

Mathletics

Nova Scotia Outcomes

Alignment with Mathletics

Supported by independent evidence-based research and practice.



Grades K – 8, 10

Mathletics

Nova Scotia Outcomes

Alignment with Mathletics

Table of Contents

Nova Scotia Kindergarten	02
Nova Scotia Grade 1	04
Nova Scotia Grade 2	08
Nova Scotia Grade 3	13
Nova Scotia Grade 4	19
Nova Scotia Grade 5	25
Nova Scotia Grade 6	31
Nova Scotia Grade 7	37
Nova Scotia Grade 8	43
Mathematics 10	47

Nova Scotia Outcomes

Alignment with Mathletics

Mathletics

Mathletics and the Nova Scotia Outcomes

The education team at Mathletics is committed to providing a resource that is powerful, targeted, and, most importantly, relevant to all students.

Mathletics includes well over 1200 individual adaptive practice activities and eBooks available for all grades. Our team of educational publishers has created a course that specifically follows the Nova Scotia outcomes. You can be assured that students have access to relevant and targeted content.

Strands, substrands, and learning outcomes are supported with activities, each with pre and post assessment. What's more, Mathletics contains an extensive library of eBooks—for use on screen or as a printable resource—that are also mapped to the requirements of the Nova Scotia outcomes.

This document outlines this mapping and acts as a useful guide when using Mathletics in your school.



Engage



Target



Diagnose



Assess



Report



Fluency





Mobile

Nova Scotia Outcomes

Alignment with Mathletics



Kindergarten

Strand	General Curriculum Outcome	Specific Curriculum Outcome	Outcome Description	 Activities	 eBooks
Number	Students will be expected to demonstrate number sense	NS.K.NO1	Students will be expected to say the number sequence by: 1s, from 1 to 20; by 1s, starting anywhere from 1 to 10 and from 10 to 1.	Count to 5 Order Numbers to 10 How Many? Counting up to 20 Making Teen Numbers Before, After and Between to 20	Kindergarten Numbers and Patterns
Number	Students will be expected to demonstrate number sense	NS.K.NO2	Recognize at a glance and name familiar arrangements of 1 to 5 objects or dots.	How Many? How many dots?	Kindergarten Numbers and Patterns
Number	Students will be expected to demonstrate number sense	NS.K.NO3	Relate a numeral, 1 to 10, to its respective quantity.	How Many? Who has the Goods? How many dots? Matching Numbers to 10	Kindergarten Numbers and Patterns
Number	Students will be expected to demonstrate number sense	NS.K.NO4	Represent and describe numbers 2 to 10 in two parts, concretely and pictorially.	How Many? Composing Numbers to 10 Balancing Act	Kindergarten Numbers and Patterns
Number	Students will be expected to demonstrate number sense	NS.K.NO5	Compare quantities, 1 to 10, using one-to-one correspondence.	How Many? More or Less? How many Dots? More, less or the same to 10	
Number	Students will be expected to demonstrate number sense	NS.K.NO6	Students will be expected to demonstrate an understanding of counting to 10.	Order Numbers to 10	Kindergarten Numbers and Patterns
Patterns and Relations	Students will be expected to use patterns to describe the world and solve problems.	NS.K.PRO1	Students will be expected to demonstrate an understanding of repeating patterns (two or three elements) by identifying, reproducing, extending, and creating patterns using manipulatives, sounds, and actions.	Complete the Pattern Missing it! Colour Patterns Simple Patterns	Kindergarten Measurement
Measurement	Students will be expected to use direct and indirect measure to solve problems	NS.K.MO1	Students will be expected to use direct comparison to compare two objects based on a single attribute, such as length, mass, volume, and capacity.	Everyday Mass Which Holds More? Filling Fast! Balancing Act Same and Different Everyday Length	Kindergarten Space and Shape

Nova Scotia Outcomes

Alignment with Mathletics



Kindergarten

Strand	General Curriculum Outcome	Specific Curriculum Outcome	Outcome Description	 Activities	 eBooks
Geometry	Students will be expected to describe the characteristics of 3-D objects and 2-D shapes and analyze the relationships among them.	NS.K.G01	Students will be expected to sort 3-D objects using a single attribute	Collect the Objects Collect the Objects 1 Match the Solid 1 Match the Solid 2 Match the Object	Kindergarten Space and Shape
Geometry	Students will be expected to describe the characteristics of 3-D objects and 2-D shapes and analyze the relationships among them.	NS.K.G02	Students will be expected to build and describe 3-D objects	Under review	Kindergarten Space and Shape

Nova Scotia Outcomes

Alignment with Mathletics



Grade 1

Strand	General Curriculum Outcome	Specific Curriculum Outcome	Outcome Description	 Activities	 eBooks
Number	Students will be expected to demonstrate number sense.	NS.1.N01	Students will be expected to say the number sequence by * 1s, forward and backward between any two given numbers, 0 to 100 * 2s to 20, forward starting at 0 * 5s to 100, forward starting at 0, using a hundred chart or a number line * 10s to 100, forward starting at 0, using a hundred chart or a number line.	Counting Backward Counting Forward Going Up Going Down Counting By Twos Counting By Fives Counting By Tens Count by 2s, 5s and 10s 1 to 30 Before, After and Between 100 Number Lines Matching Numbers to 20 Matching Numbers to 10 Ordering Numbers to 20 Number Line Order Before, After and Between to 20	Grade 1 Numbers
Number	Students will be expected to demonstrate number sense.	NS.1.N02	Students will be expected to recognize, at a glance, and name the quantity represented by familiar arrangements of 1 to 10 objects or dots.	How Many?	Grade 1 Numbers
Number	Number	NS.1.N03	Students will be expected to demonstrate an understanding of counting to 20 by * indicating that the last number said identifies "how many" * showing that any set has only one count * using the counting-on strategy.	Counting Backward Counting Forward Going Up Going Down Counting By Twos Counting By Fives Counting By Tens Count by 2s, 5s and 10s 1 to 30 Before, After and Between 100 Matching Numbers to 20 Matching Numbers to 10	Grade 1 Numbers
Number	Students will be expected to demonstrate number sense.	NS.1.N04	Students will be expected to represent and partition numbers to 20.	Making Teen Numbers Making Numbers Count Making Big Numbers Count Matching Numbers to 20 Matching Numbers to 10 Arranging Numbers	Grade 1 Numbers
Number	Students will be expected to demonstrate number sense.	NS.1.N05	Students will be expected to compare sets containing up to 20 objects to solve problems using referents and one-to-one correspondence.	Comparing Groups of Objects More or Less? Arranging Numbers	Grade 1 Operations with Number

Nova Scotia Outcomes

Alignment with Mathletics



Grade 1

Strand	General Curriculum Outcome	Specific Curriculum Outcome	Outcome Description	 Activities	 eBooks
Number	Students will be expected to demonstrate number sense.	NS.1.NO6	Estimate quantities to 20 by using referents.	Under review	Grade 1 Operations with Number
Number	Students will be expected to demonstrate number sense.	NS.1.NO7	Students will be expected to demonstrate an understanding of conservation of number for up to 20 objects.	Balance Numbers to 10 Balance Numbers to 20	Grade 1 Numbers
Number	Students will be expected to demonstrate number sense.	NS.1.NO8	Students will be expected to identify the number, up to 20, that is one more, two more, one less, and two less than a given number.	Before, After and Between to 20 1 more, 2 less	Grade 1 Numbers
Number	Students will be expected to demonstrate number sense.	NS.1.NO9	Students will be expected to demonstrate an understanding of the addition of two single-digit numbers and the corresponding subtraction, concretely, pictorially, and symbolically in join, separate, equalize/compare, and part-part-whole situations.	Addition Facts Addition Model Addition Model Subtraction Subtraction Facts to 18 All about Ten All about Twenty Additive Addition Simple Subtraction Problems: Add and Subtract Add and Subtract Problems Add and Subtract Using Graphs Adding to 10 Word Problems	Grade 1 Operations with Number
Number	Students will be expected to demonstrate number sense.	NS.1.NO10	Students will be expected to use and describe strategies to determine sums and differences using manipulatives and visual aids. Strategies include * counting on or counting back * one more or one less * making ten * doubles * near doubles.	All About Ten All About Twenty Fact Families: Add and Subtract Related Facts 1 1 more, 2 less Adding to make 5 and 10 Adding to Ten Doubles and Halves to 10 Doubles and Halves to 20 Doubles and Near Doubles Composing Additions to 20	Grade 1 Operations with Number
Patterns and Relations	Students will be expected to use patterns to describe the world and solve problems.	NS.1.PR01	Students will be expected to demonstrate an understanding of repeating patterns (two to four elements) by describing, reproducing, extending, and creating patterns using manipulatives, diagrams, sounds, and actions.	Simple Patterns Missing it! Pattern Error Increasing Patterns Decreasing Patterns Colour Patterns Balancing Act	Grade 1 Patterns and Relationships

Nova Scotia Outcomes

Alignment with Mathletics

Grade 1



Strand	General Curriculum Outcome	Specific Curriculum Outcome	Outcome Description	 Activities	 eBooks
Patterns and Relations	Students will be expected to use patterns to describe the world and solve problems.	NS.1.PR02	Translate repeating patterns from one representation to another.	Simple Patterns Pattern Error Increasing Patterns Decreasing Patterns Colour Patterns	Grade 1 Patterns and Relationships
Patterns and Relations	Students will be expected to represent algebraic expressions in multiple ways.	NS.1.PR03	Describe equality as a balance and inequality as an imbalance, concretely and pictorially (0 to 20).	Balance Numbers to 20	
Patterns and Relations	Students will be expected to represent algebraic expressions in multiple ways.	NS.1.PR04	Record equalities using the equal symbol.	More, less or the same to 10 More, less or the same to 20	Grade 1 Numbers
Measurement	Students will be expected to use direct and indirect measure to solve problems.	NS.1.M01	Demonstrate an understanding of measurement as a process of comparing by: identifying attributes that can be compared; ordering objects; making statements of comparison; filling, covering or matching.	Biggest Shape Filling Fast! Everyday Length Balancing Objects	Grade 1 Measurement
Geometry	Students will be expected to describe the characteristics of 3-D objects and 2-D shapes and analyze the relationships among them.	NS.1.G01	Students will be expected to sort 3-D objects and 2-D shapes using one attribute and explain the sorting rule.	Sort it Collect the Shapes Collect the Objects Which Hold More? Collect Simple Shapes	Grade 1 Space and Shape
Geometry	Students will be expected to describe the characteristics of 3-D objects and 2-D shapes and analyze the relationships among them.	NS.1.G02	Replicate composite 2-D shapes and 3-D objects.	Sort it Collect the Shapes Collect More Shapes Collect the Objects	Grade 1 Space and Shape

Nova Scotia Outcomes

Alignment with Mathletics

Mathletics



Grade 1

Strand	General Curriculum Outcome	Specific Curriculum Outcome	Outcome Description	 Activities	 eBooks
Geometry	Students will be expected to describe the characteristics of 3-D objects and 2-D shapes and analyze the relationships among them.	NS.1.G03	Students will be expected to identify 2-D shapes in 3-D objects.	Match the Solid 1 Match the Object	Grade 1 Space and Shape

Nova Scotia Outcomes

Alignment with Mathletics



Grade 2

Strand	General Curriculum Outcome	Specific Curriculum Outcome	Outcome Description	 Activities	 eBooks
Number	Students will be expected to demonstrate number sense.	NS.2.N01	Students will be expected to say the number sequence by * 1s, forward and backward, starting from any point to 200 * 2s, forward and backward, starting from any point to 100 * 5s and 10s, forward and backward, using starting points that are multiples of 5 and 10 respectively to 100 * 10s, starting from any point, to 100.	Counting by Twos Counting by Fives Counting by Tens Counting by 2s, 5s and 10s Counting on a 100 grid Going Up Number Line Order Going Down Skip Counting Skip Counting with Coins	Grade 2 Numbers
Number	Students will be expected to demonstrate number sense.	NS.2.N02	Demonstrate if a number (up to 100) is even or odd.	Odd and Even Numbers 1 Odd or Even	Grade 2 Numbers Grade 2 Patterns and Relationships
Number	Students will be expected to demonstrate number sense.	NS.2.N03	Describe order or relative position using ordinal numbers (up to tenth).	1st to 31st Ordinal Numbers Reading Numbers to 30	Grade 2 Numbers
Number	Students will be expected to demonstrate number sense.	NS.2.N04	Students will be expected to represent and partition numbers to 100.	Model Numbers Repartition Two-digit Numbers	Grade 2 Numbers
Number	Students will be expected to demonstrate number sense.	NS.2.N05	Compare and order numbers up to 100.	Arranging Numbers Number Line Order Greater or Less to 100	Grade 2 Numbers
Number	Students will be expected to demonstrate number sense.	NMB.2.N06	Estimate quantities to 100 using referents.	Under review	Grade 2 Operations with Number
Number	Students will be expected to demonstrate number sense.	NS.2.N07	Illustrate, concretely and pictorially, the meaning of place value for numerals to 100.	Arranging Numbers Number Line Order Make Numbers Count Making Numbers Count Making Big Numbers Count Place value 1 Understanding Place Value 1 Repartition Two-digit Numbers	Grade 2 Numbers

Nova Scotia Outcomes

Alignment with Mathletics



Grade 2

Strand	General Curriculum Outcome	Specific Curriculum Outcome	Outcome Description	 Activities	 eBooks
Number	Students will be expected to demonstrate number sense.	NS.2.N08	Demonstrate and explain the effect of adding zero to or subtracting zero from any number.	Concept of zero	Grade 2 Numbers
Number	Students will be expected to demonstrate number sense.	NS.2.N09	Students will be expected to demonstrate an understanding of addition (limited to 1- and 2-digit numerals) with answers to 100 and the corresponding subtraction by * using personal strategies for adding and subtracting with and without the support of manipulatives * creating and solving problems that involve addition and subtraction * explaining and demonstrating that the order in which numbers are added does not affect the sum * explaining and demonstrating that the order in which numbers are subtracted matters when finding a difference.	Add Numbers: Regroup a Ten Add Three 1-Digit Numbers Add Two 2-Digit Numbers Adding to 2-digit numbers Model Addition Mental Addition Columns that Add Bar model problems 1 Subtract Tens Subtract Numbers Subtract Numbers: Regroup Simple Subtraction Mental Subtraction Repartition to Subtract Columns that Subtract	Grade 2 Operations with Number
Number	Students will be expected to demonstrate number sense.	NS.2.N010	Students will be expected to apply mental mathematics strategies to quickly recall basic addition facts to 18 and determine related subtraction facts.	Additive Addition Related Facts 1 Compensation - Add Compensation - Subtract Add 3 Numbers Using Bonds to 10 Adding In Any Order Commutative Property of Addition Doubles and Near Doubles Doubles and Halves to 10 Doubles and Halves to 20	Grade 2 Operations with Number
Patterns and Relations	Students will be expected to use patterns to describe the world and solve problems.	NS.2.PR01	Students will be expected to demonstrate an understanding of repeating patterns (three to five elements) by describing, extending, comparing, and creating, patterns using manipulatives, diagrams, sounds, and actions.	Simple Patterns Pattern Error Increasing Patterns Describing Patterns Decreasing Patterns Missing Values Colour Patterns Count Backward Patterns Count Forward Patterns	Grade 2 Patterns and Relationships

Nova Scotia Outcomes

Alignment with Mathletics



Grade 2

Strand	General Curriculum Outcome	Specific Curriculum Outcome	Outcome Description	 Activities	 eBooks
Patterns and Relations	Students will be expected to use patterns to describe the world and solve problems.	NS.2.PR02	Students will be expected to demonstrate an understanding of increasing patterns by describing, extending, and creating numerical patterns (numbers to 100) and non-numerical patterns using manipulatives, diagrams, sounds, and actions.	Count Forward Patterns Simple Patterns Pattern Error Increasing Patterns Colour Patterns	Grade 2 Patterns and Relationships
Patterns and Relations	Students will be expected to represent algebraic expressions in multiple ways.	NS.2.PR03	Demonstrate and explain the meaning of equality and inequality by using manipulatives and diagrams (0 to 100).	Missing Values Balancing Act	Under review
Patterns and Relations	Students will be expected to represent algebraic expressions in multiple ways.	NS.2.PR04	Record equalities and inequalities symbolically using the equal symbol or the not equal symbol.	Compare Numbers to 20 Compare Numbers to 100	Grade 2 Numbers
Measurement	Students will be expected to use direct and indirect measure to solve problems	NS.2.M01	Students will be expected to demonstrate an understanding of the calendar and the relationships among days, weeks, months, and years.	Days of the Week Months of the Year Using a Calendar	Grade 2 Time and Monday
Measurement	Students will be expected to use direct and indirect measure to solve problems	NS.2.M02	Students will be expected to relate the size of a unit of measure to the number of units (limited to non-standard units) used to measure length and mass.	Measuring length with blocks Everyday Length Comparing Length Everyday Mass How Long is That?	Grade 2 Measurement
Measurement	Students will be expected to use direct and indirect measure to solve problems	NS.2.M03	Students will be expected to compare and order objects by length, height, distance around, and mass using non-standard units and make statements of comparison.	Measuring length with blocks Balancing Act	Grade 2 Measurement
Measurement	Students will be expected to use direct and indirect measure to solve problems	NS.2.M04	Students will be expected to measure length to the nearest non-standard unit by using multiple copies of a unit and using a single copy of a unit (iteration process).	Measuring length with blocks	Grade 2 Measurement

Nova Scotia Outcomes

Alignment with Mathletics



Grade 2

Strand	General Curriculum Outcome	Specific Curriculum Outcome	Outcome Description	 Activities	 eBooks
Measurement	Students will be expected to use direct and indirect measure to solve problems	NS.2.M05	Students will be expected to demonstrate that changing the position of an object does not alter the measurements of its attributes.	Under Review	
Geometry	Students will be expected to describe the characteristics of 3-D objects and 2-D shapes and analyze the relationships among them.	NS.2.G01	Students will be expected to sort 2-D shapes and 3-D objects using two attributes and explain the sorting rule.	Sort It Collect the Shapes Collect Simple Shapes Collect the Shapes 1 Collect the Shapes 2 Collect the Objects Collect the Objects 1 Collect the Objects 2	Grade 2 Space and Shape
Geometry	Students will be expected to describe the characteristics of 3-D objects and 2-D shapes and analyze the relationships among them.	NS.2.G02	Students will be expected to recognize, name, describe, compare, and build 3-D objects, including cubes and other prisms, spheres, cones, cylinders, and pyramids.	Sort It Collect the Shapes Collect Simple Shapes Collect the Shapes 1 Collect the Shapes 2 Collect the Objects Collect the Objects 1 Collect the Objects 2	Grade 2 Space and Shape
Geometry	Students will be expected to describe the characteristics of 3-D objects and 2-D shapes and analyze the relationships among them.	NS.2.G03	Students will be expected to recognize, name, describe, compare, and build 2-D shapes, including triangles, squares, rectangles, and circles.	Sort It Collect the Shapes Collect Simple Shapes Collect the Shapes 1 Collect the Shapes 2 Collect the Objects Collect the Objects 1 Collect the Objects 2	Grade 2 Space and Shape
Geometry	Students will be expected to describe the characteristics of 3-D objects and 2-D shapes and analyze the relationships among them.	NS.2.G04	Students will be expected to identify 2-D shapes as part of 3-D objects in the environment.	Match the Object Match the Solid 1 Match the Solid 2 Relate Shapes and Solids	Grade 2 Space and Shape

Nova Scotia Outcomes

Alignment with Mathletics



Grade 2

Strand	General Curriculum Outcome	Specific Curriculum Outcome	Outcome Description	 Activities	 eBooks
Statistics and Probability	Students will be expected to collect, display, and analyze data to solve problems.	NS.2.SP01	Gather and record data about self and others to answer questions.	Tallies Making Graphs Sorting Data	Grade 2 Chance and Data
Statistics and Probability	Students will be expected to collect, display, and analyze data to solve problems.	NS.2.SP02	Construct and interpret concrete graphs and pictographs to solve problems.	Add and Subtract Using Graphs Pictographs	Grade 2 Chance and Data

Nova Scotia Outcomes

Alignment with Mathletics



Grade 3

Strand	General Curriculum Outcome	Specific Curriculum Outcome	Outcome Description	 Activities	 eBooks
Number	Students will be expected to demonstrate number sense.	NS.3.N01	Students will be expected to say the number sequence forward and backward by * 1s through transitions to 1000 * 2s, 5s, 10s, or 100s, using any starting point to 1000 * 3s, using starting points that are multiples of 3 up to 100 * 4s, using starting points that are multiples of 4 up to 100 * 25s, using starting points that are multiples of 25 up to 200.	Counting by Fives Counting by Tens Skip Counting Skip Counting with coins	Grade 2 Numbers
Number	Students will be expected to demonstrate number sense.	NS.3.N02	Students will be expected to represent and partition numbers to 1000.	Model Numbers How many Blocks?	Grade 3 Reading and Understanding Whole Numbers
Number	Students will be expected to demonstrate number sense.	NS.3.N03	Compare and order numbers to 1000.	Which is Bigger? Which is Smaller? Compare Numbers to 100 Ascending Order Descending Order	Grade 3 Reading and Understanding Whole Numbers
Number	Students will be expected to demonstrate number sense.	NS.3.N04	Estimate quantities less than 1000 using referents.	Nearest 10? Nearest 100?	
Number	Students will be expected to demonstrate number sense.	NS.3.N05	Illustrate, concretely and pictorially, the meaning of place value for numerals to 1000.	How many Blocks? Model Numbers Understanding Place Value 1 Place value 2	Grade 3 Reading and Understanding Whole Numbers
Number	Students will be expected to demonstrate number sense.	NS.3.N06	Describe and apply mental mathematics strategies for adding two 2-Digit numerals.	Add Two 2-Digit Numbers: Regroup Addition Facts Add Two 2-Digit Numbers Complements to 50 and 100 Columns that Add Magic Mental Addition Column Addition Add Numbers: Regroup a Ten Strategies for Column Addition Addition Properties Fact Families: Add and Subtract Pyramid Puzzles 1 Pyramid Puzzles 2	Grade 3 Addition and Subtraction

Nova Scotia Outcomes

Alignment with Mathletics



Grade 3

Strand	General Curriculum Outcome	Specific Curriculum Outcome	Outcome Description	 Activities	 eBooks
Number	Students will be expected to demonstrate number sense.	NS.3.N07	Describe and apply mental mathematics strategies for subtracting two 2-digit numerals.	2-Digit Differences 2-Digit Differences: Regroup Subtract Numbers: Regroup Subtraction Facts to 18 Subtract Numbers Decompose Numbers to Subtract Columns that Subtract Column Subtraction Magic Mental Subtraction Bar Model Problems 2	Grade 3 Addition and Subtraction
Number	Students will be expected to demonstrate number sense.	NS.3.N08	Students will be expected to apply estimation strategies to predict sums and differences of 1-, 2-, and 3-digit numerals in a problem-solving context.	Estimation: Add and Subtract Estimate Sums Estimate Differences	Grade 3 Addition and Subtraction
Number	Students will be expected to demonstrate number sense.	NS.3.N09	Students will be expected to demonstrate an understanding of addition and subtraction of numbers (limited to 1-, 2-, and 3-digit numerals) with answers to 1000 by * using personal strategies for adding and subtracting with and without the support of manipulatives * creating and solving problems in context that involve addition and subtraction of numbers concretely, pictorially, and symbolically.	Problems: Add and Subtract Add Two 2-Digit Numbers: Regroup Add Two 2-Digit Numbers Columns that Add Magic Mental Addition Column Addition Add Numbers: Regroup a Ten 2-Digit Differences 2-Digit Differences: Regroup Subtract Numbers: Regroup Subtract Numbers Decompose Numbers to Subtract Columns that Subtract Column Subtraction Magic Mental Subtraction	Grade 3 Addition and Subtraction
Number	Students will be expected to demonstrate number sense.	NS.3.N10	Students will be expected to apply mental mathematics strategies and number properties to develop quick recall of basic addition facts to 18 and related basic subtraction facts.	Addition Properties Commutative Property of Addition Fact Families: Add and Subtract Related Facts 1	Grade 3 Addition and Subtraction

Nova Scotia Outcomes

Alignment with Mathletics



Grade 3

Strand	General Curriculum Outcome	Specific Curriculum Outcome	Outcome Description	 Activities	 eBooks
Number	Students will be expected to demonstrate number sense.	NS.3.N11	Students will be expected to demonstrate an understanding of multiplication to 5×5 by <ul style="list-style-type: none"> * representing and explaining multiplication using equal grouping and arrays * creating and solving problems in context that involves multiplication * modelling multiplication using concrete and visual representations and recording the process symbolically * relating multiplication to repeated addition * relating multiplication to division. 	Groups of Two Groups of Three Groups of Four Groups of Five Groups Making Equal Groups Multiplication Facts Multiplication Arrays Model Multiplication to 5×5 Frog Jump Multiplication	Grade 3 Multiplication and Division
Number	Students will be expected to demonstrate number sense.	NS.3.N12	Students will be expected to demonstrate an understanding of division by <ul style="list-style-type: none"> * representing and explaining division using equal sharing and equal grouping * creating and solving problems in context that involve equal sharing and equal grouping * modelling equal sharing and equal grouping using concrete and visual representations, and recording the process symbolically * relating division to repeated subtraction * relating division to multiplication (Limited to division related to multiplication facts up to 5×5). 	Fill the Jars Making Equal Groups Divide Into Equal Groups Dividing Twos Dividing Threes Dividing Fours Dividing Fives	Grade 3 Multiplication and Division
Number	Students will be expected to demonstrate number sense.	NS.3.N13	Students will be expected to demonstrate an understanding of fractions by <ul style="list-style-type: none"> * explaining that a fraction represents a part of a whole * describing situations in which fractions are used * comparing fractions of the same whole with like denominators. 	Shape Fractions Model Fractions Compare fractions 1a Compare fractions 1b Halves and Quarters Thirds and Sixths Is it half? Part-whole rods 1	Grade 3 Fractions
Patterns and Relations	Students will be expected to use patterns to describe the world and solve problems	NS.3.PRO1	Students will be expected to demonstrate an understanding of increasing patterns by describing, extending, comparing, and creating numerical (numbers to 1000) patterns and non-numerical patterns using manipulatives, diagrams, sounds, and actions.	Simple Patterns Pattern Error Increasing Patterns Colour Patterns Count Forward Patterns Describing Patterns	Grade 3 Patterns and Relationships

Nova Scotia Outcomes

Alignment with Mathletics



Grade 3

Strand	General Curriculum Outcome	Specific Curriculum Outcome	Outcome Description	 Activities	 eBooks
Patterns and Relations	Students will be expected to use patterns to describe the world and solve problems	NS.3.PR02	Students will be expected to demonstrate an understanding of decreasing patterns by describing, extending, comparing, and creating numerical (numbers to 1000) patterns and non-numerical patterns using manipulatives, diagrams, sounds, and actions.	Simple Patterns Pattern Error Decreasing Patterns Colour Patterns Count Backward Patterns	Grade 3 Patterns and Relationships
Patterns and Relations	Students will be expected to represent algebraic expressions in multiple ways.	NS.3.PR03	Students will be expected to solve one-step addition and subtraction equations involving symbols representing an unknown number.	Problems: Add and Subtract Word Problems with letters Bar model problems 1 Bar model problems 2 Missing Values	Grade 3 Addition and Subtraction
Measurement	Students will be expected to use direct and indirect measure to solve problems.	NS.3.M01	Students will be expected to relate the passage of time to common activities using non-standard and standard units (minutes, hours, days, weeks, months, years).	Days of the Week Months of the Year Hour Times Half Hour Times What is the Time? Time Mentals Elapsed Time What Time Will it Be? Tell Time to the Half Hour Five Minute Times	Grade 3 Time
Measurement	Students will be expected to use direct and indirect measure to solve problems.	NS.3.M02	Students will be expected to relate the number of seconds to a minute, the numbers of minutes to an hour, the numbers of hours to a day, and the number of days to a month in a problem solving context.	Using a Calendar	Grade 3 Time
Measurement	Students will be expected to use direct and indirect measure to solve problems.	NS.3.M03	Students will be expected to demonstrate an understanding of measuring length (cm, m) by * selecting and justifying referents for the units centimetre or metre (cm, m) * modelling and describing the relationship between the units centimetre or metre (cm, m) * estimating length using referents * measuring and recording length, width, and height.	Comparing Length Everyday Length Measuring Length Compare Length Compare Length 1 How Long is That?	Grade 3 Measurement

Nova Scotia Outcomes

Alignment with Mathletics



Grade 3

Strand	General Curriculum Outcome	Specific Curriculum Outcome	Outcome Description	 Activities	 eBooks
Measurement	Students will be expected to use direct and indirect measure to solve problems.	NS.3.M04	Students will be expected to demonstrate an understanding of measuring mass (g, kg) by <ul style="list-style-type: none"> * selecting and justifying referents for the units gram and kilogram (g, kg) * modelling and describing the relationship between the units gram and kilogram (g, kg) * estimating mass using referents * measuring and recording mass. 	How Heavy? Everyday Mass	Grade 3 Measurement
Measurement	Students will be expected to use direct and indirect measure to solve problems.	NS.3.M05	Students will be expected to demonstrate an understanding of perimeter of regular, irregular, and composite shapes by <ul style="list-style-type: none"> * estimating perimeter using referents for centimetre or metre (cm, m) * measuring and recording perimeter (cm, m) * create different shapes for a given perimeter (cm, m) to demonstrate that many shapes are possible for a perimeter. 	Perimeter of Shapes Perimeter	Grade 3 Measurement
Geometry	Students will be expected to describe the characteristics of 3-D objects and 2-D shapes and analyze the relationships among them.	NS.3.G01	Students will be expected to describe 3-D objects according to the shape of the faces and the number of edges and vertices.	How many Faces? How many Edges? How many Corners? Faces, Edges and Vertices	Grade 3 Space, Shape and Position
Geometry	Students will be expected to describe the characteristics of 3-D objects and 2-D shapes and analyze the relationships among them.	NS.3.G02	Students will be expected to name, describe, compare, create, and sort regular and irregular polygons including triangles, quadrilaterals, pentagons, hexagons, and octagons according to the number of sides.	Collect the Shapes 2 Collect the Polygons	Grade 3 Space, Shape and Position

Nova Scotia Outcomes

Alignment with Mathletics



Grade 3

Strand	General Curriculum Outcome	Specific Curriculum Outcome	Outcome Description	 Activities	 eBooks
Statistics and Probability	Students will be expected to collect, display, and analyze data to solve problems.	NS.3.SP01	Collect first-hand data and organize it using: tally marks, line plots, charts, and lists to answer questions.	Sorting Data 1 Tallies Bar Graphs 1 Bar Graphs 2 Interpreting Tables Line Graphs: Interpretation	Grade 3 Chance and Data
Statistics and Probability	Students will be expected to collect, display, and analyze data to solve problems.	NS.3.SP02	Construct, label, and interpret bar graphs to solve problems.	Sorting Data 1 Tallies Bar Graphs 1 Interpreting Tables Line Graphs: Interpretation Line Graphs: Explanation Line Graphs: Reading Bar Graphs 2	Grade 3 Chance and Data

Nova Scotia Outcomes

Alignment with Mathletics



Grade 4

Strand	General Curriculum Outcome	Specific Curriculum Outcome	Outcome Description	 Activities	 eBooks
Number	Students will be expected to demonstrate number sense.	NS.4.N01	Students will be expected to represent and partition whole numbers to 10 000.	Expanded Notation Understanding Place Value 2 Place value 3 Place Value to Thousands Expanding Numbers Numbers from Words to Digits 1 Numbers from Words to Digits 2	Grade 4 Reading and Understanding Whole Numbers
Number	Students will be expected to demonstrate number sense.	NS.4.N02	Compare and order numbers to 10 000.	Greater Than or Less Than? Ascending Order Descending Order Which Is Greater? Which Is Less?	Grade 4 Patterns and Algebra
Number	Students will be expected to demonstrate number sense.	NS.4.N03	Students will be expected to demonstrate an understanding of addition and subtraction of numbers with answers to 10 000 (limited to three- and four-digit numerals) by * using personal strategies for adding and subtracting * estimating sums and differences * solving problems involving addition and subtraction.	Adding Colossal Columns Estimation: Add and Subtract Add Three 2-Digit Numbers Add Three 2-Digit Numbers: Regroup Add 3-Digit Numbers Add 3-Digit Numbers: Regroup Add Multi-Digit Numbers 1 Add Three 3-Digit Numbers: Regroup Subtracting Colossal Columns 3-Digit Differences 3-Digit Differences with Zeros 3-Digit Differences: 1 Regrouping 3-Digit Differences: 2 Regroupings Budgeting Estimate Differences Estimate Sums	Grade 4 Addition and Subtraction
Number	Students will be expected to demonstrate number sense.	NS.4.N04	Students will be expected to apply and explain the properties of 0 and 1 for multiplication and the property of 1 for division.	Under review	Under review

Nova Scotia Outcomes

Alignment with Mathletics



Grade 4

Strand	General Curriculum Outcome	Specific Curriculum Outcome	Outcome Description	 Activities	 eBooks
Number	Students will be expected to demonstrate number sense.	NS.4.N05	Students will be expected to describe and apply mental mathematics strategies, to recall basic multiplication facts to 9×9 , and to determine related division facts.	<div> <div>Dividing Twos</div> <div>Dividing Fives</div> <div>Dividing Tens</div> <div>Dividing Threes</div> <div>Dividing Fours</div> <div>Dividing Sixes</div> <div>Dividing Sevens</div> <div>Dividing Eights</div> <div>Dividing Nines</div> <div>Groups of Six</div> <div>Groups of Seven</div> <div>Groups of Eight</div> <div>Groups of Nine</div> <div>Groups of Ten</div> <div>Problems: Multiply and Divide</div> </div>	Grade 4 Multiplication and Division
Number	Students will be expected to demonstrate number sense.	NS.4.N06	Students will be expected to demonstrate an understanding of multiplication (one-, two- or three-digit by one-digit numerals) to solve problems by <ul style="list-style-type: none"> * using personal strategies for multiplication, with and without concrete materials * using arrays to represent multiplication * connecting concrete representations to symbolic representations * estimating products * applying the distributive property. 	<div> <div>Multiplication Arrays</div> <div>Arrays 1</div> <div>Multiply: 2-Digit by 1-Digit</div> <div>Double and Halve to Multiply</div> <div>Fact Families: Multiply and Divide</div> <div>Problems: Multiply and Divide</div> <div>Multiply Multiples of 10</div> <div>Multiply More Multiples of 10</div> <div>Multiply: 1-Digit Number</div> <div>Multiply: 1-Digit Number, Regroup</div> <div>Multiply: 2-Digit by 1-Digit, Regroup</div> <div>Multiply: 2-Digit Number, Regroup</div> <div>Groups of Ten</div> <div>Multiplication Facts</div> <div>Times Tables</div> <div>Multiplication Properties</div> <div>Groups of Six</div> <div>Groups of Seven</div> <div>Groups of Eight</div> <div>Groups of Nine</div> <div>Multiplication Grids</div> <div>Multiplication Problems 1</div> <div>Multiply 3 single-digit numbers</div> <div>Estimate Products</div> <div>Word Problems: Multiply and Divide</div> <div>Equivalent Facts: Multiply</div> <div>Multiply and Divide Problems 1</div> <div>Missing Numbers: \times and \div facts</div> </div>	Grade 4 Multiplication and Division

Nova Scotia Outcomes

Alignment with Mathletics



Grade 4

Strand	General Curriculum Outcome	Specific Curriculum Outcome	Outcome Description	 Activities	 eBooks
Number	Students will be expected to demonstrate number sense.	NS.4.N07	Students will be expected to demonstrate an understanding of division (one-digit divisor and up to two-digit dividend) to solve problems by <ul style="list-style-type: none"> * using personal strategies for dividing, with and without concrete materials * estimating quotients * relating division to multiplication. 	Division Facts Division Facts 1 Remainders by Arrays Short Division Long Division Divisibility Tests Divisibility Tests (2, 5, 10) Divisibility Tests (3, 4, 9) Divide: 1-Digit Divisor 1 Divide: 1-Digit Divisor 2 Divide: 1-Digit Divisor, Remainder Estimation: Multiply and Divide Dividing Twos Dividing Threes Dividing Fours Dividing Fives Dividing Sixes Dividing Sevens Dividing Eights Dividing Nines Estimate Quotients	Grade 4 Multiplication and Division
Number	Students will be expected to demonstrate number sense.	NS.4.N08	Students will be expected to demonstrate an understanding of fractions less than or equal to one by using concrete, pictorial, and symbolic representations to <ul style="list-style-type: none"> * name and record fractions for the parts of one whole or a set * compare and order fractions * model and explain that for different wholes, two identical fractions may not represent the same quantity * provide examples of where fractions are used. 	Identifying Fractions on a Number Line Partition into Equal Parts Fractions of a Collection Fraction Fruit Sets 1 Equivalent Fraction Wall 1 Fractions to Decimals Counting with Fractions on a Number Line What Fraction is Shaded? Equivalent Fractions Compare Fractions 2 Comparing Fractions 1 Compare Fractions 1a Compare Fractions 1b Ordering Fractions Part-Whole Rods 2 Compare Fractions 1a Compare Fractions 1b	Grade 4 Fractions

Nova Scotia Outcomes

Alignment with Mathletics



Grade 4

Strand	General Curriculum Outcome	Specific Curriculum Outcome	Outcome Description	 Activities	 eBooks
Number	Students will be expected to demonstrate number sense.	NS.4.N09	Describe and represent decimals (tenths and hundredths) concretely, pictorially, and symbolically.	Decimals from Words to Digits 1 Decimal Order 1 Decimals on the Number Line Decimal Place Value Comparing Decimals 1	Grade 4 Fractions
Number	Students will be expected to demonstrate number sense.	NS.4.N10	Students will be expected to relate decimals to fractions and fractions to decimals (to hundredths).	Decimals to Fractions 1 Decimals to Fractions 2 Fractions to Decimals	Grade 4 Fractions
Number	Students will be expected to demonstrate number sense.	NS.4.N11	Students will be expected to demonstrate an understanding of addition and subtraction of decimals (limited to hundredths) by * estimating sums and differences * using mental mathematics strategies to solve problems * using personal strategies to determine sums and differences.	Add Decimals 1 Nearest Whole Number Rounding Decimals 1 Decimal Complements Subtract Decimals 1	Grade 4 Fractions
Patterns and Relations	Students will be expected to use patterns to describe the world and solve problems.	NS.4.PR01	Identify and describe patterns found in tables and charts, including a multiplication chart.	Increasing Patterns Decreasing Patterns Missing it! Pick the Next Number Describing Patterns Pattern Error	Grade 4 Patterns and Algebra
Patterns and Relations	Students will be expected to use patterns to describe the world and solve problems.	NS.4.PR02	Students will be expected to translate among different representations of a pattern (a table, a chart, or concrete materials).	Increasing Patterns Decreasing Patterns Missing it! Pick the Next Number Describing Patterns Pattern Error Carroll Diagram Venn Diagram1	Grade 4 Patterns and Algebra
Patterns and Relations	Students will be expected to use patterns to describe the world and solve problems.	NS.4.PR03	Students will be expected to represent, describe, and extend patterns and relationships, using charts and tables, to solve problems.	Increasing Patterns Decreasing Patterns Missing it! Pick the Next Number Describing Patterns Pattern Error Carroll Diagram	Grade 4 Patterns and Algebra
Patterns and Relations	Students will be expected to use patterns to describe the world and solve problems.	NS.4.PR04	Identify and explain mathematical relationships using charts and diagrams to solve problems.	Venn Diagram1 Carroll Diagram	

Nova Scotia Outcomes

Alignment with Mathletics



Grade 4

Strand	General Curriculum Outcome	Specific Curriculum Outcome	Outcome Description	 Activities	 eBooks
Patterns and Relations	Students will be expected to represent algebraic expressions in multiple ways.	NS.4.PR05	Express a given problem as an equation in which a symbol is used to represent an unknown number.	Problems: Add and Subtract 2 Problems: Multiply and Divide 1 Missing Values Find the Missing Number 1 I am Thinking of a Number! Missing Numbers: Variables Magic Symbols 1	Grade 4 Patterns and Algebra
Patterns and Relations	Students will be expected to represent algebraic expressions in multiple ways.	NS.4.PR06	Solve one-step equations involving a symbol to represent an unknown number.	Missing Values Find the Missing Number 1 I am Thinking of a Number! Missing Numbers: Variables Magic Symbols 1	Grade 4 Patterns and Algebra
Measurement	Students will be expected to use direct and indirect measure to solve problems.	NS.4.M01	Read and record time using digital and analog clocks, including 24-hour clocks.	What is the Time? Time Mentals Elapsed Time 24 Hour Time What Time Will it Be? Hours and Minutes Five Minute Times	Grade 4 Time
Measurement	Students will be expected to use direct and indirect measure to solve problems.	NS.4.M02	Read and record calendar dates in a variety of formats.	Using a Calendar	Grade 4 Time
Measurement	Students will be expected to use direct and indirect measure to solve problems.	NS.4.M03	Students will be expected to demonstrate an understanding of area of regular and irregular 2-D shapes by * recognizing that area is measured in square units * selecting and justifying referents for the units square centimetre (cm^2) or square metre (m^2) * estimating area using referents for cm^2 or m^2 * determining and recording area (cm^2 or m^2) * constructing different rectangles for a given area (cm^2 or m^2) in order to demonstrate that many different rectangles may have the same area.	Area of Shapes Equal Areas Area: Squares and Rectangles	Grade 4 Length, Area and Perimeter

Nova Scotia Outcomes

Alignment with Mathletics



Grade 4

Strand	General Curriculum Outcome	Specific Curriculum Outcome	Outcome Description	 Activities	 eBooks
Geometry	Students will be expected to describe the characteristics of 3-D objects and 2-D shapes and analyze the relationships among them.	NS.4.G01	Describe and construct rectangular and triangular prisms.	How Many Faces? How Many Edges? How Many Corners? Faces, Edges and Vertices Faces, Edges and Vertices 1 What Prism am I? What Pyramid am I? Prisms and Pyramids Identify Prisms and Pyramids	Grade 4 Length, Area and Perimeter
Geometry	Students will be expected to describe the characteristics of 3-D objects and 2-D shapes and analyze the relationships among them.	NS.4.G02	Students will be expected to demonstrate an understanding of congruency, concretely and pictorially.	Congruent Figures (Dot Grid) Congruent Figures (Grid)	Grade 4 Shape, Space and Position
Geometry	Students will be expected to describe the characteristics of 3-D objects and 2-D shapes and analyze the relationships among them.	NS.4.G03	Students will be expected to demonstrate an understanding of line symmetry by * identifying symmetrical 2-D shapes * creating symmetrical 2-D shapes * drawing one or more lines of symmetry in a 2-D shape.	Symmetry Symmetry or Not?	Grade 4 Shape, Space and Position
Statistics and Probability	Students will be expected to collect, display, and analyze data to solve problems.	NS.4.SP01	Demonstrate an understanding of many-to-one correspondence.	Under review	
Statistics and Probability	Students will be expected to collect, display, and analyze data to solve problems.	NS.4.SP02	Construct and interpret pictographs and bar graphs involving many-to-one correspondence to draw conclusions.	Bar Graphs 1 Bar Graphs 2 Pictographs Divided Bar Graphs Reading from a Bar Chart	Grade 4 Chance and Data

Nova Scotia Outcomes

Alignment with Mathletics



Grade 5

Strand	General Curriculum Outcome	Specific Curriculum Outcome	Outcome Description	 Activities	 eBooks
Number	Students will be expected to demonstrate number sense.	NS.5.N01	Students will be expected to represent and partition whole numbers to 1 000 000.	Numbers in Words Numbers from Words to Digits 1 Numbers from Words to Digits 2 Numbers from Words to Digits 3 Place Value to Millions Expanding Numbers Partition and rename 3 Expanded Notation Place value 3 Place Value 1 ($\times 10$ and $\div 10$) Place Value 2 ($\times 10$ and $\div 10$)	Grade 5 Reading and Understanding Whole Numbers
Number	Students will be expected to demonstrate number sense.	NS.5.N02	Students will be expected to use estimation strategies, including front-end, front-end adjusted, rounding, and compatible numbers in problem-solving contexts.	Rounding Numbers Nearest 100? Nearest 1000? Nearest Whole Number Estimation: Add and Subtract Estimation: Multiply and Divide Estimate Products Estimate Sums Estimate Differences Estimate Quotients Estimate Decimal Differences 1 Estimate Decimal Sums 1 Estimate Decimal Differences 2 Estimate Decimal Sums 2	Grade 5 Reading and Understanding Whole Numbers
Number	Students will be expected to demonstrate number sense.	NS.5.N03	Students will be expected to describe and apply mental mathematics strategies and number properties to recall, with fluency, answers for basic multiplication facts to 81 and related division facts.	Multiplication Arrays Multiplication Facts Multiplication Properties Mental Methods Multiplication Related Facts 2 Equivalent Facts: Multiply	Grade 5 Multiplication and Division
Number	Students will be expected to demonstrate number sense.	NS.5.N04	Students will be expected to apply mental mathematics strategies for multiplication, including * multiplying by multiples of 10, 100, and 1000 * halving and doubling * using the distributive property.	Multiplying by 10, 100, 1000 Multiplication Arrays Multiplication Facts Double and Halve to Multiply Multiplication Properties Mental Methods Multiplication Mental Methods Multiplication 2 Mental Methods Multiplication 3	Grade 5 Multiplication and Division

Nova Scotia Outcomes

Alignment with Mathletics



Grade 5

Strand	General Curriculum Outcome	Specific Curriculum Outcome	Outcome Description	 Activities	 eBooks
Number	Students will be expected to demonstrate number sense.	NS.5.N05	Students will be expected to demonstrate, with and without concrete materials, an understanding of multiplication (two-digit by two-digit) to solve problems.	Multiply: 1-Digit Number Multiply: 1-Digit Number, Regroup Multiply: 2-Digit by 1-Digit Multiply: 2-Digit Number, Regroup Multiply 2 Digits Area Model	Grade 5 Multiplication and Division
Number	Students will be expected to demonstrate number sense.	NS.5.N06	Students will be expected to demonstrate, with and without concrete materials, an understanding of division (three-digit by one-digit), and interpret remainders to solve problems.	Division Facts Mental Methods Division Mental Methods Division 1 Mental Methods Division 2 Divide: 1-Digit Divisor 1 Divide: 1-Digit Divisor 2 Divide: 1-Digit Divisor, Remainder Compatible Numbers Divisibility Tests Tests of Divisibility 1 Divisibility Tests (2, 5, 10) Divisibility Tests (3, 4, 9) Remainders by Arrays Short Division	Grade 5 Multiplication and Division
Number	Students will be expected to demonstrate number sense.	NS.5.N07	Students will be expected to demonstrate an understanding of fractions by using concrete, pictorial, and symbolic representations to * create sets of equivalent fractions * compare and order fractions with like and unlike denominators.	Shading Equivalent Fractions Ordering Fractions Simplifying Fractions Decimals to Fractions 1 Decimals to Fractions 2 Fractions of a Collection 1 Fractions of a Collection 2 Comparing Fractions 1 Comparing Fractions 2 Equivalent Fractions Equivalent Fraction Wall 2 Fraction Fruit Sets 2 Equivalent Fractions on a Number Line 2	Grade 5 Fractions, Decimals and Percentages
Number	Students will be expected to demonstrate number sense.	NS.5.N08	Describe and represent decimals (tenths, hundredths, thousandths) concretely, pictorially, and symbolically.	Rounding Decimals Rounding Decimals 1 Rounding Decimals 2 Decimal Complements Decimals on a Number Line Decimals on the Number Line Decimals from Words to Digits 2 Decimal Place Value	Grade 5 Fractions, Decimals and Percentages

Nova Scotia Outcomes

Alignment with Mathletics



Grade 5

Strand	General Curriculum Outcome	Specific Curriculum Outcome	Outcome Description	 Activities	 eBooks
Number	Students will be expected to demonstrate number sense.	NS.5.N09	Students will be expected to relate decimals to fractions and fractions to decimals (to thousandths).	Decimals to Fractions 1 Decimals to Fractions 2 Fractions to Decimals Fractions to Decimals 2 Fraction to Terminating Decimal	Grade 5 Fractions, Decimals and Percentages
Number	Students will be expected to demonstrate number sense.	NS.5.N10	Students will be expected to compare and order decimals (to thousandths) by using benchmarks, place value, and equivalent decimals.	Decimal Order Comparing Decimals Comparing Decimals 1 Comparing Decimals 2	Grade 5 Fractions, Decimals and Percentages
Number	Students will be expected to demonstrate number sense.	NS.5.N11	Demonstrate an understanding of addition and subtraction of decimals (limited to thousandths).	Subtract Decimals 1 Subtract Decimals 2 Subtracting Decimals Add Decimals 1 Add Decimals 2 Adding and Subtracting Decimals Adding Decimals	Grade 5 Fractions, Decimals and Percentages
Patterns and Relations	Students will be expected to use patterns to describe the world and solve problems.	NS.5.PRO1	Determine the pattern rule to make predictions about subsequent terms (elements).	Describing Patterns I am Thinking of a Number! Pattern Error	Grade 5 Patterns and Algebra
Patterns and Relations	Students will be expected to represent algebraic expressions in multiple ways.	NS.5.PRO2	Solve problems involving single-variable, one-step equations with whole-number coefficients and whole-number solutions.	Solve Equations: Add, Subtract 1 Solve Equations: Multiply, Divide 1 Problems: Multiply and Divide 1 Problems: Add and Subtract 1 Find the Missing Number 1 Find the Missing Number 2 Missing Values Missing Numbers	Grade 5 Patterns and Algebra
Measurement	Students will be expected to use direct and indirect measure to solve problems.	NS.5.M01	Design and construct different rectangles given either perimeter or area, or both (whole numbers), and draw conclusions.	Perimeter of Shapes Perimeter Perimeter: Squares and Rectangles Perimeter Detectives 1 Perimeter, Area, Dimension Change Equal Areas Areas of Shapes	Grade 5 Length, Perimeter and Area

Nova Scotia Outcomes

Alignment with Mathletics



Grade 5

Strand	General Curriculum Outcome	Specific Curriculum Outcome	Outcome Description	 Activities	 eBooks
Measurement	Students will be expected to use direct and indirect measure to solve problems.	NS.5.M02	Students will be expected to demonstrate an understanding of measuring length (mm) by <ul style="list-style-type: none"> * selecting and justifying referents for the unit millimetre (mm) * modelling and describing the relationship between millimetre (mm) and centimetre (cm) units, and between millimetre (mm) and metre (m) units. 	Converting cm and mm Converting Units of Length Centimetres and Metres Measuring Length	Grade 5 Length, Perimeter and Area
Measurement	Students will be expected to use direct and indirect measure to solve problems.	NS.5.M03	Students will be expected to demonstrate an understanding of volume by <ul style="list-style-type: none"> * selecting and justifying referents for cubic centimetre (cm³) or cubic metre (m³) units * estimating volume using referents for cubic centimetre (cm³) or cubic metre (m³) * measuring and recording volume (cm³ or m³) * constructing rectangular prisms for a given volume. 	Volume: Cuboid 1 Volume: Rectangular Prisms 1	Grade 5 Volume, Capacity and Mass
Measurement	Students will be expected to use direct and indirect measure to solve problems.	NS.5.M04	Students will be expected to demonstrate an understanding of capacity by <ul style="list-style-type: none"> * describing the relationship between millilitre (mL) and litre (L) units * selecting and justifying referents for millilitre (mL) and litre (L) units * estimating capacity using referents for millilitre (mL) and litre (L) * measuring and recording capacity (mL or L). 	Millilitres and Litres Capacity Word Problems	Grade 5 Volume, Capacity and Mass
Geometry	Students will be expected to describe the characteristics of 3-D objects and 2-D shapes and analyze the relationships among them.	NS.5.G01	Students will be expected to describe and provide examples of edges and faces of 3-D objects, and sides of 2-D shapes that are parallel, intersecting, perpendicular, vertical, and horizontal.	Faces, Edges and Vertices Faces, Edged and Vertices 1	Grade 5 Geometry

Nova Scotia Outcomes

Alignment with Mathletics



Grade 5

Strand	General Curriculum Outcome	Specific Curriculum Outcome	Outcome Description	 Activities	 eBooks
Geometry	Students will be expected to describe the characteristics of 3-D objects and 2-D shapes and analyze the relationships among them.	NS.5.G02	Students will be expected to name, identify, and sort quadrilaterals, including rectangles, squares, trapezoids, parallelograms, and rhombi, according to their attributes.	Collect the Shapes 2 Collect the Objects 2 Collect the Polygons Shapes	Grade 5 Geometry
Geometry	Students will be expected to describe and analyze position and motion of objects and shapes.	NS.5.G03	Students will be expected to perform a single transformation (translation, rotation, or reflection) of a 2-D shape (with and without technology) and draw and describe the image.	Transformations Flip, Slide, Turn	Grade 5 Geometry
Geometry	Students will be expected to describe and analyze position and motion of objects and shapes.	NS.5.G04	Identify a single transformation including a translation, rotation and reflection of 2-D shapes.	Transformations Flip, Slide, Turn	Grade 5 Geometry
Geometry	Students will be expected to describe and analyze position and motion of objects and shapes.	NS.5.G05	Students will be expected to identify right angles.	Under review	Grade 5 Chance and Data
Statistics and Probability	Students will be expected to collect, display, and analyze data to solve problems.	NS.5.SP01	Students will be expected to differentiate between first-hand and second-hand data.	Bar Graphs 2 Interpreting Tables Analyzing Data	Grade 5 Chance and Data
Statistics and Probability	Students will be expected to collect, display, and analyze data to solve problems.	NS.5.SP02	Students will be expected to construct and interpret double bar graphs to draw conclusions.	What are the Chances? How many Combinations? Most Likely and Least Likely Possible Outcomes Fair Games	Grade 5 Chance and Data

Nova Scotia Outcomes

Alignment with Mathletics



Grade 5

Strand	General Curriculum Outcome	Specific Curriculum Outcome	Outcome Description	 Activities	 eBooks
Statistics and Probability	Students will be expected to use experimental or theoretical probabilities to represent and solve problems involving uncertainty.	NS.5.SP03	Students will be expected to describe the likelihood of a single outcome occurring, using words such as impossible, possible, and certain.	What are the Chances? How many Combinations? Most Likely and Least Likely Possible Outcomes Fair Games	Grade 5 Chance and Data
Statistics and Probability	Students will be expected to use experimental or theoretical probabilities to represent and solve problems involving uncertainty.	NS.5.SP04	Students will be expected to compare the likelihood of two possible outcomes occurring, using words such as less likely, equally likely, or more likely.	Under review	Under review

Nova Scotia Outcomes

Alignment with Mathletics



Grade 6

Strand	General Curriculum Outcome	Specific Curriculum Outcome	Outcome Description	 Activities	 eBooks
Number	Students will be expected to demonstrate number sense.	NS.6.NO1	Students will be expected to demonstrate an understanding of place value for numbers greater than one million and less than one-thousandth.	Place Value to Billions Place value 3 Place Value to Millions Place Value-Millions Place Value 1 ($\times 10$ and $\div 10$) Place Value 2 ($\times 10$ and $\div 10$) Comparing Numbers Decimal Order 1 Decimal Order 2 Comparing Decimals 2 Understanding Place Value 3 Numbers from Words to Digits 3	Grade 6 Reading and Understanding Whole Numbers
Number	Students will be expected to demonstrate number sense.	NS.6.NO2	Students will be expected to solve problems involving whole numbers and decimal numbers.	Adding Colossal Columns Subtracting Colossal Columns Estimate Decimal Differences 2 Estimate Decimal Sums 2 Estimate Sums Estimate Products Estimate Quotients Estimate Decimal Operations Estimate Differences Long Multiplication Multiplying by 10, 100, and 1000 Dividing by 10, 100, 1000 Rounding Numbers Order of Operations 1 (BEDMAS)	Grade 6 Fractions, Decimals and Percentages
Number	Students will be expected to demonstrate number sense.	NS.6.NO3	Students will be expected to demonstrate an understanding of factors and multiples by determining multiples and factors of numbers less than 100 identifying prime and composite numbers solving problems using multiples and factors.	Least Common Multiple Multiples Product of Prime Factors Factors Greatest Common Factor Prime or Composite? Prime Factoring Find the Factor	Grade 7 Whole Numbers
Number	Students will be expected to demonstrate number sense.	NS.6.NO4	Students will be expected to relate improper fractions to mixed numbers and mixed numbers to improper fractions.	Converting Mixed and Improper Mixed to Improper Improper to Mixed Comparing Fractions 2 Identifying fractions beyond 1 Mixed and Improper Numbers on a Number Line What Mixed Number Is Shaded?	Grade 6 Fractions, Decimals and Percentages

Nova Scotia Outcomes

Alignment with Mathletics



Grade 6

Strand	General Curriculum Outcome	Specific Curriculum Outcome	Outcome Description	 Activities	 eBooks
Number	Students will be expected to demonstrate number sense.	NS.6.N05	Demonstrate an understanding of ratio, concretely, pictorially, and symbolically.	Ratio Ratios Simplify Ratios: 2 Whole Numbers Equivalent Ratios Dividing a Quantity Into a Ratio Ratio Word Problems Ratio and Proportion Solve Proportions Unitary Method Best Buy Fractions to Decimals Fractions to Decimals 2	Grade 9 Decimals
Number	Students will be expected to demonstrate number sense.	NS.6.N06	Demonstrate an understanding of percent (limited to whole numbers), concretely, pictorially, and symbolically.	Calculating Percentages Percent of a Number Decimal to Percentage Percents and Decimals Percentage of a Quantity Percentage to Fraction Percents to Fractions Percent Increase and Decrease Percentage Composition Percentage Word Problems Solve Percent Equations Modelling Percentages Match Decimals and Percentages Percentages of a quantity (>100%)	Grade 6 Fractions, Decimals and Percentages
Number	Students will be expected to demonstrate number sense.	NS.6.N07	Students will be expected to demonstrate an understanding of integers contextually, concretely, pictorially, and symbolically.	Integers: Add and Subtract Add Integers Ordering Integers Ordering Integers (Number Line) Integers: Subtraction Comparing Integers More with Integers Integers on a Number Line Integers: Order of Operations (BEDMAS) Subtract Integers	Grade 7 Directed Numbers

Nova Scotia Outcomes

Alignment with Mathletics



Grade 6

Strand	General Curriculum Outcome	Specific Curriculum Outcome	Outcome Description	 Activities	 eBooks
Number	Students will be expected to demonstrate number sense.	NS.6.N08	Demonstrate an understanding of multiplication and division of decimals (1-digit whole number multipliers and 1-digit natural number divisors).	Decimal by Whole Number Multiply Decimals and Powers of 10 Multiply Decimals: 10, 100, 1000 Divide Decimals: 10, 100, 1000 Divide by Powers of 10 Divide Decimal by Whole Number Decimal by Whole Number Missing Values: Decimals Rounding Decimals 1 Rounding Decimals 2 Money Problems: Four Operations	Grade 6 Multiplication and Division
Number	Students will be expected to demonstrate number sense.	NS.6.N09	Explain and apply the order of operations, excluding exponents, with and without technology (limited to whole numbers).	Integers: Order of Operations (BEDMAS) Order of Operations 1: (BEDMAS)	Grade 6 Patterns and Algebra
Patterns and Relations	Students will be expected to use patterns to describe the world and solve problems.	NS.6.PR01	Students will be expected to demonstrate an understanding of the relationships within tables of values to solve problems.	Table of Values Find the Pattern Rule Find the Function Rule Pattern Rules and Tables Function Rules and Tables	Grade 6 Patterns and Algebra
Patterns and Relations	Students will be expected to use patterns to describe the world and solve problems.	NS.6.PR02	Students will be expected to represent and describe patterns and relationships using graphs and tables.	Ordered Pairs Coordinate Graphs Coordinate Graphs: 1st Quadrant Graphing from a Table of Values	Grade 6 Position Grade 7 The Number Plane
Patterns and Relations	Students will be expected to represent algebraic expressions in multiple ways.	NS.6.PR03	Students will be expected to represent generalizations arising from number relationships using equations with letter variables.	Commutative Property of Addition Multiplication Properties Write an Equation: Word Problems Writing Equations Writing Algebraic Expressions Solving Simple Equations Missing Numbers: Variables Magic Symbols 2 Pyramid Puzzles 2	Grade 6 Patterns and Algebra

Nova Scotia Outcomes

Alignment with Mathletics



Grade 6

Strand	General Curriculum Outcome	Specific Curriculum Outcome	Outcome Description	 Activities	 eBooks
Patterns and Relations	Students will be expected to use patterns to describe the world and solve problems.	NS.6.PRO4	Students will be expected to demonstrate and explain the meaning of preservation of equality concretely, pictorially and symbolically.	Writing Equations Writing Algebraic Expressions Write an Equation: Word Problems	Grade 6 Patterns and Algebra
Measurement	Students will be expected to use direct and indirect measure to solve problems.	NS.6.M01	Students will be expected to demonstrate an understanding of angles by: identifying examples of angles in the environment; classifying angles according to their measure; estimating the measure of angles using 45° , 90° and 180° as reference angles; determining angle measures in degrees; drawing and labelling angles when the measure is specified.	Equal Angles Comparing Angles Classifying Angles Measuring Angles Estimating Angles Labelling Angles Triangles: Acute, Right, Obtuse	Grade 6 Geometry
Measurement	Students will be expected to use direct and indirect measure to solve problems.	NS.6.M02	Students will be expected to demonstrate that the sum of interior angles is: 180° in a triangle; 360° in a quadrilateral.	Angle Sum of a Triangle Angle Measures in a Triangle Angle Sum of a Quadrilateral	Grade 7 Angles and Polygons
Measurement	Students will be expected to use direct and indirect measure to solve problems.	NS.6.M03	Students will be expected to develop and apply a formula for determining the perimeter of polygons, area of rectangles and volume of right rectangular prisms.	Perimeter: Squares and Rectangles Perimeter: Composite Shapes Perimeter Detectives 1 Perimeter Detectives 2 Perimeter: Triangles Perimeter: Triangles 2 Area: Squares and Rectangles Area: Squares and Rectangles 2 Volume: Rectangular Prisms 1 Volume: Rectangular Prisms 2	Grade 6 Length, Perimeter and Area Grade 6 Volume, Capacity and Mass

Nova Scotia Outcomes

Alignment with Mathletics



Grade 6

Strand	General Curriculum Outcome	Specific Curriculum Outcome	Outcome Description	 Activities	 eBooks
Geometry	Students will be expected to describe the characteristics of 3-D objects and 2-D shapes and analyze the relationships among them.	NS.6.G01	Students will be expected to construct and compare triangles, including: scalene; isosceles; equilateral; right; obtuse; and acute in different orientations.	Angle Sum of a Triangle Angle Measures in a Triangle	Grade 7 Angles and Polygons
Geometry	Students will be expected to describe the characteristics of 3-D objects and 2-D shapes and analyze the relationships among them.	NS.6.G02	Students will be expected to describe and compare the sides and angles of regular and irregular polygons.	Congruent Figures	Grade 6 Geometry
Geometry	Students will be expected to describe and analyze position and motion of objects and shapes.	NS.6.G03	Students will be expected to perform a combination of translation(s), rotation(s), and/or reflection(s) on a single 2-D shape, with and without technology, and draw and describe the image.	Congruent Figures	Grade 6 Geometry
Geometry	Students will be expected to describe and analyze position and motion of objects and shapes.	NS.6.G04	Students will be expected to perform a combination of successive transformations of 2-D shapes to create a design, and identify and describe the transformations.	Flip, Slide, Turn Transformations	Grade 6 Geometry
Geometry	Students will be expected to describe and analyze position and motion of objects and shapes.	NS.6.G05	Students will be expected to identify and plot points in the first quadrant of a Cartesian plane using whole number ordered pairs.	Ordered Pairs Coordinate Graphs Coordinate Graphs: 1st Quadrant	Grade 6 Position Grade 7 The Number Plane
Geometry	Students will be expected to describe and analyze position and motion of objects and shapes.	NS.6.G06	Students will be expected to perform and describe single transformations of a 2-D shape in the first quadrant of a Cartesian plane (limited to whole-number vertices).	Transformations: Coordinate Plane	Grade 6 Position Grade 7 The Number Plane

Nova Scotia Outcomes

Alignment with Mathletics



Grade 6

Strand	General Curriculum Outcome	Specific Curriculum Outcome	Outcome Description	 Activities	 eBooks
Statistics and Probability	Students will be expected to collect, display, and analyze data to solve problems.	NS.6.SP01	Students will be expected to create, label, and interpret line graphs to draw conclusions.	Line Graphs: Interpretation	Grade 6 Position Grade 7 The Number Plane
Statistics and Probability	Students will be expected to collect, display, and analyze data to solve problems.	NS.6.SP02	Students will be expected to select, justify, and use appropriate methods of collecting data, including: questionnaires; experiments; databases; electronic media.	Data Types Data sampling	Grade 7 Data for Statistics
Statistics and Probability	Students will be expected to collect, display, and analyze data to solve problems.	NS.6.SP03	Students will be expected to graph collected data and analyze the graph to solve problems.	Pie Charts Pie Chart Calculations Circle Graphs Stem and Leaf Introduction Bar Graphs 1 Column Graphs Bar Graphs 2 Divided Bar Graphs Compound Bar Chart Stem-and-Leaf Plots	Grade 7 Data for Statistics Grade 9 Data
Statistics and Probability	Students will be expected to use experimental or theoretical probabilities to represent and solve problems involving uncertainty.	NS.6.SP04	Students will be expected to demonstrate an understanding of probability by: identifying all possible outcomes of a probability experiment; differentiating between experimental and theoretical probability; determining the theoretical probability of outcomes in a probability experiment; determining the experimental probability of outcomes in a probability experiment; comparing experimental results with the theoretical probability for an experiment.	What are the Chances? Will it Happen? Probability Scale	Grade 6 Chance and Probability Grade 7 Chance

Nova Scotia Outcomes

Alignment with Mathletics



Grade 7

Strand	General Curriculum Outcome	Specific Curriculum Outcome	Outcome Description	 Activities	 eBooks
Number	Students will be expected to demonstrate number sense.	NS.7.N01	Determine and explain why a number is divisible by 2, 3, 4, 5, 6, 8, 9, or 10, and why a number cannot be divided by 0.	Divisibility Tests Divisibility Tests (2, 5, 10) Divisibility Tests (3, 4, 9) Product of Prime Factors Factors Find the Factor Tests of Divisibility 1 Prime or Composite? Greatest Common Factor	Grade 7 Whole Numbers
Number	Students will be expected to demonstrate number sense.	NS.7.N02	Students will be expected to demonstrate an understanding of the addition, subtraction, multiplication, and division of decimals to solve problems (for more than one-digit divisors or more than two-digit multipliers, the use of technology is expected).	Adding Decimals Add Decimals 2 Subtract Decimals 1 Subtract Decimals 2 Multiply Decimals: 10, 100, 1000 Divide Decimals: 10, 100, 1000 Divide Decimal by Whole Number Multiply Decimals and Powers of 10 Decimal Complements Missing Values: Decimals Adding and Subtracting Decimals Decimal by Whole Number Decimal by Decimal Divide Decimal by Decimal Divide by Powers of 10 Multiply Decimals: Area Model Estimate Decimal Sums 1 Estimate Decimals Sums 2 Estimate Decimal Differences 1 Estimate Decimal Differences 2 Rounding Decimals Rounding Decimals 1 Rounding Decimals 2 Estimate Decimal Operations	Grade 7 Decimals
Number	Students will be expected to demonstrate number sense.	NS.7.N03	Students will be expected to solve problems involving percents from 1% to 100% (limited to whole numbers).	Percents to Fractions Decimal to Percentage Percents and Decimals Percentage Word Problems Percentage of a Quantity Percent Increase and Decrease Calculating Percentages Percentage to Fraction Percent of a Number	Grade 7 Percentage Basics

Nova Scotia Outcomes

Alignment with Mathletics



Grade 7

Strand	General Curriculum Outcome	Specific Curriculum Outcome	Outcome Description	 Activities	 eBooks
Number	Students will be expected to demonstrate number sense.	NS.7.N04	Students will be expected to demonstrate an understanding of the relationship between positive terminating decimals and positive fractions and between positive repeating decimals (with one or two repeating digits) and positive fractions.	Fraction to Terminating Decimal Fractions to Decimals Fractions to Decimals 2 Recurring Decimals Decimals to Fractions 1 Decimals to Fractions 2 Recurring Decimals and Series	Grade 7 Percentage Basics
Number	Students will be expected to demonstrate number sense.	NS.7.N05	Students will be expected to demonstrate an understanding of adding and subtracting positive fractions and mixed numbers, with like and unlike denominators, concretely, pictorially, and symbolically (limited to positive sums and differences).	Add: Common Denominator Add Mixed Numbers: Same Sign Add Like Mixed Numbers Mixed to Improper Improper to Mixed Subtract: Common Denominator Add Unlike Fractions Add Unlike Mixed Numbers Subtract: No Common Denominator Subtract Unlike Mixed Numbers Subtract Unlike Fractions Simplifying Fractions Add: No Common Denominator Add subtract fractions 1 Subtract Like Mixed Numbers One take Fraction Subtract Mixed Numbers: Renaming Equivalent Fractions	Grade 7 Fractions
Number	Students will be expected to demonstrate number sense.	NS.7.N06	Students will be expected to demonstrate an understanding of addition and subtraction of integers, concretely, pictorially, and symbolically.	Directed Numbers Integers: Add and Subtract More with Integers Add Integers Integers: Subtraction Subtract Integers Negative or Positive?	Grade 7 Directed Numbers

Nova Scotia Outcomes

Alignment with Mathletics



Grade 7

Strand	General Curriculum Outcome	Specific Curriculum Outcome	Outcome Description	 Activities	 eBooks
Number	Students will be expected to demonstrate number sense.	NS.7.N07	Students will be expected to compare and order positive fractions, positive decimals (to thousandths), and whole numbers by using; benchmarks; place value; equivalent fractions and/or decimals.	Ordering Fractions Ordering Integers Ordering Integers (Number Line) Comparing Integers Integers on a Number Line Decimals on a Number Line Decimal Order 1 Comparing Decimals Comparing Fractions 1 Comparing Fractions 2	Grade 7 Fractions Grade 7 Decimals
Patterns and Relations	Students will be expected to use patterns to describe the world and solve problems.	NS.7.PR01	Students will be expected to demonstrate an understanding of oral and written patterns and their equivalent linear relations.	Under review	Grade 8 Linear Relationships
Patterns and Relations	Students will be expected to use patterns to describe the world and solve problems.	NS.7.PR02	Students will be expected to create a table of values from a linear relation, graph the table of values, and analyze the graph to draw conclusions and solve problems.	Pattern Rules and Tables Table of Values Find the Pattern Rule	Grade 7 Algebra Basics Grade 8 Linear Relationships
Patterns and Relations	Students will be expected to represent algebraic expressions in multiple ways.	NS.7.PR03	Students will be expected to demonstrate an understanding of preservation of equality by: modelling preservation of equality, concretely, pictorially, and symbolically; applying preservation of equality to solve equations.	Graphing from a Table of Values Which Straight Line? Ordered Pairs Equation of a Line 1 Equation of a Line 2 Equation of a Line 3 Reading Values from a Line $y=ax$ Patterns, Rules and Equations	Grade 7 Algebra Basics Grade 8 Linear Relationships
Patterns and Relations	Students will be expected to represent algebraic expressions in multiple ways.	NS.7.PR04	Students will be expected to explain the difference between an expression and an equation.	Write an Equation: Word Problems Writing Algebraic Expressions Writing Equations	Grade 7 Algebra Basics Grade 8 Linear Relationships
Patterns and Relations	Students will be expected to represent algebraic expressions in multiple ways.	NS.7.PR05	Students will be expected to evaluate an expression given the value of the variable(s).	Simple Substitution 1	Grade 7 Algebra Basics

Nova Scotia Outcomes

Alignment with Mathletics



Grade 7

Strand	General Curriculum Outcome	Specific Curriculum Outcome	Outcome Description	 Activities	 eBooks
Patterns and Relations	Students will be expected to represent algebraic expressions in multiple ways.	NS.7.PRO6	Students will be expected to model and solve problems that can be represented by one-step linear equations of the form $x + a = b$, concretely, pictorially, and symbolically, where a and b are integers.	Solving Simple Equations More Substitution in Formulae Solving More Equations Solve Equations: Add, Subtract 2 Solve Equations: Multiply, Divide 2	Grade 8 Equations
Patterns and Relations	Students will be expected to represent algebraic expressions in multiple ways.	NS.7.PRO7	Students will be expected to model and solve, concretely, pictorially, and symbolically, where a , b , and c are whole numbers, problems that can be represented by linear equations of the form: $ax + b = c$ $ax = b$ $x/a = b, a \neq 0$	Solving Simple Equations Solving More Equations Equations: Variables, Both Sides Solve Multi-Step Equations Equations with Fractions Solve Two-Step Equations Missing Numbers: Variables Equations with Decimals Equations to Solve Problems Checking Solutions Find the Mistake	Grade 8 Equations
Measurement	Students will be expected to use direct and indirect measurement to solve problems.	NS.7.M01	Students will be expected to demonstrate an understanding of circles by: describing the relationships among radius, diameter, and circumference of circles; relating circumference to pi; determining the sum of the central angle; constructing circles with a given radius or diameter; solving problems involving the radii, diameters and circumferences of circles.	Circle Terms Circumference: Circles Labelling Circles Identify Parts of Circles 1 Identify Parts of Circles 2	Grade 9 Perimeter and Area
Measurement	Students will be expected to use direct and indirect measurement to solve problems.	NS.7.M02	Students will be expected to develop and apply a formula for determining the area of triangles, parallelograms and circles.	Area: Triangles Area: Right Angled Triangles Area: Quadrilaterals Area: Circles Area: Parallelograms	Grade 7 Area and Perimeter

Nova Scotia Outcomes

Alignment with Mathletics



Grade 7

Strand	General Curriculum Outcome	Specific Curriculum Outcome	Outcome Description	 Activities	 eBooks
Geometry	Students will be expected to describe the characteristics of 3-D objects and 2-D shapes and analyze the relationships among them.	NS.7.G01	Students will be expected to perform geometric constructions, including perpendicular line segments, parallel line segments, perpendicular bisectors and angle bisectors	Parallel Lines What Line Am I?	Grade 7 The Number Plane
Geometry	Students will be expected to describe and analyze position and motion of objects and shapes.	NS.7.G02	Students will be expected to identify and plot points in the four quadrants of a Cartesian plane using integral ordered pairs.	Ordered Pairs	Grade 7 The Number Plane
Geometry	Students will be expected to describe and analyze position and motion of objects and shapes.	NS.7.G03	Students will be expected to perform and describe transformations (translations, rotations or reflections) of a 2-D shape in all four quadrants of a Cartesian plane (limited to integral number vertices).	Transformations Rotations: Coordinate Plane Transformations: Coordinate Plane Flip, Slide, Turn Symmetry Symmetry or Not? Rotational Symmetry Vertical and horizontal shift	Grade 7 Polygons
Statistics and Probability	Students will be expected to collect, display, and analyze data to solve problems.	NS.7.SP01	Students will be expected to demonstrate an understanding of central tendency and range by: determining the measures of central tendency (mean, median, mode) and range determining the most appropriate measures of central tendency to report findings.	Mean Median Mode Mean from Frequency Table Median from Frequency Table Mode from Frequency Table Grouped Frequency	Grade 9 Data
Statistics and Probability	Students will be expected to collect, display, and analyze data to solve problems.	NS.7.SP02	Students will be expected to determine the effect on the mean, median, and mode when an outlier is included in the data.	Under review	Grade 7 Data for Statistics
Statistics and Probability	Students will be expected to collect, display, and analyze data to solve problems.	NS.7.SP03	Students will be expected to construct, label, and interpret circle graphs to solve problems.	Creating a Sector Graph Sector Graph Calculations Sector Graph Angles Sector Graphs	Grade 9 Data

Nova Scotia Outcomes

Alignment with Mathletics



Grade 7

Strand	General Curriculum Outcome	Specific Curriculum Outcome	Outcome Description	 Activities	 eBooks
Statistics and Probability	Students will be expected to use experimental or theoretical probabilities to represent and solve problems involving uncertainty.	NS.7.SP04	Students will be expected to express probabilities as ratios, fractions, and percents.	Probability Scale Ratios Simple Probability Find the Probability	Grade 7 Chance
Statistics and Probability	Students will be expected to use experimental or theoretical probabilities to represent and solve problems involving uncertainty.	NS.7.SP05	Students will be expected to identify the sample space (where the combined sample space has 36 or fewer elements) for a probability experiment involving two independent events.	Dice and Coins Two-way Table Probability Tree Diagrams Venn Diagrams	Grade 7 Chance
Statistics and Probability	Students will be expected to use experimental or theoretical probabilities to represent and solve problems involving uncertainty.	NS.7.SP06	Students will be expected to conduct a probability experiment to compare the theoretical probability (determined using a tree diagram, table, or another graphic organizer) and experimental probability of two independent events.	Dice and Coins Two-way Table Probability Probability Tables Probability With Replacement Probability Without Replacement Complementary Events	Grade 7 Chance

Nova Scotia Outcomes

Alignment with Mathletics



Grade 8

Strand	General Curriculum Outcome	Specific Curriculum Outcome	Outcome Description	 Activities	 eBooks
Number	Students will be expected to demonstrate number sense.	NS.8.N01	Students will be expected to demonstrate an understanding of perfect squares and square roots, concretely, pictorially, and symbolically (limited to whole numbers).	Square Roots Equations with Square Roots	Grade 7 Whole Numbers
Number	Students will be expected to demonstrate number sense.	NS.8.N02	Students will be expected to determine the approximate square root of numbers that are not perfect squares (limited to whole numbers).	Estimating Square Roots Estimate Square Roots Square and Cube Roots	Grade 7 Whole Numbers
Number	Students will be expected to demonstrate number sense.	NS.8.N03	Students will be expected to demonstrate an understanding of percents greater than or equal to 0%.	Percentage of a Quantity Calculating Percentages Percentage to Fraction Decimal to Percentage Percents and Decimals Decimals to Fractions 2 Fraction to Terminating Decimal Fractions to Decimals 2 Percentages of a quantity (>100%) Percentage Word Problems Percentage Increase and Decrease Solve Percent Equations Percentage Composition	Grade 8 Percentage Calculations
Number	Students will be expected to demonstrate number sense.	NS.8.N04	Students will be expected to demonstrate an understanding of ratio and rate.	Rate Word Problems Ratios Rates Rates Word Problems Equivalent Ratios Dividing a Quantity in a Ratio Ratio Word Problems Ratio and Proportion Solve Proportions Simplify Ratios: 2 Whole Numbers Simplify Ratios: 3 Whole Numbers Simplify Ratios: Mixed Numbers Rates Calculations	Grade 8 Percentage Calculations

Nova Scotia Outcomes

Alignment with Mathletics



Grade 8

Strand	General Curriculum Outcome	Specific Curriculum Outcome	Outcome Description	 Activities	 eBooks
Number	Students will be expected to demonstrate number sense.	NS.8.N05	Students will be expected to solve problems that involve rates, ratios, and proportional reasoning.	Ratio Word Problems Percentage Word Problems Rate Word Problems Rates Word Problems	Grade 7 Fractions
Number	Students will be expected to demonstrate number sense.	NS.8.N06	Students will be expected to demonstrate an understanding of multiplying and dividing positive fractions and mixed numbers, concretely, pictorially, and symbolically.	Divide Fractions by Fractions 1 Operations with Fractions Converting Mixed and Improper Model fractions to multiply Multiply Mixed Numbers Divide Fractions by Fractions 2 Divide Mixed Numbers Fraction Word Problems Divide by a unit fraction Divide Fractions Visual Model Multiplying Fractions Multiply Two Fractions 1 Multiply Two Fractions 2	Grade 7 Fractions
Number	Students will be expected to demonstrate number sense.	NS.8.N07	Students will be expected to demonstrate an understanding of multiplication and division of integers, concretely, pictorially, and symbolically.	Integers: Multiply and Divide Integers: Multiply and Divide 1 Integers: Order of Operations (BEDMAS) More with Integers Order of Operations 1 (BEDMAS) Multiplying and Dividing Integers	Grade 7 Whole Numbers
Patterns and Relations	Students will be expected to use patterns to describe the world and to solve problems.	NS.8.PR01	Students will be expected to graph and analyze two-variable linear relations.	Pattern Rules and Tables Find the Pattern Rule Find the Function Rule Ordered Pairs Table of Values Reading Values from a Line Graphing from a Table of Values 2 $y=ax$ Which Straight Line? Equation of a Line 2	Grade 8 Linear Relationships

Nova Scotia Outcomes

Alignment with Mathletics



Grade 8

Strand	General Curriculum Outcome	Specific Curriculum Outcome	Outcome Description	 Activities	 eBooks
Patterns and Relations	Students will be expected to represent algebraic expressions in multiple ways.	NS.8.PR02	Students will be expected to model and solve problems, concretely, pictorially, and symbolically, where a , b , and c are integers, using linear equations of the form $ax=b$ $x/a=b, a \neq 0$ $ax+b=c$ $x/a+b=c, a \neq 0$ $a(x+b)=c$	Equations to Solve Problems Solving More Equations Solve Equations: Add, Subtract 2 Solve Equations: Multiply, Divide 2 Equations with Fractions Equations with Grouping Symbols	Grade 8 Equations
Measurement	Students will be expected to use direct or indirect measurement to solve problems.	NS.8.M01	Students will be expected to develop and apply the Pythagorean theorem to solve problems.	Pythagoras' Theorem Pythagorean Triads Hypotenuse of a Right Triangle Find Slant Height	Grade 8 Pythagoras' Theorem
Measurement	Students will be expected to use direct or indirect measurement to solve problems.	NS.8.M02	Students will be expected to draw and construct nets for 3-D objects.	Nets	Grade 9 Measuring Solids
Measurement	Students will be expected to use direct or indirect measurement to solve problems.	NS.8.M03	Students will be expected to determine the surface area of right rectangular prisms, right triangular prisms and right cylinders to solve problems.	Surface Area: Cylinders Surface Area: Triangular Prisms Surface Area: Rectangular Prisms	Grade 9 Measuring Solids
Measurement	Students will be expected to use direct or indirect measurement to solve problems.	NS.8.M04	Students will be expected to develop and apply formulas for determining the volume of right prisms and right cylinders.	Volume: Cylinders Volume: Prisms Volume: Rectangular Prisms 2 Volume: Triangular Prisms	Grade 9 Measuring Solids
Geometry	Students will be expected to describe the characteristics of 3-D objects and 2-D shapes and analyze the relationships among them.	NS.8.G01	Students will be expected to draw and interpret top, front, and side views of 3-D objects composed of right rectangular prisms.	Under review	Grade 8 Constructions
Geometry	Students will be expected to describe and analyze position and motion of objects and shapes.	NS.8.G02	Students will be expected to demonstrate an understanding of the congruence of polygons under a transformation.	Under review	Grade 7 Polygons

Nova Scotia Outcomes

Alignment with Mathletics

Grade 8



Strand	General Curriculum Outcome	Specific Curriculum Outcome	Outcome Description	 Activities	 eBooks
Statistics and Probability	Students will be expected to collect, display, and analyze data to solve problems.	NS.8.SP01	Students will be expected to critique ways in which data are presented.	Frequency Histograms Histograms Histogram or Polygon? Cumulative Frequency Histogram Dot Plots Line Plots Pie Charts Divided Bar Graphs Step Graphs	Grade 9 Data
Statistics and Probability	Students will be expected to use experimental or theoretical probabilities to represent and solve problems involving uncertainty.	NS.8.SP02	Students will be expected to solve problems involving the probability of independent events.	Dice and Coins Probability Scale Simple Probability Two-way Table Probability Probability With Replacement Probability without Replacement Probability without Replacement 1 Simple Probability 1 Probability Tables Probability with Replacement 1 Find the Probability	Grade 7 Chance Grade 9 Probability

Nova Scotia Outcomes

Alignment with Mathletics

Mathletics



Mathematics 10

Strand	General Curriculum Outcome	Specific Curriculum Outcome	Outcome Description	 Activities	 eBooks
Measurement	Students will be expected to develop spatial sense and proportional reasoning.	NS.10.M01	Students will be expected to solve problems that involve linear measurement, using SI and imperial units of measure, estimation strategies, and measurement strategies.	Metres and Kilometres Centimetres and Metres Kilometre Conversions Converting Units of Length Customary Units of Length Pythagoras: Find a Short Side (rounding needed) Inches, Feet, Yards Perimeter Operations with Length Perimeter and Circles Calculate Circumference of Circles Perimeter: Composite Shapes Pythagoras and Perimeter Arc Length	Perimeter and Area
Measurement	Students will be expected to develop spatial sense and proportional reasoning.	NS.10.M02	Students will be expected to apply proportional reasoning to problems that involve conversions between SI and imperial units of measure.	Metres and Kilometres Centimetres and Metres Kilometre Conversions Converting Units of Length Customary Units of Length Operations with Length	Rates and Ratios Converting Units
Measurement	Students will be expected to develop spatial sense and proportional reasoning.	NS.10.M03	Students will be expected to solve problems, using SI and imperial units, that involve the surface area and volume of 3-D objects, including right cones, right cylinders, right prisms, right pyramids, and spheres.	Nets Surface Area: Rectangular Prisms Surface Area: Square Pyramids Surface Area: Rectangular Pyramids Surface Area: Triangular Prisms Surface Area: Cylinders Surface Area: Cones Surface Area: Spheres	Measuring Solids
Measurement	Students will be expected to develop spatial sense and proportional reasoning.	NS.10.M04	Students will be expected to develop and apply the primary trigonometric ratios (sine, cosine, tangent) to solve problems that involve right triangles.	Similar Triangles Exact Trigonometric Ratios Hypotenuse, Adjacent, Opposite Hypotenuse of a Right Triangle Sin A Cos A Tan A Find Unknown Angles Find Unknown Sides Find Slant Height Elevation and Depression Trigonometry Problems 2 Pythagoras and Perimeter	Trigonometry

Nova Scotia Outcomes

Alignment with Mathletics



Mathematics 10

Strand	General Curriculum Outcome	Specific Curriculum Outcome	Outcome Description	 Activities	 eBooks
Algebra and Number	Students will be expected to develop algebraic reasoning and number sense.	NS.10.AN01	Students will be expected to demonstrate an understanding of factors of whole numbers by determining the prime factors, greatest common factor, least common multiple, square root, and cube root.	Prime or Composite? Product of Prime Factors Prime Factoring Prime Factoring: Exponents Greatest Common Factor Least Common Multiple Square Roots Square and Cube Roots	Whole Numbers
Algebra and Number	Students will be expected to develop algebraic reasoning and number sense.	NS.10.AN02	Students will be expected to demonstrate an understanding of irrational numbers by representing, identifying, simplifying, and ordering irrational numbers.	Irrational Numbers Estimate Square Roots Simplifying Irrational Numbers	Radicals and Exponents
Algebra and Number	Students will be expected to develop algebraic reasoning and number sense.	NS.10.AN03	Students will be expected to demonstrate an understanding of powers with integral and rational exponents.	Negative Exponents Irrational Number to Exponent Form Properties of Exponents Multiplication with Exponents Multiplication and Division with Exponents Exponent Laws with Brackets Simplifying with Exponent Laws 1	Radicals and Exponents Exponents
Algebra and Number	Students will be expected to develop algebraic reasoning and number sense.	NS.10.AN04	Students will be expected to demonstrate an understanding of the multiplication of polynomial expressions (limited to monomials, binomials, and trinomials), concretely, pictorially, and symbolically.	Expanding Binomial Products Special Binomial Products Constructing Formulae	Expanding and Factorizing Simplifying Algebra Polynomials
Algebra and Number	Students will be expected to develop algebraic reasoning and number sense.	NS.10.AN05	Students will be expected to demonstrate an understanding of common factors and trinomial factoring, concretely, pictorially, and symbolically.	Factoring Factoring Expressions Factoring Quadratics 1 Factoring Quadratics 2	Expanding and Factorizing Factoring Polynomials
Relations and Functions	Students will be expected to develop algebraic and graphical reasoning through the study of relations.	NS.10.RF01	Students will be expected to interpret and explain the relationships among data, graphs, and situations.	Domain Domain and Range	Functions

Nova Scotia Outcomes

Alignment with Mathletics



Mathematics 10

Strand	General Curriculum Outcome	Specific Curriculum Outcome	Outcome Description	 Activities	 eBooks
Relations and Functions	Students will be expected to develop algebraic and graphical reasoning through the study of relations.	NS.10.RF02	Students will be expected to demonstrate an understanding of relations and functions.	Vertical Line Test	Functions
Relations and Functions	Students will be expected to develop algebraic and graphical reasoning through the study of relations.	NS.10.RF03	Students will be expected to demonstrate an understanding of slope with respect to rise and run, line segments and lines, rate of change, parallel lines, and perpendicular lines.	Slope of a Line Horizontal and Vertical Lines $y = ax$ Are they Parallel? Are they Perpendicular?	Straight Lines Linear Relationships
Relations and Functions	Students will be expected to develop algebraic and graphical reasoning through the study of relations.	NS.10.RF04	Students will be expected to describe and represent linear relations, using words, ordered pairs, tables of values, graphs, and equations.	Graphing from a Table of Values Graphing from a Table of Values 2 General Form of a Line Which Straight Line? $y = ax$	Straight Lines Linear Relationships
Relations and Functions	Students will be expected to develop algebraic and graphical reasoning through the study of relations.	NS.10.RF05	Students will be expected to determine the characteristics of the graphs of linear relations, including the intercepts, slope, domain, and range.	Intercepts Slope of a Line Domain Domain and Range $y = ax$	Straight Lines Linear Relationships
Relations and Functions	Students will be expected to develop algebraic and graphical reasoning through the study of relations.	NS.10.RF06	Students will be expected to relate linear relations to their graphs, expressed in <ul style="list-style-type: none"> slope-intercept form ($y = mx + b$) general form ($Ax + By + C = 0$) slope-point form ($y - y_1 = m(x - x_1)$) 	Graphing from a Table of Values Graphing from a Table of Values 2 General Form of a Line Which Straight Line? $y = ax$	Straight Lines Linear Relationships
Relations and Functions	Students will be expected to develop algebraic and graphical reasoning through the study of relations.	NS.10.RF07	Students will be expected to determine the equation of a linear relation to solve problems, given a graph, a point and the slope, two points, and a point and the equation of a parallel or perpendicular line.	Modelling Linear Relationships Determining a Rule for a Line Equation of a Line 1 Equation from Point and Gradient Equation from Two Points Equation of a Line 3 Data Analysis: Scatter Plots Scatter Plots Data analysis: line of best fit	Straight Lines Linear Relationships

Nova Scotia Outcomes

Alignment with Mathletics

Mathematics 10

Strand	General Curriculum Outcome	Specific Curriculum Outcome	Outcome Description	 Activities	 eBooks
Relations and Functions	Students will be expected to develop algebraic and graphical reasoning through the study of relations.	NS.10.RF08	Students will be expected to solve problems that involve the distance between two points and the midpoint of a line segment.	Distance Between Two Points Midpoint by Formula Coordinate Methods in Geometry	Coordinate Geometry
Relations and Functions	Students will be expected to develop algebraic and graphical reasoning through the study of relations.	NS.10.RF09	Students will be expected to represent a linear function, using function notation.	Function Notation 1 Domain Domain and Range	Functions
Relations and Functions	Students will be expected to develop algebraic and graphical reasoning through the study of relations.	NS.10.RF10	Students will be expected to solve problems that involve systems of linear equations in two variables, graphically and algebraically.	Simultaneous Linear Equations Simultaneous Equations 1 Simultaneous Equations 2 Solve Systems by Graphing Breakeven Point	Linear Relationships
Financial Mathematics	Students will be expected to demonstrate number sense and critical thinking skills.	NS.10.FM01	Students will be expected to solve problems that involve unit pricing and currency exchange, using proportional reasoning.	Best Buy Purchase Options Percent Increase and Decrease Percentage Change: Increase and Decrease	Rates and Ratios Percentage Calculations
Financial Mathematics	Students will be expected to demonstrate number sense and critical thinking skills.	NS.10.FM02	Students will be expected to demonstrate an understanding of income to calculate gross pay and net pay, including wages, salary, contracts, commissions, and piecework.	Wages and Salaries Working Overtime Commission Deductions and Net Pay Calculating Income Tax	Earning Money
Financial Mathematics	Students will be expected to demonstrate number sense and critical thinking skills.	NS.10.FM03	Students will be expected to investigate personal budgets.	Budgeting	Earning Money
Financial Mathematics	Students will be expected to demonstrate number sense and critical thinking skills.	NS.10.FM04	Students will be expected to explore and give a presentation on an area of interest that involves financial mathematics.	Under Review	Under Review



For more information about Mathletics,
contact our friendly team.

www.mathletics.com/contact



A 3P Learning Product