Mathletics

Queensland (Australian Curriculum v9)

Scope & Sequence

Year 6

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Yearly overview
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	Term one	Term two	Term three	Term four
Unit 1	**Number** **Space**	**Number** **Algebra**	**Number**	**Number** **Algebra**
	Integers and number properties	**Patterns and algebra**	**Operations, including money**	**Number and operations review**
	• Integers on a number line • Integers on the cartesian plane	• Generate number patterns • Find unknown values • Create and use algorithms	• Order of operations • Mixed operations • Add & subtract decimals: Problem solving • Multiply & divide decimals: Problem solving • Budgeting	Review earlier content
Unit 2	**Number**	**Number**	**Measurement**	**Space**
	Addition and subtraction	**Fractions, decimals and percentages**	**Angles**	**3D objects**
	• Add and subtract decimals • Mental, written and digital strategies • Problem solving	• Find a fraction, decimal or percentage of a quantity • Percentage discounts • Round and estimate • Problem solving	• Angles within shapes • Angles on a straight line • Angles at a point • Vertically opposite angles • Determine unknown angles	• Observe and draw shapes • Compare cross-sections • Right prisms • Connect objects to their nets
Unit 3	**Number**	**Number** **Algebra**	**Measurement**	**Number** **Space**
	Multiplication and division: Whole numbers	**Multiplication and division: Decimals**	**Capacity and mass**	**Cartesian plane and 2D shapes**
	• Prime, composite & square numbers • Multiply & divide whole numbers • Mental & written strategies	• Multiply & divide decimals • Powers of 10 • Estimating	• Convert measurements • Decimal representations • Problem solving	• Locate points on Cartesian plane • Identify scales • Draw lines and polygons • Positional data
Unit 4	**Number**	**Space**	**Measurement**	**Statistics**
	Fractions	**2D shapes**	**Time**	**Data: Interpretation**
	• Compare, order & represent common fractions • Equivalent fractions • Add and subtract fractions	• Properties of 2D shapes • Classification • Symmetry • Transformations • Tessellations	• Interpret and use timetables and itineraries • Duration of events	• Statistically informed arguments • Plan and conduct statistical investigations • Compare distributions
Unit 5	**Statistics**	**Measurement**	**Probability** **Statistics**	**Measurement**
	Data: Representation	**Length, perimeter and area**	**Chance and data**	**Measurement review and applications**
	• Collect data • Validate data • Represent data • Compare data sets • Data visualisations	• Convert units of length • Decimal representations of length • Area formula • Perimeter and area connections • Problem solving	• Represent probabilities numerically • Estimate and assign probabilities • List outcomes • Conduct chance experiments • Run simulations • Record results • Compare observations with expected results	• Choose appropriate units • Use measurement in everyday situations

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Outcome map
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Strand	Outcomes and content descriptions	Located
Number	**AC9M6N01** recognise situations, including financial contexts, that use integers; locate and represent integers on a number line and as coordinates on the Cartesian plane	T1 U1 T2 U1 T4 U3
	AC9M6N02 identify and describe the properties of prime, composite and square numbers and use these properties to solve problems and simplify calculations	T1 U3 T2 U1
	AC9M6N03 apply knowledge of equivalence to compare, order and represent common fractions including halves, thirds and quarters on the same number line and justify their order	T1 U4 T2 U2
	AC9M6N04 apply knowledge of place value to add and subtract decimals, using digital tools where appropriate; use estimation and rounding to check the reasonableness of answers	T1 U2 T2 U2 T4 U1
	AC9M6N05 solve problems involving addition and subtraction of fractions using knowledge of equivalent fractions	T1 U4 T2 U2 T4 U1
	AC9M6N06 multiply and divide decimals by multiples of powers of 10 without a calculator, applying knowledge of place value and proficiency with multiplication facts; using estimation and rounding to check the reasonableness of answers	T2 U3 T4 U1
	AC9M6N07 solve problems that require finding a familiar fraction, decimal or percentage of a quantity, including percentage discounts, choosing efficient calculation strategies and using digital tools where appropriate	T1 U4 T2 U2
	AC9M6N08 approximate numerical solutions to problems involving rational numbers and percentages, including financial contexts, using appropriate estimation strategies	T2 U2, U3
	AC9M6N09 use mathematical modelling to solve practical problems, involving rational numbers and percentages, including in financial contexts; formulate the problems, choosing operations and efficient calculation strategies, and using digital tools where appropriate; interpret and communicate solutions in terms of the situation, justifying the choices made	T1 U2, U3, U4 T2 U1, U2, U3 T3 U1 T4 U1
Algebra	**AC9M6A01** recognise and use rules that generate visually growing patterns and number patterns involving rational numbers	T2 U1
	AC9M6A02 find unknown values in numerical equations involving brackets and combinations of arithmetic operations, using the properties of numbers and operations	T2 U1 T3 U1
	AC9M6A03 create and use algorithms involving a sequence of steps and decisions that use rules to generate sets of numbers; identify, interpret and explain emerging patterns	T2 U1

Strand	Outcomes and content descriptions	Located
Measurement	**AC9M6M01** convert between common metric units of length, mass and capacity; choose and use decimal representations of metric measurements relevant to the context of a problem	T2 U5 T3 U3 T4 U5
	AC9M6M02 establish the formula for the area of a rectangle and use it to solve practical problems	T2 U5 T4 U5
	AC9M6M03 interpret and use timetables and itineraries to plan activities and determine the duration of events and journeys	T3 U4 T4 U5
	AC9M6M04 identify the relationships between angles on a straight line, angles at a point and vertically opposite angles; use these to determine unknown angles, communicating reasoning	T3 U2
Space	**AC9M6SP01** compare the parallel cross-sections of objects and recognise their relationships to right prisms	T4 U2
	AC9M6SP02 locate points in the 4 quadrants of a Cartesian plane; describe changes to the coordinates when a point is moved to a different position in the plane	T1 U1 T2 U4 T4 U3
	AC9M6SP03 recognise and use combinations of transformations to create tessellations and other geometric patterns, using dynamic geometric software where appropriate	T2 U4
Statistics	**AC9M6ST01** interpret and compare data sets for ordinal and nominal categorical, discrete and continuous numerical variables using comparative displays or visualisations and digital tools; compare distributions in terms of mode, range and shape	T1 U5 T3 U5 T4 U4
	AC9M6ST02 identify statistically informed arguments presented in traditional and digital media; discuss and critique methods, data representations and conclusions	T1 U5 T4 U4
	AC9M6ST03 plan and conduct statistical investigations by posing and refining questions or identifying a problem and collecting relevant data; analyse and interpret the data and communicate findings within the context of the investigation	T3 U5
Probability	**AC9M6P01** recognise that probabilities lie on numerical scales of 0 – 1 or 0% – 100% and use estimation to assign probabilities that events occur in a given context, using common fractions, percentages and decimals	T3 U5
	AC9M6P02 conduct repeated chance experiments and run simulations with an increasing number of trials using digital tools; compare observations with expected results and discuss the effect on variation of increasing the number of trials	T3 U5

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Term 1
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Strand & Topic	Outcomes	New Courses	Activities (Courses)	Skill Quests	Challenges	Ebooks
Unit 1 Number Space Place value review **Integers and number properties** Integers on a number line Integers on the cartesian plane	**AC9M6N01** recognise situations, including financial contexts, that use integers ... **AC9M6SP02** locate points in the 4 quadrants of a Cartesian plane ...	**Y6 Operations** • Place value and rounding review **Y6 Integers** • Integers on the number Line • Integers on the cartesian Plane • Compare and order integers • Integers in context	**Introducing Integers** • Integers on a Number Line • Ordering Integers (Number Line) • Comparing Integers (<, =, >) • What's the Temperature (Celsius)?	**Understand integers** • Recognising situations that use integers • Locating & representing integers on a number line • Introducing the Cartesian plane **Points on the Cartesian plane** • Locating points on the Cartesian plane **Prime, composite & square numbers** • Introducing prime & composite numbers • Introducing square numbers		Y7-H **Directed Numbers** • Plotting on number lines (p 1) • Opposite directions- negative numbers (p 2) • Extending the number line (p 3) Y7-H **Directed Numbers (AC Ready)** • How does it work? (pp 1-13)
Unit 2 Number **Addition and subtraction** Add and subtract decimals Mental, written and digital strategies Problem solving	**AC9M6N04** apply knowledge of place value to add and subtract decimals, using digital tools ... **AC9M6N09** use mathematical modelling to solve practical problems ...	**Y6 Operations** • Addition and subtraction **Y6 Decimals** • Decimals and place value • Rounding decimals • Decimals and the number Line • Compare and order decimals • Add decimals • Subtract decimals • Addition strategies with decimals • Subtraction strategies with decimals	**Add/subtract decimal and fractions** • Decimal Complements • Adding Decimals • Subtract Decimals 1 • Estimate Decimal Sums 1 • Estimate Decimal Differences 1 • Estimate Decimal Sums 2 • Estimate Decimal Differences 2	**Add/sub decimals - mental strategies** • Adding decimals using mental strategies • Subtracting decimals using mental strategies **Add/sub decimals – estimating** • Estimating sums & differences of decimals **Add/sub decimals - written method** • Adding decimals using written method • Subtracting decimals using written method **Add/sub decimals - digital technologies** • Adding decimals using digital technologies • Subtracting decimals using digital technologies	**Number & Algebra: Addition & Subtraction** LEVEL 5–7 • Club money jar DOK 3 • Square number puzzle DOK 3 • Ropes and mazes DOK 4	Y6-G **Addition and Subtraction** • Written methods (pp 20–28)
Unit 3 Number **Multiplication and division: Whole numbers** Prime, composite & square numbers Multiply & divide whole numbers Mental & written strategies	**AC9M6N02** identify and describe the properties of prime, composite and square numbers ... **AC9M6N09** use mathematical modelling to solve practical problems, involving rational numbers and percentages ...	**Y6 Operations** • Multiplication • Division • Estimation • Using the four operations **Y6 Number properties** • Factors and multiples • Divisibility tests • Lowest common multiple • Highest common factor • Prime vs composite • Prime factors • Multiplying using prime factors • Dividing using prime factors • Square numbers	**Multiples, factors, primes & composites** • Prime or Composite? • Multiples • Multiples of • Highest Common Factor • Lowest Common Multiple		**Number & Algebra: Multiplication & Division** LEVEL 5–7 • True or false? DOK 2 LEVEL 6–8 • Many ants make light work DOK 2 • Orbiting lowest common multiples DOK 2	Y7-H **Special Numbers, Factors and Multiples** • Odd, even, prime and composite numbers (p 1) • Square numbers (p 3) Y6-G **Multiplication and Division** • Mental multiplication strategies (pp 1–6) • Mental division strategies (pp 7–12) • Written methods (pp 13–18) • Puzzles and investigations (pp 19–24)

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Strand & Topic	Outcomes	New Courses	Activities (Courses)	Skill Quests	Challenges	Ebooks
Unit 4 Number **Fractions** Compare, order & represent common fractions Equivalent fractions Add and subtract fractions	**AC9M6N03** apply knowledge of equivalence to compare, order and represent common fractions ... **AC9M6N05** solve problems involving addition and subtraction of fractions ... **AC9M6N07** solve problems that require finding a familiar fraction, decimal or percentage of a quantity ... **AC9M6N09** use mathematical modelling to solve practical problems ...	**Y6 Fractions** • Represent fractions • Types of fractions • Compare and order fractions with like denominators • Equivalent fractions • Simplifying fractions • Compare and order fractions • Add and subtract fractions • Add related fractions • Subtract related fractions • Problem-solving with fractions	**Equivalent fractions** • Equivalent Fraction Wall 1 • Equivalent Fraction Wall 2 • Shading Equivalent Fractions • Identifying Fractions on a Number Line • Mixed and Improper Fractions on a Number Line • Equivalent Fractions • Comparing Fractions 1 • Compare Fractions 1a • Compare Fractions 1b **Add/subtract decimal and fractions** • Add Subtract Fractions 1 • Common Denominator • Add: Common Denominator • Subtract: Common Denominator • One Take Fraction • Add Like Mixed Numbers • Subtract Like Mixed Numbers	**Compare & order common fractions** • Recognise, compare & represent common fractions • Comparing common fractions on a number line **Add & subtract proper fractions** • Adding fractions with related denominators • Subtracting fractions with related denominators • Add & subtract fractions - related denominators **Add & subtract mixed numerals** • Adding fractions & mixed numerals • Subtracting fractions & mixed numerals	**Number & Algebra: Fractions** LEVEL 3–5 • Running a fraction of the race (DOK 2) LEVEL 4–6 • It's a piece of pie! (DOK 2) • A yarn about simple fractions (DOK 2)	(Y6-G) **Fractions, Decimals and Percentages** • Fractions (pp 1–11) • Calculating (pp 28–30)
Unit 5 Statistics **Data: Representation** Collect data Validate data Represent data Compare data sets Data visualisations	**AC9M6ST01** interpret and compare data sets for ordinal and nominal categorical, discrete and continuous numerical variables using comparative displays or visualisations and digital tools ... **AC9M6ST02** identify statistically informed arguments presented in traditional and digital media ...			**Interpret, compare & describe data sets** • Two-way tables • Side-by-side column graphs • Comparing & selecting bivariate data displays	**Statistics & Data:** LEVEL 5–7 • World rankings (DOK 4) • Lake Scaley fish (DOK 3)	(Y6-G) **Data Representation** • Types of graphs 1 (pp 1–6) • Types of graphs 2 (pp 10–11) • Collecting and analysing data (pp 20–21)

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Term 2
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Strand & Topic	Outcomes	New Courses	Activities (Courses)	Skill Quests	Challenges	Ebooks
Unit 1 Number Algebra **Patterns and algebra** Generate number patterns Find unknown values Create and use algorithms	**AC9M6N01** recognise situations, including financial contexts, that use integers ... **AC9M6N02** identify and describe the properties of prime, composite and square ... **AC9M6N09** use mathematical modelling to solve practical problems ... **AC9M6A01** recognise and use rules that generate visually growing patterns ... **AC9M6A02** find unknown values in numerical equations involving brackets ... **AC9M6A03** create and use algorithms involving a sequence of steps and decisions ...	**Y6 Patterns and equivalence - *coming soon*** • Patterns with whole numbers • Patterns with fractions • Patterns with decimals • Problem solving with fractions	**Algebra patterns equations & rules** • Increasing Patterns • Describing Patterns • Find the Pattern Rule • Table of Values • Pattern Rules and Tables • Number Sequences Up to 1 Million • Writing Algebraic Expressions • Missing Numbers: Variables • Simple Substitution	**Recognise & use rules for patterns** • Continuing & creating number sequences **Design flowcharts to solve problems** • Designing flowcharts to solve problems **Use rules & algorithms** • Manipulating numbers using a given rule • Creating algorithms for sets	**Number & Algebra: Equations & Expressions** LEVEL 4–6 • Writing & interpreting DOK 3 • Solving unknowns DOK 3 • Pattern rules DOK 3 • Fraction and decimal addition patterns DOK 2 • Island hopper DOK 4 LEVEL 5–7 • Keep it balanced DOK 3	Y6-G **Patterns and Algebra** • Patterns and functions (pp 1–17) • Algebraic thinking (pp 18–25) • Solving equations (pp 26–33) • Properties of arithmetic (pp 36–41)
Unit 2 Number **Fractions, decimals and percentages** Find a fraction, decimal or percentage of a quantity Percentage discounts Round and estimate Problem solving	**AC9M6N03** apply knowledge of equivalence to compare, order and represent common fractions ... **AC9M6N04** apply knowledge of place value to add and subtract decimals ... **AC9M6N05** solve problems involving addition and subtraction of fractions ... **AC9M6N07** solve problems that require finding a familiar fraction ... **AC9M6N08** approximate numerical solutions to problems involving rational numbers ... **AC9M6N09** use mathematical modelling to solve practical problems ...	**Y6 Fractions** • Find a fraction of an amount • Problem-solving fractions of amounts **Y6 Percentages** • Percentages • Fractions, decimals, percentages • Percentages to fractions • Fractions to percentages • Percentages to decimals • Decimals to percentages • Decimals to fractions • Fractions to decimals • Expressing as a percentage • Percentages of an amount • Discounts • Sale price	**Fractions, decimals & percentages** • Fraction Wall Labelling 2 • Fractions to Decimals • Decimals to Fractions 1 • Percentage to Fraction • Decimals to percentages • Common Fractions as Percentages (AU) • Fractions to Percentages (Non-Calculator) • Percents and Decimals • Match Decimals and Percentages • Calculating Percentages (Mental) • Money Problems: Four Operations • Time Conversions: Simple Fractions • Time Conversions: Simple Decimals • Fraction Word Problems • Percentage Word Problems • Model Fractions to Multiply • Estimate Products with Fractions	**Find a fraction of a quantity** • Finding a fraction of a quantity **Calculate percentages** • Calculating percentages **Rational numbers & percentages** • Estimating solutions **Solve practical percentage problems** • Solving practical percentage problems	**Number & Algebra: Fractions** LEVEL 4–6 • The case of the missing superhero capes DOK 2 • Thunder Radio competition winners DOK 2 **Number & Algebra: Percentages** LEVEL 5–7 • Simply equal DOK 2 **Number & Algebra: Money** LEVEL 5–7 • Discount that car DOK 4	Y6-G **Fractions, Decimals and Percentages** • Topic 2 – Decimal fractions (pp 12–20) • Fractions of an amount (pp 21–27)

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Strand & Topic	Outcomes	New Courses	Activities (Courses)	Skill Quests	Challenges	Ebooks
Unit 3 Number **Multiplication and division: Decimals** Multiply & divide decimals Powers of 10 Estimate	**AC9M6N06** multiply and divide decimals by multiples of powers of 10 without a calculator ... **AC9M6N08** approximate numerical solutions to problems involving rational numbers and percentages ... **AC9M6N09** use mathematical modelling to solve practical problems ...	**Y6 Decimals** • Multiply decimals by powers of 10 • Multiply decimals by whole numbers • Divide decimals by powers of 10 • Divide decimals by whole numbers	**Fractions, decimals & percentages** • Multiply Decimals: 10, 100, 1000 • Divide Decimals: 10, 100, 1000 • Estimate Decimal Operations	**Multiply/divide decimals by powers of 10** • Multiplying decimals by powers of 10 • Dividing decimals by powers of 10 • Using estimation		(Y6-G) **Fractions, Decimals and Percentages** • Calculating (pp 37–38)
Unit 4 Space **2D shapes** Properties of 2D shapes Classification Symmetry Transformations Tessellations	**AC9M6SP02** locate points in the 4 quadrants of a Cartesian plane ... **AC9M6SP03** recognise and use combinations of transformations to create tessellations and other geometric patterns ...			**Use combinations of transformations** • Recognising tesselations • Identifying a sequence of 2 transformations	**Geometry: 2D Shapes** LEVEL 4–6 • Tricksy triangles • Relating 2D shapes	(Y6-G) **Geometry** • 2D shapes (pp 7–15) • Transformation, tessellation and symmetry (pp 16–24)
Unit 5 Measurement **Length, perimeter and area** Convert units of length Decimal representations of length Area formula Perimeter and area connections Problem solving	**AC9M6M01** convert between common metric units of length, mass and capacity ... **AC9M6M02** establish the formula for the area of a rectangle and use it to solve practical problems		**Converting metric units** • Centimetres and Metres • Metres and Kilometres **Area and angle** • Area: Squares and Rectangles	**Convert metric units of measurement** • Converting metric units of length **Use formula for area of a rectangle** • Using a formula to calculate area of a rectangle	**Measurement: Length** LEVEL 3–5 • Area and perimeter challenge (DOK 3) • Perimeter problems (DOK 3) LEVEL 4–6 • Card crafting calculation (DOK 2) **Measurement: Area** LEVEL 4–6 • Finding formulas (DOK 3) • Ryan's rectangle (DOK 3)	(Y6-G) **Length, Perimeter and Area** • Units of length (pp 1–7) • Perimeter (pp 8–15) • Area (pp 16–25)

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Term 3
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Strand & Topic	Outcomes	New Courses	Activities (Courses)	Skill Quests	Challenges	Ebooks
Unit 1 Number Algebra **Operations, including money** Order of operations Mixed operations Add & subtract decimals: Problem solving Multiply & divide decimals: Problem solving Budgeting	**AC9M6N09** use mathematical modelling to solve practical problems ... **AC9M6A02** find unknown values in numerical equations involving brackets ...	**Y6 Operations** • Order of operations **Y6 Patterns and equivalence - *coming soon*** • Unknown values - order of operations • Are these equivalent? order of operations	**Algebra patterns equations & rules** • Order of Operations 1 (BIDMAS) • Solve Equations: Add, Subtract 1 • Solve Equations: Multiply, Divide 1	**Understand order of operations** • Order of operations with no grouping symbols • Order of operations using grouping symbols • Order of operations practical situations		Y6-G **Patterns and Algebra** • Properties of arithmetic (pp 34–35)
Unit 2 Measurement **Angles** Angles within shapes Angles on a straight line Angles at a point Vertically opposite angles Determine unknown angles	**AC9M6M04** identify the relationships between angles on a straight line, angles at a point and vertically opposite angles; use these to determine unknown angles, communicating reasoning		**Area and angle** • Measuring Angles • Estimating Angles • Angle Sum of a Triangle • Quadrilaterals: Angle Sum with Equations • Exterior Angles of a Triangle • Angles of revolution: Unknown Values • Vertically Opposite Angles: Unknown Values	**Understand angle properties** • Understanding adjacent angles • Exploring vertically opposite angles • Calculating angles that total 360 • Investigating supplementary & complementary angles	**Geometry: Angles** LEVEL 4–6 • Angles and quadrilaterals DOK 3 LEVEL 5–7 • What's your angle? DOK 3 • Comparing vertical and adjacent DOK 3 • Adjacent angles DOK 4 **Geometry: 2D Shapes** LEVEL 4–6 • Trying triangles DOK 2 • Square split DOK 3	Y6-G **Geometry** • Lines and angles (pp 1–6)
Unit 3 Measurement **Capacity and mass** Convert measurements Decimal representations Problem solving	**AC9M6M01** convert between common metric units of length, mass and capacity; choose and use decimal representations of metric measurements relevant to the context of a problem		**Converting metric units** • Grams and Kilograms 1 • Grams and Kilograms • Grams and Milligrams • Converting Units of Mass • Millilitres and Litres • Converting Volume	**Connect decimals to the metric system** • Decimal notation & the metric system • Decimal representation in capacity • Decimal representation in mass **Convert metric units of measurement** • Converting metric units of capacity • Converting metric units of mass	**Measurement: Volume & Capacity** LEVEL 4–6 • By the bucket DOK 3 **Measurement: Mass** LEVEL 5–7 • Planets in balance DOK 3	Y6-G **Volume, Capacity and Mass** • Volume and capacity (pp 1–2, 8) • Mass (pp 9–16)

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Term 3
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Strand & Topic	Outcomes	New Courses	Activities (Courses)	Skill Quests	Challenges	Ebooks
Unit 4 Measurement **Time** Interpret and use timetables and itineraries Duration of events	**AC9M6M03** interpret and use timetables and itineraries to plan activities and determine the duration of events and journeys		**Time conversions & problems** • Time Conversions: Simple Fractions • Time Conversions: Simple Decimals • Time Mentals • Elapsed Time • 24 Hour Time • Using Timetables	**Interpret & use timetables** • Interpreting & using timetables	**Measurement: Time** LEVEL 4–6 • Muesli bar time jumble (DOK 2) • Time for a break? (DOK 2) • Mrs Baker's cookie conundrum (DOK 2) LEVEL 5–7 • Find the fastest ferry (DOK 2) • 24-hour travel times (DOK 2) • Circus timetable (DOK 3)	(Y5-F) **Geometry** • Lines and angles (pp 1–6) • 2D shapes (pp 7–15) • Transformation, tessellation and symmetry (pp 16–24)
Unit 5 Probability Statistics **Chance and data** Represent probabilities numerically Estimate and assign probabilities List outcomes Conduct chance experiments Run simulations Record results Compare observations with expected results	**AC9M6P01** recognise that probabilities lie on numerical scales of 0 – 1 or 0% – 100% ... **AC9M6P02** conduct repeated chance experiments and run simulations with an increasing number of trials using digital tools ... **AC9M6ST01** interpret and compare data sets for ordinal and nominal categorical, discrete and continuous numerical variables ... **AC9M6ST03** plan and conduct statistical investigations by posing and refining questions ...		**Probability** • Simple Probability • Probability Scale • Complementary Events • Dice and Coins **Conduct chance experiments** • Conducting chance experiments	**Assign probabilities** • Probability as a fraction, decimal or percent • Probabilities from 0 to 1	**Chance & Probability** LEVEL 4–6 • What are the chances? (DOK 3)	(Y6-G) **Chance and Probability** • Chance and probability (pp 1–10)

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Term 4
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Strand & Topic	Outcomes	New Courses	Activities (Courses)	Skill Quests	Challenges	Ebooks
Unit 1 Number Algebra **Number and operations review**	**AC9M6N04** apply knowledge of place value to add and subtract decimals ... **AC9M6N05** solve problems involving addition and subtraction of fractions ... **AC9M6N06** multiply and divide decimals by multiples of powers of 10 ... **AC9M6N09** solve problems involving division ...	**Review earlier content**	**Review earlier content**	**Review earlier content**	**Review earlier content**	**Review earlier content**
Unit 2 Space **3D objects** Observe and draw shapes Compare cross-sections Right prisms Connecting objects to their nets	**AC9M6SP01** compare the parallel cross-sections of objects and recognise their relationships to right prisms				**Geometry: 3D Shapes** LEVEL 4–6 • Pyramids and prisms (DOK 3) LEVEL 5–7 • Prisms made of straw (DOK 3)	(Y6-G) **Geometry** • 3D shapes (pp 25–32)
Unit 3 Space Number **Cartesian plane and 2D shape** Locate points on Cartesian plane Identify scales Draw lines and polygons Positional data	**AC9M6SP02** locate points in the 4 quadrants of a Cartesian plane ... **AC9M6N01** recognise situations, including financial contexts, that use integers ...		**Shape and space** • Ordered Pairs • Number Plane • Graphing from a Table of Values • Reading Values from a Line • Transformations: Coordinate Plane • Rotations: Coordinate Plane		**Geometry: Symmetry, Transformation & Location** LEVEL 5–7 • Calculating coordinates (DOK 2)	(Y6-G) **Position** • Spatial orientation (pp 1–5) • Coordinates (pp 6–12) • Maps and scale (pp 13–16) (Y7-H) **The Number Plane** • How does it work? (pp 1-8) • What else can you do? (pp 19-29)

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Term 4
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Strand & Topic	Outcomes	New Courses	Activities (Courses)	Skill Quests	Challenges	Ebooks
Unit 4 Statistics **Data: Interpretation** Statistically informed arguments Plan and conduct statistical investigations Compare distributions	**AC9M6ST01** interpret and compare data sets for ordinal and nominal categorical, discrete and continuous numerical variables ... **AC9M6ST02** identify statistically informed arguments presented in traditional and digital media ...		**Mode & range** • Mode • Mode from Stem and Leaf Plot • Mode from Frequency Table • Data Extremes and Range • Stem and Leaf Plots with Range • Double Stem and Leaf Plots • Line Graphs: Interpretation	**Interpret, compare & describe data sets** • Describing & interpreting data sets **Compare mode, range & shape** • Understanding mode, range & shape of distributions • Comparing modes in sets of data **Interpret & evaluate secondary data** • Interpreting & evaluating secondary data	**Statistics & Data:** LEVEL 4–6 • Family ages DOK 2 • Dartboard scores DOK 2 • Messing with the median DOK 2 • Arrange the range DOK 2 LEVEL 5–7 • Spot the mistake! DOK 3 • Missing dot plots DOK 2 • Box plot detective DOK 2 • Show your cards DOK 3 • A slice of the pie DOK 3 • Icy stalactite pie DOK 3 • Lake Scaley fish DOK 3	Y6-G **Data Representation** • Types of graphs 2 (pp 7-9) • Types of graphs 3 (pp 12–19) • Collecting and analysing data (pp 22–34) • Data investigations (pp 35–39)
Unit 5 Measurement **Measurement review and applications** Choose appropriate units Use measurement in everyday situations	**AC9M6M01** convert between common metric units of length, mass and capacity ... **AC9M6M02** establish the formula for the area of a rectangle and use it to solve practical problems **AC9M6M03** interpret and use timetables and itineraries to plan activities and determine the duration of events and journeys		**Review earlier content**	**Review earlier content**	**Measurement: Length** LEVEL 5–7 • Jumpy and Bouncy DOK 4 • Platinum wire earrings DOK 3	**Review earlier content**

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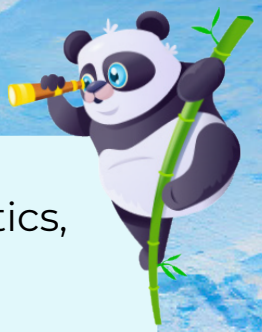

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