

Leaps and Bounds 7/8 is a math intervention resource.

| GRADE 7 Core Resources Correlation with Grade 7 core resources | | | INTERVENTION Resources and Expectations Correlation between <i>Leaps and Bounds 7/8</i> and prerequisite expectations from Ontario Grades 5 and 6 | | |
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| Number: Rational Numbers | | | | Number: Whole Numbers | |
| Grade 7 Ontario expectations | Nelson Mathematics 7 | Math Path 7 | Leaps and Bounds 7/8 Topics | Grade 6 Ontario expectations | Grade 5 Ontario expectations |
| B1.1 represent and compare whole numbers up to and including one billion, including in expanded form using powers of ten, and describe various ways they are used in everyday life | | 1.1, 1.3 | Representing Large Whole Numbers <i>Pathway 2:</i> Representing Millions and Billions <i>Pathway 3:</i> Representing Six-Digit Numbers | 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 | 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 |
| B1.2 identify and represent perfect squares, and determine their square roots, in various contexts | 1.6, Chapter 1 Task | 1.4 | Multiplicative Situations <i>Pathway 2:</i> Prime Numbers and Perfect Squares <i>Pathway 3:</i> Factors and Multiples | | |
| B1.3 read, represent, compare, and order rational numbers, including positive and negative fractions and decimal numbers to thousandths, in various contexts | Chapter 2 Getting Started, Chapter 6 Getting Started, 6.1, 6.2, Chapter 6 Task, Chapter 9 Getting Started, expectation partially addressed | 2.1, 2.2 | Representing and Comparing Decimals <i>Pathway 2:</i> Comparing Decimals <i>Pathway 3:</i> Representing Decimal Thousandths <i>Pathway 4:</i> Multiplying and Dividing by 10 Comparing Fractions <i>Pathway 1:</i> Fractions and Mixed Numbers <i>Pathway 2:</i> Proper Fractions <i>Pathway 3:</i> Equivalent Fractions | B1.2 read and represent integers, using a variety of tools and strategies, including horizontal and vertical number lines B1.3 compare and order integers, decimal numbers, and fractions, separately and in combination, in various contexts | B1.2 compare and order whole numbers up to and including 100 000, in various contexts |

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| | | | Integers <i>Pathway 3: Representing and Comparing Integers</i> | | |
| Number: Fractions, Decimals, and Percents | | | | | |
| Grade 7 Ontario expectations | <i>Nelson Mathematics 7</i> | <i>Math Path 7</i> | Leaps and Bounds 7/8 Topics | Grade 6 Ontario expectations | Grade 5 Ontario expectations |
| B1.4 use equivalent fractions to simplify fractions, when appropriate, in various contexts | Chapter 9 Getting Started, 9.1, 9.2, 9.3, 9.4, 9.5, 9.6, 9.7, 9.8, Chapter 9 Math Game (Fraction Bingo), Chapter 9 Task, Chapter 12 Mental Math (Expressing a Fraction as a Percent) | 2.1, 3.1, 3.2, 3.3, 3.4, 3.5, 5.1 | Comparing Fractions <i>Pathway 2: Proper Fractions</i> <i>Pathway 3: Equivalent Fractions</i> | | B1.3 represent equivalent fractions from halves to twelfths, including improper fractions and mixed numbers, using appropriate tools, in various contexts |
| B1.5 generate fractions and decimal numbers between any two quantities | | 2.2 | Representing and Comparing Decimals <i>Pathway 2: Comparing Decimals</i> | B1.4 read, represent, compare, and order decimal numbers up to thousandths, in various contexts | B1.4 compare and order fractions from halves to twelfths, including improper fractions and mixed numbers, in various contexts B1.5 read, represent, compare, and order decimal numbers up to hundredths, in various contexts |
| B1.6 round decimal numbers to the nearest tenth, hundredth, or whole number, as applicable, in various contexts | 2.7, 2.8 expectation partially addressed | 4.1, 4.2, 4.4 | | B1.5 round decimal numbers, both terminating and repeating, to the nearest tenth, hundredth, or whole number, as applicable, in various contexts | B1.6 round decimal numbers to the nearest tenth, in various contexts |
| B1.7 convert between fractions, decimal numbers, and percents, in various contexts | Chapter 2 Getting Started, 2.6, 2.7, Chapter 2 Math in Action, Chapter 3 | 2.2, 4.2, 5.1, 5.4 | Representing and Comparing Decimals <i>Pathway 3: Representing Decimal Thousandths</i> | B1.6 describe relationships and show equivalences among fractions and decimal numbers up to | B1.7 describe relationships and show equivalences among fractions, decimal numbers up to hundredths, |

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| | Cross-Strand Investigation, Chapter 12 Mental Math (Expressing a Fraction as a Percent) | | Rates, Percents, and Ratios <i>Pathway 2: Using Percents</i> | thousandths, using appropriate tools and drawings, in various contexts | and whole number percents, using appropriate tools and drawings, in various contexts |
| Number: Properties and Relationships | | | | | |
| Grade 7 Ontario expectations | Nelson Mathematics 7 | Math Path 7 | Leaps and Bounds 7/8 Topics | Grade 6 Ontario expectations | Grade 5 Ontario expectations |
| B2.1 use the properties and order of operations, and the relationships between operations, to solve problems involving whole numbers, decimal numbers, fractions, ratios, rates, and percents, including those requiring multiple steps or multiple operations | Chapter 1 Mental Math (Doubling and Halving Again and Again), 1.7, 2.2, 2.3, 2.4, Chapter 2 Curious Math (Food Ratios), 2.5, Chapter 2 Mental Math (Multiplying by Tenths and Hundredths), 2.6, 2.7, 2.8, Chapter 2 Math Game (Wastepaper Basketball), Chapter 2 Task, Chapter 2 Math in Action, Chapter 3 Mental Math (Multiplying and Dividing by 10, 100, and 1000), Chapter 6 Mental Math (Quick Subtraction), Chapter 8 Mental Math (Subtracting Decimals in Parts), Chapter 9 | 3.5, 4.3, 4.4, 5.3, 5.4 | Whole Number Operations <i>Pathway 1: Order of Operations</i> <i>Pathway 2: Dividing Whole Numbers</i> <i>Pathway 3: Multiplying Whole Numbers</i> Decimal Operations <i>Pathway 1: Dividing Whole Numbers by Decimals</i> <i>Pathway 2: Dividing Decimals by Whole Numbers</i> <i>Pathway 3: Multiplying with Decimals</i> <i>Pathway 4: Adding and Subtracting Decimals</i> Relating Situations to Operations <i>Pathway 1: Recognizing Division Situations</i> <i>Pathway 2: Recognizing Multiplication Situations</i> <i>Pathway 3: Recognizing Subtraction Situations</i> Fraction Operations <i>Pathway 1: Repeated Addition of Fractions</i> <i>Pathway 3: Subtracting Fractions</i> <i>Pathway 4: Adding Fractions</i> Rates, Percents, and Ratios | 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 | 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 |

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| | Getting Started, Chapter 9 Mental Math (Multiplying a Decimal Close to a Whole Number), 9.7, Chapter 9 Curious Math (Egyptian Fractions), 9.8, Chapter 9 Math Game (Fraction Bingo), Chapter 9 Task, Chapter 11 Mental Math (Choosing Easily Multiplied Pairs) expectation partially addressed | | <i>Pathway 1: Using Rates</i> <i>Pathway 2: Using Percents</i> <i>Pathway 3: Using Ratios</i> | | |
| Number: Math Facts | | | | | |
| Grade 7 Ontario expectations | <i>Nelson Mathematics 7</i> | <i>Math Path 7</i> | Leaps and Bounds 7/8 Topics | Grade 6 Ontario expectations | Grade 5 Ontario expectations |
| B2.2 understand and recall commonly used percents, fractions, and decimal equivalents | Chapter 2 Getting Started, 2.6, 2.7, Chapter 2 Math in Action, Chapter 3 Cross-Strand Investigation, Chapter 12 Mental Math (Expressing a Fraction as a Percent) | 5.2 | Representing and Comparing Decimals <i>Pathway 3: Representing Decimal Thousandths</i> Rates, Percents, and Ratios <i>Pathway 2: Using Percents</i> | B2.2 understand and use the divisibility rules to determine whether a number is divisible by 2, 3, 4, 5, 6, 8, 9, and 10 | B2.2 recall and demonstrate multiplication facts from 0×0 to 12×12 , and related division facts |
| Number: Mental Math | | | | | |
| Grade 7 Ontario expectations | <i>Nelson Mathematics 7</i> | <i>Math Path 7</i> | Leaps and Bounds 7/8 Topics | Grade 6 Ontario expectations | Grade 5 Ontario expectations |

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| B2.3 use mental math strategies to increase and decrease a whole number by 1%, 5%, 10%, 25%, 50%, and 100%, and explain the strategies used | Chapter 3 Cross-Strand Investigation expectation slightly addressed | 5.2 | | 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 | 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 |
| Number: Addition and Subtraction | | | | | |
| Grade 7 Ontario expectations | Nelson Mathematics 7 | Math Path 7 | Leaps and Bounds 7/8 Topics | Grade 6 Ontario expectations | Grade 5 Ontario expectations |
| B2.4 use objects, diagrams, and equations to represent, describe, and solve situations involving addition and subtraction of integers | 6.2, 6.3, 6.4, 6.5, Chapter 6 Math Game (Integro), Chapter 6 Curious Math (Time Zones), 6.6, 6.7, 6.8, Chapter 6 Task | 7.1, 7.2 | Integers <i>Pathway 1: Subtracting Integers</i> <i>Pathway 2: Adding Integers</i> | B2.4 represent and solve problems involving the addition and subtraction of whole numbers and decimal numbers, using estimation and algorithms | 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 |
| B2.5 add and subtract fractions using appropriate strategies, in various contexts | Chapter 9 Getting Started, 9.1, 9.2, 9.4, 9.5, 9.6, 9.7, Chapter 9 Curious Math (Egyptian Fractions), 9.8, Chapter 9 Math Game (Fraction Bingo), Chapter 9 Task | 3.1, 3.2 | Fraction Operations <i>Pathway 3: Subtracting Fractions</i> <i>Pathway 4: Adding Fractions</i> | B2.5 add and subtract fractions with like and unlike denominators, using appropriate tools, in various contexts | B2.5 add and subtract fractions with like denominators, in various contexts |
| Number: Multiplication and Division | | | | | |
| Grade 7 Ontario expectations | Nelson Mathematics 7 | Math Path 7 | Leaps and Bounds 7/8 Topics | Grade 6 Ontario expectations | Grade 5 Ontario expectations |
| B2.6 determine the greatest common factor for a variety of whole numbers up to 144 and the lowest common multiple for two and three whole numbers | 1.1, 1.2, 1.3, Chapter 1 Task | 1.2 | Multiplicative Situations <i>Pathway 3: Factors and Multiples</i> | B2.6 represent composite numbers as a product of their prime factors, including through the use of factor trees | |

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| B2.7 evaluate and express repeated multiplication of whole numbers using exponential notation, in various contexts | 1.5, Chapter 1 Math Game (Rolling Powers), 1.8, Chapter 1 Task | 1.3 | | | |
| B2.8 multiply and divide fractions by fractions, using tools in various contexts | | 3.3, 3.4 | Fraction Operations <i>Pathway 1: Repeated Addition of Fractions</i> | B2.9 multiply whole numbers by proper fractions, using appropriate tools and strategies B2.10 divide whole numbers by proper fractions, using appropriate tools and strategies | B2.8 multiply and divide one-digit whole numbers by unit fractions, using appropriate tools and drawings |
| B2.9 multiply and divide decimal numbers by decimal numbers, in various contexts | 2.7, 2.8, Chapter 11 Mental Math (Choosing Easily Multiplied Pairs) | 4.1, 4.2 | Decimal Operations <i>Pathway 1: Dividing Whole Numbers by Decimals</i> <i>Pathway 2: Dividing Decimals by Whole Numbers</i> <i>Pathway 3: Multiplying with Decimals</i> Relating Situations to Operations <i>Pathway 1: Recognizing Division Situations</i> <i>Pathway 2: Recognizing Multiplication Situations</i> | B2.7 represent and solve problems involving the multiplication of three-digit whole numbers by decimal tenths, using algorithms 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 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 | 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 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 |
| B2.10 identify proportional and non-proportional situations and apply proportional reasoning to solve problems | Chapter 2 Getting Started, 2.1, 2.2, 2.3, 2.4, Chapter 2 Curious Math (Food Ratios), 2.5, | 5.3, 5.4, 6.1, 6.2 | Rates, Percents, and Ratios <i>Pathway 1: Using Rates</i> <i>Pathway 2: Using Percents</i> <i>Pathway 3: Using Ratios</i> | B2.12 solve problems involving ratios, including percents and rates, using appropriate tools and strategies | B2.9 represent and create equivalent ratios and rates, using a variety of tools and models, in various contexts |

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| | 2.6, 2.7, 2.8, Chapter 2 Math Game (Wastepaper Basketball), Chapter 2 Task, Chapter 2 Math in Action, 12.1, 12.2, 12.5 expectation partially addressed | | | | |
| Algebra: Patterns | | | | | |
| Grade 7 Ontario expectations | <i>Nelson Mathematics 7</i> | <i>Math Path 7</i> | Leaps and Bounds 7/8 Topics | Grade 6 Ontario expectations | Grade 5 Ontario expectations |
| C1.1 identify and compare a variety of repeating, growing, and shrinking patterns, including patterns found in real-life contexts, and compare linear growing patterns on the basis of their constant rates and initial values | 1.8, 2.1, 2.3, Chapter 2 Curious Math (Food Ratios), Chapter 4 Getting Started, 4.1, 4.2, 4.3, 4.4, 4.5, Chapter 4 Curious Math (The Fibonacci Sequence), Chapter 4 Task, Chapter 4 Math in Action, Chapter 6 Curious Math (Time Zones), 7.4, 7.7, Chapter 8 Getting Started, 8.1, 8.2 expectation partially covered | 9.1 | Patterns <i>Pathway 1: Linear Relations</i> <i>Pathway 2: Representing Patterns</i> <i>Pathway 3: Exploring Simple Patterns</i> | C1.1 identify and describe repeating, growing, and shrinking patterns, including patterns found in real-life contexts, and specify which growing patterns are linear | C1.1 identify and describe repeating, growing, and shrinking patterns, including patterns found in real-life contexts |
| C1.2 create and translate repeating, growing, and shrinking patterns involving | 2.1, 4.2, Chapter 4 Mental Imagery (Folding Squares), | 9.2 | Patterns <i>Pathway 1: Linear Relations</i> <i>Pathway 2: Representing Patterns</i> | C1.2 create and translate repeating, growing, and shrinking patterns using | C1.2 create and translate growing and shrinking patterns using various |

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| whole numbers and decimal numbers using various representations, including algebraic expressions and equations for linear growing patterns | 4.3, 4.4, 4.5, Chapter 4 Curious Math (The Fibonacci Sequence), Chapter 4 Task, Chapter 4 Math in Action, Chapter 6 Curious Math (Time Zones), 7.4, 7.7, Chapter 8 Getting Started, 8.1, 8.2, Chapter 8 Task expectation partially covered | | <i>Pathway 3: Exploring Simple Patterns</i> | various representations, including tables of values, graphs, and for linear growing patterns, algebraic expressions and equations | representations, including tables of values and graphs |
| 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 involving whole numbers and decimal numbers, and use algebraic representations of the pattern rules to solve for unknown values in linear growing patterns | 1.8, 2.1, 2.3, Chapter 2 Curious Math (Food Ratios), 4.1, 4.2, 4.3, 4.4, 4.5, Math (The Fibonacci Sequence), Chapter 4 Task, Chapter 4 Math in Action, Chapter 6 Curious Math (Time Zones), 7.4, 7.7, Chapter 8 Getting Started, 8.1, 8.2, Chapter 8 Task expectation partially covered | 9.3 | Patterns <i>Pathway 1: Linear Relations</i> <i>Pathway 2: Representing Patterns</i> <i>Pathway 3: Exploring Simple Patterns</i> | 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 | 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 |
| C1.4 create and describe patterns to illustrate relationships among integers | 1.3, Chapter 1 Mental Math (Doubling and Halving Again and Again), 1.5, 1.6, | 9.2 | Multiplicative Situations <i>Pathway 3: Factors and Multiples</i> | C1.4 create and describe patterns to illustrate relationships among whole numbers and decimal numbers | C1.4 create and describe patterns to illustrate relationships among whole numbers and decimal tenths and hundredths |

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| | 1.8, Chapter 1 Task, Chapter 2 Mental Math (Multiplying by Tenths and Hundredths), Chapter 3 Mental Math (Multiplying and Dividing by 10, 100, and 1000), 4.1, Chapter 4 Curious Math (The Fibonacci Sequence), Chapter 5 Mental Math (Using a Staircase to Convert Lengths), 6.6 expectation partially covered | | | | |
| Algebra: Variables and Expressions | | | | | |
| Grade 7 Ontario expectations | Nelson Mathematics 7 | Math Path 7 | Leaps and Bounds 7/8 Topics | Grade 6 Ontario expectations | Grade 5 Ontario expectations |
| C2.1 add and subtract monomials with a degree of 1 that involve whole numbers, using tools | | 8.2 | | C2.1 add monomials with a degree of 1 that involve whole numbers, using tools | |
| C2.2 evaluate algebraic expressions that involve whole numbers and decimal numbers | 8.2, 8.3, Chapter 8 Math Game (Alge-Match), Chapter 8 Curious Math (Using Algebra to Solve Number Tricks), Chapter 8 Task, 11.2, 11.3, 11.4, Chapter 11 Task | 8.1 | Algebra <i>Pathway 1: Solving Problems Using Equations</i> <i>Pathway 2: Solving Simple Equations</i> <i>Pathway 3: Using Variables</i> | C2.2 evaluate algebraic expressions that involve whole numbers and decimal tenths | C2.1 translate among words, algebraic expressions, and visual representations that describe equivalent relationships C2.2 evaluate algebraic expressions that involve whole numbers |

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| | expectation partially addressed | | | | |
| Algebra: Equalities and Inequalities | | | | | |
| Grade 7 Ontario expectations | Nelson Mathematics 7 | Math Path 7 | Leaps and Bounds 7/8 Topics | Grade 6 Ontario expectations | Grade 5 Ontario expectations |
| C2.3 solve equations that involve multiple terms, whole numbers, and decimal numbers in various contexts, and verify solutions | 8.4, 8.5, 8.6, Chapter 8 Task, Chapter 8 Math in Action expectation partially addressed | 8.3, 8.4 | Algebra <i>Pathway 1: Solving Problems Using Equations</i> <i>Pathway 2: Solving Simple Equations</i> <i>Pathway 3: Using Variables</i> | C2.3 solve equations that involve multiple terms and whole numbers in various contexts, and verify solutions | C2.3 solve equations that involve whole numbers up to 100 in various contexts, and verify solutions |
| C2.4 solve inequalities that involve multiple terms and whole numbers, and verify and graph the solutions | | 8.5, 8.6 | | C2.4 solve inequalities that involve two operations and whole numbers up to 100, and verify and graph the solutions | C2.4 solve inequalities that involve one operation and whole numbers up to 50, and verify and graph the solutions |
| Algebra: Coding | | | | | |
| Grade 7 Ontario expectations | Nelson Mathematics 7 | Math Path 7 | Leaps and Bounds 7/8 Topics | Grade 6 Ontario expectations | Grade 5 Ontario expectations |
| C3.1 solve problems and create computational representations of mathematical situations by writing and executing efficient code, including code that involves events influenced by a defined count and/or sub-program and other control structures | | Coding Toolkit | | 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 | 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 |
| C3.2 read and alter existing code, including code that involves events influenced by a defined count and/or sub-program and other control structures, and | | Coding Toolkit | | C3.2 read and alter existing code, including code that involves conditional statements and other control structures, and describe how changes to the | C3.2 read and alter existing code, including code that involves conditional statements and other control structures, and |

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| describe how changes to the code affect the outcomes and the efficiency of the code | | | | code affect outcomes and the efficiency of the code | describe how changes to the code affect the outcomes |
| Data: Data Collection and Organization | | | | | |
| Grade 7 Ontario expectations | Nelson Mathematics 7 | Math Path 7 | Leaps and Bounds 7/8 Topics | Grade 6 Ontario expectations | Grade 5 Ontario expectations |
| D1.1 explain why percentages are used to represent the distribution of a variable for a population or sample in large sets of data, and provide examples | | 14.2 | | D1.1 describe the difference between discrete and continuous data, and provide examples of each | D1.1 explain the importance of various sampling techniques for collecting a sample of data that is representative of a population |
| D1.2 collect qualitative data and discrete and continuous quantitative data to answer questions of interest, and organize the sets of data as appropriate, including using percentages | Chapter 3 Getting Started, 3.1, 3.2, 3.3, Chapter 3 Curious Math (The DVORAK Keyboard), Chapter 6 Curious Math (Time Zones), expectation partially addressed | 14.2 | Displaying Data <i>Pathway 1: Using Circle Graphs and Line Graphs</i> <i>Pathway 2: Bias and Sampling</i> | 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 | 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 |
| Data: Data Visualization | | | | | |
| Grade 7 Ontario expectations | Nelson Mathematics 7 | Math Path 7 | Leaps and Bounds 7/8 Topics | Grade 6 Ontario expectations | Grade 5 Ontario expectations |
| D1.3 select from among a variety of graphs, including circle 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 | Chapter 3 Getting Started, 3.1, 3.4, 3.5, Chapter 3 Task, 3.6, Chapter 3 Cross-Strand Investigation | 14.1, 14.4 | Displaying Data <i>Pathway 1: Using Circle Graphs and Line Graphs</i> <i>Pathway 3: Interpreting Graphs</i> | 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 | 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 |

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| | | | | scales; and justify their choice of graphs | |
| D1.4 create an infographic about a data set, representing the data in appropriate ways, including in tables and circle graphs, and incorporating any other relevant information that helps to tell a story about the data | Chapter 3 Getting Started, 3.1, 3.4, 3.5, 3.6, Chapter 3 Task, Chapter 3 Cross-Strand Investigation, 4.5 expectation partially addressed | 14.3 | Displaying Data <i>Pathway 1: Using Circle Graphs and Line Graphs</i> <i>Pathway 3: Interpreting Graphs</i> | 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 | 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 |
| Data: Data Analysis | | | | | |
| Grade 7 Ontario expectations | Nelson Mathematics 7 | Math Path 7 | Leaps and Bounds 7/8 Topics | Grade 6 Ontario expectations | Grade 5 Ontario expectations |
| D1.5 determine the impact of adding or removing data from a data set on a measure of central tendency, and describe how these changes alter the shape and distribution of the data | 3.6, Chapter 6 Math Game (Target Mean), Chapter 3 Cross-Strand Investigation expectation partially addressed | 14.2 | Summarizing Data <i>Pathway 1: Effects of Changing Data</i> <i>Pathway 2: Using Mean, Median, and Mode</i> <i>Pathway 3: Calculating the Mean</i> | 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 | 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 |
| D1.6 analyse different sets of data presented in various ways, including in circle 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 | Chapter 3 Getting Started, 3.1, 3.3, 3.4, 3.5, 3.6, Chapter 3 Curious Math (The DVORAK Keyboard), 3.7, Chapter 3 Task, Chapter 3 Cross-Strand Investigation, 4.5, Chapter 4 Task | 14.4 | Displaying Data <i>Pathway 1: Using Circle Graphs and Line Graphs</i> <i>Pathway 3: Interpreting Graphs</i> | 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 | 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 |
| Data: Probability | | | | | |
| Grade 7 Ontario | Nelson Mathematics 7 | Math Path 7 | Leaps and Bounds 7/8 Topics | Grade 6 Ontario | Grade 5 Ontario |

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| expectations | | | | expectations | expectations |
| D2.1 describe the difference between independent and dependent events, and explain how their probabilities differ, providing examples | | 15.1, 15.2 | Probability <i>Pathway 1: Probability: Independent Events</i> | 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 | 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 |
| D2.2 determine and compare the theoretical and experimental probabilities of two independent events happening and of two dependent events happening | 6.2, Chapter 12 Getting Started, 12.1, 12.2, Chapter 12 Curious Math (Simpson's Paradox), Chapter 12 Math Game (Unlucky Ones), 12.3, 12.4, 12.5, Chapter 12 Task expectation partially addressed | 15.1, 15.2 | Probability <i>Pathway 1: Probability: Independent Events</i> <i>Pathway 2: Theoretical Probability</i> <i>Pathway 3: Experimental Probability</i> | D2.2 determine and compare the theoretical and experimental probabilities of two independent events happening | D2.2 determine and compare the theoretical and experimental probabilities of an event happening |
| Spatial Sense: Geometric Reasoning | | | | | |
| Grade 7 Ontario expectations | Nelson Mathematics 7 | Math Path 7 | Leaps and Bounds 7/8 Topics | Grade 6 Ontario expectations | Grade 5 Ontario expectations |
| E1.1 describe and classify cylinders, pyramids, and prisms according to their geometric properties, including plane and rotational symmetry | | 11.1, 11.2, 11.3 | | E1.1 create lists of the geometric properties of various types of quadrilaterals, including the properties of the diagonals, rotational symmetry, and line symmetry | E1.1 identify geometric properties of triangles, and construct different types of triangles when given side or angle measurements E1.2 identify and construct congruent triangles, rectangles, and parallelograms |
| E1.2 draw top, front, and side views, as well as perspective views, of | 10.3, 10.4, Chapter 10 Task, Chapter 12 Cross- | 11.4, 11.5 | 3-Shapes <i>Pathway 1: Using Isometric Drawings</i> <i>Pathway 2: Using Different Views</i> | E1.2 construct three-dimensional objects when | E1.3 draw top, front, and side views of objects, and |

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| objects and physical spaces, using appropriate scales | Strand Investigation | | <i>Pathway 3: Using Nets.</i> | given their top, front, and side views | match drawings with objects |
| Spatial Sense: Location and Movement | | | | | |
| Grade 7 Ontario expectations | <i>Nelson Mathematics 7</i> | <i>Math Path 7</i> | Leaps and Bounds 7/8 Topics | Grade 6 Ontario expectations | Grade 5 Ontario expectations |
| E1.3 perform dilations and describe the similarity between the image and the original shape | 2.1, 7.5, 7.7 | 10.1, 10.2 | 2-Shapes <i>Pathway 1: Similar Shapes</i> <i>Pathway 2: Congruent Shapes</i> Transformations <i>Pathway 2: Performing Dilatations</i> | 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 | 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 |
| E1.4 describe and perform translations, reflections, and rotations on a Cartesian plane, and predict the results of these transformations | 7.1, 7.2, 7.3, 7.4, 7.7, Chapter 7 Math Game (Transformational Golf), Chapter 7 Task, Chapter 7 Math in Action | 10.3 | 2-Shapes <i>Pathway 2: Congruent Shapes</i> Plotting Points in 4 Quadrants <i>Pathway 1: Plotting Points in 4 Quadrants</i> <i>Pathway 2: Plotting Points on a Grid</i> Transformations <i>Pathway 3: Combining Transformations</i> <i>Pathway 4: Performing Single Transformations</i> | E1.4 describe and perform combinations of translations, reflections, and rotations up to 360° on a grid, and predict the results of these transformations | E1.5 describe and perform translations, reflections, and rotations up to 180° on a grid, and predict the results of these transformations |
| Spatial Sense: The Metric System | | | | | |
| Grade 7 Ontario expectations | <i>Nelson Mathematics 7</i> | <i>Math Path 7</i> | Leaps and Bounds 7/8 Topics | Grade 6 Ontario expectations | Grade 5 Ontario expectations |
| E2.1 describe the differences and similarities between volume and capacity, and apply the relationship between millilitres (mL) and cubic centimetres (cm ³) to solve problems | | 13.2 | | 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 | E2.1 use appropriate metric units to estimate and measure length, area, mass, and capacity |
| E2.2 solve problems involving perimeter, area, | Chapter 5 Curious Math (Using a | 13.5 | Area and Perimeter <i>Pathway 1: Area of Circles</i> | | E2.2 solve problems that involve converting larger |

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| and volume that require converting from one metric unit of measurement to another | Staircase to Convert Lengths), 5.6 expectation slightly addressed | | <i>Pathway 2: Circumference of Circles</i> <i>Pathway 4: Area of Parallelograms and Triangles</i> <i>Pathway 5: Area and Perimeter of Rectangles</i> Volume and Surface Area <i>Pathway 1: Volume of Prisms: Using a Formula</i> <i>Pathway 3: Volume of Rectangular Prisms</i> Metric Units <i>Pathway 1: Renaming Units</i> <i>Pathway 2: Selecting a Unit</i> | | metric units into smaller ones, and describe the base ten relationships among metric units |
| Spatial Sense: Circles | | | | | |
| Grade 7 Ontario expectations | Nelson Mathematics 7 | Math Path 7 | Leaps and Bounds 7/8 Topics | Grade 6 Ontario expectations | Grade 5 Ontario expectations |
| E2.3 use the relationships between the radius, diameter, and circumference of a circle to explain the formula for finding the circumference and to solve related problems | | 12.1, 12.3 | Area and Perimeter <i>Pathway 2: Circumference of Circles</i> | | |
| E2.4 construct circles when given the radius, diameter, or circumference | | 12.1 | Geometric Drawings <i>Pathway 3: Drawing Circles</i> | | |
| E2.5 show the relationships between the radius, diameter, and area of a circle, and use these relationships to explain the formula for measuring the area of a circle and to solve related problems | | 12.2, 12.3 | Area and Perimeter <i>Pathway 1: Area of Circles</i> | | |
| | | | | Spatial Sense: Angles | |
| Grade 7 Ontario | Nelson Mathematics 7 | Math Path 7 | Leaps and Bounds 7/8 Topics | Grade 6 Ontario | Grade 5 Ontario |

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| expectations | | | | expectations | expectations |
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| | | | | 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 counterclockwise E2.3 use the properties of supplementary angles, complementary angles, opposite angles, and interior and exterior angles to solve for unknown angle measures | E2.3 compare angles and determine their relative size by matching them and by measuring them using appropriate non-standard units 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 |
| Spatial Sense: Volume and Surface Area | | | | Spatial Sense: Area and Surface Area | Spatial Sense: Area |
| Grade 7 Ontario expectations | Nelson Mathematics 7 | Math Path 7 | Leaps and Bounds 7/8 Topics | Grade 6 Ontario expectations | Grade 5 Ontario expectations |
| E2.6 represent cylinders as nets and determine their surface area by adding the areas of their parts | | 13.1 | | E2.4 determine the areas of trapezoids, rhombuses, kites, and composite polygons by decomposing them into shapes with known areas E2.5 create and use nets to demonstrate the relationship between the faces of prisms and pyramids and their surface areas | 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 E2.6 show that two-dimensional shapes with the same area can have different perimeters, and solve related problems |
| E2.7 show that the volume of a prism or cylinder can be determined by multiplying the area of its base by its height, and apply this relationship to find the area | Chapter 11 Getting Started, 11.2, 11.3, 11.4, Chapter 11 Math Game (Turn Up the Volume!), | 13.3, 13.4 | Volume and Surface Area <i>Pathway 1: Volume of Prisms: Using a Formula</i> <i>Pathway 3: Volume of Rectangular Prisms</i> | E2.6 determine the surface areas of prisms and pyramids by calculating the areas of their two-dimensional faces and adding them together | |

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| of the base, volume, and height of prisms and cylinders when given two of the three measurements | Chapter 11 Task, Chapter 12 Cross-Strand Investigation expectation partially addressed | | | | |
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Financial Literacy: Money Concepts

| Grade 7 Ontario expectations | <i>Nelson Mathematics 7</i> | <i>Math Path 7</i> | Leaps and Bounds 7/8 Topics | Grade 6 Ontario expectations | Grade 5 Ontario expectations |
|---|------------------------------------|---------------------------|------------------------------------|--|--|
| F1.1 identify and compare exchange rates, and convert foreign currencies to Canadian dollars and vice versa | | 5.3, 5.4 | | F1.1 describe the advantages and disadvantages of various methods of payment that can be used to purchase goods and services | F1.1 describe several ways money can be transferred among individuals, organizations, and businesses F1.2 estimate and calculate the cost of transactions involving multiple items priced in dollars and cents, including sales tax, using various strategies |

Financial Literacy: Financial Management

| Grade 7 Ontario expectations | <i>Nelson Mathematics 7</i> | <i>Math Path 7</i> | Leaps and Bounds 7/8 Topics | Grade 6 Ontario expectations | Grade 5 Ontario expectations |
|--|------------------------------------|---------------------------|------------------------------------|--|--|
| F1.2 identify and describe various reliable sources of information that can help with planning for and reaching a financial goal | | | | F1.2 identify different types of financial goals, including earning and saving goals, and outline some key steps in achieving them | F1.3 design sample basic budgets to manage finances for various earning and spending scenarios |
| F1.3 create, track, and adjust sample budgets designed to meet longer-term financial goals for various scenarios | | | | | |
| F1.4 identify various societal and personal factors that may influence financial | | | | F1.3 identify and describe various factors that may | F1.4 explain the concepts of credit and debt, and describe how financial |

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| decision making, and describe the effects that each might have | | | | help or interfere with reaching financial goals | decisions may be impacted by each |
| Financial Literacy: Consumer and Civic Awareness | | | | | |
| Grade 7 Ontario expectations | Nelson Mathematics 7 | Math Path 7 | Leaps and Bounds 7/8 Topics | Grade 6 Ontario expectations | Grade 5 Ontario expectations |
| F1.5 explain how interest rates can impact savings, investments, and the cost of borrowing to pay for goods and services over time | | 5.3 | | 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 | F1.5 calculate unit rates for various goods and services, and identify which rates offer the best value 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 |
| F1.6 compare interest rates and fees for different accounts and loans offered by various financial institutions, and determine the best option for different scenarios | | 5.3, 5.4 | | F1.5 describe trading, lending, borrowing, and donating as different ways to distribute financial and other resources among individuals and organizations | |