Mathletics

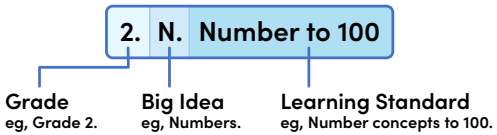
British Columbia Curriculum

Standards Correlation

Grades K-8

Mathletics

How to read Mathletics codes



Big Ideas	Letters from Big Ideas	Learning Standards - Content	Mathletics Codes
Kindergarten			
Numbers represent quantities that can be decomposed into smaller parts.	N: Numbers	Number concepts to 10	K.N.Number to 10
One-to-one correspondence and a sense of 5 and 10 are essential for fluency with numbers.	F: Fluency	Ways to make 5	K.F.Make 5
Repeating elements in patterns can be identified.	P: Patterns	Decomposition of numbers to 10	K.F.Decompose
Objects have attributes that can be described, measured, and compared.	A: Attributes	Repeating patterns with two or three elements	K.P.Repeating pattern
Familiar events can be described as likely or unlikely and compared.	D: Data	Change in quantity to 10, using concrete materials	K.F.Change to 10
		Equality as a balance and inequality as an imbalance	K.F.Equality and inequality
		Direct comparative measurement (e.g., linear, mass, capacity)	K.A.Measurement
		Single attributes of 2D shapes and 3D objects	K.A.2D and 3D
		Concrete or pictorial graphs as visual tools	K.D.Graphs
		Likelihood of familiar life events, using comparative language	K.D.Likelihood
		Financial literacy - attributes of coins, and financial role-play	K.A.Financial literacy
Grade 1			
Numbers to 20 represent quantities that can be decomposed into 10s and 1s.	N: Numbers	Number concepts to 20	1.N.Number to 20
Addition and subtraction with numbers to 10 can be modelled concretely, pictorially, and symbolically to develop computational fluency.	F: Fluency	Ways to make 10	1.F.Make 10
Repeating elements in patterns can be identified	P: Patterns	Addition and subtraction to 20 (understanding of operation and process)	1.F.Add subtract to 20
Objects and shapes have attributes that can be described, measured, and compared.	A: Attributes	Change in quantity to 20, concretely and verbally	1.F.Change to 20
Concrete graphs help us to compare and interpret data and show one-to-one correspondence.	D: Data	Meaning of equality and inequality	1.F.Equality and inequality
		Repeating patterns with multiple elements and attributes	1.P.Patterns
		Direct measurement with non-standard units (non-uniform and uniform)	1.A.Measurement
		Comparison of 2D shapes and 3D objects	1.A.2D and 3D
		Concrete graphs, using one-to-one correspondence	1.D.Graphs
		Likelihood of familiar life events, using comparative language	1.D.Likelihood
		Financial literacy — values of coins, and monetary exchanges	1.A.Financial literacy

Big Ideas	Letters from Big Ideas	Learning Standards - Content	Mathletics Codes
Grade 2			
Numbers to 100 represent quantities that can be decomposed into 10s and 1s.	N: Numbers	Number concepts to 100	2.N.Number to 100
Development of computational fluency in addition and subtraction with numbers to 100 requires an understanding of place value.	F: Fluency	Benchmarks of 25, 50, and 100 and personal referents	2.N.Benchmarks
The regular change in increasing patterns can be identified and used to make generalizations.	P: Patterns	Addition and subtraction facts to 20 (introduction of computational strategies)	2.F.Add and subtract facts
Objects and shapes have attributes that can be described, measured, and compared.	A: Attributes	Addition and subtraction to 100	2.F.Add subtract to 100
Concrete items can be represented, compared, and interpreted pictorially in graphs.	G: Graphs	Change in quantity, using pictorial and symbolic representation	2.F.Change in quantity
		Symbolic representation of equality and inequality	2.F.Equality and inequality
		Repeating and increasing patterns	2.P.Patterns
		Direct linear measurement, introducing standard metric units	2.A.Measurement
		Multiple attributes of 2D shapes and 3D objects	2.A.2D and 3D
		Pictorial representation of concrete graphs, using one-to-one correspondence	2.G.Graph
		Likelihood of familiar life events, using comparative language	2.G.Likelihood
		Financial literacy – coin combinations to 100 cents, and spending and saving	2.A.Financial literacy
Grade 3			
Fractions are a type of number that can represent quantities.	N: Numbers	Number concepts to 1000	3.N.Number to 1000
Development of computational fluency in addition, subtraction, multiplication, and division of whole numbers requires flexible decomposing and composing.	F: Fluency	Fraction concepts	3.N.Fraction
Regular increases and decreases in patterns can be identified and used to make generalizations.	P: Patterns	Addition and subtraction to 1000	3.F.Add subtraction to 1000
Standard units are used to describe, measure, and compare attributes of objects' shapes.	A: Attributes	Addition and subtraction facts to 20 (emerging computational fluency)	3.F.Add and subtract facts
The likelihood of possible outcomes can be examined, compared, and interpreted.	O: Outcomes	Multiplication and division concepts	3.F.Multiply and divide
		One-step addition and subtraction equations with an unknown number	3.F.Equations
		Increasing and decreasing patterns	3.P.Patterns
		Pattern rules using words and numbers, based on concrete experiences	3.P.Pattern rules
		Measurement, using standard units (linear, mass, and capacity)	3.A.Measurement
		Time concepts	3.A.Time
		Construction of 3D objects	3.A.3D
		One-to-one correspondence with bar graphs, pictographs, charts, and tables	3.O.Graph
		Likelihood of simulated events, using comparative language	3.O.Likelihood
		Financial literacy – fluency with coins and bills to 100 dollars, and earning and payment	3.A.Financial literacy

Big Ideas	Letters from Big Ideas	Learning Standards - Content	Mathletics Codes
Grade 4			
Fractions and decimals are a type of number that can represent quantities.	N: Numbers	Number concepts to 10 000	4.N.Number to 10 000
Development of computational fluency and multiplicative thinking requires an analysis of patterns and relations in multiplication and division.	F: Fluency	Decimals to hundredths	4.N.Decimals
Regular changes in patterns can be identified and represented using tools and tables.	P: Patterns	Ordering and comparing fractions	4.N.Fractions
Polygons are closed shapes with similar attributes that can be described, measured, and compared.	A: Attributes	Addition and subtraction to 10 000	4.F.Add subtract to 10 000
Analyzing and interpreting experiments in data probability develops an understanding of chance.	D: Data	Multiplication and division of two- or three-digit numbers by one-digit numbers	4.F.Multiply and divide
		Addition and subtraction of decimals to hundredths	4.F.Add subtract decimals
		Addition and subtraction facts to 20 (developing computational fluency)	4.F. Add subtract facts to 20
		Multiplication and division facts to 100 (introductory computational strategies)	4.F.Multiply divide facts to 100
		Increasing and decreasing patterns, using tables and charts	4.P.Patterns
		Algebraic relationships among quantities	4.P.Algebraic relationships
		One-step equations with an unknown number, using all operations	4.P.One-step equations
		How to tell time with analog and digital clocks, using 12- and 24-hour clocks	4.A.Time
		Regular and irregular polygons	4.A.Polygons
		Perimeter of regular and irregular shapes	4.A.Perimeter
		Line symmetry	4.A.Line symmetry
		One-to-one correspondence and many-to-one correspondence, using bar graphs and pictographs	4.D.Graph
		Probability experiments	4.D.Probability
		Financial literacy — monetary calculations, including making change with amounts to 100 dollars and making simple financial decisions	4.A.Financial literacy
Grade 5			
Numbers describe quantities that can be represented by equivalent fractions.	N: Numbers	Number concepts to 1 000 000	5.N.Number to 1 000 000
Computational fluency and flexibility with numbers extend to operations with larger (multi-digit) numbers.	F: Fluency	Decimals to thousandths	5.N.Decimals
Identified regularities in number patterns can be expressed in tables.	P: Patterns	Equivalent fractions	5.N.Equivalent fractions
Closed shapes have area and perimeter that can be described, measured, and compared.	A: Area and perimeter	Whole-number, fraction, and decimal benchmarks	5.N.Benchmarks
Data represented in graphs can be used to show many-to-one correspondence.	D: Data	Addition and subtraction of whole numbers to 1 000 000	5.F.Add subtract to 1 000 000

Big Ideas	Letters from Big Ideas	Learning Standards - Content	Mathletics Codes
Grade 5 (cont'd)			
		Multiplication and division to three digits, including division with remainders	5.F.Multiply and divide
		Addition and subtraction of decimals to thousandths	5.F.Add subtract decimals
		Addition and subtraction facts to 20 (extending computational fluency)	5.F.Add subtract facts to 20
		Multiplication and division facts to 100 (emerging computational fluency)	5.F.Multiply divide facts to 100
		Rules for increasing and decreasing patterns with words, numbers, symbols, and variables	5.P.Patterns
		One-step equations with variables	5.P.One-step equations
		Area measurement of squares and rectangles	5.A.Area
		Relationships between area and perimeter	5.A.Area perimeter relationship
		Duration, using measurement of time	5.A.Time
		Classification of prisms and pyramids	5.A.Prisms and pyramids
		Single transformations	5.A.Transformations
		One-to-one correspondence and many-to-one correspondence, using double bar graphs	5.D.Graphs
		Probability experiments, single events or outcomes	5.D.Probability
		Financial literacy — monetary calculations, including making change with amounts to 1000 dollars and developing simple financial plans	5.F.Financial literacy
Grade 6			
Mixed numbers and decimal numbers represent quantities that can be decomposed into parts and wholes.	N: Numbers	Small to large numbers (thousandths to billions)	6.N.Small to large numbers
Computational fluency and flexibility with numbers extend to operations with whole numbers and decimals.	F: Fluency	Multiplication and division facts to 100 (developing computational fluency)	6.F.Multiply divide facts
Linear relations can be identified and represented using expressions with variables and line graphs and can be used to form generalizations.	L: Linear relations	Order of operations with whole numbers	6.F.Order of operations
Properties of objects and shapes can be described, measured, and compared using volume, area, perimeter, and angles.	P: Properties	Factors and multiples — greatest common factor and least common multiple	6.F.Factors and multiples
Data from the results of an experiment can be used to predict the theoretical probability of an event and to compare and interpret.	D: Data	Improper fractions and mixed numbers	6.N.Improper fractions and mixed numbers
		Introduction to ratios	6.N.Ratios
		Whole-number percents and percentage discounts	6.N.Percents
		Multiplication and division of decimals	6.N.Multiply divide decimals
		Increasing and decreasing patterns, using expressions, tables, and graphs as functional relationships	6.L.Patterns
		One-step equations with whole-number coefficients and solutions	6.L.One-step equations
		Area of triangles, parallelograms, and trapezoids	6.P.Area
		Angle measurement and classification	6.P.Angles

Big Ideas	Letters from Big Ideas	Learning Standards - Content	Mathletics Codes
Grade 6 (cont'd)			
		Volume and capacity	6.P.Volume and capacity
		Triangles	6.P.Triangles
		Combinations of transformations	6.P.Transformations
		Line graphs	6.D.Line graphs
		Single-outcome probability, both theoretical and experimental	6.D.Probability
		Financial literacy — simple budgeting and consumer math	6.F.Financial literacy
		Use logic and patterns to solve puzzles and play games	6.F. Logic and patterns
Grade 7			
Decimals, fractions, and percents are used to represent and describe parts and wholes of numbers.	N: Numbers	Multiplication and division facts to 100 (extending computational fluency)	7.F.Multiply divide facts to 100
Computational fluency and flexibility with numbers extend to operations with integers and decimals.	F: Fluency	Operations with integers (addition, subtraction, multiplication, division, and order of operations)	7.F.Operations with integers
Linear relations can be represented in many connected ways to identify regularities and make generalizations.	L: Linear relations	Operations with decimals (addition, subtraction, multiplication, division, and order of operations)	7.F.Operations with decimals
The constant ratio between the circumference and diameter of circles can be used to describe, measure, and compare spatial relationships.	S: Spatial relationships	Relationships between decimals, fractions, ratios, and percents	7.N.FDP and ratios
Data from circle graphs can be used to illustrate proportion and to compare and interpret.	D: Data	Discrete linear relations, using expressions, tables, and graphs	7.L.Linear relations
		Two-step equations with whole-number coefficients, constants, and solutions	7.L.Two-step equations
		Circumference and area of circles	7.S.Circles
		Volume of rectangular prisms and cylinders	7.S.Volume
		Cartesian coordinates and graphing	7.S.Cartesian coordinates
		Combinations of transformations	7.S.Transformations
		Circle graphs	7.D.Circle graphs
		Experimental probability with two independent events	7.D.Probability
		Financial literacy — financial percentage	7.F.Financial literacy
Grade 8			
Number represents, describes, and compares the quantities of ratios, rates, and percents.	N: Numbers	Perfect squares and cubes	8.F.Perfect squares and cubes
Computational fluency and flexibility extend to operations with fractions.	F: Fluency	Square and cube roots	8.F.Square and cube roots
Discrete linear relations can be represented in many connected ways and used to identify and make generalizations.	L: Linear relations	Percents less than 1 and greater than 100 (decimal and fractional percents)	8.N.Percents
The relationship between surface area and volume of 3D objects can be used to describe, measure, and compare spatial relationships.	S: 3D Objects	Numerical proportional reasoning (rates, ratio, proportions, and percent)	8.N.Numerical proportional reasoning
Analyzing data by determining averages is one way to make sense of large data sets and enables us to compare and interpret.	D: Data	Operations with fractions (addition, subtraction, multiplication, division, and order of operations)	8.F.Operations with fractions

Big Ideas	Letters from Big Ideas	Learning Standards - Content	Mathletics Codes
Grade 8 (cont'd)			
		Discrete linear relations (extended to larger numbers, limited to integers)	8.L.Linear relations
		Expressions- writing and evaluating using substitution	8.L.Expressions
		Two-step equations with integer coefficients, constants and solutions	8.L.Two-step equations
		Surface area and volume of regular solids, including triangular and other right prisms and cylinders	8.S.Surface area and volume
		Pythagorean theorem	8.S.Pythagorean theorem
		Construction, views, and nets of 3D objects	8.S.3D objects
		Central tendency	8.D.Central tendency
		Theoretical probability with two independent events	8.D.Probability
		Financial literacy — best buys	8.F.Financial literacy

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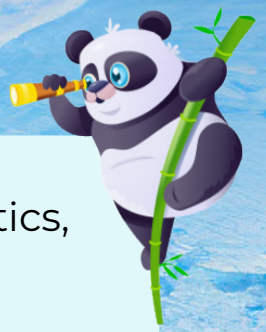

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