

# Correlation of Mathematics Readers Grade 3 to the Ontario Mathematics Curriculum

## Number Sense and Numeration

### OVERALL EXPECTATION

#### **A.3.**

Students will solve problems involving the addition and subtraction of single- and multi-digit whole numbers, using a variety of strategies, and demonstrate an understanding of multiplication and division.

#### 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)

### SPECIFIC EXPECTATION

#### **A.1.7.**

Divide whole objects and sets of objects into equal parts, and identify the parts using fractional names, without using numbers in standard fractional notation;

#### 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)

### SPECIFIC EXPECTATION

#### **A.3.3.**

Use estimation when solving problems involving addition and subtraction, to help judge the reasonableness of a solution;

#### 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.

### SPECIFIC EXPECTATION

#### **A.3.4.**

Add and subtract money amounts, using a variety of tools, to make simulated purchases and change for amounts up to ten dollars;

Correlated Lessons:

What Are Budgets? Reader; Our Vacation Budget Reader Objective 52: Adds, subtracts, multiplies and divides decimals, using dollars and cents

What Are Budgets? Reader; Our Vacation Budget Reader Objective 53: Solves real-world problems involving number operations-addition and subtraction (e.g., computations with dollars and cents)

### SPECIFIC EXPECTATION

#### **A.3.5.**

Relate multiplication of one-digit numbers and division by one-digit divisors to real life situations, using a variety of tools and strategies;

Correlated Lessons:

At the Fire Station Reader Objective 43: Solves real-world problems involving number operations-multiplication and division (e.g., finds total measurements of length or volume, measuring a perimeter of an area)

My Lemonade Stand Reader; The World of Trade Reader Objective 27: Solves real-world problems involving number operations-addition, subtraction, multiplication, division (e.g., computations involving recipes, computations with dollars and cents)

Tracking Time Reader; Timing Races Reader Objective 38: Solves real-world problems involving number operations-addition, subtraction, multiplication, division (e.g., uses problems involving elapsed time)

### SPECIFIC EXPECTATION

#### **A.3.6.**

Multiply to  $7 \times 7$  and divide to  $49 \div 7$ , using a variety of mental strategies.

Correlated Lessons:

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

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

## **Measurement**

### OVERALL EXPECTATION

#### **B.1.**

Students will estimate, measure, and record length, perimeter, area, mass, capacity, time, and temperature, using standard units.

Correlated Lessons:

Natural Measures Reader; At the Fire Station Reader Objective 44: Understands and can apply the basic measures of volume, weight, length, and distance

### SPECIFIC EXPECTATION

#### **B.2.1.**

Compare standard units of length (i.e., centimetre, metre, kilometre), and select and justify the most appropriate standard unit to measure length;

Correlated Lessons:

Natural Measures Reader Objective 46: Knows approximate size of basic standard units of measurement (e.g., knows which unit to use to measure a particular object)

### SPECIFIC EXPECTATION

#### **B.2.4.**

Describe, through investigation using grid paper, the relationship between the size of a unit of area and the number of units needed to cover a surface;

Correlated Lessons:

Natural Measures Reader Objective 46: Knows approximate size of basic standard units of measurement (e.g., knows which unit to use to measure a particular object)

## **Geometry and Spatial Sense**

### OVERALL EXPECTATION

#### **C.1.**

Students will compare two-dimensional shapes and three-dimensional figures and sort them by their geometric properties.

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 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.

Shaping Our World Reader; Shapes in Art Reader Objective 33: Uses motion geometry (transformations) (e.g., turns, flips, slides, rotations, reflections, translations) to understand geometric relationships

### SPECIFIC EXPECTATION

#### **C.1.1.**

Use a reference tool to identify right angles and to describe angles as greater than, equal to, or less than a right angle;

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)

### SPECIFIC EXPECTATION

#### **C.1.3.**

Compare various angles, using concrete materials and pictorial representations, and describe angles as bigger than, smaller than, or about the same as other 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)

### SPECIFIC EXPECTATION

#### **C.1.4.**

Compare and sort prisms and pyramids by geometric properties (i.e., number and shape of faces, number of edges, number of vertices), using concrete materials;

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.

### SPECIFIC EXPECTATION

#### **C.2.1.**

Solve problems requiring the greatest or least number of two-dimensional shapes needed to compose a larger shape in a variety of ways;

Correlated Lessons:

Shapes Around You Reader; A Tour of New York City Reader Objective 36: Predicts and verifies the effects of combining, dividing, and changing basic shapes/figures (two-dimensional, three-dimensional)

### SPECIFIC EXPECTATION

#### **C.2.4.**

Describe and name prisms and pyramids by the shape of their base;

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.

### SPECIFIC EXPECTATION

#### **C.2.5.**

Identify congruent two-dimensional shapes by manipulating and matching concrete materials.

Correlated Lessons:

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

### SPECIFIC EXPECTATION

#### **C.3.3.**

Complete and describe designs and pictures of images that have a vertical, horizontal, or diagonal line of symmetry.

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)

## **Patterning and Algebra**

### OVERALL EXPECTATION

#### **D.1.**

Students will describe, extend, and create a variety of numeric patterns and geometric patterns.

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.

### SPECIFIC EXPECTATION

#### **D.1.2.**

Identify and describe, through investigation, number patterns involving addition, subtraction, and multiplication, represented on a number line, on a calendar, and on a hundreds chart;

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.

### SPECIFIC EXPECTATION

#### **D.1.3.**

Extend repeating, growing, and shrinking number patterns;

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.

### SPECIFIC EXPECTATION

#### **D.1.4.**

Create a number pattern involving addition or subtraction, given a pattern represented on a number line or a pattern rule expressed in words;

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.

## SPECIFIC EXPECTATION

### D.1.6.

Demonstrate, through investigation, an understanding that a pattern results from repeating an action, repeating an operation, using a transformation, or making some other repeated change to an attribute.

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.

## Data Management and Probability

## OVERALL EXPECTATION

### E.1.

Students will collect and organize categorical or discrete primary data and display the data using charts and graphs, including vertical and horizontal bar graphs, with labels ordered appropriately along horizontal axes, as needed.

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

What Are Budgets? Reader; Our Vacation Budget Reader Objective 54: Organizes and displays and analyzes data in a frequency table

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 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.

## OVERALL EXPECTATION

### E.2.

Students will read, describe, and interpret primary data presented in charts and graphs, including vertical and horizontal bar graphs.

Correlated Lessons:

Collecting Data Reader; At Risk! Reader; Reading the Newspaper Reader; Wildlife Scientists Reader  
Objective 22: Understands that data represent specific pieces of information about real-world objects or activities (analyze and interpret data)

Collecting Data Reader; Reading the Newspaper Reader Objective 23: Reads and interprets simple bar graphs and frequency tables (analyze data)

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

What Are Budgets? Reader; Our Vacation Budget Reader Objective 54: Organizes and displays and analyzes data in a frequency table

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.

## SPECIFIC EXPECTATION

### **E.1.3.**

Collect and organize categorical or discrete primary data and display the data in charts, tables, and graphs (including vertical and horizontal bar graphs), with appropriate titles and labels and with labels ordered appropriately along horizontal axes, as needed, using many-to-one correspondence.

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

What Are Budgets? Reader; Our Vacation Budget Reader Objective 54: Organizes and displays and analyzes data in a frequency table

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 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.



## SPECIFIC EXPECTATION

### E.2.1.

Read primary data presented in charts, tables, and graphs (including vertical and horizontal bar graphs), then describe the data using comparative language, and describe the shape of the data;

Correlated Lessons:

Collecting Data Reader; At Risk! Reader; Reading the Newspaper Reader; Wildlife Scientists Reader  
Objective 22: Understands that data represent specific pieces of information about real-world objects or activities (analyze and interpret data)

Collecting Data Reader; Reading the Newspaper Reader Objective 23: Reads and interprets simple bar graphs and frequency tables (analyze data)

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

What Are Budgets? Reader; Our Vacation Budget Reader Objective 54: Organizes and displays and analyzes data in a frequency table

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.

## SPECIFIC EXPECTATION

### E.2.2.

Interpret and draw conclusions from data presented in charts, tables, and graphs;

Correlated Lessons:

Collecting Data Reader; At Risk! Reader; Reading the Newspaper Reader; Wildlife Scientists Reader  
Objective 22: Understands that data represent specific pieces of information about real-world objects or activities (analyze and interpret data)

Collecting Data Reader; Reading the Newspaper Reader Objective 23: Reads and interprets simple bar graphs and frequency tables (analyze data)

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

What Are Budgets? Reader; Our Vacation Budget Reader Objective 54: Organizes and displays and analyzes data in a frequency table

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