properties of rectangles, including the number of right angles, parallel and perpendicular sides, and lines of symmetry

Course Topics	Activities
Teacher directed	

Topics	Skill Quests
Teacher directed	

E1. Geometric and Spatial Reasoning: Location and Movement

4.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

Course Topics	Activities
E1 Geometry	Coordinate Graphs: 1st Quadrant
	Coordinate Meeting Place
	Map Coordinates

Topics	Skill Quests
The Cartesian plane	The Cartesian coordinate system, 1st quadrant
	Investigating translations in the 1st quadrant

4.E1.3
describe and perform translations and reflections on a grid, and predict the results of these transformations

Course Topics	Activities
Teacher directed	

Topics	Skill Quests
Translations & reflections	Translations & reflections

E2. Measurement: The Metric System

4.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

Course Topics	Activities
Teacher directed	

Topics	Skill Quests
Mass & capacity	Introducing units of mass: the gram & kilogram
	Introducing capacity units: millilitres & litres
	Estimating capacities using millilitres & litres

4.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

Course Topics	Activities
E2 Measure	Which Unit of Measurement?
	Which Measuring Tool?
	Measure to the Nearest Half Centimetre

Topics	Skill Quests
Length, mass, capacity: units & tools	Select & use metric units & tools, mass
	Select & use metric units & tools, capacity
	Select metric units, length

E2. Measurement: Time

4.E2.3
solve problems involving elapsed time by applying the relationships between different units of time

Course Topics	Activities
E2 Measure	Time Mentals
	Elapsed Time
	What Time Will it Be?

Topics	Skill Quests
Solve problems involving elapsed time	Calculating elapsed time

E2. Measurement: Angles

4.E2.4
identify angles and classify them as right, straight, acute, or obtuse

Course Topics	Activities
E2 Measure	What Type of Angle?
	What Type of Angle 2?

Topics	Skill Quests
Identify & classify angles	Classifying angles

E2. Measurement: Area

4.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	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Area of rectangles, models	Finding the area of a rectangle, arrays
	Finding the area of a rectangle, area model

4.E2.6	
apply the formula for the area of a rectangle to find the unknown measurement when given two of the three	
Course Topics	**Activities**
E2 Measure	Area: Squares and Rectangles
Topics	**Skill Quests**
Area of rectangles, formula	Finding the area of rectangles, formula

F. Financial Literacy

F1. Money and Finances: Money Concepts

<table>
<tr><td colspan="2">4.F1.1
identify various methods of payment that can be used to purchase goods and services</td></tr>
<tr><th>Course Topics</th><th>Activities</th></tr>
<tr><td colspan="2">Teacher directed</td></tr>
<tr><th>Topics</th><th>Skill Quests</th></tr>
<tr><td colspan="2">Teacher directed</td></tr>
</table>

<table>
<tr><td colspan="2">4.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</td></tr>
<tr><th>Course Topics</th><th>Activities</th></tr>
<tr><td>F1 Financial Literacy</td><td>How much Change?</td></tr>
<tr><td></td><td>Net Pay</td></tr>
<tr><th>Topics</th><th>Skill Quests</th></tr>
<tr><td>Calculate the purchase cost & change</td><td>Calculating the purchase cost & change</td></tr>
</table>

F. Financial Literacy: Financial Management

<table>
<tr><td colspan="2">4.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</td></tr>
<tr><th>Course Topics</th><th>Activities</th></tr>
<tr><td colspan="2">Teacher directed</td></tr>
<tr><th>Topics</th><th>Skill Quests</th></tr>
<tr><td colspan="2">Teacher directed</td></tr>
</table>

<table>
<tr><td colspan="2">4.F1.4
explain the relationship between spending and saving, and describe how spending and saving behaviours may differ from one person to another</td></tr>
<tr><th>Course Topics</th><th>Activities</th></tr>
<tr><td colspan="2">Teacher directed</td></tr>
<tr><th>Topics</th><th>Skill Quests</th></tr>
<tr><td colspan="2">Teacher directed</td></tr>
</table>

F. Financial Literacy: Consumer and Civic Awareness

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

Grade 5

B. Number

B1. Number Sense: Whole Numbers

5.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	
Course Topics	**Activities**
B1 Whole Number	Numbers in Words
	Numbers from Words to Digits 1
	Expanding Numbers
	Understanding Place Value 3
	Expanded Notation
	Factors
	Find the Factor
	Rounding Numbers
Topics	**Skill Quests**
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

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

B1. Number Sense: Fractions, Decimals, and Percents

5.B1.3	
represent equivalent fractions from halves to twelfths, including improper fractions and mixed numbers, using appropriate tools, in various contexts	
Course Topics	**Activities**
B1 Fractions, Decimals, & Percents	Equivalent Fraction Wall 1
	Equivalent Fraction Wall 2
	Shading Equivalent Fractions
	Equivalent Fractions on a Number Line 1
	What Mixed Number Is Shaded?
	Mixed and Improper Fractions on a Number Line
Topics	**Skill Quests**
Equivalent fractions	Finding equivalent fractions using multiplication
	Finding equivalent fractions using a number line

5.B1.4	
compare and order fractions from halves to twelfths, including improper fractions and mixed numbers, in various contexts	
Course Topics	**Activities**
B1 Fractions, Decimals, & Percents	Part-Whole Rods 1
	Part-Whole Rods 2
	Fraction Length Models 2
Topics	**Skill Quests**
Compare & order fractions	Comparing & ordering fractions
	Comparing & ordering fractions using models

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

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

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

B2. Operations: Properties and Relationships

5.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	
Course Topics	**Activities**
B2 Multiplication & Division	Mental Methods Multiplication 1
	Mental Methods Multiplication 2
Topics	**Skill Quests**
Inverse operations & Properties	Using inverse operations to solve problems

B2. Operations: Math Facts

5.B2.2	
recall and demonstrate multiplication facts from 0 × 0 to 12 × 12, and related division facts	
Course Topics	**Activities**
B2 Multiplication & Division	Multiplication Facts
	Division Facts 1
Topics	**Skill Quests**
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

B2. Operations: Mental Math

5.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	
Course Topics	**Activities**
B2 Addition & Subtraction	Estimate Decimal Differences 1
	Estimate Decimal Sums 2
	Add Decimals 1
Topics	**Skill Quests**
Mental math strategies, Decimals	Adding & subtracting decimals, mental strategies
	Dividing whole numbers by 10
	Multiplying whole numbers by 0.1 & 0.01

B2. Operations: Addition and Subtraction

5.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	
Course Topics	**Activities**
B2 Addition & Subtraction	Adding Colossal Columns
	Add Multi-Digit Numbers 1
Topics	**Skill Quests**
Add & subtract whole numbers & decimals	Adding & subtracting 5-digit numbers, algorithm
	Adding & subtracting 5-digit numbers, mentally
	Adding & subtracting decimals to hundredths

5.B2.5	
add and subtract fractions with like denominators, in various contexts	
Course Topics	**Activities**
B2 Addition & Subtraction	Common Denominator
	One Take Fraction
	Subtract Like Fractions
	Add Subtract Fractions 1
Topics	**Skill Quests**
Add/subtract fractions, like Denominator	Add fractions with like denominators
	Subtract fractions with like denominators

B2. Operations: Multiplication and Division

5.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

Course Topics	Activities
B2 Multiplication & Division	Grid Methods 2
	Multiply 2 Digits Area Model

Topics	Skill Quests
Multiply 2-digit by 2-digit	Multiplying 2-digit numbers by 2-digit numbers

5.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

Course Topics	Activities
B2 Multiplication & Division	Long Division by Whole Numbers
	Divide: 2-Digit Divisor, Remainder

Topics	Skill Quests
Divide 3-digits by 2-digits	Dividing 2 & 3-digit numbers by 2-digit numbers

5.B2.8
multiply and divide one-digit whole numbers by unit fractions, using appropriate tools and drawings

Course Topics	Activities
B2 Multiplication & Division	Unit Fractions
	Divide by a Unit Fraction

Topics	Skill Quests
Multiply & divide unit Fractions	Multiplying unit fractions by whole numbers
	Dividing unit fractions by whole numbers

5.B2.9
represent and create equivalent ratios and rates, using a variety of tools and models, in various contexts

Course Topics	Activities
B2 Multiplication & Division	Ratio
	Ratios
	Equivalent Ratios
	Ratio Word Problems
	Rates Word Problems

Topics	Skill Quests
Equivalent ratios & rates	Equivalent ratios & rates

C. Algebra

C1. Patterns and Relationships: Patterns

5.C1.1
identify and describe repeating, growing, and shrinking patterns, including patterns found in real-life contexts

Course Topics	Activities
Teacher directed	

Topics	Skill Quests
Identify & describe patterns	Identify/create growing & shrinking patterns

5.C1.2
create and translate growing and shrinking patterns using various representations, including tables of values and graphs

Course Topics	Activities
Teacher directed	

Topics	Skill Quests
Create growing & shrinking Patterns	Creating growing & shrinking patterns

5.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

Course Topics	Activities
Teacher directed	

Topics	Skill Quests
Determine rules & extend Patterns	Extending repeating, growing & shrinking patterns
	Determining & using pattern rules

5.C1.4
create and describe patterns to illustrate relationships among whole numbers and decimal tenths and hundredths

Course Topics	Activities
Teacher directed	

Topics	Skill Quests
Teacher directed	

C2. Equations and Inequalities: Variables and Expressions

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

5.C2.2	
evaluate algebraic expressions that involve whole numbers	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Evaluate algebraic expressions	Evaluating algebraic expressions

C2. Equations and Inequalities: Equalities and Inequalities

5.C2.3	
solve equations that involve whole numbers up to 100 in various contexts, and verify solutions	
Course Topics	**Activities**
C2 Variables & Expressions	I am Thinking of a Number!
	Write an Equation: Word Problems
	Find the Missing Number 2
Topics	**Skill Quests**
Solve equations, numbers up to 100	Solving equations
	Solving equations using models

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

C3. Coding: Coding Skills

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

5.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	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Teacher directed	

D. Data

D1. Data Literacy: Data Collection and Organization

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

5.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	
Course Topics	**Activities**
D1 Data	Relative Frequency
Topics	**Skill Quests**
Relative-frequency tables	Finding the relative frequency in a table

D1. Data Literacy: Data Visualization

5.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	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Data displays	Understanding stacked-bar graphs
	Graphing relative frequency

5.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	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Teacher directed	

D1. Data Literacy: Data Analysis

5.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

Course Topics	Activities
D1 Data	Mean from Frequency Table
	Median from Frequency Table

Topics	Skill Quests
Measures of central tendency	Understanding & calculating the mean
	Understanding & calculating the median
	Understanding & calculating the mode

5.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

Course Topics	Activities
D1 Data	Frequency Histograms
	Divided Bar Graphs
	Bar Chart

Topics	Skill Quests
Analyse data displays	Interpreting stacked-bar graphs
	Interpreting bar graphs
	Interpreting data in tables
	Interpreting line plots

D2. Probability: Probability

5.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

Course Topics	Activities
D2 Probability	Find the Probability
	Probability Scale

Topics	Skill Quests
Express probability with fractions	Expressing probability on a probability line
	Expressing probability with fractions

5.D2.2
determine and compare the theoretical and experimental probabilities of an event happening

Course Topics	Activities
D2 Probability	Possible Outcomes
	Find the Probability

Topics	Skill Quests
Theoretical & experimental probability	Comparing theoretical & experimental probability

E. Spatial Sense

E1. Geometric and Spatial Reasoning: Geometric Reasoning

5.E1.1
identify geometric properties of triangles, and construct different types of triangles when given side or angle measurements

Course Topics	Activities
E1 Geometry	Triangle Tasters
Topics	**Skill Quests**
Classify triangles	Classifying triangles

5.E1.2
identify and construct congruent triangles, rectangles, and parallelograms

Course Topics	Activities
E1 Geometry	Congruent Figures (Grid)
Topics	**Skill Quests**
Identify congruent shapes	Identifying congruent shapes

5.E1.3
draw top, front, and side views of objects, and match drawings with objects

Course Topics	Activities
Teacher directed	
Topics	**Skill Quests**
Top, front & side views of objects	Matching drawings with objects
	Top, front & side views of objects

E1. Geometric and Spatial Reasoning: Location and Movement

5.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

Course Topics	Activities
E1 Geometry	Coordinate Graphs: 1st Quadrant
Topics	**Skill Quests**
The Cartesian plane, 1st quadrant	The Cartesian plane, 1st quadrant
	Investigating translations in the 1st quadrant

5.E1.5
describe and perform translations, reflections, and rotations up to 180° on a grid, and predict the results of these transformations

Course Topics	Activities
Teacher directed	
Topics	**Skill Quests**
Translations, reflections & rotations	Translations, reflections & rotations

E2. Measurement: The Metric System

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

5.E2.2	
solve problems that involve converting larger metric units into smaller ones, and describe the base ten relationships among metric units	
Course Topics	**Activities**
E2 Measurement	Converting cm and mm
	Metres and Kilometres
	Converting Units of Length
	Converting Units of Area
	Grams and Kilograms
	Converting Units of Mass
	Grams and Milligrams
	Mass Addition
	Litre Conversions
	Capacity Addition
Topics	**Skill Quests**
Convert metric units	Converting metric units of length
	Converting metric units of mass
	Converting metric units of capacity

E2. Measurement: Angles

5.E2.3	
compare angles and determine their relative size by matching them and by measuring them using appropriate non-standard units	
Course Topics	**Activities**
E2 Angles	Equal Angles
	Comparing Angles
Topics	**Skill Quests**
Compare angles	Comparing angles

5.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	
Course Topics	**Activities**
E2 Angles	What Type of Angle?
	What Type of Angle 2?
	Classifying Angles
	Estimating Angles
	Labelling Angles
	Measuring Angles
Topics	**Skill Quests**
Teacher directed	

E2. Measurement: Area

5.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	
Course Topics	**Activities**
E2 Measurement	Area: Squares and Rectangles
	Area: Triangles
	Area: Right Triangles
	Area: Parallelograms (Metric)
Topics	**Skill Quests**
Area: parallelograms & triangles	Finding the area of a triangle
	Finding the area of a parallelogram

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

F. Financial Literacy

F1. Money and Finances: Money Concepts

<table>
<tr><td colspan="2" align="center">5.F1.1
describe several ways money can be transferred among individuals, organizations, and businesses</td></tr>
<tr><td>Course Topics</td><td>Activities</td></tr>
<tr><td>Teacher directed</td><td></td></tr>
<tr><td>Topics</td><td>Skill Quests</td></tr>
<tr><td>Teacher directed</td><td></td></tr>
</table>

<table>
<tr><td colspan="2" align="center">5.F1.2
estimate and calculate the cost of transactions involving multiple items priced in dollars and cents, including sales tax, using various strategies</td></tr>
<tr><td>Course Topics</td><td>Activities</td></tr>
<tr><td rowspan="3">F1 Financial Literacy</td><td>Money Problems: Four Operations</td></tr>
<tr><td>Purchase Options</td></tr>
<tr><td>Net Pay</td></tr>
<tr><td>Topics</td><td>Skill Quests</td></tr>
<tr><td>Money problems, dollars & cents</td><td>Solving money problems</td></tr>
</table>

F1. Money and Finances: Financial Management

<table>
<tr><td colspan="2" align="center">5.F1.3
design sample basic budgets to manage finances for various earning and spending scenarios</td></tr>
<tr><td>Course Topics</td><td>Activities</td></tr>
<tr><td>F1 Financial Literacy</td><td>Budgeting</td></tr>
<tr><td>Topics</td><td>Skill Quests</td></tr>
<tr><td>Teacher directed</td><td></td></tr>
</table>

<table>
<tr><td colspan="2" align="center">5.F1.4
explain the concepts of credit and debt, and describe how financial decisions may be impacted by each</td></tr>
<tr><td>Course Topics</td><td>Activities</td></tr>
<tr><td>Teacher directed</td><td></td></tr>
<tr><td>Topics</td><td>Skill Quests</td></tr>
<tr><td>Teacher directed</td><td></td></tr>
</table>

F1. Money and Finances: Consumer and Civic Awareness

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

5.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	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Teacher directed	

Grade 6

B. Number

B1. Number Sense: Rational Numbers

6.B1.1	
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	
Course Topics	**Activities**
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?
Topics	**Skill Quests**
Numbers to one million	Reading & writing 6-digit numbers
	Identifying place value: 6-digit numbers
	Using place value to partition 6-digit numbers

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

6.B1.3	
compare and order integers, decimal numbers, and fractions, separately and in combination, in various contexts	
Course Topics	**Activities**
B1 Rational numbers, fractions, decimals & percents	Ordering Integers (Number Line)
	Comparing Integers
	Compare Fractions 1b
Topics	**Skill Quests**
Compare/order: integer/decimal/fraction	Comparing & ordering integers
	Comparing & ordering fractions & mixed numbers
	Ordering fractions & decimals

B1. Number Sense: Fractions, Decimals, and Percents

6.B1.4
read, represent, compare, and order decimal numbers up to thousandths, in various contexts

Course Topics	Activities
B1 Rational numbers, fractions, decimals & percents	Decimals from Words to Digits 2
	Decimals on a Number Line
	Comparing Decimals
	Decimal Order 1
	Decimal Order
Topics	**Skill Quests**
Decimals up to thousandths	Decimals up to thousandths

6.B1.5
round decimal numbers, both terminating and repeating, to the nearest tenth, hundredth, or whole number, as applicable, in various contexts

Course Topics	Activities
B1 Rational numbers, fractions, decimals & percents	Nearest Whole Number
	Rounding Decimals 1
Topics	**Skill Quests**
Round decimals: tenth, hundredth, whole	Rounding decimals: tenth, hundredth, whole

6.B1.6
describe relationships and show equivalences among fractions and decimal numbers up to thousandths, using appropriate tools and drawings, in various contexts

Course Topics	Activities
B1 Rational numbers, fractions, decimals & percents	Fractions to Decimals
	Decimals to Fractions 1
	Decimals to Fractions 2
	Fraction to Terminating Decimal
Topics	**Skill Quests**
Relate fractions & decimals, thousandths	Relating fractions & decimals up to thousandths

B2. Operations: Properties and Relationships

6.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	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Properties & inverse operations	Using inverse operations, whole numbers
	The commutative property
	The associative property
	The distributive property

B2. Operations: Math Facts

6.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	
Course Topics	**Activities**
B2 Multiplication & Division.	Divisibility Tests (2, 5, 10)
	Divisibility Tests (3, 4, 9)
	Divisibility Tests
	Tests of Divisibility 1
	Multiples
Topics	**Skill Quests**
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

B2. Operations: Mental Math

6.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	
Course Topics	**Activities**
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)
Topics	**Skill Quests**
Divisibility rules: dividing by 2, 3, 4, 5, 6, 10	Calculating simple percentages

B2. Operations: Addition and Subtraction

6.B2.4	
represent and solve problems involving the addition and subtraction of whole numbers and decimal numbers, using estimation and algorithms	
Course Topics	**Activities**
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
Topics	**Skill Quests**
Add & subtract whole numbers & decimals	Adding whole numbers & decimals
	Subtracting whole numbers & decimals

6.B2.5	
add and subtract fractions with like and unlike denominators, using appropriate tools, in various contexts	
Course Topics	**Activities**
B2 Operations - decimals, fractions, ratios & percents	Add: Common Denominator
	Subtract: Common Denominator
	Simplifying Fractions
	Add: No Common Denominator
	Subtract: No Common Denominator
Topics	**Skill Quests**
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

B2. Operations: Multiplication and Division

6.B2.6	
represent composite numbers as a product of their prime factors, including through the use of factor trees	
Course Topics	**Activities**
B2 Multiplication & Division.	Factors
	Find the Factor
	Prime or Composite?
Topics	**Skill Quests**
Prime & composite numbers	Introducing prime & composite numbers
Prime factors	Using prime factors

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

6.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	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Divide whole numbers by tenths	Dividing 3-digit whole numbers by tenths

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

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

6.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	
Course Topics	**Activities**
B2 Multiplication & Division.	Divide Decimals: 10, 100, 1000
Topics	**Skill Quests**
Divide decimals by whole numbers	Dividing decimals to thousandths by whole numbers

6.B2.12	
solve problems involving ratios, including percents and rates, using appropriate tools and strategies	
Course Topics	**Activities**
B2 Multiplication & Division.	Rates Calculations
	Proportional Relationships
	Solve Proportions
Topics	**Skill Quests**
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

C. Algebra

C1. Patterns and Relationships: Patterns

6.C1.1
identify and describe repeating, growing, and shrinking patterns, including patterns found in real-life contexts, and specify which growing patterns are linear

Course Topics	Activities
Teacher directed	

Topics	Skill Quests
Identify linear growing patterns	Identifying linear growing patterns

6.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

Course Topics	Activities
Teacher directed	

Topics	Skill Quests
Create patterns	Representing linear growing patterns
	Creating tables of values for linear relations
	Matching graphs & linear relations

6.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

Course Topics	Activities
C1 Patterns	Find the Pattern Rule
	Function Rules and Tables
	Number Sequences Up to 1 Million
	Linear Expressions for the Nth Term

Topics	Skill Quests
Linear pattern rules	Linear pattern rules

6.C1.4
create and describe patterns to illustrate relationships among whole numbers and decimal numbers

Course Topics	Activities
Teacher directed	

Topics	Skill Quests
Patterns with decimals	Multiplying decimals by 10, 100, 1000
	Dividing decimals by 10, 100, 1000

C2. Equations and Inequalities: Variables and Expressions

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

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

C2. Equations and Inequalities: Equalities and Inequalities

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

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

C3. Coding: Coding Skills

6.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		
Course Topics	**Activities**	
Teacher directed		
Topics	**Skill Quests**	
Teacher directed		

6.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		
Course Topics	**Activities**	
Teacher directed		
Topics	**Skill Quests**	
Teacher directed		

D. Data

D1. Data Literacy: Data Collection and Organization

6.D1.1	
describe the difference between discrete and continuous data, and provide examples of each	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Teacher directed	

6.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	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Statistical investigations	Conducting a statistical investigation

D1. Data Literacy: Data Visualization

6.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	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Construct graphs	Constructing broken-line graphs
	Constructing histograms
	Selecting appropriate data displays

6.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	
Course Topics	**Activities**
D1 Data	Grouped Frequency
Topics	**Skill Quests**
Teacher directed	

D1. Data Literacy: Data Analysis

6.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	
Course Topics	**Activities**
D1 Data	Data Extremes and Range
	Which Measure of Central Tendency?
	Line Graphs: Interpretation
Topics	**Skill Quests**
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

6.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	
Course Topics	**Activities**
D1 Data	Stem and Leaf Plots with Range
Topics	**Skill Quests**
Analyse histograms & broken-line graphs	Evaluating graphs for misleading information
	Reading & interpreting data in a histogram
	Interpreting data in a broken-line graph

D2. Probability: Probability

6.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	
Course Topics	**Activities**
D2 Probability	Dice and Coins
	Find the Probability
	Probability Tables
	Complementary Events
	Probability Scale
Topics	**Skill Quests**
Probability: fractions/decimals/percents	Probability: fractions, decimals & percents

6.D2.2
determine and compare the theoretical and experimental probabilities of two independent events happening

Course Topics	Activities
D2 Probability	Probability Scale

Topics	Skill Quests
Probability: two independent events	Identifying the sample space: 2 independent events
	Understanding independent events
	Interpreting & constructing tree diagrams

E. Spatial Sense

E1. Geometric and Spatial Reasoning: Geometric Reasoning

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

6.E1.2	
construct three-dimensional objects when given their top, front, and side views	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Teacher directed	

E1. Geometric and Spatial Reasoning: Location and Movement

6.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	
Course Topics	**Activities**
E1 Geometry	Number Plane
	Ordered Pairs
	Vertical and horizontal shift
Topics	**Skill Quests**
The Cartesian plane, 4 quadrants	Plotting & reading coordinates in all 4 quadrants
	Translations of points on the Cartesian plane

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

E2. Measurement: The Metric System

<table>
<tr><td colspan="2" align="center">6.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</td></tr>
<tr><td>Course Topics</td><td>Activities</td></tr>
<tr><td>E2 Measurement</td><td>Metres and Kilometres</td></tr>
<tr><td></td><td>Converting Units of Length</td></tr>
<tr><td></td><td>Converting Units of Area</td></tr>
<tr><td></td><td>Converting Volume</td></tr>
<tr><td></td><td>Capacity Word Problems</td></tr>
<tr><td>Topics</td><td>Skill Quests</td></tr>
<tr><td>Convert metric units</td><td>Converting metric units of length</td></tr>
<tr><td></td><td>Converting metric units of mass</td></tr>
<tr><td></td><td>Converting metric units of capacity</td></tr>
</table>

E2. Measurement: Angles

<table>
<tr><td colspan="2" align="center">6.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 counter clockwise</td></tr>
<tr><td>Course Topics</td><td>Activities</td></tr>
<tr><td>E2 Measurement</td><td>Measuring Angles</td></tr>
<tr><td></td><td>Angles in a Revolution</td></tr>
<tr><td>Topics</td><td>Skill Quests</td></tr>
<tr><td>Measure angles</td><td>Measuring angles up to 360°</td></tr>
</table>

<table>
<tr><td colspan="2" align="center">6.E2.3
use the properties of supplementary angles, complementary angles, opposite angles, and interior and exterior angles to solve for unknown angle measures</td></tr>
<tr><td>Course Topics</td><td>Activities</td></tr>
<tr><td>E2 Measurement</td><td>Equal, Complementary or Supplementary Angles?</td></tr>
<tr><td></td><td>Angle Sum of a Triangle</td></tr>
<tr><td></td><td>Angle Measures in a Triangle</td></tr>
<tr><td></td><td>Quadrilaterals: Angle Sum with Equations</td></tr>
<tr><td></td><td>Exterior Angles of a Triangle</td></tr>
<tr><td></td><td>Vertically Opposite Angles: Unknown Values</td></tr>
<tr><td>Topics</td><td>Skill Quests</td></tr>
<tr><td>Solve for unknown angle measures</td><td>Supplementary angles</td></tr>
<tr><td></td><td>Complementary angles</td></tr>
<tr><td></td><td>Opposite angles</td></tr>
<tr><td></td><td>Interior & exterior angles of a triangle</td></tr>
</table>

E2. Measurement: Area and Surface Area

6.E2.4	
determine the areas of trapezoids, rhombuses, kites, and composite polygons by decomposing them into shapes with known areas	
Course Topics	**Activities**
E2 Measurement	Area: Quadrilaterals
	Area: Parallelograms (Metric)
	Prisms and Pyramids
Topics	**Skill Quests**
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

6.E2.5	
create and use nets to demonstrate the relationship between the faces of prisms and pyramids and their surface areas	
Course Topics	**Activities**
E2 Measurement	Nets
Topics	**Skill Quests**
Teacher directed	

6.E2.6	
determine the surface areas of prisms and pyramids by calculating the areas of their two-dimensional faces and adding them together	
Course Topics	**Activities**
E2 Measurement	Surface Area: Rectangular Prisms
	Surface Area: Triangular Prisms 1
	Surface Area: Square Pyramids
Topics	**Skill Quests**
Teacher directed	

F. Financial Literacy

F1. Money and Finances: Money Concepts

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

F1. Money and Finances: Financial Management

6.F1.2	
identify different types of financial goals, including earning and saving goals, and outline some key steps in achieving them	
Course Topics	**Activities**
F1 Financial Literacy	Budgeting
Topics	**Skill Quests**
Teacher directed	

6.F1.3	
identify and describe various factors that may help or interfere with reaching financial goals	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Teacher directed	

F1. Money and Finances: Consumer and Civic Awareness

6.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	
Course Topics	**Activities**
F1 Financial Literacy	Comparing Loans
Topics	**Skill Quests**
Teacher directed	

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

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