

Correlation of Mathematics Readers Level 3 to Quebec Education Program Progression of Learning

**Arithmetic: Understanding and writing numbers**

**Natural numbers less than 100,000**

**Essential Knowledge**

Describes number patterns, using his/her own words and appropriate mathematical vocabulary (e.g. even numbers, odd numbers, square numbers, triangular numbers, prime numbers, composite numbers)

Correlated Lessons:
My Lemonade Stand Reader; The World of Trade Reader Objective 28: Recognizes a variety of number patterns (e.g., basic linear patterns such as [2,4,6,8& ]; simple, repeating, growing patterns) and the rules that explain them

**Fractions (using objects or drawings)**

**Essential Knowledge**

Matches a fraction to part of a whole (congruent or equivalent parts) or part of a group of objects, and vice versa

Correlated Lessons:
What Are Budgets? Reader; Our Vacation Budget Reader Objective 51: Understands the concept of a unit and its subdivision into equal parts (part-whole relationship) (e.g., understands that a dollar equals 100 pennies)

**Decimals up to hundredths**

**Essential Knowledge**

Reads and writes numbers written in decimal notation

Correlated Lessons:
What Are Budgets?; Our Vacation Budget Page 57 Objective 04: Students will add and subtract decimals to the hundredths place

**Essential Knowledge**

Understands the role of the decimal point

Correlated Lessons:
What Are Budgets?; Our Vacation Budget Page 57 Objective 04: Students will add and subtract decimals to the hundredths place

**Arithmetic: Meaning of operations involving numbers**

**Natural numbers less than 100,000**

**Essential Knowledge**

Transformation (adding, taking away), uniting, comparing

Correlated Lessons:
What Are Budgets?; Our Vacation Budget Page 57 Objective 04: Students will add and subtract decimals to the hundredths place

**Essential Knowledge**

Rectangular arrays, repeated addition, Cartesian product, area, volume, repeated subtraction, sharing, number of times x goes into y, and comparisons (using objects, diagrams or equations)

Correlated Lessons:
What Are Budgets? Reader; Our Vacation Budget Reader Objective 51: Understands the concept of a unit and its subdivision into equal parts (part-whole relationship) (e.g., understands that a dollar equals 100 pennies)

**Decimals up to hundredths**

**Essential Knowledge**

Transformation (adding, taking away), uniting, comparing

Correlated Lessons:
What Are Budgets?; Our Vacation Budget Page 57 Objective 04: Students will add and subtract decimals to the hundredths place

**Arithmetic: Operations involving numbers**

**Natural numbers (based on the benchmarks for each cycle)**

**Essential Knowledge**

Approximates the result of: An addition or subtraction involving natural numbers

Correlated Lessons:
The World of Trade Reader; Tracking Time Reader; Timing Races Reader Objective 29: Uses or performs basic mental computations (e.g., addition, subtraction and multiplication of whole numbers/integers)

**Essential Knowledge**

Any of the four operations involving natural numbers

Correlated Lessons:
Collecting Data Reader; Reading the Newspaper Reader Objective 21: Uses specific strategies (e.g., front-end estimation, rounding) to estimate computations and to check the reasonableness of computational results

Collecting Data; Reading the Newspaper Page 33 Objective 01: Students will use specific strategies to estimate computations and to check the reasonableness of computational results.

**Develops processes for mental computation**

**Essential Knowledge**

Uses his/her own processes to determine the sum or difference of two natural numbers

Correlated Lessons:
The World of Trade Reader; Tracking Time Reader; Timing Races Reader Objective 29: Uses or performs basic mental computations (e.g., addition, subtraction and multiplication of whole numbers/integers)

**Essential Knowledge**

Uses his/her own processes to determine the product or quotient of two natural numbers

Correlated Lessons:
At the Fire Station Reader Objective 42: Multiplies and divides whole numbers

My Lemonade Stand Reader Objective 26: Multiplies whole numbers (integers)

The World of Trade Reader; Tracking Time Reader; Timing Races Reader Objective 29: Uses or performs basic mental computations (e.g., addition, subtraction and multiplication of whole numbers/integers)

**Builds a repertoire of memorized multiplication and division facts**

**Essential Knowledge**

Builds a memory of multiplication facts (0 × 0 to 10 × 10) and the corresponding division facts, using objects, drawings, charts or tables

Correlated Lessons:
At the Fire Station Reader Objective 42: Multiplies and divides whole numbers

My Lemonade Stand Reader Objective 26: Multiplies whole numbers (integers)

**Essential Knowledge**

Develops various strategies that promote mastery of number facts and relate them to the properties of multiplication

Correlated Lessons:
At the Fire Station Reader Objective 42: Multiplies and divides whole numbers

My Lemonade Stand Reader Objective 26: Multiplies whole numbers (integers)

**Essential Knowledge**

Masters all multiplication facts (0 × 0 to 10 × 10) and the corresponding division facts

Correlated Lessons:
At the Fire Station Reader Objective 42: Multiplies and divides whole numbers

My Lemonade Stand Reader Objective 26: Multiplies whole numbers (integers)

**Develops processes for written computation (multiplication and division)**

**Essential Knowledge**

Uses his/her own processes as well as materials and drawings to determine the product or quotient of a three-digit natural number and a one-digit natural number, expresses the remainder of a division as a fraction, depending on the context

Correlated Lessons:
My Lemonade Stand Reader Objective 26: Multiplies whole numbers (integers)

**Numerical patterns (e.g. number rhymes, tables and charts)**

**Essential Knowledge**
Numerical patterns (e.g. number rhymes, tables and charts)

Correlated Lessons:
My Lemonade Stand Reader; The World of Trade Reader Objective 28: Recognizes a variety of number patterns (e.g., basic linear patterns such as [2,4,6,8& ]; simple, repeating, growing patterns) and the rules that explain them

The World of Trade; My Lemonade Stand Page 81 Objective 06: Students will recognize, create, extend, and continue numerical patterns.

**Essential Knowledge**

Series of numbers and family of operations

Correlated Lessons:
My Lemonade Stand Reader; The World of Trade Reader Objective 28: Recognizes a variety of number patterns (e.g., basic linear patterns such as [2,4,6,8& ]; simple, repeating, growing patterns) and the rules that explain them

**Essential Knowledge**

Adds new terms to a series when the first three terms or more are given

Correlated Lessons:
My Lemonade Stand Reader; The World of Trade Reader Objective 28: Recognizes a variety of number patterns (e.g., basic linear patterns such as [2,4,6,8& ]; simple, repeating, growing patterns) and the rules that explain them

The World of Trade; My Lemonade Stand Page 81 Objective 06: Students will recognize, create, extend, and continue numerical patterns.

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**Decimals**

**Approximates the result of: An addition or a subtraction**

**Essential Knowledge**

Approximates the result of: An addition or a subtraction

Correlated Lessons:
What Are Budgets?; Our Vacation Budget Page 57 Objective 04: Students will add and subtract decimals to the hundredths place

**Essential Knowledge**

Develops processes for mental computation

Adds and subtracts decimals

Correlated Lessons:
What Are Budgets?; Our Vacation Budget Page 57 Objective 04: Students will add and subtract decimals to the hundredths place

**Essential Knowledge**

Adds and subtracts decimals whose result does not go beyond the second decimal place

Correlated Lessons:
What Are Budgets?; Our Vacation Budget Page 57 Objective 04: Students will add and subtract decimals to the hundredths place

**Geometry**

**Solids**

**Essential Knowledge**

Compares objects or parts of objects in the environment with solids (e.g. spheres, cones, cubes, cylinders, prisms, pyramids)

Correlated Lessons:
Shapes Around You Reader; A Tour of New York City Reader Objective 37: Understands that geometric shapes/figures are useful for representing and describing real-world situations

Shaping Our World; Shapes in Art; Shapes Around You; A Tour of New York City Page 105, 129 Objective 17: Students will understand and describe properties/characteristics of two-dimensional and three-dimensional figures/shapes.

**Essential Knowledge**

Identifies the main solids (e.g. spheres, cones, cubes, cylinders, prisms, pyramids)

Correlated Lessons:
Shapes Around You Reader; A Tour of New York City Reader Objective 34: Knows basic geometric language/characteristics for describing, classifying, and naming three-dimensional shapes (e.g., sphere, cone, cube, cylinder)

Shapes Around You Reader; A Tour of New York City Reader Objective 35: Understands basic properties/characteristics of figures/shapes (e.g., three-dimensionality, lines of symmetry, number of sides or corners, dimensions)

Shaping Our World; Shapes in Art; Shapes Around You; A Tour of New York City Page 105, 129 Objective 17: Students will understand and describe properties/characteristics of two-dimensional and three-dimensional figures/shapes.

**Plane figures**

**Essential Knowledge**

Identifies plane figures (square, rectangle, triangle, rhombus and circle)

Correlated Lessons:
Shaping Our World Reader; Shapes in Art Reader Objective 30: Knows basic geometric language/properties for describing, classifying, and naming shapes (e.g., triangle, rectangle, circle, pentagon, parallelogram)

Shaping Our World Reader; Shapes in Art Reader Objective 31: Understands basic properties/characteristics of figures or shapes (e.g., two-dimensionality, symmetry, types of angle)

Shaping Our World; Shapes in Art; Shapes Around You; A Tour of New York City Page 105, 129 Objective 17: Students will understand and describe properties/characteristics of two-dimensional and three-dimensional figures/shapes.

**Essential Knowledge**

Describes plane figures (square, rectangle, triangle and rhombus)

Correlated Lessons:
Shaping Our World Reader; Shapes in Art Reader Objective 30: Knows basic geometric language/properties for describing, classifying, and naming shapes (e.g., triangle, rectangle, circle, pentagon, parallelogram)

Shaping Our World Reader; Shapes in Art Reader Objective 31: Understands basic properties/characteristics of figures or shapes (e.g., two-dimensionality, symmetry, types of angle)

Shaping Our World; Shapes in Art; Shapes Around You; A Tour of New York City Page 105, 129 Objective 17: Students will understand and describe properties/characteristics of two-dimensional and three-dimensional figures/shapes.

**Essential Knowledge**

Describes convex and non-convex polygons

Correlated Lessons:
Shaping Our World Reader; Shapes in Art Reader Objective 30: Knows basic geometric language/properties for describing, classifying, and naming shapes (e.g., triangle, rectangle, circle, pentagon, parallelogram)

Shaping Our World Reader; Shapes in Art Reader Objective 31: Understands basic properties/characteristics of figures or shapes (e.g., two-dimensionality, symmetry, types of angle)

**Frieze patterns and tessellations**

**Essential Knowledge**

Identifies congruent figures

Correlated Lessons:
Shaping Our World Reader; Shapes in Art Reader Objective 32: Understands that shapes can be congruent or similar

**Measurement**

**Angles**

**Essential Knowledge**

Compares angles

Correlated Lessons:
Shaping Our World Reader; Shapes in Art Reader Objective 31: Understands basic properties/characteristics of figures or shapes (e.g., two-dimensionality, symmetry, types of angle)

**Statistics**

**Essential Knowledge**

Collects, describes and organizes data (classifies or categorizes) using tables

Correlated Lessons:
Collecting Data Reader; Reading the Newspaper Reader Objective 24: Understands that data comes in many different forms and that collecting, organizing, and displaying data can be done in several ways

Tracking Time Reader; Timing Races Reader; Natural Measures Reader; At the Fire Station Reader Objective 39: Reads, analyzes, and interprets simple frequency tables (charts)

Wildlife Scientists Reader; At Risk! Reader Objective 50: Understands that data comes in many different forms and that collecting, organizing, and displaying data can be done in several ways (graphs, tables, charts, etc.)

Wildlife Scientists; At Risk! Page 201 Objective 14: Students will organize, create, display, and read data in simple bar graphs, pictographs, circle graphs (pie charts) and charts.

**Interprets data using**

**Essential Knowledge**

A table, a bar graph, a pictograph and a broken-line graph

Correlated Lessons:
Wildlife Scientists Reader; At Risk! Reader Objective 48: Organizes and displays and analyzes data in simple bar graphs

Wildlife Scientists Reader; At Risk! Reader Objective 49: Reads, analyzes and interprets simple bar graphs, pictographs, line graphs, and frequency tables

Wildlife Scientists; At Risk! Page 201 Objective 14: Students will organize, create, display, and read data in simple bar graphs, pictographs, circle graphs (pie charts) and charts.

**Displays data using**

**Essential Knowledge**

A table, a bar graph, a pictograph and a broken-line graph

Correlated Lessons:
Wildlife Scientists Reader; At Risk! Reader Objective 48: Organizes and displays and analyzes data in simple bar graphs

Wildlife Scientists Reader; At Risk! Reader Objective 49: Reads, analyzes and interprets simple bar graphs, pictographs, line graphs, and frequency tables

Wildlife Scientists; At Risk! Page 201 Objective 14: Students will organize, create, display, and read data in simple bar graphs, pictographs, circle graphs (pie charts) and charts.