My Math Path 7 – 2020 Ontario Curriculum Correlation*

Strand/Expectation			Module/Chapter/Lesson
Strand A: Social-Emotional Learning (SEL) Skills and the Mathematical Processes			
By the end of Grade 7, students will:			
1. Identify and manage emotions	• *problem solving:* develop, select, and apply problem-solving strategies • *reasoning and proving:* develop and apply reasoning skills (e.g., classification, recognition of relationships, use of counter-examples) to justify thinking, make and investigate conjectures, and construct and defend arguments • *reflecting:* demonstrate that as they solve problems, they are pausing, looking back, and monitoring their thinking to help clarify their understanding (e.g., by comparing and adjusting strategies used, by explaining why they think their results are reasonable, by recording their thinking in a math journal) • *connecting:* make connections among mathematical concepts, procedures, and representations, and relate mathematical ideas to other contexts (e.g., other curriculum areas, daily life, sports) • *communicating:* express and understand mathematical thinking, and engage in mathematical arguments using everyday language, language resources as necessary, appropriate mathematical terminology, a variety of representations, and mathematical conventions • *representing:* select from and create a variety of representations of mathematical ideas (e.g., representations involving physical models, pictures, numbers, variables, graphs), and apply them to solve problems • *selecting tools and strategies:* select and use a variety of concrete, visual, and electronic learning tools and appropriate strategies to investigate mathematical ideas and to solve problems	1. express and manage their feelings, and show understanding of the feelings of others, as they engage positively in mathematics activities	Throughout chapters
2. recognize sources of stress and cope with challenges		2. work through challenging math problems, understanding that their resourcefulness in using various strategies to respond to stress is helping them build personal resilience	Throughout chapters
3. maintain positive motivation and perseverance		3. recognize that testing out different approaches to problems and learning from mistakes is an important part of the learning process, and is aided by a sense of optimism and hope	Throughout chapters
4. build relationships and communicate effectively		4. work collaboratively on math problems – expressing their thinking, listening to the thinking of others, and practising inclusivity – and in that way fostering healthy relationships	Throughout chapters
5. develop self-awareness and sense of identity		5. see themselves as capable math learners, and strengthen their sense of ownership of their learning, as part of their emerging sense of identity and belonging	Throughout chapters
6. think critically and creatively		6. make connections between math and everyday contexts to help them make informed judgements and decisions	Throughout chapters

Overall expectation	Specific expectations	Module/Chapter/Lesson
Strand B: Number		
By the end of Grade 7, students will:		
B1. Number Sense demonstrate an understanding of numbers and make connections to the way numbers are used in everyday life	**Rational Numbers** **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	Chapter 1, Lesson 1, 3
	B1.2 identify and represent perfect squares, and determine their square roots, in various contexts	Chapter 1, Lesson 4
	B1.3 read, represent, compare, and order rational numbers, including positive and negative fractions and decimal numbers to thousandths, in various contexts	Chapter 2, Lesson 1-2
	Fractions, Decimals, and Percents **B1.4** use equivalent fractions to simplify fractions, when appropriate, in various contexts	Chapter 2, Lesson 1 Chapter 3, Lesson 1-5 Chapter 5, Lesson 1
	B1.5 generate fractions and decimal numbers between any two quantities	Chapter 2, Lesson 2
	B1.6 round decimal numbers to the nearest tenth, hundredth, or whole number, as applicable, in various contexts	Chapter 4, Lesson 1-2, 4
	B1.7 convert between fractions, decimal numbers, and percents, in various contexts	Chapter 2, Lesson 2 Chapter 4, Lesson 2 Chapter 5, Lesson 1, 4
B2. Operations use knowledge of numbers and operations to solve mathematical problems encountered in everyday life	**Properties and Relationships** **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 3, Lesson 5 Chapter 4, Lesson 3-4 Chapter 5, Lesson 3-4
	Math Facts **B2.2** understand and recall commonly used percents, fractions, and decimal equivalents	Chapter 5, Lesson 2
	Mental Math **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 5, Lesson 2
	Addition and Subtraction **B2.4** use objects, diagrams, and equations to represent, describe, and solve situations involving addition and subtraction of integers	Chapter 7, Lesson 1-2
	B2.5 add and subtract fractions, including by creating equivalent fractions, in various contexts	Chapter 3, Lesson 1-2
	Multiplication and Division **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	Chapter 1, Lesson 2
	B2.7 evaluate and express repeated multiplication of whole numbers using exponential notation, in various contexts	Chapter 1, Lesson 3
	B2.8 multiply and divide fractions by fractions, using tools in various contexts	Chapter 3, Lesson 3-4
	B2.9 multiply and divide decimal numbers by decimal numbers, in various contexts	Chapter 4, Lesson 1-2
	B2.10 identify proportional and non-proportional situations and apply proportional reasoning to solve problems	Chapter 5, Lesson 3-4 Chapter 6, Lesson 1-2

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Strand C: Algebra		
By the end of Grade 7, students will:		
C1. Patterns and Relationships identify, describe, extend, create, and make predictions about a variety of patterns, including those found in real-life contexts	**Patterns** **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	Chapter 9, Lesson 1
	C1.2 create and translate repeating, growing, and shrinking patterns involving whole numbers and decimal numbers using various representations, including algebraic expressions and equations for linear growing patterns	Chapter 9, Lesson 2
	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	Chapter 9, Lesson 3
	C1.4 create and describe patterns to illustrate relationships among integers	Chapter 9, Lesson 2
C2. Equations and Inequalities demonstrate an understanding of variables, expressions, equalities, and inequalities, and apply this understanding in various contexts	**Variables and Expressions** **C2.1** add and subtract monomials with a degree of 1 that involve whole numbers, using tools	Chapter 8, Lesson 2
	C2.2 evaluate algebraic expressions that involve whole numbers and decimal numbers	Chapter 8, Lesson 1
	Equalities and Inequalities **C2.3** solve equations that involve multiple terms, whole numbers, and decimal numbers in various contexts, and verify solutions	Chapter 8, Lesson 3-4
	C2.4 solve inequalities that involve multiple terms and whole numbers, and verify and graph the solutions	Chapter 8, Lesson 5-6
C3. Coding solve problems and create computational representations of mathematical situations using coding concepts and skills	**Coding Skills** **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
	C3.2 read and alter existing code, including code that involves events influenced by a defined count and/or sub-program and other control structures, and describe how changes to the code affect the outcomes and the efficiency of the code	Coding Toolkit

C4. Mathematical Modelling apply the process of mathematical modelling to represent, analyse, make predictions, and provide insight into real-life situations *This overall expectation has no specific expectations. Mathematical modelling is an iterative and interconnected process that is applied to various contexts, allowing students to bring in learning from other strands. Students' demonstration of the process of mathematical modelling, as they apply concepts and skills learned in other strands, is assessed and evaluated.*		

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Strand D: Data		
By the end of Grade 7, students will:		
D1. Data Literacy manage, analyse, and use data to make convincing arguments and informed decisions, in various contexts drawn from real life	**Data Collection and Organization** **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	Chapter 14, Lesson 2
	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 14, Lesson 2
	Data Visualization **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 14, Lesson 1, 4
	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 14, Lesson 3
	Data Analysis **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	Chapter 14, Lesson 2
	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 14, Lesson 4
D2. Probability describe the likelihood that events will happen, and use that information to make predictions	**Probability** **D2.1** describe the difference between independent and dependent events, and explain how their probabilities differ, providing examples	Chapter 15, Lesson 1-2
	D2.2 determine and compare the theoretical and experimental probabilities of two independent events happening and of two dependent events happening	Chapter 15, Lesson 1-2

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Strand E: Spatial Sense		
By the end of Grade 7, students will:		
E1. Geometric and Spatial Reasoning describe and represent shape, location, and movement by applying geometric properties and spatial relationships in order to navigate the world around them	**Geometric Reasoning** **E1.1** describe and classify cylinders, pyramids, and prisms according to their geometric properties, including plane and rotational symmetry	Chapter 11, Lesson 1-3
	E1.2 draw top, front, and side views, as well as perspective views, of objects and physical spaces, using appropriate scales	Chapter 11, Lesson 4-5
	Location and Movement **E1.3** perform dilations and describe the similarity between the image and the original shape	Chapter 10, Lesson 1-2
	E1.4 describe and perform translations, reflections, and rotations on a Cartesian plane, and predict the results of these transformations	Chapter 10, Lesson 3
E2. Measurement compare, estimate, and determine measurements in various contexts	**The Metric System** **E2.1** describe the differences and similarities between volume and capacity, and apply the relationship between millilitres (mL) and cubic centimetres (cm3) to solve problems	Chapter 13, Lesson 2
	E2.2 solve problems involving perimeter, area, and volume that require converting from one metric unit of measurement to another	Chapter 13, Lesson 5
	Circles **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	Chapter 12, Lesson 1, 3
	E2.4 construct circles when given the radius, diameter, or circumference	Chapter 12, Lesson 1
	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	Chapter 12, Lesson 2-3
	Volume and Surface Area **E2.6** represent cylinders as nets and determine their surface area by adding the areas of their parts	Chapter 13, Lesson 1
	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 of the base, volume, and height of prisms and cylinders when given two of the three measurements	Chapter 13, Lesson 3-4

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Strand F: Financial Literacy		
By the end of Grade 7, students will:		
F1. Money and Finances demonstrate the knowledge and skills needed to make informed financial decisions	**Money Concepts** **F1.1** identify and compare exchange rates, and convert foreign currencies to Canadian dollars and vice versa	Chapter 5, Lesson 3-4
	Financial Management **F1.2** identify and describe various reliable sources of information that can help with planning for and reaching a financial goal	TBC
	F1.3 create, track, and adjust sample budgets designed to meet longer-term financial goals for various scenarios	TBC
	F1.4 identify various societal and personal factors that may influence financial decision making, and describe the effects that each might have	TBC
	Consumer and Civic Awareness **F1.5** explain how interest rates can impact savings, investments, and the cost of borrowing to pay for goods and services over time	Chapter 5, Lesson 3

	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	Chapter 5, Lesson 3-4

*to be confirmed (manuscript still in development)