Mathematics: Sequence of content F-6 *Strand: Number and algebra*

Thread	Foundation Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Number and place value	Establish understanding of the language and processes of counting by naming numbers in sequences, initially to and from 20, moving from any starting point (ACMNA001)	Develop confidence with number sequences to and from 100 by ones from any starting point. Skip count by twos, fives and tens starting from zero (ACMNA012)	Investigate number sequences, initially those increasing and decreasing by twos, threes, fives and tens from any starting point, then moving to other sequences (ACMNA026)	Investigate the conditions required for a number to be odd or even and identify odd and even numbers (ACMNA051)	Investigate and use the properties of odd and even numbers (ACMNA071)	Identify and describe factors and multiples of whole numbers and use them to solve problems (ACMNA098)	Identify and describe properties of prime, composite, square and triangular numbers (ACMNA122)
	Connect number names, numerals and quantities, including zero, initially up to 10 and then beyond (ACMNA002)	Recognise, model, read, write and order numbers to at least 100. Locate these numbers on a number line (ACMNA013)	Recognise, model, represent and order numbers to at least 1000 (ACMNA027)	Recognise, model, represent and order numbers to at least 10 000 (ACMNA052)	Recognise, represent and order numbers to at least tens of thousands (ACMNA072)	Use estimation and rounding to check the reasonableness of answers to calculations (ACMNA099)	
	Subitise small collections of objects (ACMNA003)	Count collections to 100 by partitioning numbers using place value (ACMNA014)	Group, partition and rearrange collections up to 1000 in hundreds, tens and ones to facilitate more efficient counting (ACMNA028)	Apply place value to partition, rearrange and regroup numbers to at least 10 000 to assist calculations and solve problems (ACMNA053)	Apply place value to partition, rearrange and regroup numbers to at least tens of thousands to assist calculations and solve problems (ACMNA073)		
	Compare, order and make correspondences between collections, initially to 20, and explain reasoning (ACMNA289) Represent practical situations to model addition and sharing (ACMNA004)	Represent and solve simple addition and subtraction problems using a range of strategies including counting on, partitioning and rearranging parts (ACMNA015)	Explore the connection between addition and subtraction (ACMNA029) Solve simple addition and subtraction problems using a range of efficient mental and written strategies (ACMNA030)	Recognise and explain the connection between addition and subtraction (ACMNA054) Recall addition facts for single-digit numbers and related subtraction facts to develop increasingly efficient mental strategies for computation (ACMNA055)	Investigate number sequences involving multiples of 3, 4, 6, 7, 8, and 9 (ACMNA074)		Investigate everyday situations that use integers. Locate and represent these numbers on a number line (ACMNA124)

Mathematics: Sequence of content F-6 *Strand: Number and algebra*

Thread	Foundation Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Number and place value			Recognise and represent multiplication as repeated addition, groups and arrays (ACMNA031)	Recall multiplication facts of two, three, five and ten and related division facts (ACMNA056)	Recall multiplication facts up to 10 × 10 and related division facts (ACMNA075)		
			Recognise and represent division as grouping into equal sets and solve simple problems using these representations (ACMNA032)			Solve problems involving division by a one digit number, including those that result in a remainder (ACMNA101)	
				Represent and solve problems involving multiplication using efficient mental and written strategies and appropriate digital technologies (ACMNA057)	Develop efficient mental and written strategies, and use appropriate digital technologies for multiplication and for division where there is no remainder (ACMNA076)	Use efficient mental and written strategies and apply appropriate digital technologies to solve problems (ACMNA291) Solve problems involving multiplication of large numbers by one- or two-digit numbers using efficient mental, written strategies and appropriate digital technologies (ACMNA100)	Select and apply efficient mental and written strategies and appropriate digital technologies to solve problems involving all four operations with whole numbers (ACMNA123)
					Investigate number sequences involving multiples of 3, 4, 6, 7, 8, and 9 (ACMNA074)		

Mathematics: Sequence of content F-6 *Strand: Number and algebra*

Thread	Foundation Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Fractions and decimals		Recognise and describe one-half as one of two equal parts of a whole. (ACMNA016)	Recognise and interpret common uses of halves, quarters and eighths of shapes and collections (ACMNA033)	Model and represent unit fractions including 1/2, 1/4, 1/3, 1/5 and their multiples to a complete whole (ACMNA058)	Investigate equivalent fractions used in contexts (ACMNA077)	Compare and order common unit fractions and locate and represent them on a number line (ACMNA102)	Compare fractions with related denominators and locate and represent them on a number line (ACMNA125)
					Count by quarters halves and thirds, including with mixed numerals. Locate and represent these fractions on a number line (ACMNA078)	Investigate strategies to solve problems involving addition and subtraction of fractions with the same denominator (ACMNA103)	Solve problems involving addition and subtraction of fractions with the same or related denominators (ACMNA126)
					Recognise that the place value system can be extended to tenths and hundredths. Make connections between fractions and decimal notation (ACMNA079)	Recognise that the place value system can be extended beyond hundredths (ACMNA104)	Find a simple fraction of a quantity where the result is a whole number, with and without digital technologies (ACMNA127)
						Compare, order and represent decimals (ACMNA105)	Add and subtract decimals, with and without digital technologies, and use estimation and rounding to check the reasonableness of answers (ACMNA128)
							Multiply decimals by whole numbers and perform divisions by non-zero whole numbers where the results are terminating decimals, with and without digital technologies (ACMNA129)

Mathematics: Sequence of content F-6 *Strand: Number and algebra*

Thread	Foundation Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Fractions and decimals							Multiply and divide decimals by powers of 10 (ACMNA130)
							Make connections between equivalent fractions, decimals and percentages (ACMNA131)
Real numbers	This sequence starts at Year 7						
Money and financial mathematics		Recognise, describe and order Australian coins according to their value (ACMNA017)	Count and order small collections of Australian coins and notes according to their value (ACMNA034)	Represent money values in multiple ways and count the change required for simple transactions to the nearest five cents (ACMNA059)	Solve problems involving purchases and the calculation of change to the nearest five cents with and without digital technologies (ACMNA080)	Create simple financial plans (ACMNA106)	Investigate and calculate percentage discounts of 10%, 25% and 50% on sale items, with and without digital technologies (ACMNA132)
Patterns and algebra	Sort and classify familiar objects and explain the basis for these classifications. Copy, continue and create patterns with objects and drawings (ACMNA005)	Investigate and describe number patterns formed by skip-counting and patterns with objects (ACMNA018)	Describe patterns with numbers and identify missing elements (ACMNA035)	Describe, continue, and create number patterns resulting from performing addition or subtraction (ACMNA060)	Explore and describe number patterns resulting from performing multiplication (ACMNA081)	Describe, continue and create patterns with fractions, decimals and whole numbers resulting from addition and subtraction (ACMNA107)	Continue and create sequences involving whole numbers, fractions and decimals. Describe the rule used to create the sequence (ACMNA133)
			Solve problems by using number sentences for addition or subtraction (ACMNA036)		Solve word problems by using number sentences involving multiplication or division where there is no remainder (ACMNA082)		Explore the use of brackets and order of operations to write number sentences (ACMNA134)

Mathematics: Sequence of content F-6 *Strand: Number and algebra*

Thread	Foundation Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
					Find unknown quantities in number sentences involving addition and subtraction Identify equivalent number sentences involving addition and subtraction (ACMNA083)	Find unknown quantities in number sentences involving multiplication and division. Identify equivalent number sentences involving multiplication and division(ACMNA121)	
Linear and non-linear relationships	This sequence starts at Year 7						

Mathematics: Sequence of content F-6 *Strand: Measurement and geometry*

	Foundation Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Using units of measurement	Use direct and indirect comparisons to decide which is longer, heavier or holds more, and explain reasoning in everyday language (ACMMG006)	Measure and compare the lengths and capacities of pairs of objects using uniform informal units (ACMMG019)	Compare and order several shapes and objects based on length, area, volume and capacity using appropriate uniform informal units (ACMMG037)	Measure, order and compare objects using familiar metric units of length, mass and capacity (ACMMG061)	Use scaled instruments to measure and compare lengths, masses, capacities and temperatures (ACMMG084)	Choose appropriate units of measurement for length, area, volume, capacity and mass (ACMMG108)	Connect decimal representations to the metric system (ACMMG135)
	Compare and order duration of events using everyday language of time (ACMMG007) Connect days of the week to familiar events and actions (ACMMG008)	Tell time to the half-hour (ACMMG020) Describe duration using months, weeks, days and hours (ACMMG021)	Tell time to the quarter-hour, using the language of 'past' and 'to' (ACMMG039) Name and order months and seasons (ACMMG040) Use a calendar to identify the date and determine the number of days in each month (ACMMG041)	Tell time to the minute and investigate the relationship between units of time (ACMMG062)	Use 'am' and 'pm' notation and solve simple time problems (ACMMG086) Convert between units of time (ACMMG085)	Compare 12- and 24-hour time systems and convert between them (ACMMG110)	Interpret and use timetables (ACMMG139)

Mathematics: Sequence of content F-6 *Strand: Measurement and geometry*

Thread	Foundation Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
			Compare masses of objects using balance scales (ACMMG038)		Compare objects using familiar units of area and volume (ACMMG290)	Calculate perimeter and area of rectangles using familiar metric units (ACMMG109)	Convert between common metric units of length, mass and capacity (ACMMG136) Solve problems involving the comparison of lengths and areas using appropriate units (ACMMG137) Connect volume and capacity and their units of measurement (ACMMG138)
Shape	Sort, describe and name familiar two-dimensional shapes and three-dimensional objects in the environment (ACMMG009)	Recognise and classify familiar two-dimensional shapes and three-dimensional objects using obvious features (ACMMG022)	Describe and draw two-dimensional shapes, with and without digital technologies (ACMMG042)	Make models of three-dimensional objects and describe key features (ACMMG063)	Compare the areas of regular and irregular shapes by informal means (ACMMG087)	Connect three-dimensional objects with their nets and other two-dimensional representations (ACMMG111)	Construct simple prisms and pyramids (ACMMG140)
			Describe the features of three-dimensional objects (ACMMG043)		Compare and describe two dimensional shapes that result from combining and splitting common shapes, with and without the use of digital technologies (ACMMG088)		
Location and transformation	Describe position and movement (ACMMG010)	Give and follow directions to familiar locations (ACMMG023)	Interpret simple maps of familiar locations and identify the relative positions of key features (ACMMG044)	Create and interpret simple grid maps to show position and pathways (ACMMG065)	Use simple scales, legends and directions to interpret information contained in basic maps (ACMMG090)	Use a grid reference system to describe locations. Describe routes using landmarks and directional language (ACMMG113)	Investigate combinations of translations, reflections and rotations, with and without the use of digital technologies (ACMMG142)

Mathematics: Sequence of content F–6 *Strand: Measurement and geometry*

Thread	Foundation Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
			Investigate the effect of one-step slides and flips with and without digital technologies (ACMMG045) Identify and describe half and quarter turns (ACMMG046)	Identify symmetry in the environment (ACMMG066)	Create symmetrical patterns, pictures and shapes with and without digital technologies (ACMMG091)	Describe translations, reflections and rotations of two-dimensional shapes. Identify line and rotational symmetries (ACMMG114)	Introduce the Cartesian coordinate system using all four quadrants (ACMMG143)
						Apply the enlargement transformation to familiar two dimensional shapes and explore the properties of the resulting image compared with the original (ACMMG115)	
Geometric reasoning	This sequence starts at Year 3			Identify angles as measures of turn and compare angle sizes in everyday situations (ACMMG064)	Compare angles and classify them as equal to, greater than, or less than, a right angle (ACMMG089)	Estimate, measure and compare angles using degrees. Construct angles using a protractor (ACMMG112)	Investigate, with and without digital technologies, angles on a straight line, angles at a point and vertically opposite angles. Use results to find unknown angles (ACMMG141)
Pythagoras and trigonometry	This sequence starts at Year 9						

Mathematics: Sequence of content F-6 *Strand: Statistics and probability*

Thread	Foundation Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Chance		Identify outcomes of familiar events involving chance and describe them using everyday language such as 'will happen', 'won't happen' or 'might happen' (ACMSP024)	Identify practical activities and everyday events that involve chance. Describe outcomes as 'likely' or 'unlikely' and identify some events as 'certain' or 'impossible' (ACMSP047)	Conduct chance experiments, identify and describe possible outcomes and recognise variation in results (ACMSP067)	Describe possible everyday events and order their chances of occurring (ACMSP092)	List outcomes of chance experiments involving equally likely outcomes and represent probabilities of those outcomes using fractions (ACMSP116)	Describe probabilities using fractions, decimals and percentages (ACMSP144)
					Identify everyday events where one cannot happen if the other happens (ACMSP093)	Recognise that probabilities range from 0 to 1 (ACMSP117)	Conduct chance experiments with both small and large numbers of trials using appropriate digital technologies (ACMSP145)
					Identify events where the chance of one will not be affected by the occurrence of the other (ACMSP094)		Compare observed frequencies across experiments with expected frequencies (ACMSP146)

Mathematics: Sequence of content F-6 *Strand: Statistics and probability*

Thread	Foundation Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Data representation and interpretation	Answer yes/no questions to collect information and make simple inferences (ACMSP011)	Choose simple questions and gather responses and make simple inferences (ACMSP262)	Identify a question of interest based on one categorical variable. Gather data relevant to the question (ACMSP048)	Identify questions or issues for categorical variables. Identify data sources and plan methods of data collection and recording (ACMSP068)	Select and trial methods for data collection, including survey questions and recording sheets (ACMSP095)	Pose questions and collect categorical or numerical data by observation or survey (ACMSP118)	Interpret and compare a range of data displays, including side-by-side column graphs for two categorical variables (ACMSP147)
		Represent data with objects and drawings where one object or drawing represents one data value. Describe the displays (ACMSP263)	Collect, check and classify data (ACMSP049)	Collect data, organise into categories and create displays using lists, tables, picture graphs and simple column graphs, with and without the use of digital technologies (ACMSP069)	Construct suitable data displays, with and without the use of digital technologies, from given or collected data. Include tables, column graphs and picture graphs where one picture can represent many data values (ACMSP096)	Construct displays, including column graphs, dot plots and tables, appropriate for data type, with and without the use of digital technologies (ACMSP119)	Interpret secondary data presented in digital media and elsewhere (ACMSP148)
			Create displays of data using lists, table and picture graphs and interpret them (ACMSP050)	Interpret and compare data displays (ACMSP070)	Evaluate the effectiveness of different displays in illustrating data features including variability (ACMSP097)	Describe and interpret different data sets in context (ACMSP120)	

Mathematics: Sequence of content 7-10 *Strand: Number and algebra*

Thread	Year 7	Year 8	Year 9	Year 10	Year 10A
Number and place value	Investigate index notation and represent whole numbers as products of powers of prime numbers (ACMNA149)	Use index notation with numbers to establish the index laws with positive integral indices and the zero index (ACMNA182)	This sequence ends in Year 8		
	Investigate and use square roots of perfect square numbers (ACMNA150) Apply the associative, commutative and distributive laws to aid mental and written computation (ACMNA151) Compare, order, add and subtract integers (ACMNA280)	Carry out the four operations with rational numbers and integers, using efficient mental and written strategies and appropriate digital technologies (ACMNA183)			
Fractions and decimals	This sequence ends in Year 6				
Real numbers	Compare fractions using equivalence. Locate and represent positive and negative fractions and mixed numbers on a number line (ACMNA152) Solve problems involving addition and subtraction of fractions, including those with unrelated denominators (ACMNA153) Multiply and divide fractions and decimals using efficient written strategies and digital technologies (ACMNA154) Express one quantity as a fraction of another, with and without the use of digital technologies (ACMNA155)				

Mathematics: Sequence of content 7-10 *Strand: Number and algebra*

Thread	Year 7	Year 8	Year 9	Year 10	Year 10A
Real numbers	Round decimals to a specified number of decimal places (ACMNA156)	Investigate terminating and recurring decimals (ACMNA184)	Apply index laws to numerical expressions with integer indices (ACMNA209) Express numbers in scientific notation (ACMNA210)		Use the definition of a logarithm to establish and apply the laws of logarithms (ACMNA265)
	Connect fractions, decimals and percentages and carry out simple conversions (ACMNA157) Find percentages of quantities and express one quantity as a percentage of another, with and without digital technologies. (ACMNA158)	Solve problems involving the use of percentages, including percentage increases and decreases, with and without digital technologies (ACMNA187)			
	Recognise and solve problems involving simple ratios (ACMNA173)	Solve a range of problems involving rates and ratios, with and without digital technologies (ACMNA188)	Solve problems involving direct proportion. Explore the relationship between graphs and equations corresponding to simple rate problems (ACMNA208)		
		Investigate the concept of irrational numbers, including π (ACMNA186)			Define rational and irrational numbers and perform operations with surds and fractional indices (ACMNA264)
Money and financial mathematics	Investigate and calculate 'best buys', with and without digital technologies (ACMNA174)	Solve problems involving profit and loss, with and without digital technologies (ACMNA189)	Solve problems involving simple interest (ACMNA211)	Connect the compound interest formula to repeated applications of simple interest using appropriate digital technologies (ACMNA229)	

Mathematics: Sequence of content 7-10 *Strand: Number and algebra*

Thread	Year 7	Year 8	Year 9	Year 10	Year 10A
Patterns and algebra	Introduce the concept of variables as a way of representing numbers using letters (ACMNA175)	Extend and apply the distributive law to the expansion of algebraic expressions (ACMNA190)	Extend and apply the index laws to variables, using positive integer indices and the zero index (ACMNA212)	Factorise algebraic expressions by taking out a common algebraic factor (ACMNA230)	Investigate the concept of a polynomial and apply the factor and remainder theorems to solve problems (ACMNA266)
	Create algebraic expressions and evaluate them by substituting a given value for each variable (ACMNA176)	Factorise algebraic expressions by identifying numerical factors (ACMNA191)	Apply the distributive law to the expansion of algebraic expressions, including binomials, and collect like terms where appropriate (ACMNA213)	Simplify algebraic products and quotients using index laws (ACMNA231)	
	Extend and apply the laws and properties of arithmetic to algebraic terms and expressions (ACMNA177)	Simplify algebraic expressions involving the four operations (ACMNA192)		Apply the four operations to simple algebraic fractions with numerical denominators (ACMNA232)	
				Expand binomial products and factorise monic quadratic expressions using a variety of strategies (ACMNA233)	
				Substitute values into formulas to determine an unknown (ACMNA234)	
Linear and non-linear relationships	Given coordinates, plot points on the Cartesian plane, and find coordinates for a given point (ACMNA178)	Plot linear relationships on the Cartesian plane with and without the use of digital technologies (ACMNA193)	Find the distance between two points located on the Cartesian plane using a range of strategies, including graphing software (ACMNA214)	Solve problems involving linear equations, including those derived from formulas (ACMNA235)	Describe, interpret and sketch parabolas, hyperbolas, circles and exponential functions and their transformations (ACMNA267)
	Solve simple linear equations (ACMNA179)	Solve linear equations using algebraic and graphical techniques. Verify solutions by substitution (ACMNA194)	Find the midpoint and gradient of a line segment (interval) on the Cartesian plane using a range of strategies, including graphing software (ACMNA294)	Solve linear inequalities and graph their solutions on a number line (ACMNA236)	Solve simple exponential equations (ACMNA270)
	Investigate, interpret and analyse graphs from authentic data (ACMNA180)		Sketch linear graphs using the coordinates of two points and solve linear equations (ACMNA215)	Solve linear simultaneous equations, using algebraic and graphical techniques, including using digital technology (ACMNA237)	Apply understanding of polynomials to sketch a range of curves and describe the features of these curves from their equation (ACMNA268)
			Graph simple non-linear relations with and without the use of digital technologies and solve simple related equations (ACMNA296)	Solve problems involving parallel and perpendicular lines (ACMNA238)	Factorise monic and non-monic quadratic expressions and solve a wide range of quadratic equations derived from a variety of contexts (ACMNA269)

Mathematics: Sequence of content 7-10 *Strand: Number and algebra*

Thread	Year 7	Year 8	Year 9	Year 10	Year 10A
Linear and non-linear relationships				Explore the connection between algebraic and graphical representations of relations such as simple quadratics, circles and exponentials using digital technology as appropriate (ACMNA239)	
				Solve linear equations involving simple algebraic fractions (ACMNA240)	
				Solve simple quadratic equations using a range of strategies (ACMNA241)	

Mathematics: Sequence of content 7-10 *Strand: Measurement and geometry*

Using units of measurement	Establish the formulas for areas of rectangles, triangles and parallelograms, and use these in problem-solving (ACMMG159)	Choose appropriate units of measurement for area and volume and convert from one unit to another (ACMMG195)	Calculate areas of composite shapes (ACMMG216)		
	Calculate volumes of rectangular prisms (ACMMG160)	Find perimeters and areas of parallelograms, trapeziums, rhombuses and kites (ACMMG196)	Calculate the surface area and volume of cylinders and solve related problems (ACMMG217) Solve problems involving the surface area and volume of right prisms (ACMMG218)	Solve problems involving surface area and volume for a range of prisms, cylinders and composite solids (ACMMG242)	Solve problems involving surface area and volume of right pyramids, right cones, spheres and related composite solids (ACMMG271)
		Investigate the relationship between features of circles such as circumference, area, radius and diameter. Use formulas to solve problems involving circumference and area (ACMMG197)			
		Develop formulas for volumes of rectangular and triangular prisms and prisms in general. Use formulas to solve problems involving volume (ACMMG198)			

Mathematics: Sequence of content 7-10 *Strand: Measurement and geometry*

Thread	Year 7	Year 8	Year 9	Year 10	Year 10A
Using units of measurement		Solve problems involving duration, including using 12- and 24-hour time within a single time zone (ACMMG199)	Investigate very small and very large time scales and intervals (ACMMG219)		
Shape	Draw different views of prisms and solids formed from combinations of prisms (ACMMG161)	This sequence ends at Year 7			
Location and transformation	Describe translations, reflections in an axis and rotations of multiples of 90° on the Cartesian plane using coordinates. Identify line and rotational symmetries (ACMMG181)	This sequence ends at Year 7			
Geometric reasoning	Identify corresponding, alternate and co-interior angles when two straight lines are crossed by a transversal (ACMMG163)	Define congruence of plane shapes using transformations (ACMMG200) Develop the conditions for congruence of triangles (ACMMG201)	Use the enlargement transformation to explain similarity and develop the conditions for triangles to be similar (ACMMG220) Solve problems using ratio and scale factors in similar figures (ACMMG221)	Formulate proofs involving congruent triangles and angle properties (ACMMG243) Apply logical reasoning, including the use of congruence and similarity, to proofs and numerical exercises involving plane shapes (ACMMG244)	Prove and apply angle and chord properties of circles (ACMMG272)
	Investigate conditions for two lines to be parallel and solve simple numerical problems using reasoning (ACMMG164)				
	Demonstrate that the angle sum of a triangle is 180° and use this to find the angle sum of a quadrilateral (ACMMG166)	Establish properties of quadrilaterals using congruent triangles and angle properties, and solve related numerical problems using reasoning (ACMMG202)			
	Classify triangles according to their side and angle properties and describe quadrilaterals (ACMMG165)				

Mathematics: Sequence of content 7-10 *Strand: Measurement and geometry*

Thread	Year 7	Year 8	Year 9	Year 10	Year 10A
Pythagoras and trigonometry	This sequence starts at Year 9	This sequence starts at Year 9	Investigate Pythagoras' Theorem and its application to solving simple problems involving right angled triangles (ACMMG222)	Solve right-angled triangle problems including those involving direction and angles of elevation and depression (ACMMG245)	Establish the sine, cosine and area rules for any triangle and solve related problems (ACMMG273)
	This sequence starts at Year 9	This sequence starts at Year 9	Use similarity to investigate the constancy of the sine, cosine and tangent ratios for a given angle in right-angled triangles (ACMMG223)		Use the unit circle to define trigonometric functions, and graph them with and without the use of digital technologies (ACMMG274)
	This sequence starts at Year 9	This sequence starts at Year 9	Apply trigonometry to solve right-angled triangle problems (ACMMG224)		Solve simple trigonometric equations (ACMMG275)
	This sequence starts at Year 9	This sequence starts at Year 9			Apply Pythagoras' Theorem and trigonometry to solving three-dimensional problems in right-angled triangles (ACMMG276)

Mathematics: Sequence of content 7-10 *Strand: Statistics and probability*

Chance	Construct sample spaces for single-step experiments with equally likely outcomes (ACMSP167)	Identify complementary events and use the sum of probabilities to solve problems (ACMSP204)	List all outcomes for two-step chance experiments, both with and without replacement using tree diagrams or arrays. Assign probabilities to outcomes and determine probabilities for events (ACMSP225)	Describe the results of two- and three-step chance experiments, both with and without replacements, assign probabilities to outcomes and determine probabilities of events. Investigate the concept of independence (ACMSP246)	Investigate reports of studies in digital media and elsewhere for information on their planning and implementation (ACMSP277)
	Assign probabilities to the outcomes of events and determine probabilities for events (ACMSP168)	Describe events using language of 'at least', exclusive 'or' (A or B but not both), inclusive 'or' (A or B or both) and 'and'. (ACMSP205)	Calculate relative frequencies from given or collected data to estimate probabilities of events involving 'and' or 'or' (ACMSP226)	Use the language of 'if ....then, 'given', 'of', 'knowing that' to investigate conditional statements and identify common mistakes in interpreting such language (ACMSP247)	
		Represent events in two-way tables and Venn diagrams and solve related problems (ACMSP292)	Investigate reports of surveys in digital media and elsewhere for information on how data were obtained to estimate population means and medians (ACMSP227)		

Mathematics: Sequence of content 7-10 *Strand: Statistics and probability*

Thread	Year 7	Year 8	Year 9	Year 10	Year 10A
Data representation and interpretation	Identify and investigate issues involving numerical data collected from primary and secondary sources (ACMSP169)	Investigate techniques for collecting data, including census, sampling and observation (ACMSP284)	Identify everyday questions and issues involving at least one numerical and at least one categorical variable, and collect data directly and from secondary sources (ACMSP228)	Determine quartiles and interquartile range (ACMSP248)	Calculate and interpret the mean and standard deviation of data and use these to compare data sets (ACMSP278)
	Construct and compare a range of data displays including stem-and-leaf plots and dot plots (ACMSP170)	Explore the practicalities and implications of obtaining data through sampling using a variety of investigative processes (ACMSP206)	Construct back-to-back stem-and-leaf plots and histograms and describe data, using terms including 'skewed', 'symmetric' and 'bi modal' (ACMSP282)	Construct and interpret box plots and use them to compare data sets (ACMSP249)	Use information technologies to investigate bivariate numerical data sets. Where appropriate use a straight line to describe the relationship allowing for variation (ACMSP279)
	Calculate mean, median, mode and range for sets of data. Interpret these statistics in the context of data (ACMSP171)	Explore the variation of means and proportions of random samples drawn from the same population (ACMSP293)	Compare data displays using mean, median and range to describe and interpret numerical data sets in terms of location (centre) and spread (ACMSP283)	Compare shapes of box plots to corresponding histograms and dot plots (ACMSP250)	
	Describe and interpret data displays using median, mean and range (ACMSP172)	Investigate the effect of individual data values, including outliers, on the mean and median (ACMSP207)		Use scatter plots to investigate and comment on relationships between two numerical variables (ACMSP251)	
				Investigate and describe bivariate numerical data where the independent variable is time (ACMSP252)	
				Evaluate statistical reports in the media and other places by linking claims to displays, statistics and representative data (ACMSP253)	