Strand	Sub-strand	Stage Outcome Code	Outcome	Outcome Description	Content Point Code	Content Point Description	AC Code
Working Mathematically	Communicating	e MAe-1WM	MAe-1WM Communicating	describes mathematical situations using			
				everyday language, actions, materials and			
				informal recordings			
Working Mathematically	Communicating	1 MA1-1WM	MA1-1WM Communicating	describes mathematical situations and			
				methods using everyday and some			
				mathematical language, actions, materials,			
				diagrams and symbols			
Working Mathematically	Communicating	2 MA2-1WM	MA2-1WM Communicating	uses appropriate terminology to describe,			
1				and symbols to represent, mathematical			
				ideas			
Working Mathematically	Communicating	3 MA3-1WM	MA3-1WM Communicating	describes and represents mathematical			
				situations in a variety of ways using			
				mathematical terminology and some			
147 - 12 - 144 - 14 12 II			14444	conventions			
Working Mathematically	Communicating	4 MA4-1WM	MA4-1WM Communicating	communicates and connects mathematical			
i				ideas using appropriate terminology,			
Marking Mathematically	Communicating	5.1 MA5.1-1WM	NAAF 1 1000A Communicating	diagrams and symbols			
Working Mathematically	Communicating	5.1 WAS.1-1WW	MA5.1-1WM Communicating	uses appropriate terminology, diagrams and symbols in mathematical contexts			
Marking Mathematically	Communicating	5.2 MA5.2-1WM	MA5.2-1WM Communicating				
Working Mathematically	Communicating	3.2 IVIA3.2-1VVIVI	IVIA3.2-1 VVIVI COMMINIMINEALING	selects appropriate notations and conventions to communicate			
				mathematical ideas and solutions			
Working Mathematically	Communicating	5.3 MA5.3-1WM	MA5.3-1WM Communicating	uses and interprets formal definitions and			
Working Wathernatically	Communicating	3.5 WAS.5 TWW	WAS:5 TWW Communicating	generalisations when explaining solutions			
				and/or conjectures			
Working Mathematically	Problem Solving	e MAe-2WM	MAe-2WM Problem Solving	uses objects, actions, technology and/or			
Tronking mathematically	l regien sering		in te zirin rosiem somis	trial and error to explore mathematical			
				problems			
Working Mathematically	Problem Solving	1 MA1-2WM	MA1-2WM Problem Solving	uses objects, diagrams and technology to			
,				explore mathematical problems			
Working Mathematically	Problem Solving	2 MA2-2WM	MA2-2WM Problem Solving	selects and uses appropriate mental or			
				written strategies, or technology, to solve			
				problems			
Working Mathematically	Problem Solving	3 MA3-2WM	MA3-2WM Problem Solving	selects and applies appropriate problem-			
				solving strategies, including the use of			
				digital technologies, in undertaking			
				investigations			
Working Mathematically	Problem Solving	4 MA4-2WM	MA4-2WM Problem Solving	applies appropriate mathematical			
				techniques to solve problems			
Working Mathematically	Problem Solving	5.1 MA5.1-2WM	MA5.1-2WM Problem Solving	selects and uses appropriate strategies to			
				solve problems			
Working Mathematically	Problem Solving	5.2 MA5.2-2WM	MA5.2-2WM Problem Solving	interprets mathematical or real-life			
				situations, systematically applying			
				appropriate strategies to solve problems			
Working Mathematically	Problem Solving	5.3 MA5.3-2WM	MA5.3-2WM Problem Solving	generalises mathematical ideas and			
				techniques to analyse and solve problems			
				efficiently			
Working Mathematically	Reasoning	e MAe-3WM	MAe-3WM Reasoning	uses concrete materials and/or pictorial	1		
				representations to support conclusions			
Working Mathematically	Reasoning	1 MA1-3WM	MA1-3WM Reasoning	supports conclusions by explaining or			
				demonstrating how answers were			
				obtained			
Working Mathematically	Reasoning	2 MA2-3WM	MA2-3WM Reasoning	checks the accuracy of a statement and			
14/ - 12 - 14 - 15 - 17 - 17 - 17 - 17 - 17 - 17 - 17		3 443 347	1442 23444 5	explains the reasoning used			
Working Mathematically	Reasoning	3 MA3-3WM	MA3-3WM Reasoning	gives a valid reason for supporting one			
				possible solution over another			

Strand	Sub-strand	Stage Outcome Code	Outcome	Outcome Description	Content Point Code	Content Point Description	AC Code
Working Mathematically	Reasoning	4 MA4-3WM	MA4-3WM Reasoning	recognises and explains mathematical			
				relationships using reasoning			
Working Mathematically	Reasoning	5.1 MA5.1-3WM	MA5.1-3WM Reasoning	provides reasoning to support conclusions			
				that are appropriate to the context			
Working Mathematically	Reasoning	5.2 MA5.2-3WM	MA5.2-3WM Reasoning	constructs arguments to prove and justify			
				results			
Working Mathematically	rking Mathematically Reasoning	5.3 MA5.3-3WM	MA5.3-3WM Reasoning	uses deductive reasoning in presenting			
				arguments and formal proofs			
Number and Algebra	nber and Algebra Whole Numbers	e MAe-4NA	MAe-4NA Whole Numbers	counts to 30, and orders, reads and			
			represents numbers in the range 0 to 20				
		MAe-4NA			MAe-4NA-1	Establish understanding of the language and processes of counting by naming numbers in sequences, initially to and from	ACMNA001
		MAe-4NA			MAe-4NA-2	20, moving from any starting point Connect number names, numerals and	ACMNA002
		WAC-4NA			IVIAC-4IVA-2	quantities, including zero, initially up to 10	ACIVIIVA002
						and then beyond	
		MAe-4NA			MAe-4NA-3	Subitise small collections of objects	ACMNA003
		MAe-4NA			MAe-4NA-4	Compare, order and make	ACMNA289
		WACTIVA			IVIAC-4IVA-4	correspondences between collections, initially to 20, and explain reasoning	ACIVIIVAZOS
		MAe-4NA			MAe-4NA-5	Use the language of money	
Number and Algebra	Whole Numbers	1 MA1-4NA	MA1-4NA Whole Numbers	applies place value, informally, to count,			
				order, read and represent two- and three-			
				digit numbers			
		MA1-4NA		algic name is	MA1-4NA-1	Develop confidence with number	ACMNA012
						sequences to 100 by ones from any	
						starting point	
		MA1-4NA			MA1-4NA-2	Recognise, model, represent and order	ACMNA027
						numbers to at least 1000	
		MA1-4NA			MA1-4NA-3	Investigate number sequences, initially	ACMNA026
		100.1			1000	those increasing and decreasing by twos,	710171171020
						threes, fives and tens from any starting	
						point, then moving to other sequences	
		MA1-4NA			MA1-4NA-4		ACMNA028
		100.1			1000	of up to 1000 in hundreds, tens and ones	710171171020
						to facilitate more efficient counting	
		MA1-4NA			MA1-4NA-5	Count and order small collections of	ACMNA034
		100.1			1000	Australian coins and notes according to	710171171054
						their value	
Number and Algebra	Whole Numbers	2 MA2-4NA	MA2-4NA Whole Numbers	applies place value to order, read and		their value	
ivamber and Algebra	Whole Nambers	2 10012 4101	Witz 4107 Whole Humbers	represent numbers of up to five digits			
		MA2-4NA		represent numbers of up to five digits	MA2-4NA-1	Recognise, model, represent and order	ACMNA052
		WAZ TVA			IVIAZ TIVA I	numbers to at least 10 000	ACIVIIVA032
		MA2-4NA			MA2-4NA-2	Apply place value to partition, rearrange	ACMNA053
		WAZ TVA			IVIAZ TIVA Z	and regroup numbers to at least 10 000 to	ACIVIIVA033
						assist calculations and solve problems	
		MA2-4NA			MA2-4NA-3		ACMNA072
		IVIAZ-4IVA			IVIAZ-HIVA-3	to at least tens of thousands	ACIVIIVAU/2
Number and Algebra	Whole Numbers	3 MA3-4NA	MA3-4NA Whole Numbers	orders, reads and represents integers of		to at least teris or thousands	1
Transper and Algebra	VIIIOIC IVAIIIDEIS	J WAS-4NA	1477 TIVA VVIIOLE INUILIDEIS	any size and describes properties of whole			
		MA3-4NA		numbers	MA3-4NA-1	Pacagnica represent and and an arrival	
		IVIA3-4NA			IVIA3-4IVA-1	Recognise, represent and order numbers	
					1	to at least tens of millions	

Strand	Sub-strand	Stage Outcome Code	Outcome	Outcome Description	Content Point Code	Content Point Description	AC Code
		MA3-4NA			MA3-4NA-2	Identify and describe factors and multiples of whole numbers and use them to solve problems	ACMNA098
		MA3-4NA			MA3-4NA-3	Investigate everyday situations that use integers; locate and represent these numbers on a number line	ACMNA124
		MA3-4NA			MA3-4NA-4	Identify and describe properties of prime, composite, square and triangular numbers	ACMNA122
Number and Algebra	Addition and Subtraction	e MAe-5NA	MAe-5NA Addition and Subtraction	combines, separates and compares collections of objects, describes using everyday language, and records using informal methods			
		MAe-5NA			MAe-5NA-1	Represent practical situations to model addition and sharing	ACMNA004
Number and Algebra	Addition and Subtraction	1 MA1-5NA	MA1-5NA Addition and Subtraction	uses a range of strategies and informal recording methods for addition and subtraction involving one- and two-digit numbers			
		MA1-5NA			MA1-5NA-1	Represent and solve simple addition and subtraction problems using a range of strategies, including counting on, partitioning and rearranging parts	ACMNA015
		MA1-5NA			MA1-5NA-2	Explore the connection between addition and subtraction	ACMNA029
		MA1-5NA			MA1-5NA-3	Solve simple addition and subtraction problems using a range of efficient mental and written strategies	ACMNA030
Number and Algebra	Addition and Subtraction	2 MA2-5NA	MA2-5NA Addition and Subtraction	uses mental and written strategies for addition and subtraction involving two-, three-, four- and five-digit numbers			
		MA2-5NA			MA2-5NA-1	Recall addition facts for single-digit numbers and related subtraction facts to develop increasingly efficient mental strategies for computation	ACMNA055
		MA2-5NA			MA2-5NA-2	Recognise and explain the connection between addition and subtraction	ACMNA054
		MA2-5NA			MA2-5NA-3	Represent money values in multiple ways and count the change required for simple transactions to the nearest five cents	ACMNA059
		MA2-5NA			MA2-5NA-4	Apply place value to partition, rearrange and regroup numbers to at least tens of thousands to assist calculations and solve problems	ACMNA073
Number and Algebra	Addition and Subtraction	3 MA3-5NA	MA3-5NA Addition and Subtraction	selects and applies appropriate strategies for addition and subtraction with counting numbers of any size			
		MA3-5NA			MA3-5NA-1	Use efficient mental and written strategies and apply appropriate digital technologies to solve problems	ACMNA291
		MA3-5NA			MA3-5NA-2	Use estimation and rounding to check the reasonableness of answers to calculations	ACMNA099
		MA3-5NA			MA3-5NA-3	Create simple financial plans	ACMNA106

Strand	Sub-strand	Stage Outcome Code	Outcome	Outcome Description	Content Point Code	Content Point Description	AC Code
		MA3-5NA			MA3-5NA-4	Select and apply efficient mental and written strategies and appropriate digital technologies to solve problems involving addition and subtraction with whole numbers	ACMNA123
Number and Algebra	Computation with Integers	4 MA4-4NA	MA4-4NA Computation with Int	egers compares, orders and calculates with integers, applying a range of strategies to aid computation			
		MA4-4NA			MA4-4NA-1	Apply the associative, commutative and distributive laws to aid mental and written computation	ACMNA151
		MA4-4NA			MA4-4NA-2	Compare, order, add and subtract integers	ACMNA280
		MA4-4NA			MA4-4NA-3	Carry out the four operations with rational numbers and integers, using efficient mental and written strategies and appropriate digital technologies	ACMNA183
Number and Algebra	Multiplication and Division	e <mark>MAe-6NA</mark>	MAe-6NA Multiplication and Di	vision groups, shares and counts collections of objects, describes using everyday language, and records using informal methods			
		MAe-6NA			MAe-6NA-1	Investigate and model equal groups	
		MAe-6NA			MAe-6NA-2	Record grouping and sharing using informal methods	
Number and Algebra	Multiplication and Division	1 MA1-6NA	MA1-6NA Multiplication and Di	vision uses a range of mental strategies and concrete materials for multiplication and division			
		MA1-6NA			MA1-6NA-1	Skip count by twos, fives and tens starting from zero	ACMNA012
		MA1-6NA			MA1-6NA-2	Model and use equal groups of objects as a strategy for multiplication	1
		MA1-6NA			MA1-6NA-3	Recognise and represent division as grouping into equal sets	ACMNA032
		MA1-6NA			MA1-6NA-4	Recognise and represent multiplication as repeated addition, groups and arrays	ACMNA031
		MA1-6NA			MA1-6NA-5	Represent division as grouping into equal sets and solve simple problems using these representations	ACMNA032
Number and Algebra	Multiplication and Division	2 MA2-6NA	MA2-6NA Multiplication and Di	vision uses mental and informal written strategies for multiplication and division			
		MA2-6NA			MA2-6NA-1	Recall multiplication facts of two, three, five and ten and related division facts	ACMNA056
		MA2-6NA			MA2-6NA-2	Represent and solve problems involving multiplication using efficient mental and written strategies and appropriate digital technologies	ACMNA057
		MA2-6NA			MA2-6NA-3	Recall multiplication facts up to 10 _ 10 and related division facts	ACMNA075
		MA2-6NA			MA2-6NA-4	Develop efficient mental and written strategies, and use appropriate digital technologies, for multiplication and for division where there is no remainder	ACMNA076
		MA2-6NA			MA2-6NA-5	Use mental strategies and informal recording methods for division with remainders	

Strand	Sub-strand	Stage Outcome Code	Outcome	Outcome Description	Content Point Code	Content Point Description	AC Code
Number and Algebra	Multiplication and Division	3 MA3-6NA	MA3-6NA Multiplication and Division	on selects and applies appropriate strategies			
				for multiplication and division, and applies			
				the order of operations to calculations			
		1442 CNA		involving more than one operation	1442 CNA 4		1 61 41 4 4 0 0
		MA3-6NA			MA3-6NA-1	Solve problems involving multiplication of	ACMINA100
						large numbers by one- or two-digit	
						numbers using efficient mental and written	1
						strategies and appropriate digital	
		MA3-6NA			MA3-6NA-2	technologies Solve problems involving division by a one-	ACNANIA 101
		IVIAS-UNA			IVIAS-UNA-Z	digit number, including those that result in	ACIVINATOT
						a remainder	
		MA3-6NA			MA3-6NA-3	Use estimation and rounding to check the	ACMNA099
		IVII/15 CIV/			WIN S CHILLS	reasonableness of answers to calculations	, civil vi loss
		MA3-6NA			MA3-6NA-4	reasonableness of answers to calculations	
Number and Algebra	Fractions and Decimals	e MAe-7NA	MAe-7NA Fractions and Decimals	describes two equal parts as halves			
Turner una rigeora	Tractions and Decimals	MAe-7NA	The contractions and Decimals	describes two equal parts as marres	MAe-7NA-1	Establish the concept of one-half	
Number and Algebra	Fractions and Decimals	1 MA1-7NA	MA1-7NA Fractions and Decimals	represents and models halves, quarters			
				and eighths			
		MA1-7NA			MA1-7NA-1	Recognise and describe one-half as one of	ACMNA016
						two equal parts of a whole	
		MA1-7NA			MA1-7NA-2	Recognise and interpret common uses of	ACMNA033
						halves, quarters and eighths of shapes and	
						collections	
Number and Algebra	Fractions and Decimals	2 MA2-7NA	MA2-7NA Fractions and Decimals	represents, models and compares			
·				commonly used fractions and decimals			
		MA2-7NA		·	MA2-7NA-1	Model and represent unit fractions,	ACMNA058
						including ½, ¼, ¼ and ¼ and their multiples,	,
						to a complete whole	
		MA2-7NA			MA2-7NA-2	Count by quarters, halves and thirds,	ACMNA078
						including with mixed numerals; locate and	
						represent these fractions on a number line	
		MA2-7NA			MA2-7NA-3	Investigate equivalent fractions used in	ACMNA077
						contexts	
		MA2-7NA			MA2-7NA-4	Recognise that the place value system can	ACMNA079
						be extended to tenths and hundredths,	
						and make connections between fractions	
						and decimal notation	
		MA2-7NA			MA2-7NA-5	Select and apply efficient mental and	ACMNA123
						written strategies, and appropriate digital	
						technologies, to solve problems involving	
						multiplication and division with whole	
						numbers	4.00.40
		MA2-7NA			MA2-7NA-6	Explore the use of brackets and the order	ACMNA134
Number and Alesters	Fractions Desimple and Description	2 0402 7010	MAQ ZNA Fractions Desired	Delegamentos ardare and adaptivitates with		of operations to write number sentences	
Number and Algebra	Fractions, Decimals and Percentages	3 MA3-7NA	ivias-/NA Fractions, Decimals and I	Percompares, orders and calculates with			
	MA3-7NA		fractions, decimals and percentages	MA3-7NA-1	Compare and order common unit fractions	ACMANA 102	
		IVIA3-7NA			IVIA3-7NA-1	1 -	ACMINA102
						and locate and represent them on a	
		MA3-7NA			MA3-7NA-2	number line Investigate strategies to solve problems	ACMNA103
		ANI-CAIN			Z-ANI /-CAIVI		ACIVINA103
		1 1			1	involving addition and subtraction of	1
					l .	fractions with the same denominates	I i
		MA3-7NA			MA3-7NA-3	fractions with the same denominator Recognise that the place value system can	ACMNIA104

Strand	Sub-strand	Stage Outcome Code	Outcome	Outcome Description	Content Point Code	Content Point Description	AC Code
		MA3-7NA			MA3-7NA-4	Compare, order and represent decimals	ACMNA105
		MA3-7NA			MA3-7NA-5	Compare fractions with related denominators and locate and represent them on a number line	ACMNA125
		MA3-7NA			MA3-7NA-6	Solve problems involving addition and subtraction of fractions with the same or	ACMNA126
		MA3-7NA			MA3-7NA-7	related denominators Find a simple fraction of a quantity where the result is a whole number, with and	ACMNA127
		MA3-7NA			MA3-7NA-8	without the use of digital technologies Add and subtract decimals, with and without the use of digital technologies, and use estimation and rounding to check the reasonableness of answers	ACMNA128
		MA3-7NA			MA3-7NA-9	Multiply decimals by whole numbers and perform divisions by non-zero whole numbers where the results are terminating decimals, with and without the use of digital technologies	ACMNA129
		MA3-7NA			MA3-7NA-10	Multiply and divide decimals by powers of 10	ACMNA130
		MA3-7NA			MA3-7NA-11	Make connections between equivalent fractions, decimals and percentages	ACMNA131
		MA3-7NA			MA3-7NA-12	Investigate and calculate percentage discounts of 10%, 25% and 50% on sale items, with and without the use of digital technologies	ACMNA132
Number and Algebra	Fractions, Decimals and Percentages	4 MA4-5NA	MA4-5NA Fractions, Decimals and	Per operates with fractions, decimals and percentages			
		MA4-5NA			MA4-5NA-1	Compare fractions using equivalence; locate and represent positive and negative fractions and mixed numerals on a number line	ACMNA152
		MA4-5NA			MA4-5NA-2	Solve problems involving addition and subtraction of fractions, including those with unrelated denominators	ACMNA153
		MA4-5NA			MA4-5NA-3	Multiply and divide fractions and decimals using efficient written strategies and digital technologies	1
		MA4-5NA			MA4-5NA-4	Express one quantity as a fraction of another, with and without the use of digital technologies	ACMNA155
		MA4-5NA			MA4-5NA-5	Round decimals to a specified number of decimal places	ACMNA156
		MA4-5NA			MA4-5NA-6	Investigate terminating and recurring decimals	ACMNA184
		MA4-5NA			MA4-5NA-7	Connect fractions, decimals and percentages and carry out simple conversions	ACMNA157
		MA4-5NA			MA4-5NA-8	Investigate the concept of irrational numbers, including π	ACMNA186
		MA4-5NA			MA4-5NA-9	Find percentages of quantities and express one quantity as a percentage of another, with and without the use of digital technologies	ACMNA158

Strand	Sub-strand	Stage Outcome Code	Outcome	Outcome Description	Content Point Code	Content Point Description	AC Code
		MA4-5NA			MA4-5NA-10	Solve problems involving the use of percentages, including percentage increases and decreases, with and without the use of digital technologies	ACMNA187
Number and Algebra	Financial Mathematics	4 MA4-6NA	MA4-6NA Financial Mathematics	solves financial problems involving purchasing goods			
		MA4-6NA		F	MA4-6NA-1	Investigate and calculate the Goods and Services Tax (GST), with and without the use of digital technologies	
		MA4-6NA			MA4-6NA-2	Investigate and calculate 'best buys', with and without the use of digital technologies	ACMNA174
		MA4-6NA			MA4-6NA-3	Solve problems involving profit and loss, with and without the use of digital technologies	ACMNA189
Number and Algebra	Financial Mathematics	5.1 MA5.1-4NA	MA5.1-4NA Financial Mathematics	solves financial problems involving earning, spending and investing money			
		MA5.1-4NA			MA5.1-4NA-1	Solve problems involving earning money	
		MA5.1-4NA			MA5.1-4NA-2	Solve problems involving simple interest	ACMNA211
		MA5.1-4NA			MA5.1-4NA-3	Connect the compound interest formula to repeated applications of simple interest using appropriate digital technologies	ACMNA229
Number and Algebra	Financial Mathematics	5.2 MA5.2-4NA	MA5.2-4NA Financial Mathematics	solves financial problems involving compound interest			
		MA5.2-4NA			MA5.2-4NA-1	Connect the compound interest formula to repeated applications of simple interest using appropriate digital technologies	ACMNA229
Number and Algebra	Ratios and Rates	4 MA4-7NA	MA4-7NA Ratios and Rates	operates with ratios and rates, and explores their graphical representation			
		MA4-7NA			MA4-7NA-1	Recognise and solve problems involving simple ratios	ACMNA173
		MA4-7NA			MA4-7NA-2	Solve a range of problems involving ratios and rates, with and without the use of digital technologies	ACMNA188
		MA4-7NA			MA4-7NA-3	Investigate, interpret and analyse graphs from authentic data	ACMNA180
Number and Algebra	Ratios and Rates	5.2 MA5.2-5NA	MA5.2-5NA Ratios and Rates	recognises direct and indirect proportion, and solves problems involving			
		MA5.2-5NA			MA5.2-5NA-1	Solve problems involving direct proportion; explore the relationship between graphs and equations corresponding to simple rate problems	ACMNA208
Number and Algebra	Ratios and Rates	5.3 MA5.3-4NA	MA5.3-4NA Ratios and Rates	draws, interprets and analyses graphs of physical phenomena			
		MA5.3-4NA			MA5.3-4NA-1	Solve problems involving direct proportion; explore the relationship between graphs and equations corresponding to simple rate problems	ACMNA208
Number and Algebra	Patterns and Algebra	e MAe-8NA	MAe-8NA Patterns and Algebra	recognises, describes and continues repeating patterns			
		MAe-8NA			MAe-8NA-1	Sort and classify familiar objects and explain the basis for these classifications	ACMNA005

Strand	Sub-strand	Stage Outcome Code	Outcome	Outcome Description	Content Point Code	Content Point Description	AC Code
		MAe-8NA			MAe-8NA-2	Copy, continue and create patterns with objects and drawings	
Number and Algebra	Patterns and Algebra	1 MA1-8NA	MA1-8NA Patterns and Algebra	creates, represents and continues a variety of patterns with numbers and objects			
		MA1-8NA			MA1-8NA-1	Investigate and describe number patterns formed by skip counting and patterns with objects	ACMNA018
		MA1-8NA			MA1-8NA-2	Describe patterns with numbers and identify missing elements	ACMNA035
		MA1-8NA			MA1-8NA-3	Solve problems by using number sentences for addition or subtraction	ACMNA036
Number and Algebra	Patterns and Algebra	2 MA2-8NA	MA2-8NA Patterns and Algebra	generalises properties of odd and even numbers, generates number patterns, and completes simple number sentences by calculating missing values			
		MA2-8NA			MA2-8NA-1	Describe, continue and create number patterns resulting from performing addition or subtraction	ACMNA060
		MA2-8NA			MA2-8NA-2	Investigate the conditions required for a number to be even or odd and identify even and odd numbers	ACMNA051
	MA2-8NA			MA2-8NA-3	Use equivalent number sentences involving addition and subtraction to find unknown quantities	ACMNA083	
		MA2-8NA			MA2-8NA-4	Investigate and use the properties of even and odd numbers	ACMNA071
		MA2-8NA			MA2-8NA-5	Investigate number sequences involving multiples of 3, 4, 6, 7, 8 and 9	ACMNA074
		MA2-8NA			MA2-8NA-6	Explore and describe number patterns resulting from performing multiplication	ACMNA081
		MA2-8NA			MA2-8NA-7	Solve word problems by using number sentences involving multiplication or division where there is no remainder	ACMNA082
Number and Algebra	Patterns and Algebra	3 MA3-8NA	MA3-8NA Patterns and Algebra	analyses and creates geometric and number patterns, constructs and completes number sentences, and locates points on the Cartesian plane			
		MA3-8NA			MA3-8NA-1	Describe, continue and create patterns with fractions, decimals and whole numbers resulting from addition and subtraction	ACMNA107
		MA3-8NA			MA3-8NA-2	Use equivalent number sentences involving multiplication and division to find unknown quantities	ACMNA121
		MA3-8NA			MA3-8NA-3	Continue and create sequences involving whole numbers, fractions and decimals; describe the rule used to create the sequence	ACMNA133
		MA3-8NA			MA3-8NA-4	Introduce the Cartesian coordinate system using all four quadrants	ACMMG143
Number and Algebra	Algebraic Techniques	4 MA4-8NA	MA4-8NA Algebraic Techniques	generalises number properties to operate with algebraic expressions			
		MA4-8NA			MA4-8NA-1	Introduce the concept of variables as a way of representing numbers using letters	ACMNA175

Strand	Sub-strand	Stage Outcome Code	Outcome	Outcome Description	Content Point Code	Content Point Description	AC Code
		MA4-8NA			MA4-8NA-2	Extend and apply the laws and properties of arithmetic to algebraic terms and expressions	ACMNA177
		MA4-8NA			MA4-8NA-3	Simplify algebraic expressions involving the four operations	ACMNA192
		MA4-8NA			MA4-8NA-4	Create algebraic expressions and evaluate them by substituting a given value for each variable	ACMNA176
		MA4-8NA			MA4-8NA-5	Extend and apply the distributive law to the expansion of algebraic expressions	ACMNA190
		MA4-8NA			MA4-8NA-6	Factorise algebraic expressions by identifying numerical factors	ACMNA191
		MA4-8NA			MA4-8NA-7	Factorise algebraic expressions by identifying algebraic factors	
Number and Algebra	Algebraic Techniques	5.2 MA5.2-6NA	MA5.2-6NA Algebraic Techniques	simplifies algebraic fractions, and expands and factorises quadratic expressions			
		MA5.2-6NA			MA5.2-6NA-1	Apply the four operations to simple algebraic fractions with numerical denominators	ACMNA232
		MA5.2-6NA			MA5.2-6NA-2	Apply the four operations to algebraic fractions with pronumerals in the denominator	
		MA5.2-6NA			MA5.2-6NA-3	Apply the distributive law to the expansion of algebraic expressions, including binomials, and collect like terms where appropriate	ACMNA213
		MA5.2-6NA			MA5.2-6NA-4	Factorise algebraic expressions by taking out a common algebraic factor	ACMNA230
		MA5.2-6NA			MA5.2-6NA-5	Expand binomial products and factorise monic quadratic expressions using a variety of strategies	ACMNA233
Number and Algebra	Algebraic Techniques	5.3 MA5.3-5NA	MA5.3-5NA Algebraic Techniques	selects and applies appropriate algebraic techniques to operate with algebraic expressions		,	
		MA5.3-5NA			MA5.3-5NA-1	Add and subtract algebraic fractions with numerical denominators, including those with binomial numerators	
		MA5.3-5NA			MA5.3-5NA-2	Expand binomial products using a variety of strategies	ACMNA233
		MA5.3-5NA			MA5.3-5NA-3	Factorise monic and non-monic quadratic expressions	ACMNA269
Number and Algebra	Indices	4 MA4-9NA	MA4-9NA Indices	operates with positive-integer and zero indices of numerical bases			
		MA4-9NA			MA4-9NA-1	Investigate index notation and represent whole numbers as products of powers of prime numbers	ACMNA149
		MA4-9NA			MA4-9NA-2	Investigate and use square roots of perfect square numbers	ACMNA150
		MA4-9NA			MA4-9NA-3	Use index notation with numbers to establish the index laws with positive-integer indices and the zero index	ACMNA182
Number and Algebra	Indices	5.1 MA5.1-5NA	MA5.1-5NA Indices	operates with algebraic expressions involving positive-integer and zero indices, and establishes the meaning of negative indices for numerical bases			

Strand	Sub-strand	Stage Outcome Code	Outcome	Outcome Description	Content Point Code	Content Point Description	AC Code
		MA5.1-5NA			MA5.1-5NA-1	Extend and apply the index laws to	ACMNA212
						variables, using positive-integer indices	
						and the zero index	
		MA5.1-5NA			MA5.1-5NA-2	Simplify algebraic products	ACMNA231
						and quotients using index laws	
		MA5.1-5NA			MA5.1-5NA-3	Apply index laws to numerical	ACMNA209
						expressions with integer indices	
Number and Algebra	Indices	5.2 MA5.2-7NA	MA5.2-7NA Indices	applies index laws to operate with			
				algebraic expressions involving integer			
				indices			
		MA5.2-7NA			MA5.2-7NA-1	Apply index laws to algebraic expressions	
						involving integer indices	
Number and Algebra	Surds and Indices	5.3 MA5.3-6NA	MA5.3-6NA Surds and Indices	performs operations with surds and indice	S		
		MA5.3-6NA			MA5.3-6NA-1	Define rational and irrational numbers and	ACMNA264
						perform operations with surds and	
						fractional indices	
Number and Algebra	Equations	4 MA4-10NA	MA4-10NA Equations	uses algebraic techniques to solve simple			
0			• • • • • • • • • • • • • • • • • • • •	linear and quadratic equations			
		MA4-10NA		21 2 2 42 2 42 2 2 4 4 4 5 5 5 4 4 5 5 5 5	MA4-10NA-1	Solve simple linear equations	ACMNA179
		MA4-10NA			MA4-10NA-2	Solve linear equations using algebraic	ACMNA194
		1 25.51				techniques and verify solutions by	1
						substitution	
		MA4-10NA			MA4-10NA-3	Solve simple quadratic equations	
Number and Algebra	Equations	5.2 MA5.2-8NA	MA5.2-8NA Equations	solves linear and simple quadratic	IVIA4-10IVA-3	Solve simple quadratic equations	
Number and Algebra	Equations	5.2 WA5.2-8NA	IVIA5.2-8IVA Equations				
				equations, linear inequalities and linear			
				simultaneous equations, using analytical			
				and graphical techniques			
		MA5.2-8NA			MA5.2-8NA-1	Solve linear equations	ACMNA215
		MA5.2-8NA			MA5.2-8NA-2	Solve linear equations involving simple	ACMNA240
						algebraic fractions	
		MA5.2-8NA			MA5.2-8NA-3	Solve simple quadratic equations using a	ACMNA241
						range of strategies	
		MA5.2-8NA			MA5.2-8NA-4	Substitute values into formulas to	ACMNA234
						determine an unknown	
		MA5.2-8NA			MA5.2-8NA-5	Solve problems involving linear equations,	ACMNA235
						including those derived from formulas	
		MA5.2-8NA			MA5.2-8NA-6	Solve linear inequalities and graph their	ACMNA236
						solutions on a number line	
		MA5.2-8NA			MA5.2-8NA-7	Solve linear simultaneous equations, using	ΔCMNΔ237
		100.5.2 5107			1417.5.2 5147.17	algebraic and graphical techniques,	7.017117.1237
						including with the use of digital	
Number and Algebra	Equations	5.3 MA5.3-7NA	MA5.3-7NA Equations	solves complex linear, quadratic, simple		technologies	
ivuilibei allu Algebia	Lquations	5.5 IVIA3.5-/NA	IVIA3.3-/IVA EQUATIONS	cubic and simultaneous equations, and			
		1445 2 714		rearranges literal equations	1445 2 714 4		
		MA5.3-7NA			MA5.3-7NA-1	Solve complex linear equations involving	
					NAAE 2 7NA 2	algebraic fractions	A CA 48/ 4 2 CC
		MA5.3-7NA			MA5.3-7NA-2	Solve a wide range of quadratic equations	ACMINA269
					<u> </u>	derived from a variety of contexts	
		MA5.3-7NA			MA5.3-7NA-3	Solve simple cubic equations	
		MA5.3-7NA			MA5.3-7NA-4	Rearrange literal equations	
		MA5.3-7NA			MA5.3-7NA-5	Solve simultaneous equations, where one	
						equation is non-linear, using algebraic and	
					1	graphical techniques, including the use of	1
					1	igraphical techniques, including the use of	[E

Strand	Sub-strand	Stage Outcome Code	Outcome	Outcome Description	Content Point Code	Content Point Description	AC Code
Number and Algebra	Linear Relationships	4 MA4-11NA	MA4-11NA Linear Relationships	creates and displays number patterns; graphs and analyses linear relationships; and performs			
		MA4-11NA		and performs	MA4-11NA-1	Given coordinates, plot points on the Cartesian plane, and find coordinates for a given point	ACMNA178
		MA4-11NA			MA4-11NA-2	Describe translations, reflections in an axis and rotations of multiples of 90i on the Cartesian plane using coordinates	, ACMMG181
		MA4-11NA			MA4-11NA-3	Plot linear relationships on the Cartesian plane, with and without the use of digital technologies	ACMNA193
		MA4-11NA			MA4-11NA-4	Solve linear equations using graphical techniques	ACMNA194
Number and Algebra	Linear Relationships	5.1 MA5.1-6NA	MA5.1-6NA Linear Relationships	determines the midpoint, gradient and length of an interval, and graphs linear relationships			
		MA5.1-6NA			MA5.1-6NA-1	Find the midpoint and gradient of a line segment (interval) on the Cartesian plane using a range of strategies, including graphing software	ACMNA294
		MA5.1-6NA			MA5.1-6NA-2	Find the distance between two points located on the Cartesian plane using a range of strategies, including graphing software	ACMNA214
		MA5.1-6NA			MA5.1-6NA-3	Sketch linear graphs using the coordinates of two points	ACMNA215
		MA5.1-6NA			MA5.1-6NA-4	Solve problems involving parallel lines	ACMNA238
Number and Algebra	Linear Relationships	5.2 MA5.2-9NA	MA5.2-9NA Linear Relationships	uses the gradient-intercept form to interpret and graph linear relationships			
		MA5.2-9NA			MA5.2-9NA-1	Interpret and graph linear relationships using the gradient-intercept form of the equation of a straight line	
		MA5.2-9NA			MA5.2-9NA-2	Solve problems involving parallel and perpendicular lines	ACMNA238
Number and Algebra	Linear Relationships	5.3 MA5.3-8NA	MA5.3-8NA Linear Relationships	uses formulas to find midpoint, gradient and distance on the Cartesian plane, and applies standard			
		MA5.3-8NA			MA5.3-8NA-1	Find the midpoint and gradient of a line segment (interval) on the Cartesian plane	ACMNA294
		MA5.3-8NA			MA5.3-8NA-2	Find the distance between two points located on the Cartesian plane	ACMNA214
		MA5.3-8NA			MA5.3-8NA-3	Sketch linear graphs using the coordinates of two points	ACMNA215
		MA5.3-8NA			MA5.3-8NA-4	Solve problems using various standard forms of the equation of a straight line	
		MA5.3-8NA			MA5.3-8NA-5	Solve problems involving parallel and perpendicular lines	ACMNA238
Number and Algebra	Non-Linear Relationships	5.1 MA5.1-7NA	MA5.1-7NA Non-Linear Relationship	ps graphs simple non-linear relationships			
		MA5.1-7NA			MA5.1-7NA-1	Graph simple non-linear relations, with and without the use of digital technologies	ACMNA296

Strand	Sub-strand	Stage Outcome Code	Outcome	Outcome Description	Content Point Code	Content Point Description	AC Code
		MA5.1-7NA			MA5.1-7NA-2	Explore the connection between algebraic and graphical representations of relations such as simple quadratics, circles and exponentials using digital technologies as appropriate	ACMNA239
Number and Algebra	Non-Linear Relationships	5.2 MA5.2-10NA	MA5.2-10NA Non-Linear Relation	nship connects algebraic and graphical representations of simple non-linear relationships			
		MA5.2-10NA		·	MA5.2-10NA-1	Graph simple non-linear relationships, with and without the use of digital technologies and solve simple related equations	l .
		MA5.2-10NA			MA5.2-10NA-2	Explore the connection between algebraic and graphical representations of relationships such as simple quadratics, circles and exponentials using digital technologies as appropriate	ACMNA239
Number and Algebra	Non-Linear Relationships	5.3 MA5.3-9NA	MA5.3-9NA Non-Linear Relation	ships sketches and interprets a variety of non- linear relationships			
		MA5.3-9NA		iniear relationships	MA5.3-9NA-1	Describe, interpret and sketch parabolas, hyperbolas, circles and exponential functions and their transformations	ACMNA267
		MA5.3-9NA			MA5.3-9NA-2	Describe, interpret and sketch cubics, other curves and their transformations	
Number and Algebra	Polynomials	5.3 MA5.3-10NA	MA5.3-10NA Polynomials	recognises, describes and sketches polynomials, and applies the factor and remainder theorems to solve problems			
		MA5.3-10NA			MA5.3-10NA-1	Investigate the concept of a polynomial and apply the factor and remainder theorems to solve problems	ACMNA266
		MA5.3-10NA			MA5.3-10NA-2	Apply an understanding of polynomials to sketch a range of curves and describe the features of these curves from their equation	ACMNA268
Number and Algebra	Logarithms	5.3 MA5.3-11NA	MA5.3-11NA Logarithms	uses the definition of a logarithm to establish and apply the laws of logarithms		equation	
		MA5.3-11NA			MA5.3-11NA-1	Use the definition of a logarithm to establish and apply the laws of logarithms	ACMNA265
Number and Algebra	Functions and Other Graphs	MA5.3-11NA 5.3 MA5.3-12NA	MA5.3-12NA Functions and Othe	er Grauses function notation to describe and sketch functions	MA5.3-11NA-2	Solve simple exponential equations	ACMNA270
		MA5.3-12NA			MA5.3-12NA-1	Describe, interpret and sketch functions	
Measurement and Geometry	Length	e MAe-9MG	MAe-9MG Length	describes and compares lengths and distances using everyday language			
		MAe-9MG			MAe-9MG-1	Use direct and indirect comparisons to decide which is longer, and explain their reasoning using everyday language	ACMMG006
Measurement and Geometry	Length	1 MA1-9MG	MA1-9MG Length	measures, records, compares and estimates lengths and distances using uniform informal units, metres and centimetres			
		MA1-9MG			MA1-9MG-1	Measure and compare the lengths of pairs of objects using uniform informal units	
		MA1-9MG			MA1-9MG-2	Compare and order several shapes and objects based on length, using appropriate uniform informal units	ACMMG037

Strand	Sub-strand	Stage Outcome Code	Outcome	Outcome Description	Content Point Code	Content Point Description	AC Code
		MA1-9MG			MA1-9MG-3	Recognise and use formal units to measure the lengths of objects	
Measurement and Geometry	Length	2 MA2-9MG	MA2-9MG Length	measures, records, compares and estimates lengths, distances and perimeters in metres, centimetres and millimetres, and measures, compares and		,	
		MA2-9MG		records temperatures	MA2-9MG-1	Measure, order and compare objects using	ACMMG061
		MA2-9MG			MA2-9MG-2	familiar metric units of length Use scaled instruments to measure and	ACMMG084
		MA2-9MG			MA2-9MG-3	compare lengths Use scaled instruments to measure and compare temperatures	ACMMG084
Measurement and Geometry	Length	3 MA3-9MG	MA3-9MG Length	selects and uses the appropriate unit and device to measure lengths and distances, calculates perimeters, and converts between units of length		compare temperatures	
		MA3-9MG		between units of religin	MA3-9MG-1	Choose appropriate units of measurement for length	ACMMG108
		MA3-9MG			MA3-9MG-2	Calculate the perimeters of rectangles using familiar metric units	ACMMG109
		MA3-9MG			MA3-9MG-3	Connect decimal representations to the metric system	ACMMG135
		MA3-9MG			MA3-9MG-4	Convert between common metric units of length	ACMMG136
		MA3-9MG			MA3-9MG-5	Solve problems involving the comparison of lengths using appropriate units	ACMMG137
Measurement and Geometry	Length	4 MA4-12MG	MA4-12MG Length	calculates the perimeters of plane shapes and the circumferences of circles			
		MA4-12MG			MA4-12MG-1	Find perimeters of parallelograms, trapeziums, rhombuses and kites	ACMMG196
		MA4-12MG			MA4-12MG-2	Investigate the concept of irrational numbers, including $\boldsymbol{\pi}$	ACMNA186
		MA4-12MG			MA4-12MG-3	Investigate the relationship between features of circles, such as the circumference, radius and diameter; use formulas to solve problems involving circumference	ACMMG197
Measurement and Geometry	Area	e MAe-10MG	MAe-10MG Area	describes and compares areas using everyday language			
		MAe-10MG			MAe-10MG-1	Use direct comparison to decide which shape has a larger area and explain their reasoning using everyday language	
Measurement and Geometry	Area	1 MA1-10MG	MA1-10MG Area	measures, records, compares and estimates areas using uniform informal units			
		MA1-10MG			MA1-10MG-1	Measure and compare areas using uniform informal units	
		MA1-10MG			MA1-10MG-2	Compare and order several shapes and objects based on area using appropriate uniform informal units	ACMMG037
Measurement and Geometry	Area	2 MA2-10MG	MA2-10MG Area	measures, records, compares and estimates areas using square centimetres and square metres			

Strand	Sub-strand	Stage Outcome Code	Outcome	Outcome Description	Content Point Code	Content Point Description AC Co	ode
		MA2-10MG			MA2-10MG-1	Recognise and use formal units to measure	
						and estimate the areas of rectangles	
		MA2-10MG			MA2-10MG-2	Compare the areas of regular and irregular ACMN shapes by informal means	MG087
		MA2-10MG			MA2-10MG-3	Compare objects using familiar metric units ACMN of area	MG290
Measurement and Geometry	Area	3 MA3-10MG	MA3-10MG Area	selects and uses the appropriate unit to calculate areas, including areas of squares,			
		MA3-10MG		rectangles and triangles	MA3-10MG-1	Choose appropriate units of measurement ACMN for area	MG108
		MA3-10MG			MA3-10MG-2		MG109
		MA3-10MG			MA3-10MG-3		MG137
Measurement and Geometry	Area	4 MA4-13MG	MA4-13MG Area	uses formulas to calculate the areas of quadrilaterals and circles, and converts between units of area			
		MA4-13MG			MA4-13MG-1	Choose appropriate units of measurement for area and convert from one unit to another	MG195
		MA4-13MG			MA4-13MG-2	Establish the formulas for areas of rectangles, triangles and parallelograms and use these in problem solving	MG159
		MA4-13MG			MA4-13MG-3	Find areas of trapeziums, rhombuses and ACMN kites	MG196
		MA4-13MG			MA4-13MG-4		MG197
Measurement and Geometry	Area and Surface Area	5.1 MA5.1-8MG	MA5.1-8MG Area and Surface Area	calculates the areas of composite shapes, and the surface areas of rectangular and triangular prisms			
		MA5.1-8MG			MA5.1-8MG-1	Calculate the areas of composite shapes ACMN	MG216
		MA5.1-8MG			MA5.1-8MG-2	Solve problems involving the surface areas ACMN of right prisms	MG218
Measurement and Geometry	Area and Surface Area	5.2 MA5.2-11MG	MA5.2-11MG Area and Surface Area	calculates the surface areas of right prisms, cylinders and related composite solids			
		MA5.2-11MG			MA5.2-11MG-1	Calculate the surface areas of cylinders and ACMN solve related problems	MG217
		MA5.2-11MG			MA5.2-11MG-2	Solve problems involving surface area for a range of prisms, cylinders and composite solids	MG242
Measurement and Geometry	Area and Surface Area	5.3 MA5.3-13MG	MA5.3-13MG Area and Surface Area	applies formulas to find the surface areas of right pyramids, right cones, spheres and related composite solids			
		MA5.3-13MG			MA5.3-13MG-1	Solve problems involving the surface areas ACMN of right pyramids, right cones, spheres and related composite solids	MG271
Measurement and Geometry	Volume and Capacity	e MAe-11MG	MAe-11MG Volume and Capacity	describes and compares the capacities of containers and the volumes of objects or substances using everyday language			

Strand	Sub-strand	Stage Outcome Code	Outcome	Outcome Description	Content Point Code	Content Point Description	AC Code
		MAe-11MG			MAe-11MG-1	Use direct and indirect comparisons to	ACMMG006
						decide which holds more, and explain their	
						reasoning using everyday language	
Measurement and Geometry	Volume and Capacity	1 MA1-11MG	MA1-11MG Volume and Capacity	measures, records, compares and			
				estimates volumes and capacities using			
				uniform informal units			
		MA1-11MG			MA1-11MG-1	Measure and compare the capacities of	ACMMG019
						pairs of objects using uniform informal	
						units	
		MA1-11MG			MA1-11MG-2	Compare and order several objects based	ACMMG037
						on volume and capacity using appropriate uniform informal units	
Measurement and Geometry	Volume and Capacity	2 MA2-11MG	MA2-11MG Volume and Capacity	measures, records, compares and			
				estimates volumes and capacities using			
				litres, millilitres and cubic centimetres			
		MA2-11MG			MA2-11MG-1	Measure, order and compare objects using familiar metric units of capacity	ACMMG061
		MA2-11MG			MA2-11MG-2	Compare objects using familiar metric units	ACMMG290
						of volume	
		MA2-11MG			MA2-11MG-3	Use scaled instruments to measure and	ACMMG084
						compare capacities	
Measurement and Geometry	Volume and Capacity	3 MA3-11MG	MA3-11MG Volume and Capacity	selects and uses the appropriate unit to			
				estimate, measure and calculate volumes			
				and capacities, and converts between units			
				of capacity			
		MA3-11MG			MA3-11MG-1	Choose appropriate units of measurement	ACMMG108
						for volume and capacity	
		MA3-11MG			MA3-11MG-2	Connect volume and capacity and their units of measurement	ACMMG138
		MA3-11MG			MA3-11MG-3	Connect decimal representations to the	ACMMG135
						metric system	
		MA3-11MG			MA3-11MG-4	Convert between common metric units of	ACMMG136
						capacity	
		MA3-11MG			MA3-11MG-5	Calculate the volumes of rectangular prisms	ACMMG160
Measurement and Geometry	Volume	4 MA4-14MG	MA4-14MG Volume	uses formulas to calculate the volumes of		prisms	
measarement and Seemen,	T Graine		The volume	prisms and cylinders, and converts			
				between units of volume			
		MA4-14MG			MA4-14MG-1	Draw different views of prisms and solids	ACMMG161
						formed from combinations of prisms	
		MA4-14MG			MA4-14MG-2	Choose appropriate units of measurement	ACMMG195
						for volume and convert from one unit to	
						another	
		MA4-14MG			MA4-14MG-3	Develop the formulas for the volumes of	ACMMG198
						rectangular and triangular prisms and of	
						prisms in general; use formulas to solve	
						problems involving volume	
		MA4-14MG			MA4-14MG-4	Calculate the volumes of cylinders and	ACMMG217
						solve related problems	
Measurement and Geometry	Volume	5.2 MA5.2-12MG	MA5.2-12MG Volume	applies formulas to calculate the volumes			
				of composite solids composed of right			
				prisms and cylinders			<u> </u>
		MA5.2-12MG			MA5.2-12MG-1	Solve problems involving the volumes of	ACMMG218
					1	right prisms	

Strand	Sub-strand	Stage Outcome Code	Outcome	Outcome Description	Content Point Code	Content Point Description	AC Code
		MA5.2-12MG			MA5.2-12MG-2	Solve problems involving volume for a range of prisms, cylinders and composite solids	ACMMG242
Measurement and Geometry	Volume	5.3 MA5.3-14MG	MA5.3-14MG Volume	applies formulas to find the volumes of right pyramids, right cones, spheres and related composite solids			
		MA5.3-14MG			MA5.3-14MG-1	Solve problems involving the volumes of right pyramids, right cones, spheres and related composite solids	ACMMG271
Measurement and Geometry	asurement and Geometry Mass	e MAe-12MG	MAe-12MG Mass	describes and compares the masses of objects using everyday language			
		MAe-12MG			MAe-12MG-1	Use direct and indirect comparisons to decide which is heavier, and explain their reasoning using everyday language	ACMMG006
Measurement and Geometry	Mass	1 MA1-12MG	MA1-12MG Mass	measures, records, compares and estimates the masses of objects using uniform informal units			
		MA1-12MG			MA1-12MG-1	Investigate mass using a pan balance	
		MA1-12MG			MA1-12MG-2	Compare the masses of objects using balance scales	ACMMG038
Measurement and Geometry	Mass	2 MA2-12MG	MA2-12MG Mass	measures, records, compares and estimates the masses of objects using kilograms and grams			
		MA2-12MG			MA2-12MG-1	Measure, order and compare objects using familiar metric units of mass	ACMMG061
		MA2-12MG			MA2-12MG-2	Use scaled instruments to measure and compare masses	ACMMG084
Measurement and Geometry	Mass	3 MA3-12MG	MA3-12MG Mass	selects and uses the appropriate unit and device to measure the masses of objects, and converts between units of mass			
		MA3-12MG			MA3-12MG-1	Choose appropriate units of measurement for mass	ACMMG108
		MA3-12MG			MA3-12MG-2	Connect decimal representations to the metric system	ACMMG135
		MA3-12MG			MA3-12MG-3	Convert between common metric units of mass	ACMMG136
Measurement and Geometry	Time	e MAe-13MG	MAe-13MG Time	sequences events, uses everyday language to describe the durations of events, and reads hour time on clocks			
		MAe-13MG			MAe-13MG-1	Compare and order the duration of events using the everyday language of time	ACMMG007
		MAe-13MG			MAe-13MG-2	Connect days of the week to familiar events and actions	ACMMG008
		MAe-13MG			MAe-13MG-3	Tell time on the hour on analog and digital clocks	
Measurement and Geometry Time	Time	1 MA1-13MG	MA1-13MG Time	describes, compares and orders durations of events, and reads half- and quarter-hour time			
		MA1-13MG			MA1-13MG-1	Name and order months and seasons	ACMMG040
		MA1-13MG			MA1-13MG-2	Use a calendar to identify the date and determine the number of days in each month	ACMMG041
		MA1-13MG			MA1-13MG-3	Tell time to the half-hour	ACMMG020
		MA1-13MG			MA1-13MG-4	Describe duration using months, weeks, days and hours	ACMMG021

Strand	Sub-strand	Stage Outcome Code	Outcome	Outcome Description	Content Point Code	Content Point Description	AC Code
		MA1-13MG			MA1-13MG-5	Tell time to the quarter-hour using the language of 'past' and 'to'	ACMMG039
Measurement and Geometry	Time	2 MA2-13MG	MA2-13MG Time	reads and records time in one-minute intervals and converts between hours,			
		MA2-13MG		minutes and seconds	MA2-13MG-1	Tell time to the minute and investigate the relationship between units of time	ACMMG062
		MA2-13MG			MA2-13MG-2	Convert between units of time	ACMMG085
		MA2-13MG			MA2-13MG-3	Use am and pm notation and solve simple time problems	ACMMG086
		MA2-13MG			MA2-13MG-4	Read and interpret simple timetables, timelines and calendars	
Measurement and Geometry	Time	3 MA3-13MG	MA3-13MG Time	uses 24-hour time and am and pm notation in real-life situations, and constructs timelines			
		MA3-13MG			MA3-13MG-1	Compare 12- and 24-hour time systems and convert between them	ACMMG110
		MA3-13MG			MA3-13MG-2	Determine and compare the duration of events	
		MA3-13MG			MA3-13MG-3	Interpret and use timetables	ACMMG139
		MA3-13MG			MA3-13MG-4	Draw and interpret timelines using a given scale	
Measurement and Geometry	Time	4 MA4-15MG	MA4-15MG Time	performs calculations of time that involve mixed units, and interprets time zones			
		MA4-15MG			MA4-15MG-1	Solve problems involving duration, including using 12-hour and 24-hour time within a single time zone	ACMMG199
		MA4-15MG			MA4-15MG-2	Solve problems involving international time zones	
Measurement and Geometry	Numbers of Any Magnitude	5.1 MA5.1-9MG	MA5.1-9MG Numbers of Any Magn	ituinterprets very small and very large units of measurement, uses scientific notation, and rounds to significant figures			
		MA5.1-9MG			MA5.1-9MG-1	Investigate very small and very large time scales and intervals	ACMMG219
		MA5.1-9MG			MA5.1-9MG-2	Express numbers in scientific notation	ACMNA210
Measurement and Geometry	Right-Angled Triangles (Pythagoras)	4 MA4-16MG	MA4-16MG Right-Angled Triangles	(P applies Pythagoras' theorem to calculate side lengths in right-angled triangles, and solves related problems			
		MA4-16MG			MA4-16MG-1	Investigate Pythagoras' theorem and its application to solving simple problems involving right-angled triangles	ACMMG222
		MA4-16MG			MA4-16MG-2	Investigate the concept of irrational numbers	ACMNA186
Measurement and Geometry Right-Angled Triangl	Right-Angled Triangles (Trigonometry)	5.1 MA5.1-10MG	MA5.1-10MG Right-Angled Triangle	es applies trigonometry, given diagrams, to solve problems, including problems involving angles of elevation and depression			
		MA5.1-10MG			MA5.1-10MG-1	Use similarity to investigate the constancy of the sine, cosine and tangent ratios for a given angle in right-angled triangles	ACMMG223
		MA5.1-10MG			MA5.1-10MG-2	Apply trigonometry to solve right-angled triangle problems	ACMMG224
		MA5.1-10MG			MA5.1-10MG-3	Solve right-angled triangle problems, including those involving angles of elevation and depression	ACMMG245

Strand		Stage Outcome Code	Outcome	Outcome Description	Content Point Code	Content Point Description	AC Code
Measurement and Geometry	Right-Angled Triangles (Trigonometry)	5.2 MA5.2-13MG	MA5.2-13MG Right-Angled Triangles	applies trigonometry to solve problems,			
		MA5.2-13MG		including problems involving bearings	MA5.2-13MG-1	Apply trigonometry to solve right-angled	ACMMG224
		IVIA3.2-13IVIG			IVIA3.2-13IVIG-1	triangle problems	ACIVIIVIG224
		MA5.2-13MG			MA5.2-13MG-2	Solve right-angled triangle problems,	ACMMG245
						including those involving direction and	
						angles of elevation and depression	
Measurement and Geometry	Right-Angled Triangles (Trigonometry)	5.3 MA5.3-15MG	MA5.3-15MG Right-Angled Triangles				
				trigonometric relationships, the sine rule,			
				the cosine rule and the area rule to solve problems, including problems involving			
				three dimensions			
		MA5.3-15MG		tinee dimensions	MA5.3-15MG-1	Apply Pythagoras' theorem and	ACMMG276
						trigonometry to solve three-dimensional	
						problems in right-angled triangles	
		MA5.3-15MG			MA5.3-15MG-2	Use the unit circle to define trigonometric	ACMMG274
						functions, and graph them, with and	
						without the use of digital technologies	
		MA5.3-15MG			MA5.3-15MG-3	Solve simple trigonometric equations	ACMMG275
		MA5.3-15MG			MA5.3-15MG-4	Establish the sine, cosine and area rules for any triangle and solve related problems	ACIVIIVIG273
						any triangle and solve related problems	
Measurement and Geometry	Three-Dimensional Space	e MAe-14MG	MAe-14MG Three-Dimensional Space	emanipulates, sorts and represents three-			
•	·		·	dimensional objects and describes them			
				using everyday language			
		MAe-14MG			MAe-14MG-1	Sort, describe and name familiar three-	ACMMG009
						dimensional objects in the environment	
Measurement and Geometry	Three-Dimensional Space	1 MA1-14MG	MA1-14MG Three-Dimensional Spac	esorts, describes, represents and recognises			
				familiar three-dimensional objects,			
				including cones, cubes, cylinders, spheres and prisms			
		MA1-14MG		and prisms	MA1-14MG-1	Recognise and classify familiar three-	ACMMG022
						dimensional objects using obvious features	
		MA1-14MG			MA1-14MG-2	Describe the features of three-dimensional	ACMMG043
						objects	
Measurement and Geometry	Three-Dimensional Space	2 MA2-14MG	MA2-14MG Three-Dimensional Spac	emakes, compares, sketches and names			
				three-dimensional objects, including			
				prisms, pyramids, cylinders, cones and spheres, and describes their features			
		MA2-14MG		sprieres, and describes their reatures	MA2-14MG-1	Make models of three-dimensional objects	ACMMG063
						and describe key features	7.0
		MA2-14MG			MA2-14MG-2	Investigate and represent three-	
						dimensional objects using drawings	
Measurement and Geometry	Three-Dimensional Space	3 MA3-14MG	MA3-14MG Three-Dimensional Space	e identifies three-dimensional objects,			
				including prisms and pyramids, on the			
				basis of their properties, and visualises,			
				sketches and constructs them given			
		MA3-14MG		drawings of different views	MA3-14MG-1	Compare, describe and name prisms and	
						pyramids	
		MA3-14MG			MA3-14MG-2	Connect three-dimensional objects with	ACMMG111
						their nets and other two-dimensional	
						representations	
		MA3-14MG			MA3-14MG-3	Construct simple prisms and pyramids	ACMMG140

Strand	Sub-strand	Stage Outcome Code	Outcome	Outcome Description	Content Point Code	Content Point Description	AC Code
Measurement and Geometry	Two-Dimensional Space	e MAe-15MG	MAe-15MG Two-Dimensional Space	1			
				representations of two-dimensional			
				shapes, including circles, triangles, squares			
				and rectangles, using everyday language			
		MAe-15MG			MAe-15MG-1	Sort, describe and name familiar two-	ACMMG009
		IVIAE-15IVIG			IVIAE-13IVIG-1	dimensional shapes in the environment	ACIVIIVIGUUS
asurement and Geometry Two-	Two-Dimensional Space	1 MA1-15MG	MA1-15MG Two-Dimensional Space	manipulates, sorts, represents, describes			
				and explores two-dimensional shapes,			
				including quadrilaterals, pentagons,			
				hexagons and octagons			
		MA1-15MG			MA1-15MG-1	Recognise and classify familiar two-	ACMMG022
						dimensional shapes using obvious features	
		MA1-15MG			MA1-15MG-2	Describe and draw two-dimensional	ACMMG042
						shapes, with and without the use of digital	
						technologies	
		MA1-15MG			MA1-15MG-3	Investigate the effect of one-step slides	ACMMG045
						and flips, with and without the use of	
						digital technologies	
		MA1-15MG			MA1-15MG-4	Identify and describe half-turns and quarter-turns	ACMMG046
Measurement and Geometry	Two-Dimensional Space	2 MA2-15MG	MA2-15MG Two-Dimensional Space	manipulates, identifies and sketches two-			
				dimensional shapes, including special			
				quadrilaterals, and describes their features			
		MA2-15MG			MA2-15MG-1	Compare and describe features of two-	
						dimensional shapes, including the special	
						quadrilaterals	
		MA2-15MG			MA2-15MG-2	Identify symmetry in the environment	ACMMG066
		MA2-15MG			MA2-15MG-3	Compare and describe two-dimensional	ACMMG088
						shapes that result from combining and	
						splitting common shapes, with and without	
						the use of digital technologies	
		MA2-15MG			MA2-15MG-4		ACMMG091
						shapes, with and without the use of digital	
Measurement and Geometry	Two-Dimensional Space	3 MA3-15MG	MA3-15MG Two-Dimensional Space	manipulates, classifies and draws two-		technologies	
Wicasarement and Geometry	Two Billiensional Space	3 100 13110	IVII I SIVIO I WO DIMENSIONAI SPACE	dimensional shapes, including equilateral,			
				isosceles and scalene triangles, and			
				describes their properties			
		MA3-15MG		, and the second	MA3-15MG-1	Classify two-dimensional shapes and	
						describe their features	
		MA3-15MG			MA3-15MG-2	Describe translations, reflections and	ACMMG114
		NAA2 15NAC			MA2 15MC 2	rotations of two-dimensional shapes	A CN 4N 4 C 1 1 4
		MA3-15MG MA3-15MG			MA3-15MG-3 MA3-15MG-4	Identify line and rotational symmetries Apply the enlargement transformation to	ACMMG114 ACMMG115
		ININO-TOINIG			INIU2-TOINIO-4	familiar two-dimensional shapes and	VCIAIIAIOT12
						explore the properties of the resulting	
						image compared with the original	
		MA3-15MG			MA3-15MG-5	Investigate the diagonals of two-	
						dimensional shapes	
		MA3-15MG			MA3-15MG-6	Identify and name parts of circles	
		MA3-15MG			MA3-15MG-7	Investigate combinations of translations,	ACMMG142
						reflections and rotations, with and without	
						the use of digital technologies	

Strand	Sub-strand	Stage Outcome Code	Outcome	Outcome Description	Content Point Code	Content Point Description	AC Code
Measurement and Geometry	Properties of Geometrical Figures	4 MA4-17MG	MA4-17MG Properties of Geometric				
				properties of triangles and quadrilaterals,			
				and determines congruent triangles to find			
		NAAA 1704C		unknown side lengths and angles	NAAA 17NAC 1	Classif Asia and an assauding to the their side	A CD 4D 4C 1 C F
		MA4-17MG			MA4-17MG-1	, ,	ACMMG165
						and angle properties and describe quadrilaterals	
		MA4-17MG			MA4-17MG-2		ACMMG181
		MA4-17MG			MA4-17MG-3	Demonstrate that the angle sum of a	ACMMG166
						triangle is 180; and use this to find the	7.0
						angle sum of a quadrilateral	
		MA4-17MG			MA4-17MG-4	Use the properties of special triangles and	
						quadrilaterals to solve simple numerical	
						problems with appropriate reasoning	
		MA4-17MG			MA4-17MG-5	Define congruence of plane shapes using	ACMMG200
						transformations	
		MA4-17MG			MA4-17MG-6	, ,	ACMMG201
						triangles	
		MA4-17MG			MA4-17MG-7		ACMMG202
						congruent triangles and angle properties,	
						and solve related numerical problems	
Massurament and Coomstru	Droportion of Coometrical Figures	5.1 MA5.1-11MG	NAAE 1 11MC Dranarties of Coometr	idescribes and applies the properties of		using reasoning	
Measurement and Geometry	Properties of Geometrical Figures	5.1 MA5.1-11MG	MAS.1-11MG Properties of Geometr	similar figures and scale drawings			
		MA5.1-11MG		similar figures and scale drawings	MA5.1-11MG-1	Use the enlargement transformation to	ACMMG220
		WAS.I IIWG			WAS.I IIWO I	explain similarity	ACIVIIVIGZZO
		MA5.1-11MG			MA5.1-11MG-2	Solve problems using ratio and scale	ACMMG221
						factors in similar figures	
Measurement and Geometry	Properties of Geometrical Figures	5.2 MA5.2-14MG	MA5.2-14MG Properties of Geometr	i calculates the angle sum of any polygon		and the same of th	
· ·			·	and uses minimum conditions to prove			
				triangles are congruent or similar			
		MA5.2-14MG			MA5.2-14MG-1	Formulate proofs involving congruent	ACMMG243
						triangles and angle properties	
		MA5.2-14MG			MA5.2-14MG-2	Use the enlargement transformations to	ACMMG220
						explain similarity and to develop the	
						conditions for triangles to be similar	
		MA5.2-14MG			MA5.2-14MG-3	117 0	ACMMG244
						of congruence and similarity, to proofs and	
						numerical exercises involving plane shapes	
Massurament and Goomatry	Properties of Geometrical Figures	5.3 MA5.3-16MG	MAE 2 16MG Proportion of Goometr	i proves triangles are similar, and uses			
Measurement and Geometry	Properties of Geometrical rigures	3.3 IVIA3.3-10IVIG	IMA3.3-10IMG Properties of Geometr	formal geometric reasoning to establish			
				properties of triangles and quadrilaterals			
		MA5.3-16MG		properties of thangles and quadriaterals	MA5.3-16MG-1	Formulate proofs involving congruent	ACMMG243
						triangles and angle properties	
		MA5.3-16MG			MA5.3-16MG-2		ACMMG244
1						of congruence and similarity, to proofs and	
1						numerical exercises involving plane shapes	
Measurement and Geometry	Angles	2 MA2-16MG	MA2-16MG Angles	identifies, describes, compares and			
				classifies angles			<u> </u>
		MA2-16MG			MA2-16MG-1	Identify angles as measures of turn and	ACMMG064
		1442 46446			MAA2 46MG 2	compare angle sizes in everyday situations	A CN 4N 4 C C C C C
1		MA2-16MG			MA2-16MG-2	Compare angles and classify them as equal	ACIVINIG089
1						to, greater than or less than a right angle	
	I				1	1	1

Strand	Sub-strand	Stage Outcome Code	Outcome	Outcome Description	Content Point Code	Content Point Description	AC Code
Measurement and Geometry	Angles	3 MA3-16MG	MA3-16MG Angles	measures and constructs angles, and applies angle relationships to find			
		MA3-16MG		unknown angles	MA3-16MG-1	Estimate measure and compare angles	ACMMG112
		IVIA3-10IVIG			INIA3-10IVIG-1	Estimate, measure and compare angles using degrees	ACIVIIVIG112
		MA3-16MG			MA3-16MG-2	Construct angles using a protractor	ACMMG112
		MA3-16MG			MA3-16MG-3	Investigate, with and without the use of digital technologies, angles on a straight line, angles at a point, and vertically opposite angles; use the results to find unknown angles	ACMMG141
Measurement and Geometry	Angle Relationships	4 MA4-18MG	MA4-18MG Angle Relationships	identifies and uses angle relationships, including those related to transversals on sets of parallel lines			
		MA4-18MG			MA4-18MG-1	Use the language, notation and conventions of geometry	
		MA4-18MG			MA4-18MG-2	Recognise the geometrical properties of angles at a point	
		MA4-18MG			MA4-18MG-3	Identify corresponding, alternate and co- interior angles when two straight lines are crossed by a transversal	ACMMG163
		MA4-18MG			MA4-18MG-4	Investigate conditions for two lines to be parallel	ACMMG164
		MA4-18MG			MA4-18MG-5	Solve simple numerical problems using reasoning	ACMMG164
Measurement and Geometry	Position	e MAe-16MG	MAe-16MG Position	describes position and gives and follows simple directions using everyday language			
		MAe-16MG			MAe-16MG-1	Describe position and movement	ACMMG010
Measurement and Geometry	Position	1 MA1-16MG	MA1-16MG Position	represents and describes the positions of objects in everyday situations and on maps			
		MA1-16MG			MA1-16MG-1	Give and follow directions to familiar locations	ACMMG023
		MA1-16MG			MA1-16MG-2		ACMMG044
Measurement and Geometry	Position	2 MA2-17MG	MA2-17MG Position	uses simple maps and grids to represent position and follow routes, including using compass directions			
		MA2-17MG			MA2-17MG-1	Create and interpret simple grid maps to show position and pathways	ACMMG065
		MA2-17MG			MA2-17MG-2	Use simple scales, legends and directions to interpret information contained in basic maps	ACMMG090
Measurement and Geometry	Position	3 MA3-17MG	MA3-17MG Position	locates and describes position on maps using a grid-reference system			
		MA3-17MG			MA3-17MG-1	Use a grid-reference system to describe locations	ACMMG113
		MA3-17MG			MA3-17MG-2	Describe routes using landmarks and directional language	ACMMG113
Measurement and Geometry	Circle Geometry	5.3 MA5.3-17MG	MA5.3-17MG Circle Geometry	applies deductive reasoning to prove circle theorems and to solve related problems			
		MA5.3-17MG			MA5.3-17MG-1	Prove and apply angle and chord properties of circles	ACMMG272

Strand	Sub-strand	Stage Outcome Code	Outcome	Outcome Description	Content Point Code	Content Point Description	AC Code
		MA5.3-17MG			MA5.3-17MG-2	Prove and apply tangent and secant	
						properties of circles	
Statistics and Probability	Data	e MAe-17SP	MAe-17SP Data	represents data and interprets data			
				displays made from objects			
		MAe-17SP			MAe-17SP-1	Answer yes/no questions to collect	ACMSP011
						information	
		MAe-17SP			MAe-17SP-2	Organise objects into simple data displays and interpret the displays	
Statistics and Probability	atistics and Probability Data	1 MA1-17SP	MA1-17SP Data	gathers and organises data, displays data ir lists, tables and picture graphs, and interprets the results	1		
	MA1-17SP		mer, preto the results	MA1-17SP-1	Choose simple questions and gather responses	ACMSP262	
		MA1-17SP			MA1-17SP-2	Represent data with objects and drawings	ACMSP263
		WAI 1731			WAT 1751 Z	where one object or drawing represents	ACIVISI 203
						one data value and describe the displays	
		MA1-17SP			MA1-17SP-3	Identify a question of interest based on	ACMSP048
		14731			10000	one categorical variable and gather data	/ telvisi 040
						relevant to the question	
		MA1-17SP			MA1-17SP-4	Collect, check and classify data	ACMSP049
		MA1-17SP			MA1-17SP-5	Create displays of data using lists, tables	ACMSP050
						and picture graphs and interpret them	
Statistics and Probability	Data	2 MA2-18SP	MA2-18SP Data	selects appropriate methods to collect data, and constructs, compares, interprets and evaluates data displays, including			
				tables, picture graphs and column graphs			
		MA2-18SP			MA2-18SP-1	Identify questions or issues for categorical variables; identify data sources and plan methods of data collection and recording	ACMSP068
		MA2-18SP			MA2-18SP-2	Collect data, organise it into categories, and create displays using lists, tables, picture graphs and simple column graphs, with and without the use of digital technologies	ACMSP069
		MA2-18SP			MA2-18SP-3	Interpret and compare data displays	ACMSP070
		MA2-18SP			MA2-18SP-4	Select and trial methods for data collection, including survey questions and recording sheets	ACMSP095
	MA2-18SP			MA2-18SP-5	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	
		MA2-18SP			MA2-18SP-6	Evaluate the effectiveness of different displays in illustrating data features, including variability	ACMSP097
Statistics and Probability	Data	3 MA3-18SP	MA3-18SP Data	uses appropriate methods to collect data and constructs, interprets and evaluates data displays, including dot plots, line graphs and two-way tables			
		MA3-18SP			MA3-18SP-1	Pose questions and collect categorical or numerical data by observation or survey	ACMSP118

Strand	Sub-strand	Stage Outcome Code	Outcome	Outcome Description	Content Point Code	Content Point Description	AC Code
		MA3-18SP			MA3-18SP-2	Construct displays, including column graphs, dot plots and tables, appropriate for data type, with and without the use of digital technologies	ACMSP119
		MA3-18SP			MA3-18SP-3	Describe and interpret different data sets in context	ACMSP120
		MA3-18SP			MA3-18SP-4	Interpret and compare a range of data displays, including side-by-side column graphs for two categorical variables	ACMSP147
		MA3-18SP			MA3-18SP-5	Interpret secondary data presented in digital media and elsewhere	ACMSP148
Statistics and Probability	atistics and Probability Data Collection and Representation	4 MA4-19SP	MA4-19SP Data Collection and	Repres collects, represents and interprets single sets of data, using appropriate statistical displays			
		MA4-19SP		· ·	MA4-19SP-1	Investigate techniques for collecting data, including census, sampling and observation	ACMSP284
		MA4-19SP			MA4-19SP-2	Explore the practicalities and implications of obtaining data through sampling using a variety of investigative processes	ACMSP206
		MA4-19SP			MA4-19SP-3	Identify and investigate issues involving numerical data collected from primary and secondary sources	ACMSP169
		MA4-19SP			MA4-19SP-4	Construct and compare a range of data displays, including stem-and-leaf plots and dot plots	ACMSP170
Statistics and Probability	Single Variable Data Analysis	4 MA4-20SP	MA4-20SP Single Variable Data	a Analy: analyses single sets of data using measures of location, and range			
		MA4-20SP			MA4-20SP-1	Calculate mean, median, mode and range for sets of data and interpret these statistics in the context of data	ACMSP171
		MA4-20SP			MA4-20SP-2	Investigate the effect of individual data values, including outliers, on the mean and median	ACMSP207
		MA4-20SP			MA4-20SP-3	Describe and interpret data displays using mean, median and range	ACMSP172
		MA4-20SP			MA4-20SP-4	Explore the variation of means and proportions of random samples drawn from the same population	ACMSP293
Statistics and Probability	Single Variable Data Analysis	5.1 MA5.1-12SP	MA5.1-12SP Single Variable Da	ata Ana uses statistical displays to compare sets of data, and evaluates statistical claims made in the media			
		MA5.1-12SP			MA5.1-12SP-1	Identify everyday questions and issues involving at least one numerical and at least one categorical variable, and collect data directly from secondary sources	ACMSP228
		MA5.1-12SP			MA5.1-12SP-2	Construct back-to-back stem-and-leaf plots and histograms and describe data, using terms including 'skewed', 'symmetric' and 'bi-modal'	ACMSP282
		MA5.1-12SP			MA5.1-12SP-3	Compare data displays using mean, median and range to describe and interpret numerical data sets in terms of location (centre) and spread	ACMSP283

Strand	Sub-strand	Stage Outcome Code	Outcome	Outcome Description	Content Point Code	Content Point Description	AC Code
		MA5.1-12SP			MA5.1-12SP-4	Evaluate statistical reports in the media	ACMSP253
						and other places by linking claims to	
						displays, statistics and representative data	
Statistics and Probability	Single Variable Data Analysis	5.2 MA5.2-15SP	MA5.2-15SP Single Variable Data An	a uses quartiles and box plots to compare			
		MA5.2-15SP		sets of data, and evaluates sources of data	MA5.2-15SP-1	Determine a metile and intermedia	ACMSP248
		IMA5.2-155P			IVIA5.2-155P-1	Determine quartiles and interquartile	ACIVISP248
		MA5.2-15SP			MA5.2-15SP-2	range Construct and interpret box plots and use	ACMSP249
		WIA3.2 1331			IVIA3.2 1331 2	them to compare data sets	ACIVISI 243
		MA5.2-15SP			MA5.2-15SP-3	Compare shapes of box plots to	ACMSP250
						corresponding histograms and dot plots	
		MA5.2-15SP			MA5.2-15SP-4	Investigate reports of surveys in digital	ACMSP227
						media and elsewhere for information on	
						how data was obtained to estimate	
						population means and medians	
Statistics and Probability	Single Variable Data Analysis	5.3 MA5.3-18SP	MA5.3-18SP Single Variable Data An	a uses standard deviation to analyse data			
		MA5.3-18SP			MA5.3-18SP-1	Calculate and interpret the mean and	ACMSP278
						standard deviation of data and use these	
						to compare data sets	
Statistics and Probability	Bivariate Data Analysis	5.2 MA5.2-16SP	MA5.2-16SP Bivariate Data Analysis				
				statistical variables, including their			
		1445 2 466D		relationship over time	NAA5 2 466D 4		4.61.460252
		MA5.2-16SP			MA5.2-16SP-1	Investigate and describe bivariate	ACMSP252
						numerical data where the independent	
		MA5.2-16SP			MA5.2-16SP-2	variable is time Use scatter plots to investigate and	ACMSP251
		WA5.2-165P			IVIA5.2-103P-2	comment on relationships between two	ACIVISP251
						numerical variables	
Statistics and Probability	Bivariate Data Analysis	5.3 MA5.3-19SP	MA5.3-19SP Bivariate Data Analysis	investigates the relationship between		numerical variables	
Statistics and I robublity	Bivariace Bata / marysis	3.5 17.5.5 1951	Winds.5 1551 Bivariate Bata / marysis	numerical variables using lines of best fit,			
				and explores how data is used to inform			
				decision-making processes			
		MA5.3-19SP		S p	MA5.3-19SP-1	Use information technologies to	ACMSP279
						investigate bivariate numerical data sets;	
						where appropriate, students use a straight	
						line to describe the relationship, allowing	
						for variation	
		MA5.3-19SP			MA5.3-19SP-2	Investigate reports of studies in digital	ACMSP277
						media and elsewhere for information on	
				<u> </u>		their planning and implementation	
Statistics and Probability	Chance	1 MA1-18SP	MA1-18SP Chance	recognises and describes the element of			
		MAA1 10CD		chance in everyday events	MA1-18SP-1	Identify a terminal of femality and the	ACMSP024
		MA1-18SP			INIAT-1925-1	Identify outcomes of familiar events involving chance and describe them using	ACIVISPU24
						everyday language, such as 'will happen', 'won't happen' or 'might happen'	
		MA1-18SP			MA1-18SP-2	Identify practical activities and everyday	ACMSP047
						events that involve chance	
		MA1-18SP			MA1-18SP-3	Describe outcomes as 'likely' or 'unlikely'	ACMSP047
						and identify some events as 'certain' or	
						'impossible'	
Statistics and Probability	Chance	2 MA2-19SP	MA2-19SP Chance	describes and compares chance events in			
				social and experimental contexts			
		MA2-19SP			MA2-19SP-1	Conduct chance experiments, identify and	ACMSP067
						describe possible outcomes, and recognise	
						variation in results	

Strand	Sub-strand	Stage Outcome Code	Outcome	Outcome Description	Content Point Code	Content Point Description	AC Code
		MA2-19SP			MA2-19SP-2	Describe possible everyday events and order their chances of occurring	ACMSP092
		MA2-19SP			MA2-19SP-3	Identify everyday events where one occurring cannot happen if the other happens	ACMSP093
		MA2-19SP			MA2-19SP-4	Identify events where the chance of one occurring will not be affected by the occurrence of the other	ACMSP094
Statistics and Probability	Chance	3 MA3-19SP	MA3-19SP Chance	conducts chance experiments and assigns probabilities as values between 0 and 1 to describe their outcomes			
		MA3-19SP			MA3-19SP-1	List outcomes of chance experiments involving equally likely outcomes and represent probabilities of those outcomes using fractions	ACMSP116
		MA3-19SP			MA3-19SP-2	Recognise that probabilities range from 0 to 1	ACMSP117
		MA3-19SP			MA3-19SP-3	Compare observed frequencies across experiments with expected frequencies	ACMSP146
		MA3-19SP			MA3-19SP-4	Describe probabilities using fractions, decimals and percentages	ACMSP144
		MA3-19SP			MA3-19SP-5	Conduct chance experiments with both small and large numbers of trials using appropriate digital technologies	ACMSP145
Statistics and Probability	Probability	4 MA4-21SP	MA4-21SP Probability	represents probabilities of simple and compound events		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
		MA4-21SP			MA4-21SP-1	Construct sample spaces for single-step experiments with equally likely outcomes	ACMSP167
		MA4-21SP			MA4-21SP-2	Assign probabilities to the outcomes of events and determine probabilities for events	ACMSP168
		MA4-21SP			MA4-21SP-3	Identify complementary events and use the sum of probabilities to solve problems	ACMSP204
		MA4-21SP			MA4-21SP-4	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
		MA4-21SP			MA4-21SP-5	Represent events in two-way tables and Venn diagrams and solve related problems	ACMSP292
Statistics and Probability	Probability	5.1 MA5.1-13SP	MA5.1-13SP Probability	calculates relative frequencies to estimate probabilities of simple and compound events			
		MA5.1-13SP			MA5.1-13SP-1	Calculate relative frequencies from given or collected data to estimate probabilities of events involving 'and' or 'or'	ACMSP226
Statistics and Probability	Probability	5.2 MA5.2-17SP	MA5.2-17SP Probability	describes and calculates probabilities in multi-step chance experiments			
		MA5.2-17SP			MA5.2-17SP-1	List all outcomes for two-step chance experiments, with and without replacement, using tree diagrams or arrays; assign probabilities to outcomes and determine probabilities for events	ACMSP225

Strand	Sub-strand	Stage	Outcome Code	Outcome	Outcome Description	Content Point Code	Content Point Description	AC Code
			MA5.2-17SP			MA5.2-17SP-2	Describe the results of two- and three-step	ACMSP246
							chance experiments, with and without	
							replacement, assign probabilities to	
							outcomes, and determine probabilities of	
							events; investigate the concept of	
							independence	