



Mathematics Scope & Sequence for Kindergarten to Grade 4

Each strand and topic are sequenced to allow for fundamental skills and concepts to be introduced and built upon throughout the year to deepen understanding and make connections between mathematical concepts. Each strand is linked to the MathUp topics. (You can create your own path on mathup.ca to match the following scope and sequence.) Specific Expectations are noted, as well as any cross-strand connections. Please refer to the curriculum *teacher supports* for further details.

There should be an ongoing focus on the following expectations:

A1: Social and Emotional Learning

- apply, to the best of their ability, a variety of social-emotional learning skills to support their use of the mathematical processes and their learning in connection with the expectations in the other five strands of the curriculum

C4: Mathematical Modeling

- apply the process of mathematical modelling to represent, analyse, make predictions and provide insight into real-life situations

B2.1 Properties and Relationships

- Gr. 1: use the properties of addition and subtraction, and the relationship between addition and subtraction, to solve problems and check calculations
- Gr. 2: use the properties of addition and subtraction, and the relationship between addition and multiplication and between subtraction and division to solve problems and check calculations
- Gr. 3: use the properties of operations, and the relationship between multiplication and division, to solve problems and check calculations

B2.2: Math Facts

- Gr. 1: recall and demonstrate addition facts for numbers up to 10, and related subtraction facts
- Gr. 2: recall and demonstrate addition facts for numbers up to 20, and related subtraction facts
- Gr. 3: recall and demonstrate multiplication facts of 2, 5, and 10, and related division facts
- Gr. 4: recall and demonstrate multiplication facts for 1×1 to 10×10 , and related division facts

B2.3 Mental Math

- Gr. 1: Use mental math strategies, including estimation, to add and subtract whole numbers that add up to no more than 20, and explain the strategies used
- Gr. 2: use mental math strategies, including estimation, to add and subtract whole numbers that add up to no more than 50, and explain the strategies used
- Gr. 3: use mental math strategies, including estimation, to add and subtract whole numbers that add up to no more than 1000, and explain the strategies used
- Gr. 4: 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
- [Number Talks by Shari Parish should be used 3 times a week to reinforce math facts and fluency](#)

***If you see a grey box, please make note of areas to return to if students are struggling. If you do not have a split grade you can simply move onto the next topic.**



NCDSB K-4 Mathematics Scope and Sequence 2022-2023

Learning Goals, Success Criteria & Descriptive Feedback **Direct Instruction** **Problem-Solving Tasks** **Mathematical High Impact Practices include:**
Tools & Representation **Math Conversations** **Small-Group Instruction** **Deliberate Practice** **Flexible Groupings**

Effective math instruction begins when educators have high expectations of students and believe that all students have the potential to learn and do math. It uses culturally relevant practices and differentiated learning experiences to meet individual students' learning needs. It focuses on the development of conceptual understanding and procedural fluency, skill development, communication, and problem-solving skills. And it involves educators choosing from and using a variety of high-impact instructional practices (Hattie, 2009; National Council of Teachers of Mathematics, 2014).

Dates	Strands	KINDERGARTEN	GRADE 1	GRADE 2	GRADE 3	Grade 4
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TERM 1 - PROGRESS REPORT (August 30 - November 4)

<p>About 20 days</p> <p>Social-Emotional Learning Skills First 20 Days A1 (SCDSB)</p>	<p>All activities should be planned experiences for students:</p>	<p>PURPOSE:</p> <ul style="list-style-type: none"> ★ Foster well-being ★ Support math learning to high levels for all learners ★ Develop SEL skills and the mathematical processes ★ Contribute to equitable opportunities and outcomes 	<p>EXPECTATIONS:</p> <ul style="list-style-type: none"> Identify and manage emotions Recognize sources of stress and cope with challenges Maintain positive motivation and perseverance Build relationships and communicate effectively Develop self-awareness and sense of identity Think critically and creatively 	<p>https://cubeforteachers.com/post/1gnNr3v66hMaVABpOBMigBhbFINm5dqy</p>		
<p>About 18 days</p>	<p>NSN B1</p>	<p>COUNTING & SUBITIZING</p> <ul style="list-style-type: none"> <input type="checkbox"/> One-to-one correspondence <input type="checkbox"/> Stable order: 1 is followed by 2...etc <input type="checkbox"/> Estimate the number in a small set <input type="checkbox"/> Number relationships from 0-10 <input type="checkbox"/> Use, read, and represent numbers to 10 <input type="checkbox"/> Subitizing: quantities to 5 without having to count 	<p>COUNTING</p> <ul style="list-style-type: none"> <input type="checkbox"/> Counting forward to 50 by 1s, 2s, 5s, and 10s <input type="checkbox"/> Counting backwards from 50 <input type="checkbox"/> Ordinal Numbers: first, second, third 	<p>COUNTING</p> <ul style="list-style-type: none"> <input type="checkbox"/> Counting forward to 200, including by 20s, 25s, and 50s <input type="checkbox"/> Counting backwards 	<p>SKIP COUNTING</p> <ul style="list-style-type: none"> <input type="checkbox"/> Skip Count to 1000, including by 50s <input type="checkbox"/> Skip count backwards by 1s, 2s, 5s, 10s, and 20s starting from numbers up to 200 <input type="checkbox"/> Recognize counting patterns 	<p>REPRESENTING WHOLE NUMBERS</p> <ul style="list-style-type: none"> <input type="checkbox"/> Read and represent whole numbers up to and including 1000 using units of thousands, hundreds, or tens <input type="checkbox"/> Represent numbers using words <input type="checkbox"/> Describe various ways these numbers are used everyday
	<p>NSN B1</p> <p>Patterning C1, C4</p>	<p>REPRESENTING NUMBERS</p> <ul style="list-style-type: none"> <input type="checkbox"/> Use concrete materials to investigate counting, quantity, and number relationships <input type="checkbox"/> Use structured tools and numerals to represent small numbers <input type="checkbox"/> Identify quality and equality with the same number of objects <input type="checkbox"/> One-to-one correspondence <input type="checkbox"/> Number relationships 0-10 <input type="checkbox"/> Use, read and represent numbers to 10 	<p>REPRESENTING NUMBERS TO 50</p> <ul style="list-style-type: none"> <input type="checkbox"/> Read and represent whole numbers to and including 50 <input type="checkbox"/> Describe ways numbers are used in everyday life (postal codes, addresses, jerseys, race position...) <input type="checkbox"/> Compose and decompose whole numbers to and including 50 <input type="checkbox"/> Create and describe patterns to illustrate relationships among whole numbers up to 50 	<p>REPRESENTING WHOLE NUMBERS</p> <ul style="list-style-type: none"> <input type="checkbox"/> Read, represent, compose and decompose whole numbers up to and including 200 <input type="checkbox"/> Describe what makes a number even or odd 	<p>REPRESENTING WHOLE NUMBERS</p> <ul style="list-style-type: none"> <input type="checkbox"/> Read, represent, compose and decompose whole numbers up to and including 1000 <input type="checkbox"/> Use place value when describing and representing multi-digit numbers in a variety of ways, including with base ten materials <input type="checkbox"/> Create and describe patterns to illustrate relationships among whole numbers up to 1000 	<p>ESTIMATING & COMPARING WHOLE NUMBERS</p> <ul style="list-style-type: none"> <input type="checkbox"/> Compare and order whole numbers up to and including 10 000 <input type="checkbox"/> Round whole numbers to the nearest 10, 100 or 1000 <input type="checkbox"/> Use mathematical modelling
	<p>NSN B1</p>	<p>ESTIMATING QUANTITIES</p> <ul style="list-style-type: none"> <input type="checkbox"/> Use information to estimate the number in a small set <ul style="list-style-type: none"> - Use 5 or 10 as a referent 	<p>ESTIMATING & COMPARING WHOLE NUMBERS</p> <ul style="list-style-type: none"> <input type="checkbox"/> Compare and order whole numbers up to and including 50 <input type="checkbox"/> Estimate the number of objects in collections of up to 50, and verify their estimates by counting 	<p>ESTIMATING & COMPARING WHOLE NUMBERS</p> <ul style="list-style-type: none"> <input type="checkbox"/> Compare and order whole numbers up to and including 200: <ul style="list-style-type: none"> - locate numbers on a number line & use place value <input type="checkbox"/> Estimate the number of objects in collections of up to 200 and verify their estimates by counting 	<p>ESTIMATING & COMPARING WHOLE NUMBERS</p> <ul style="list-style-type: none"> <input type="checkbox"/> Compare and order whole numbers up to and including 1000 <input type="checkbox"/> Rebound whole numbers to the nearest ten or hundred <input type="checkbox"/> Count to 1000, including 50s, 100s, and 200s (building a number line using a scale) 	<p>REPRESENTING DECIMAL NUMBERS & ESTIMATING & COMPARING DECIMAL NUMBERS</p> <ul style="list-style-type: none"> <input type="checkbox"/> Count to 10 by halves, thirds, fourths, fifths, sixths, eighths, and tenths, with and without tools <input type="checkbox"/> Read, represent, compare and order decimals tenths (use place value) <input type="checkbox"/> Describe relationships and show equivalences among fractions and decimal tenths <input type="checkbox"/> Round decimal numbers to the nearest whole number
<p>About 7 days</p>	<p>Patterns & Algebra C1</p>	<p>PATTERNS</p> <ul style="list-style-type: none"> <input type="checkbox"/> Recognize, explore, describe, and compare patterns <input type="checkbox"/> Extend, translate, and create patterns using the core of a pattern <input type="checkbox"/> Predict what comes next <input type="checkbox"/> Compose patterns with 2D shapes <input type="checkbox"/> Investigate and describe how objects can be collected, grouped, and organized according to similarities and differences 	<p>PATTERNS</p> <ul style="list-style-type: none"> <input type="checkbox"/> Identify and describe the regularities in a variety of patterns, including patterns found in real life <input type="checkbox"/> Create and translate patterns using movements, sounds, objects, shapes, letters, and numbers <input type="checkbox"/> Determine pattern rules and use them to extend patterns <input type="checkbox"/> Make and justify predictions <input type="checkbox"/> Identify missing elements in patterns <input type="checkbox"/> Create and describe patterns to illustrate relationships among whole numbers up to 50 	<p>PATTERNS</p> <ul style="list-style-type: none"> <input type="checkbox"/> Identify and describe a variety of patterns involving geometric designs <input type="checkbox"/> Create and translate patterns using shapes and numbers <input type="checkbox"/> Determine pattern rules and use them to extend patterns <input type="checkbox"/> Make and justify predictions <input type="checkbox"/> Identify missing elements in patterns <input type="checkbox"/> Create and describe patterns to illustrate relationships among whole numbers up to 100 	<p>PATTERNS</p> <ul style="list-style-type: none"> <input type="checkbox"/> Identify and describe repeating elements and operations in patterns on charts and number lines <input type="checkbox"/> Create and translate patterns with shapes, numbers and tables of values <input type="checkbox"/> Determine pattern rules and use them to extend patterns <input type="checkbox"/> Make and justify predictions <input type="checkbox"/> Identify missing elements in patterns 	<p>PATTERNS</p> <ul style="list-style-type: none"> <input type="checkbox"/> Identify and describe repeating and growing patterns <input type="checkbox"/> Create and translate repeating and growing patterns using tables of values and graphs <input type="checkbox"/> Determine pattern rules and use them to extend patterns and make predictions

TERM 1 AFTER PROGRESS REPORTS (November 7 - January 26)

<p>About 9 days</p>	<p>NSN B1, B2</p> <p>Algebra C4: Mathematical Modelling</p>	<p>COMPOSING & DECOMPOSING NUMBERS</p> <ul style="list-style-type: none"> <input type="checkbox"/> Compose and decompose quantities to 10 <input type="checkbox"/> Relationships for numbers 0-10 <input type="checkbox"/> Use, read, and represent whole numbers to 10 	<p>MEANINGS OF ADDITION AND SUBTRACTION</p> <ul style="list-style-type: none"> <input type="checkbox"/> Properties of addition: <ul style="list-style-type: none"> - adding as joining; part-part-whole <input type="checkbox"/> Subtracting as taking away and as comparing <input type="checkbox"/> Relationship between addition and subtraction <input type="checkbox"/> Use objects, diagrams, and equations to represent, describe and solve situations involving addition and subtraction of whole numbers that add up to no more than 50 	<p>MEANINGS OF ADDITION AND SUBTRACTION</p> <ul style="list-style-type: none"> <input type="checkbox"/> Solve problems using addition and subtraction <input type="checkbox"/> Recognize the relationship between addition and subtraction <input type="checkbox"/> Use objects, diagrams, and equations to represent, describe and solve situations involving addition and subtraction of whole numbers that add up to no more than 100 	<p>ADDING & SUBTRACTING NUMBERS LESS THAN 100</p> <ul style="list-style-type: none"> <input type="checkbox"/> Relationship between addition and subtraction <input type="checkbox"/> Use mental math strategies, including estimation, to add and subtract whole numbers that add up to no more than 1000 <input type="checkbox"/> Represent and solve problems involving addition and subtraction of whole numbers that add up to no more than 1000 	<p>ADDING & SUBTRACTING WHOLE NUMBERS</p> <ul style="list-style-type: none"> <input type="checkbox"/> Compose and decompose whole numbers up to and including 10 000 <input type="checkbox"/> Estimate <input type="checkbox"/> Add and subtract 4-digit numbers and recognize the relationship between adding and subtracting <input type="checkbox"/> Solve and create addition and subtraction problems
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Dates	Strands	KINDERGARTEN	GRADE 1	GRADE 2	GRADE 3	Grade 4
About 7 days	Spatial Sense E1, E2	COMPARING MEASUREMENTS DIRECTLY <ul style="list-style-type: none"> <input type="checkbox"/> Compare objects, materials and spaces in terms of their length, mass, capacity, area and temperature, ex: <ul style="list-style-type: none"> - Length of shoes - Height of students - Weight of loose parts <input type="checkbox"/> Explore the ways of measuring the passage of time through play 	LENGTH & TIME <ul style="list-style-type: none"> <input type="checkbox"/> Compare lengths of 2D & 3D shapes <input type="checkbox"/> Compare everyday objects and order them by length <input type="checkbox"/> Read the date on the calendar <input type="checkbox"/> Identify days, weeks, months, holidays and seasons 	LENGTH <ul style="list-style-type: none"> <input type="checkbox"/> Measure length using non-standard units <input type="checkbox"/> Measure and draw lengths in cm and m and use benchmarks <input type="checkbox"/> Estimate lengths using standard units 	LENGTH & TIME <ul style="list-style-type: none"> <input type="checkbox"/> Relationship between mm, cm, m, and km <input type="checkbox"/> Use benchmarks of units to estimate lengths <input type="checkbox"/> Measure using various units of different sizes and recognize that different sized units produce a different count <input type="checkbox"/> Use analog & digital clocks and timers to tell time in hours, minutes, and seconds <input type="checkbox"/> 	LENGTH (link to B2→ × and ÷) <ul style="list-style-type: none"> <input type="checkbox"/> Estimate and measure lengths <input type="checkbox"/> Use metric units <input type="checkbox"/> Apply relationships between lengths, widths, and perimeters of rectangles and regular shapes
About 7 days	Data D1	SORTING <ul style="list-style-type: none"> <input type="checkbox"/> Sort objects in multiple ways and recognize how objects can be re-sorted in everyday situations <input type="checkbox"/> Ask questions that can be answered through data collection <input type="checkbox"/> Collect data and make representations of their observations 	COLLECTING & ORGANIZING DATA <ul style="list-style-type: none"> <input type="checkbox"/> Sort and classify data about people based on a single attribute <input type="checkbox"/> Gather data through observations, experiments and interviews to answer a question <input type="checkbox"/> Record data using a method of their choice and create tally charts 	COLLECTING & ORGANIZING DATA/REPRESENTING DATA WITH GRAPHS <ul style="list-style-type: none"> <input type="checkbox"/> Sort sets of data according to two attributes, using tables and diagrams <input type="checkbox"/> Collect data to answer questions that focus on two pieces of information <input type="checkbox"/> Display data using concrete graphs, simple bar graphs, pictographs and line plots <input type="checkbox"/> Identify the mode(s) 	COLLECTING, ORGANIZING & DESCRIBING DATA <ul style="list-style-type: none"> <input type="checkbox"/> Sort sets of data according to 2 or 3 attributes using tables and diagrams: venn, Carroll, tree <input type="checkbox"/> Collect data to answer questions on qualitative and quantitative data <input type="checkbox"/> Use frequency tables <input type="checkbox"/> Determine the mean and mode(s) Link to D2 & B2: <input type="checkbox"/> Make and test predictions about the likelihood of the mean and mode(s) <input type="checkbox"/> Multiplication facts of 2, 5, and 10 and related division facts <input type="checkbox"/> Mental math strategies to add and subtract up to 1000 	DESCRIBING & SUMMARIZING DATA <ul style="list-style-type: none"> <input type="checkbox"/> Determine the mean, median and mode(s) <input type="checkbox"/> Describe the relationship of the mean to the set of data Link to D2: <input type="checkbox"/> Make and test predictions about the likelihood that the mean, median, and mode(s)
About 5 days	Financial Literacy F1 Algebra C4	COMPARING QUANTITIES <ul style="list-style-type: none"> <input type="checkbox"/> A number's position in the counting sequence determines its magnitude <input type="checkbox"/> Recognize quantity and equality by identifying and comparing sets with more, fewer, or the same number of objects <input type="checkbox"/> One-to-one correspondence in counting and matching groups <input type="checkbox"/> Explore different Canadian coins and their value 	MONEY <ul style="list-style-type: none"> <input type="checkbox"/> Identify the names and values of coins <input type="checkbox"/> Represent money up to \$50 with coins and bills 	MONEY <ul style="list-style-type: none"> <input type="checkbox"/> Represent money up to 200¢ or \$200 with dollar amounts using various combinations of coins and bills 	FINANCIAL LITERACY <ul style="list-style-type: none"> <input type="checkbox"/> Estimate and calculate change for transactions involving whole dollar amounts of less than \$1 <input type="checkbox"/> Represent money amounts Link to B1: <input type="checkbox"/> Skip counting <input type="checkbox"/> Subtracting and rounding 	FINANCIAL LITERACY <ul style="list-style-type: none"> <input type="checkbox"/> Identify various methods of payment to purchase goods and services <input type="checkbox"/> Estimate and calculate the cost of multiple items in whole-dollar amounts, not including sales tax <input type="checkbox"/> Use mental math to calculate change <input type="checkbox"/> Explain the concepts of spending, saving, earning, investing and donating <input type="checkbox"/> Relationship between spending and saving <input type="checkbox"/> Understand whether something is reasonably priced and therefore a good purchase
About 6 days	Number Sense & Numeration B2 Algebra C1 C4: patterns & Mathematical Modelling	WHERE DO WE USE NUMBERS? <ul style="list-style-type: none"> <input type="checkbox"/> Explore and communicate the function of numbers in a variety of contexts, ex: <ul style="list-style-type: none"> - Door #s in school - Bus numbers - House numbers - Candles on a cake - Page numbers - Grocery store - 1st, 2nd, 3rd <input type="checkbox"/> Canadian coins- used for and naming them <input type="checkbox"/> Quantity of 5 	ADDING & SUBTRACTING <ul style="list-style-type: none"> <input type="checkbox"/> Addition strategy of counting on <input type="checkbox"/> Subtraction strategies of counting on or counting back <input type="checkbox"/> Solve problems <input type="checkbox"/> Count on to 50 by 1s, 2s, 5s, and 10s <input type="checkbox"/> Recall addition facts up to 10 and related subtraction facts <input type="checkbox"/> Mental Math strategies up to 20 <input type="checkbox"/> Represent and solve equal-group problems where the total number is no more than 10 	ADDING & SUBTRACTING SMALL NUMBERS <ul style="list-style-type: none"> <input type="checkbox"/> Recall and demonstrate addition facts for numbers up to 20, and related subtraction facts: <ul style="list-style-type: none"> - Doubles - Doubles +1 or -1 - Making 10 	ADDING & SUBTRACTING GREATER NUMBERS <ul style="list-style-type: none"> <input type="checkbox"/> Mental math strategies: estimating and adding/subtracting <input type="checkbox"/> Understand algorithms to add 3-digit numbers <input type="checkbox"/> Represent and solve problems 	ADDING & SUBTRACTING DECIMAL NUMBERS <ul style="list-style-type: none"> <input type="checkbox"/> Add and subtract decimal tenths using place value <input type="checkbox"/> Describe patterns to illustrate relationships among whole numbers and decimal tenths <input type="checkbox"/> Solve and create problems that involve adding and subtracting decimals
About 6 days	Data D1 Displaying & Interpreting Data	DATA COLLECTION & GRAPHING <ul style="list-style-type: none"> <input type="checkbox"/> Pose questions to collect data <input type="checkbox"/> Collect, organize, display and interpret data to solve problems <input type="checkbox"/> Represent data using graphs <input type="checkbox"/> Interpret and draw conclusions presented in graphs <input type="checkbox"/> Ask questions that can be answered through data 	DISPLAYING & INTERPRETING DATA <ul style="list-style-type: none"> <input type="checkbox"/> Display data on concrete graphs and pictographs using: <ul style="list-style-type: none"> - a scale of 1 - titles - labels - proper sources <input type="checkbox"/> Read and interpret graphs, pictographs and tally charts by answering questions about the data and drawing conclusions 	INTERPRETING DATA <ul style="list-style-type: none"> <input type="checkbox"/> Read and interpret concrete graphs, pictographs, line plots, and bar graphs <input type="checkbox"/> Pose and answer questions about and draw conclusions from data 	DISPLAYING & INTERPRETING DATA <ul style="list-style-type: none"> <input type="checkbox"/> Collect data to answer questions that focus on qualitative and quantitative data <input type="checkbox"/> Organize data into frequency tables <input type="checkbox"/> Display data in pictographs and bar graphs, using titles, labels, and scales <input type="checkbox"/> Analyse sets of data in various ways Link to B2: <input type="checkbox"/> Use the ratios of 1:2, 1:5, 1:10 to scale up numbers and to solve problems 	DISPLAYING & INTERPRETING DATA <ul style="list-style-type: none"> <input type="checkbox"/> Describe the difference between qualitative and quantitative data <input type="checkbox"/> Collect data from primary and secondary sources to answer questions that compare two or more sets of data <input type="checkbox"/> Use frequency tables <input type="checkbox"/> Create and interpret stem-and-leaf plots and multiple bar graphs, using titles, labels and appropriate scales <input type="checkbox"/> Analyse different sets of data presented in various ways, by drawing conclusions
About 5 days	Geometry & Spatial Reasoning E1 Algebra C4: Mathematical Modelling	SIMPLE OBJECTS <ul style="list-style-type: none"> <input type="checkbox"/> Describe, built, sort, classify and compare 3D figures <input type="checkbox"/> Compare the attributes of 3D figures <input type="checkbox"/> Investigate and explain the relationship between 2D and 3D figures in objects they have made 	LOCATION & MOVEMENT <ul style="list-style-type: none"> <input type="checkbox"/> Describe the locations of objects or people using positional language <input type="checkbox"/> Give directions for moving from one location to another <input type="checkbox"/> Create concrete maps 	LOCATION & MOVEMENT <ul style="list-style-type: none"> <input type="checkbox"/> Create and interpret simple maps of familiar places (Lesson 1- Coding) <input type="checkbox"/> Describe the relative positions of several objects and the movements need to get from one object to another 	LOCATION & MOVEMENT <ul style="list-style-type: none"> <input type="checkbox"/> Give and follow multi-step instructions involving movement from one location to another <input type="checkbox"/> Include distances and ½ and ¼ turns 	LOCATIONS & TRANSFORMATIONS <ul style="list-style-type: none"> <input type="checkbox"/> Plot and read coordinates in the first quadrant of a Cartesian plane <input type="checkbox"/> Describe translations that move a point from one coordinate to another <input type="checkbox"/> Describe and perform translations and reflections on a grid
About 5 days	Geometry & Spatial Reasoning E1 Algebra C4: Mathematical Modelling	LOCATION & MOVEMENT <ul style="list-style-type: none"> <input type="checkbox"/> Use positional language and vocabulary to describe the location and movement of objects through investigation <input type="checkbox"/> Identify slides, flips and turns <input type="checkbox"/> Compose pictures, designs, shapes and patterns using 2D shapes 	SYMMETRY & SORTING SHAPES <ul style="list-style-type: none"> <input type="checkbox"/> Sort 2D shapes according to one attribute <input type="checkbox"/> Identify sorting rules <input type="checkbox"/> Identify lines of symmetry <input type="checkbox"/> Identify and create symmetrical shapes and designs <input type="checkbox"/> 	DESCRIBING & SORTING SHAPES <ul style="list-style-type: none"> <input type="checkbox"/> Sort and identify 2D shapes by comparing number of sides, side lengths, angles, and number of lines of symmetry <input type="checkbox"/> Identify congruent lengths and angles in 2D shapes <input type="checkbox"/> Determine if shapes are congruent 	PERIMETER <ul style="list-style-type: none"> <input type="checkbox"/> Use units of length to estimate, measure and compare the perimeters of polygons and curved shapes <input type="checkbox"/> Construct polygons with a given perimeter <input type="checkbox"/> Recognize that shapes can have the same perimeter but look different 	TIME (E2) <ul style="list-style-type: none"> <input type="checkbox"/> Compare, estimate and determine elapsed time <input type="checkbox"/> Solve problems involving elapsed time by applying the relationship between different units of time (second, minute, hour, day, week...etc)

Dates	Strands	KINDERGARTEN	GRADE 1	GRADE 2	GRADE 3	Grade 4
TERM 2 (January 30 - June)						
About 9 days	NSN B2 Algebra C1		<input type="checkbox"/> represent and solve equal-group problems where the total number of items is no more than 10, including problems in which each group is a half, using tools and drawings	INTRODUCING MULTIPLICATION & DIVISION <input type="checkbox"/> Represent multiplication as repeated equal groups <input type="checkbox"/> Represent division of up to 12 items as the equal sharing of a quantity <input type="checkbox"/> Solve problems	REPRESENTING MULTIPLICATION & DIVISION <input type="checkbox"/> Relationship between multiplication and division to solve and check problems <input type="checkbox"/> Represent multiplication of numbers up to 10 x 10 and divisions up to 100 ÷ 10 <input type="checkbox"/> Use of arrays and repeating addition <input type="checkbox"/> Solving problems that involve $\frac{1}{2}$, $\frac{1}{4}$ and $\frac{1}{8}$, using tools and drawings Link to C1: Sharing <input type="checkbox"/> Recognize patterns in multiplying and dividing <input type="checkbox"/> Describe patterns among whole numbers up to 1000	SIMPLE MULTIPLICATION & DIVISION <input type="checkbox"/> Recall multiplication facts for 1 x 1 to 10 x 10, and related division facts <input type="checkbox"/> Show simple multiplicative relationships involving whole-number rates <input type="checkbox"/> Solve problems that compare two amounts <input type="checkbox"/> Describe situations and solve problems
About 6 days	Probability D2	PROBABILITY <input type="checkbox"/> Explore the concept of probability in everyday contexts <input type="checkbox"/> Discuss and consider the likelihood of events	PROBABILITY <input type="checkbox"/> Likelihood of an event: impossible, possible, and certain <input type="checkbox"/> Make predictions and informed decisions <input type="checkbox"/> Make and test predictions about the likelihood of everyday events	PROBABILITY <input type="checkbox"/> Likelihood of an event: impossible, possible, and certain <input type="checkbox"/> Make and test predictions about the likelihood that the mode will be the same for data from a different population	PROBABILITY <input type="checkbox"/> Likelihood of an event: impossible, unlikely, equally likely, likely and certain <input type="checkbox"/> Make predictions and informed decisions <input type="checkbox"/> Relate fairness	PROBABILITY <input type="checkbox"/> Likelihood of an event: impossible, unlikely, equally likely, likely and certain <input type="checkbox"/> Represent likelihoods on a probability line and use it to make predictions and informed decisions
About 5 days	Spatial Reasoning E2				AREA <input type="checkbox"/> Estimate and measure area using units of different shapes <input type="checkbox"/> Compare the area of 2D shapes by matching, covering, or decomposing and recomposing the shapes <input type="checkbox"/> Demonstrate that different shapes can have the same area <input type="checkbox"/> Non-standard units to measure area <input type="checkbox"/> Use cm ² and m ² to estimate, measure and compare the area of 2D shapes, includes those with curved sides	AREA <input type="checkbox"/> Use rows and columns to measure the areas of rectangles <input type="checkbox"/> Develop and apply the formula for the area of a rectangle <input type="checkbox"/> Find unknown measurements when given two of the three sides
About 8 days	Spatial Sense E2 Algebra C4: Mathematical Modelling	SIMPLE SHAPES <input type="checkbox"/> Describe, sort, classify, build, and compare 2D shapes through investigation <input type="checkbox"/> Explore, sort and compare the attributes and properties of traditional and non-tradition 2D shapes <input type="checkbox"/> Predict and explore reflective symmetry in 2D shapes <input type="checkbox"/> Investigate and describe how objects can be collected, grouped and organized according to similarities and differences	AREA, CAPACITY & MASS <input type="checkbox"/> Identify measurable attributes of 2D shapes and 3D objects, including area, mass, capacity, and angle <input type="checkbox"/> Compare everyday objects and order them according to area, mass, and capacity	TIME <input type="checkbox"/> Measure time using non-standard units <input type="checkbox"/> Measure time in seconds and minutes <input type="checkbox"/> Relate seconds, minutes and hours	MASS & CAPACITY <input type="checkbox"/> Use non-standard units to estimate, measure and compare capacity and mass <input type="checkbox"/> Explain the effect that overfilling or underfilling, and gaps between units, have on accuracy <input type="checkbox"/> Use a pan balance for mass <input type="checkbox"/> Use various units to measure the same attribute and demonstrate that the size of the attribute remains the same even though there is a different count	MASS <input type="checkbox"/> Explain the relationship between g and kg as metric units of mass and compare them <input type="checkbox"/> Use benchmarks of g and kg to estimate mass <input type="checkbox"/> Choose appropriate tools and units to measure mass
MARCH BREAK						
About 6 days	Spatial Sense E2 Algebra C4: Mathematical Modelling				CAPACITY Continue above if needed	CAPACITY <input type="checkbox"/> Explain the relationship between litres and millilitres <input type="checkbox"/> Use L and mL as benchmarks to estimate <input type="checkbox"/> Choose appropriate units and tools to measure capacity
About 10 days +9days-Gr. 4	NSN B2 Algebra C1, C4	ADDING & SUBTRACTING <input type="checkbox"/> Investigate addition and subtraction in everyday experiences and routines <input type="checkbox"/> Use modelling strategies, manipulatives and counting	Return to adding and subtracting <input type="checkbox"/> Addition strategy of counting on <input type="checkbox"/> Subtraction strategies of counting on or counting back <input type="checkbox"/> Solve problems <input type="checkbox"/> Count on to 50 by 1s, 2s, 5s, and 10s <input type="checkbox"/> Recall addition facts up to 10 and related subtraction facts <input type="checkbox"/> Mental Math strategies up to 20 <input type="checkbox"/> Represent and solve equal-group problems where the total number is no more than 10	ADDING & SUBTRACTING 2-DIGIT NUMBERS; SOLVING PROBLEMS <input type="checkbox"/> Use mental math strategies, including estimation, to add and subtract whole numbers up to 50 <input type="checkbox"/> Explain strategies used; place value with base ten blocks <input type="checkbox"/> Solve addition and subtraction of whole numbers that add up to no more than 100	MULTIPLYING & DIVIDING <input type="checkbox"/> Relationship between multiplying and dividing to solve and check calculations <input type="checkbox"/> Recall multiplication facts of 2, 5, 10, and related division facts <input type="checkbox"/> Represent multiplication of numbers up to 10 x 10 and divisions up to 100 ÷ 10 <input type="checkbox"/> Use the ratios of 1:2, 1:5, and 1:10 to solve problems Link to C1: Sharing <input type="checkbox"/> Recognize patterns in multiplying and dividing <input type="checkbox"/> Describe patterns among whole numbers up to 1000	USING PLACE VALUE TO MULTIPLY & DIVIDE <input type="checkbox"/> Use mental math strategies to multiply whole numbers by 10, 100 and 1000 <input type="checkbox"/> Divide whole numbers by 10 <input type="checkbox"/> Represent and solve problems involving the multiplication of two- or three-digit whole numbers by 10, 100 and 1000 MORE COMPLEX MULTIPLICATION & DIVISION <input type="checkbox"/> Estimate and solve problems products and quotients involving one-digit and two-digit numbers <input type="checkbox"/> Solve problems involving dividing two-digit or three-digit numbers by one-digit whole numbers; express any remainder as a fraction <input type="checkbox"/> Use arrays
About 4 days	Algebra C3, E1	COMPOSING & DECOMPOSING SHAPES & OBJECTS <input type="checkbox"/> Describe and build 2D & 3D shapes	CODING <input type="checkbox"/> Create code to sequence movements and execute code that involves sequential events <input type="checkbox"/> Alter code and describe how changes to the code affect the outcomes <input type="checkbox"/> E1: Give and follow directions moving from one location to another	LOCATION, MOVEMENT, AND CODING <input type="checkbox"/> Create maps and use them to describe relative position and movement <input type="checkbox"/> Create and execute code for sequential and concurrent movements <input type="checkbox"/> Solve problems by writing and executing code	CODING <input type="checkbox"/> Create and execute code for sequential, concurrent and repeating events (link to E1- Location and Movement) <input type="checkbox"/> Repeat and alter code (link to C2- variables) <input type="checkbox"/> Describe how changes to the code affect the outcomes	CODING (links to Patterning & Location & Movement) <input type="checkbox"/> Create and execute code for sequential, concurrent, repeating, and nested events <input type="checkbox"/> Read and alter code <input type="checkbox"/> Describe how changes to the code affect the outcomes <input type="checkbox"/>

Dates	Strands	KINDERGARTEN	GRADE 1	GRADE 2	GRADE 3	Grade 4
About 7 days	NSN B1, B2 Algebra C4: Mathematical Modelling		FRACTIONS <input type="checkbox"/> Represent halves and fourths of simple shapes <input type="checkbox"/> Recognize that one half and two fourths of the same whole are equal <input type="checkbox"/> Use drawings to compare and order unit fractions representing the individual portions that result when a whole is shared by different numbers of sharers, up to a maximum of 10 <input type="checkbox"/> use drawings to represent and solve fair-share problems that involve 2 and 4 sharers and have remainders of 1 or 2	FRACTIONS <input type="checkbox"/> Model and compare fair-share situations (up to 6 sharers) <input type="checkbox"/> Represent whole numbers, mixed numbers, and fractional amounts <input type="checkbox"/> Recognize that one third and two sixths of the same whole are equal	FRACTIONS <input type="checkbox"/> Represent, solve and compare fair-share problems up to 20 items among 2, 3, 4, 5, 6, 8, and 10 sharers <input type="checkbox"/> Whole numbers, mixed numbers and fractional amounts <input type="checkbox"/> Equivalent fractions that involve halves, fourths, and eighths; thirds and sixths; and fifths and tenths Link to B2: Multiplying and Dividing: <input type="checkbox"/> Represent the connection between the numerator of a fraction and the repeated addition of the unit fraction Link to C1: Patterns in numbers	REPRESENTING FRACTIONS <input type="checkbox"/> Represent fractions from halves to tenths (i.e. on a number line) <input type="checkbox"/> Explain the meaning of the denominator and numerator <input type="checkbox"/> Count to 10 by halves, thirds, fourths, fifths, sixths, eighths, and tenths, with and without tools Link to B2: Multiplying & Dividing: <input type="checkbox"/> Represent the relationship between the repeated addition of a unit fraction and the multiplication of that unit fraction by a whole number
About 4 days	NSN B1 Algebra C4: Mathematical Modelling					COMPARING & ORDERING FRACTIONS <input type="checkbox"/> Represent fractions from halves to tenths <input type="checkbox"/> Explain the meaning of the denominator and numerator <input type="checkbox"/> Use drawings and models to represent, compare, and order fractions <input type="checkbox"/> Compare fair-share situations
About 6 days	Algebra C2, C4 NSN B2		ALGEBRA <input type="checkbox"/> Variables: Identify quantities that can change and quantities that always remain the same in real-life contexts <input type="checkbox"/> Explore equivalent relationships involving addition and subtraction for whole numbers up to 50	ALGEBRA <input type="checkbox"/> Symbols as variables <input type="checkbox"/> Equality as balance; show that both expressions describe the same amount <input type="checkbox"/> Identify and use equivalent relationships for whole numbers up to 100	ALGEBRA <input type="checkbox"/> Describe how variables are used and use them in various contexts <input type="checkbox"/> Determine whether sets of addition, subtraction, multiplication or division expressions are equivalent or not <input type="checkbox"/> Identify and use equivalent relationships for whole numbers up to 1000 <input type="checkbox"/> Determine missing values in addition and subtraction equations	ALGEBRA <input type="checkbox"/> Identify and use symbols as variables in expressions and equations <input type="checkbox"/> Solve equations that involve whole numbers up to 50 <input type="checkbox"/> Solve inequalities that involve addition and subtraction of whole numbers up to 20 and graph the solutions
About 9 days	Geometry & Spatial Sense E1	USING NON-STANDARD UNITS TO MEASURE <input type="checkbox"/> Everyday situations <input type="checkbox"/> Select an attribute to measure, determine an appropriate non-standard unit of measure and measure/compare 2 or more objects	3D OBJECTS <input type="checkbox"/> Sort 3D objects according to one attribute <input type="checkbox"/> Identify sorting rules <input type="checkbox"/> Construct 3D objects and identify 2D shapes contained within the structures/objects <input type="checkbox"/> Construct and describe 3D objects that have matching halves	COMPOSING AND DECOMPOSING SHAPES <input type="checkbox"/> Compose and decompose 2D shapes <input type="checkbox"/> Show the area of a shape remains constant	WORKING WITH 3D OBJECTS; REPRESENTING 3D OBJECTS <input type="checkbox"/> Sort, construct, and identify cubes, prisms, pyramids, cylinders, and cones by comparing faces, edges, vertices, and angles <input type="checkbox"/> Compose and decompose structures <input type="checkbox"/> Identify 2D shapes and 3D objects in structures <input type="checkbox"/> Identify congruent lengths, angles, and faces of 3D objects <input type="checkbox"/> Construct skeletons and nets of 3D objects	SHAPES & ANGLES (E2) <input type="checkbox"/> Identify angles and classify them as right, straight, acute or obtuse <input type="checkbox"/> Identify geometric properties of rectangles, including the number of right angles, parallel and perpendicular sides, and lines of symmetry
About 20 days	Social-Emotional Learning Skills Last 20 Days A1 (SCDSB)		PURPOSE: <ul style="list-style-type: none"> ★ Consolidate our application of the mathematical processes, with a focus on connecting, reasoning and proving, communicating, and reflecting ★ Practice self-assessment skills ★ Engage in games and tasks that support mental math strategies, and the understanding and recall of math facts <ul style="list-style-type: none"> • Identify and manage emotions • Recognize sources of stress and cope with challenges • Maintain positive motivation and perseverance • Build relationships and communicate effectively • Develop self-awareness and sense of identity • Think critically and creatively https://cubeforteachers.com/post/bGee5mhDztXJ6SUzhYZ9fc5o1EXu8Hkv			