#### Scope & Sequence Australian C

Strand

Number

### Syllabus comparison chart Mathletics



Year 4 Australian Curriculum v8.4		Year 4 Australian Curriculum v9			New Courses:	Activities (Courses):	Skill Quests
Tear + Australian Curriculum vo.+					Units of Work	Topics	okii Quesis
Content Descriptions	Code	Strand	Outcomes	Code	<b>ONEW</b>	Australian Curr	iculum v9 Yr 04
recognise that the place value system can be extended to tenths and hundredths. Make connections between fractions and decimal notation	ACMNA079		recognise and extend the application of place value to tenths and hundredths and use the conventions of decimal notation to name and represent decimals	AC9M4N01	Y4 Decimals Y5 Decimals Y4 Whole number and Place Value	Introducing Decimals	Place value to hundredths Connect decimals & fraction Round decimal tenths & hundredths Decimals used in money
investigate and use the properties of odd and even numbers	ACMNA071		explain and use the properties of odd and even numbers	AC9M4N02		Patterns & missing numbers	Odd & even numbers
investigate equivalent fractions used in contexts	ACMNA077		find equivalent representations of fractions using related denominators and make	AC9M4N03	Y4 Fractions	Fractions & equivalents	Equivalent fractions
recognise that the place value system can be extended to tenths and hundredths. Make connections between fractions and decimal notation	ACMNA079		connections between fractions and decimal notation		Y4 Decimals Y5 Decimals		
count by quarters halves and thirds, including with mixed numerals. Locate and represent these fractions on a number line	ACMNA078		count by fractions including mixed numerals; locate and represent these fractions as numbers on number lines	AC9M4N04	Y4 Fractions Y5 Fractions		Count by fractions & mixed numerals Convert fraction types using models
			solve problems involving multiplying or dividing natural numbers by multiples and powers of 10 without a calculator, using the multiplicative relationship between the place value of digits	AC9M4N05	Y4 Decimals	Multiplication & division	Mult/div by multiples of 10, 100 & 1000
apply place value to partition, rearrange and regroup numbers to at least tens of thousands to assist calculations and solve problems	ACMNA073	Number	develop efficient strategies and use appropriate digital tools for solving problems involving addition and subtraction, and multiplication and division	AC9M4N06		Efficient strategies with operations	Addition & subtraction using algorithms Addition & subtraction strategies
develop efficient mental and written strategies and use appropriate digital technologies for multiplication and for division where there is no remainder	ACMNA076		where there is no remainder				Mult & div strategies, no remainder
solve problems involving purchases and the calculation of change to the nearest five cents with and without digital technologies	ACMNA080		choose and use estimation and rounding to check and explain the reasonableness of calculations including the results of financial transactions	AC9M4N07			Use estimation & rounding
solve word problems by using number sentences involving multiplication or division where there is no remainder	ACMNA082		use mathematical modelling to solve practical problems involving additive and multiplicative situations including financial contexts; formulate the problems using number sentences and choose efficient calculation strategies, using digital tools where appropriate; interpret and communicate solutions in terms of the situation	AC9M4N08	Y4 Fractions	Problem solving with models	Addition & subtraction word problems Multiplication & division word problems Addition & subtraction money problems
investigate number sequences involving multiples of 3, 4, 6, 7, 8, and 9	ACMNA074		follow and create algorithms involving a sequence of steps and decisions that use	AC9M4N09			Sequences & patterns
explore and describe number patterns resulting from performing multiplication	ACMNA081		addition or multiplication to generate sets of numbers; identify and describe any emerging patterns				
recognise, represent and order numbers to at least tens of thousands ( MOVED TO Y3)	ACMNA072						

### Syllabus comparison chart Mathletics



South Australia   Year 4	South	Australia	Year	4
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	Year 4 Australian Curriculum v8.4		Year 4 Australian Curriculum v9			New Courses: Activities (Courses): Skill Quests		
Strand	Content Descriptions	Code	Strand	Outcomes	Code	<b>ONEW</b>	Australian Curr	iculum v9 Yr 04
	find unknown quantities in number sentences involving addition and subtraction and identify equivalent number sentences involving addition and subtraction	ACMNA083		find unknown values in numerical equations involving addition and subtraction, using the properties of numbers and operations	AC9M4A01		Patterns & missing numbers	Addition & subtraction number sentences
Algebra	recall multiplication facts up to 10 × 10 and related division facts	ACMNA075	Algebra	recall and demonstrate proficiency with multiplication facts up to 10 x 10 and related	AC9M4A02		Multiplication & division	Multiplication & division facts
	investigate number sequences involving multiples of 3, 4, 6, 7, 8, and 9	ACMNA074		division facts; extend and apply facts to develop efficient mental strategies for computation with larger numbers without a calculator				
	use scaled instruments to measure and compare lengths, masses, capacities and temperatures	ACMMG084	Measurement	interpret unmarked and partial units when measuring and comparing attributes of length, mass, capacity, duration and temperature, using scaled and digital instruments and appropriate units	AC9M4M01		Measuring converting & comparing	Length, mass, capacity & temperature
Measurement	compare the areas of regular and irregular shapes by informal means	ACMMG087		recognise ways of measuring and approximating the perimeter and area of shapes and enclosed spaces, using appropriate formal and informal units	AC9M4M02			Measure perimeter Measure area
	convert between units of time	ACMMG085		solve problems involving the duration of	AC9M4M03			Convert units of time
	use 'am' and 'pm' notation and solve simple time problems	ACMMG086		time including situations involving "am" and "pm" and conversions between units of time				Solve duration of time problems
	compare angles and classify them as equal to, greater than, or less than a right angle	ACMMG089		estimate and compare angles using angle names including acute, obtuse, straight angle, reflex and revolution, and recognise their relationship to a right angle	AC9M4M04		Space shape & angle	Classify angles
	compare and describe two dimensional shapes that result from combining and splitting common shapes, with and without the use of digital technologies	ACMMG088		represent and approximate composite shapes and objects in the environment, using combinations of familiar shapes and objects	AC9M4SP01			Identify composite shapes & objects
	use simple scales, legends and directions to interpret information contained in basic maps	ACMMG090		create and interpret grid reference systems using grid references and directions to locate and describe positions and pathways	AC9M4SP02		Space shape & angle	Create & interpret grid references
Geometry	create symmetrical patterns, pictures and shapes with and without digital technologies	ACMMG091	Space	recognise line and rotational symmetry of shapes and create symmetrical patterns and pictures, using dynamic geometric software where appropriate	AC9M4SP03			Line & rotational symmetry Symmetrical patterns, pictures & shapes
	compare objects using familiar metric units of area and volume <b>REMOVED</b>	ACMMG290						



	Year 4 Australian Curriculum v8.4			Year 4 Australian Curriculum v9		New Courses: Units of Work	Activities (Courses): Topics	Skill Quests	
Strand	Content Descriptions	Code	Strand	Outcomes	Code	<b>O</b> NEW	Australian Curi	riculum v9 Yr 04	
	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		acquire data for categorical and discrete numerical variables to address a question of interest or purpose using digital tools; represent data using many-to-one pictographs, column graphs and other displays or visualisations; interpret and discuss the information that has been created	AC9M4ST01		Graphs with scales &/or axis	Represent data with many-to-one graphs	
Statistics	evaluate the effectiveness of different displays in illustrating data features including variability	ACMSP097	Statistics	analyse the effectiveness of different displays or visualisations in illustrating and comparing data distributions, then discuss the shape of distributions and the variation in the data	AC9M4ST02			Evaluate & compare data displays	
	select and trial methods for data collection, including survey questions and recording sheets	ACMSP095		conduct statistical investigations, collecting data through survey responses and other methods; record and display data using digital tools; interpret the data and communicate the results	AC9M4ST03			Methods of data collection	
	describe possible everyday events and order their chances of occurring	ACMSP092		describe possible everyday events and the possible outcomes of chance experiments and order outcomes or events based on	AC9M4P01		Chance	Chance events Non-simultaneous everyday events	
	identify everyday events where one cannot happen if the other happens	ACMSP093				their likelihood of occurring; identify independent or dependent events			
Probability	identify events where the chance of one will not be affected by the occurrence of the other	ACMSP094	Probability						
				conduct repeated chance experiments to observe relationships between outcomes; identify and describe the variation in results UNEW	AC9M4P02			Conduct chance experiments	

# Yearly overview South Australia | Year 4



	Term one	Term two	Term three	Term four
	Number	Number	Number Algebra	Number Algebra
Unit 1	Whole number and decimals	Decimals	Addition and subtraction	Patterns and algebra
	<ul> <li>Place value of numbers of any size</li> <li>Compare and order numbers of any size</li> <li>Tenths</li> <li>Hundredths</li> </ul>	<ul> <li>Decimal place value</li> <li>Compare and order decimals</li> <li>Work with money</li> </ul>	<ul> <li>Addition and subtraction using algorithms</li> <li>Inverse operations</li> <li>Round and estimate to solve problems</li> <li>Problem solving</li> </ul>	<ul> <li>Work with related number sentences</li> <li>Explore and generate patterns</li> <li>Find missing values</li> <li>Equivalent number sentences</li> </ul>
	Number Algebra	Number Algebra	Number	Number
Unit 2	Addition and subtraction	Patterns and algebra	Multiplication and division	Operations review
	Efficient mental strategies for addition and subtraction	<ul><li>Number facts</li><li>Properties of odd and even numbers</li><li>Find unknown numbers</li></ul>	<ul> <li>Multiplication and division number sentences</li> <li>Choose efficient strategies to multiply and divide</li> </ul>	Review earlier content
	Number	Number Algebra	Number	Measurement Space
Unit 3	Fractions and decimals	Multiplication and division	Fractions: Mixed number and improper fractions	Angles and 2D shapes
	<ul> <li>Fractions of a collection</li> <li>Equivalent fractions representations</li> <li>Connect fractions and decimals</li> <li>Count by fractions</li> </ul>	<ul> <li>Efficient mental strategies for multiplication and division</li> <li>Multiply by powers of 10</li> </ul>	<ul> <li>Equivalent fractions and decimals</li> <li>Mixed numerals</li> <li>Improper fractions</li> <li>Simplify fractions</li> </ul>	<ul> <li>Classify and compare angles</li> <li>Identify line properties</li> <li>Symmetry</li> </ul>
	Measurement Number	Measurement Number	Measurement	Probability Statistics
11	Length, perimeter and area	Mass, capacity and temperature	Time	Chance and data
Unit 4	<ul> <li>Measure and convert length using mm, cm &amp; m</li> <li>Use decimals to represent measurements</li> <li>Measure perimeter using formal and informal units</li> <li>Measure area using formal and informal units</li> </ul>	<ul> <li>Use measuring equipment and interpret units of measurement, including decimal notation</li> <li>Measure mass using g and kg</li> <li>Measure capacity using mL &amp; L</li> <li>Measure temperature using C</li> </ul>	<ul> <li>Read time</li> <li>Duration of events</li> <li>Convert units of time</li> </ul>	<ul> <li>Language of chance</li> <li>Predict outcomes</li> <li>Conduct statistical investigations</li> <li>Data distributions</li> <li>Analyse data displays and visualisations</li> </ul>
	Statistics	Space	Space	Measurement
	Data	2D shapes and 3D objects	Position	Measurement review and applications
Unit 5	<ul> <li>Collect data</li> <li>Use data displays to represent data</li> <li>Interpret and discuss data</li> </ul>	<ul> <li>Composite shapes</li> <li>Create models of 3D objects</li> </ul>	<ul> <li>Use grid reference maps and systems</li> <li>Enlarge and reduce</li> <li>Use directional language</li> </ul>	<ul> <li>Choose appropriate units</li> <li>Use measurement in everyday situations</li> </ul>

# Outcome map South Australia | Year 4



Strand	Outcomes and content descriptions	Located
Number	AC9M4N01 recognise and extend the application of place value to tenths and hundredths and use the conventions of decimal notation to name and represent decimals	T1 U1, U3 T2 U1 T3 U3
	AC9M4N02 explain and use the properties of odd and even numbers	T2 U2
	AC9M4N03 find equivalent representations of fractions using related denominators and make connections between fractions and decimal notation	T1 U3, U4 T2 U1, U4 T3 U3
	AC9M4N04 count by fractions including mixed numerals; locate and represent these fractions as numbers on number lines	T0 U0 T0 U0 T0 U0
	AC9M4N05 solve problems involving multiplying or dividing natural numbers by multiples and powers of 10 without a calculator, using the multiplicative relationship between the place value of digits	T2 U3 T3 U2 T4 U2
	AC9M4N06 develop efficient strategies and use appropriate digital tools for solving problems involving addition and subtraction, and multiplication and division where there is no remainder	T1 U2 T2 U3 T3 U1, U2 T4 U1, U2
	AC9M4N07 choose and use estimation and rounding to check and explain the reasonableness of calculations including the results of financial transactions	T1 U2 T3 U1, U2 T4 U2
	AC9M4N08 use mathematical modelling to solve practical problems involving additive and multiplicative situations including financial contexts; formulate the problems using number sentences and choose efficient calculation strategies, using digital tools where appropriate; interpret and communicate solutions in terms of the situation	T1 U2 T2 U1, U3, U4 T3 U1, U2, U3 T4 U2
	AC9M4N09 follow and create algorithms involving a sequence of steps and decisions that use addition or multiplication to generate sets of numbers; identify and describe any emerging patterns	T2 U2
Algebra	AC9M4A01 find unknown values in numerical equations involving addition and subtraction, using the properties of numbers and operations	T1 U2 T2 U2 T3 U1 T4 U1 T2 U2, U3
	AC9M4A02 recall and demonstrate proficiency with multiplication facts up to 10 × 10 and related division facts; extend and apply facts to develop efficient mental strategies for computation with larger numbers without a calculator	T2 U2, U3

Strand	Outcomes and content descriptions	Located
Measurement	AC9M4M01 interpret unmarked and partial units when measuring and comparing attributes of length, mass, capacity, duration and temperature, using scaled and digital instruments and appropriate units	T1 U4 T2 U4 T3 U4 T4 U5
	AC9M4M02 recognise ways of measuring and approximating the perimeter and area of shapes and enclosed spaces, using appropriate formal and informal units	T1 U4 T4 U5
	AC9M4M03 solve problems involving the duration of time including situations involving "am" and "pm" and conversions between units of time	T3 U4 T4 U5
	AC9M4M04 estimate and compare angles using angle names including acute, obtuse, straight angle, reflex and revolution, and recognise their relationship to a right angle	T4 U3
Space	AC9M4SP01 represent and approximate composite shapes and objects in the environment, using combinations of familiar shapes and objects	T2 U5
	AC9M4SP02 create and interpret grid reference systems using grid references and directions to locate and describe positions and pathways	T3 U5
	AC9M4SP03 recognise line and rotational symmetry of shapes and create symmetrical patterns and pictures, using dynamic geometric software where appropriate	T4 U3
Statistics	AC9M4ST01 acquire data for categorical and discrete numerical variables to address a question of interest or purpose using digital tools; represent data using many to-one pictographs, column graphs and other displays or visualisations; interpret and discuss the information that has been created	T1 U5 T4 U4
	AC9M4ST02 analyse the effectiveness of different displays or visualisations in illustrating and comparing data distributions, then discuss the shape of distributions and the variation in the data	T1 U5 T4 U4
	AC9M4ST03 conduct statistical investigations, collecting data through survey responses and other methods; record and display data using digital tools; interpret the data and communicate the results	T4 U4
Probability	AC9M4P01 describe possible everyday events and the possible outcomes of chance experiments and order outcomes or events based on their likelihood of occurring; identify independent or dependent events	T4 U4
	AC9M4P02 conduct repeated chance experiments to observe relationships between outcomes; identify and describe the variation in results	T4 U4



Strand & Topic	Outcomes	New Courses	Activities (Courses)	Skill Quests	Challenges	Ebooks
Unit 1 Number Whole number and decimals Place value of numbers of any size Compare and order numbers of any size Tenths Hundredths	AC9M4N01 recognise and extend the application of place value to tenths and hundredths and use the conventions of decimal notation to name and represent decimals	Y4 Whole number and Place Value • Numbers to at least 100 000s • Place value • Partitioning • Using number lines • Rounding • Compare numbers • Order numbers Y4 Decimals • Decimal tenths • Decimal hundredths • Place value to hundredths	Introducing Decimals <ul> <li>Decimals from Words to Digits 1</li> <li>Decimals on the Number Line</li> <li>Decimal Place Value</li> </ul>	Place value to hundredths • Introducing decimal notation • Understanding decimal tenths • Understanding decimal hundredths	Number & Algebra: Whole Number LEVEL 4-6 • Number & Algebra: Whole Number (DOK 3) • Clued in (DOK 2) • Mysterious numbers (DOK 2)	<ul> <li>(Ye-G) Reading and Understanding Whole Numbers</li> <li>Read and understand numbers (pp 1-8)</li> <li>Round and estimate (pp 19-20)</li> <li>(Y4-E) Fractions</li> <li>Fractions, decimals and percentages (pp 24-28)</li> </ul>
Unit 2 Number Algebra Addition and subtraction Efficient mental strategies for addition and subtraction	AC9M4N06 develop efficient strategies and use appropriate digital tools for solving problems AC9M4N07 choose and use estimation and rounding AC9M4N08 use mathematical modelling to solve practical problems involving additive and multiplicative situations AC9M4A01 find unknown values in numerical equations involving addition and subtraction	Coming soon	Efficient strategies with operations <ul> <li>Bump Add and Subtract</li> <li>Jump Add and Subtract</li> <li>Complements to 10, 20, 50</li> <li>Split Add and Subtract</li> <li>Compensation - Add</li> </ul>	<ul> <li>Addition &amp; subtraction strategies</li> <li>Add &amp; subtract using efficient strategies</li> <li>Add &amp; subtract using a bar model</li> <li>Add &amp; subtract using place value partitioning</li> <li>Add &amp; subtract using jump strategies</li> <li>Add &amp; subtract using split strategies</li> <li>Add &amp; subtract using round &amp; compensate strategies</li> </ul>	Number & Algebra: Addition & Subtraction LEVEL 2-4 • Calculate through this maze (DOK 3) LEVEL 3-5 • Adding up, arithmagons! (DOK 3) • All boxed up (DOK 2)	<ul> <li>(Y5-F) Addition and Subtraction</li> <li>Addition mental strategies (pp 1–8)</li> <li>Subtraction mental strategies (pp 9–16)</li> </ul>
Unit 3 Number Fractions and decimals Fractions of a collection Equivalent fractions representations Connect fractions and decimals Count by fractions	AC9M4N03 find equivalent representations of fractions AC9M4N04 count by fractions including mixed numerals AC9M4N01 recognise and extend the application of place value to tenths and hundredths	Y4 Fractions • Unit fractions • Proper fractions • Equivalence • Counting by fractions Y4 Decimals • Fractions and decimals	Fractions & equivalents • What Fraction is Shaded? • What fraction is Shaded 1 • Equivalent Fraction Wall 1 • Equivalent Fraction Wall 2 • Fractions on a Number Line • Thirds and Sixths • Identifying Fractions on a Number Line Problem solving with models • Fractions of a Collection 1 • Fractions of a Collection 2	Count by fractions & mixed numerals • Counting in halves & quarters • Counting in halves, quarters & eighths • Counting in thirds • Counting in tenths • Counting in simple fractions on a number line Equivalent fractions • Investigating equivalent fractions less than 1 • Patterns in equivalent fractions • Using multiplication to find equivalent fractions Connect decimals & fraction • Connecting fractions & decimal notation	Number & Algebra: Fractions LEVEL 2-4 • The grasshoppers who jumped a fraction (DOK 2)	<ul> <li>(T4-E) Fractions</li> <li>Working with fractions (pp 1–11)</li> <li>Fractions, decimals and percentages (pp 24–28)</li> <li>(Y5-F) Fractions, Decimals and Percentages</li> <li>Fractions (pp 1–8)</li> </ul>

#### **Term 1** South Australia | Year 4



Strand & Topic	Outcomes	New Courses	Activities (Courses)	Skill Quests	Challenges	Ebooks
Unit 4 Measurement Number Length, perimeter and area Measure and convert length using mm, cm & m Use decimals to represent measurements Measure perimeter using formal and informal units	AC9M4M01 interpret unmarked and partial units when measuring and comparing attributes of length, mass, capacity, duration and temperature AC9M4M02 recognise ways of measuring and approximating the perimeter and area of shapes and enclosed spaces AC9M4N03 find equivalent representations of fractions using related denominators	Coming soon	<ul> <li>Measuring converting &amp; comparing</li> <li>How Long is That?</li> <li>Measuring Length</li> <li>Measure to the Nearest Half Centimetre</li> <li>Biggest Shape</li> <li>Equal Areas</li> <li>Area of Shapes</li> <li>Perimeter of Shapes</li> <li>Introducing Decimals</li> <li>Centimetres and Metres</li> </ul>	<ul> <li>Length, mass, capacity &amp; temperature</li> <li>Metric units of length</li> <li>Length &amp; 3D objects</li> <li>Measure perimeter</li> <li>Introducing perimeter</li> <li>Measuring perimeter</li> <li>Measuring &amp; estimating area using square units</li> <li>Introducing area using formal units</li> <li>Measuring &amp; comparing regular &amp; irregular shapes</li> <li>Measuring area using formal units</li> </ul>	Measurement: Length LEVEL 3–5 • Different shape, same perimeter (DOK 2) LEVEL 2–4 • Rectangles of equal area (DOK 3)	Y4-E)       Length, Area and Perimeter         • Units of length (pp 1–7)         • Perimeter (pp 8–14)         • Area (pp 15–22)
Unit 5 Statistics Data Collect data Use data displays to represent data Interpret and discuss data	AC9M4ST01 acquire data for categorical and discrete numerical variables to address a question of interest or purpose using digital tools; represent data using many to-one pictographs, column graphs and other displays or visualisations; interpret and discuss the information that has been created <b>AC9M4ST02</b> analyse the effectiveness of different displays or visualisations in illustrating and comparing data distributions, then discuss the shape of distributions and the variation in the data	Coming soon	<ul> <li>Graphs with scales &amp;/or axis</li> <li>Picture Graphs: with scale &amp; half symbols</li> <li>Making Picture Graphs: With Scale</li> <li>Column Graphs</li> <li>Reading from a Column Graph</li> </ul>	<ul> <li>Represent data with many-to-one graphs</li> <li>Column graphs using many-to-one correspondence</li> <li>Picture graphs with many-to-one correspondence</li> <li>Evaluate &amp; compare data displays</li> <li>Evaluating &amp; comparing data displays</li> <li>Evaluating the shape of data sets</li> <li>Methods of data collection</li> <li>Surveys &amp; sorting data</li> </ul>	Statistics & Data LEVEL 3–5 • Watch out! (DOK2) • Create a line graph (DOK3) • Leah's sibling survey (DOK4) • Create a picture graph (DOK3)	(Y4-E) Chance and Data • Data (pp 12-25)



Strand & Topic	Outcomes	New Courses	Activities (Courses)	Skill Quests	Challenges	Ebooks
Unit 1 Number Decimals and money Decimal place value Compare and order decimals Work with money	AC9M4N01 recognise and extend the application of place value to tenths and hundredths AC9M4N03 find equivalent representations of fractions AC9M4N08 use mathematical modelling to solve practical problems	Y4 Decimals • 10 or 100 times larger or smaller • Partitioning decimals • Tenths on the number line • Hundredths on the number line • The nearest whole number	Introducing Decimals • Who's got the Money? • Money	<ul> <li>Decimals used in money</li> <li>Understandingdecimals used in money</li> <li>Use estimation &amp; rounding</li> <li>Using estimating with money</li> <li>Addition &amp; subtraction money problems</li> <li>Solving addition &amp; subtraction money problems</li> <li>Round decimal tenths &amp; hundredths</li> <li>Rounding decimal tenths &amp; hundredths</li> </ul>	Number & Algebra: Money LEVEL 3-5 • How much money? (DOK 3)	(va-E) Addition and Subtraction • Money (pp 36–41)
Unit 2 Number Algebra Patterns and algebra Number facts Properties of odd and even numbers Find unknown numbers	AC9M4N02 explain and use the properties of odd and even numbers AC9M4N09 follow and create algorithms involving a sequence of steps AC9M4A01 find unknown values in numerical equations involving addition and subtraction AC9M4A02 recall and demonstrate proficiency with multiplication facts up to 10 × 10	Coming soon	Patterns & missing numbers • Odd and Even Multiplication & division • Grouping in Threes • Grouping in Fours • Grouping in Sixes • Grouping in Sixes • Grouping in Nines • Dividing Threes • Dividing Fours • Dividing Fours • Dividing Sixes • Dividing Sevens • Dividing Eights • Dividing Eights • Dividing Nines • Multiplication Turnarounds • Missing Numbers: × and ÷ facts • Times Tables • Multiply 3 single-digit numbers	<ul> <li>Multiplication &amp; division facts</li> <li>Multiplication &amp; division facts up to 5</li> <li>Multiplying &amp; dividing by 6 up to 60</li> <li>Multiplying &amp; dividing by 7 up to 70</li> <li>Multiplying &amp; dividing by 9 up to 80</li> <li>Multiplying &amp; dividing by 9 up to 90</li> <li>Multiplying &amp; dividing to 10 x 10</li> <li>Odd &amp; even numbers</li> <li>Odd &amp; even number s</li> <li>Identifying od &amp; even numbers &amp; patterns</li> <li>Properties of odd &amp; even numbers</li> </ul>	<ul> <li>Number &amp; Algebra: Multiplication &amp; Division LEVEL 3-5</li> <li>Pair numbers to reach the product (DOK2)</li> <li>Multiply or divide to make true number sentences (DOK2)</li> <li>Like family! Relating multiplication and division (DOK2)</li> </ul>	(va-E) <b>Multiplication and Division</b> • Multiplication facts (pp 1–7) • Using known facts (pp 8–12)
Unit 3 Number Algebra Multiplication and division Efficient mental strategies for multiplication and division Multiply by powers of 10	AC9M4N06 develop efficient strategies and use appropriate digital tools for solving problems AC9M4N05 solve problems involving multiplying or dividing natural numbers AC9M4N08 use mathematical modelling to solve practical problems AC9M4A02 recall and demonstrate proficiency with multiplication facts	Coming soon	Multiplication & division • Multiplying by 10, 100, 1000 • Dividing by 10, 100, 1000 Efficient strategies with operations • Double and Halve to Multiply • Fact Families: Multiply and Divide • Multiplication Arrays • Arrays 1 • Arrays 2 • Related Facts 2 • Model multiplication to 5 × 5	Mult/div by multiples of 10, 100 & 1000         • Using place value to multiply by 10         • Multiplying by multiples of 100         • Multiplying by 1000         • Dividing by multiples of 10         • Dividing by multiples of 100         • Dividing by multiples of 100         • Dividing by 1000         Multiplication strategies, no remainder         • Multiplication strategies: 1-digit numbers         • Using the conventions of multiplication         • Inverse facts: multiplication & division         • Practising multiplication strategiess         Use estimation & rounding         • Estimating with multiplication & division         Multiplication & sword problems         • Expressing equations as word problems         • Solving multiplication & division word problems	Number & Algebra: Multiplication & Division LEVEL 3-5 • Pick your numbers( <u>DOK</u> 2) • Can you predict the remainder? ( <u>DOK</u> 2) • Exploring a number trail ( <u>DOK</u> 3) • Magic multiplication grid ( <u>DOK</u> 2)	<ul> <li>(Y4-E) Multiplication and Division</li> <li>Mental multiplication strategies (pp 13–21)</li> <li>Division (pp 22–28)</li> <li>Mental division strategies (pp 29–33)</li> </ul>



Strand & Topic	Outcomes	New Courses	Activities (Courses)	Skill Quests	Challenges	Ebooks
Unit 4 Measurement Number Mass, capacity and temperature Use measuring equipment and interpret units of measurement, including decimal notation Measure mass using g and kg Measure capacity using mL & L Measure temperature using C	AC9M4M01 interpret unmarked and partial units when measuring AC9M4N03 find equivalent representations of fractions AC9M4N08 use mathematical modelling to solve practical problems involving additive and multiplicative situations	Coming soon	Measuring converting & comparing • How Heavy? • What's the Temperature (Celsius)? Introducing Decimals • Grams and Kilograms • Millilitres and Litres	Length, mass, capacity & temperature • Measuring temperature • Measuring capacity in millilitres • Measuring mass in grams & kilograms • Reading scales with metric units		<ul> <li>Y4-E) Volume, Capacity and Mass</li> <li>Volume and capacity (pp 1–4)</li> <li>Mass (pp 9–13)</li> </ul>
Unit 5 Space 2D shapes and 3D objects Composite shapes Create models of 3D objects	AC9M4SP01 represent and approximate composite shapes and objects in the environment, using combinations of familiar shapes and objects	Coming soon	<ul> <li>Space shape &amp; angle</li> <li>Relate Shapes and Solids</li> <li>Collect the Objects 2</li> </ul>	Identify composite shapes & objects • Composing & decomposing 2D shapes	Geometry: 2D Shapes LEVEL 2-4 • Transformer shapes (OK3) • Shape cutter (OK2) • Triangle tiles (OK3) LEVEL 3-5 • Big shapes made smaller (OK2) Geometry: 3D Shapes LEVEL 3-5 • Net animals (OK2) • Straw building (OK3) • Nets and prisms (OK3)	(M-E) Space, Shape and Position • Investigating 3D shapes (pp 10–17)



Strand & Topic	Outcomes	New Courses	Activities (Courses)	Skill Quests	Challenges	Ebooks
Unit 1 Number Algebra Addition and subtraction Addition and subtraction using algorithms Inverse operations Round and estimate to solve problems Problem solving	AC9M4N06 develop efficient strategies and use appropriate digital tools for solving problems AC9M4N07 choose and use estimation and rounding AC9M4N08 use mathematical modelling to solve practical problems involving additive and multiplicative situations AC9M4A01 find unknown values in numerical equations involving addition and subtraction	Coming soon	Efficient strategies with operations • Column Addition 1 • Columns that Subtract • Subtract Numbers • Estimate Sums • Estimate Differences • Magic Symbols 1 Problem solving with models • Bar Model Problems 1 • Bar Model Problems 2	<ul> <li>Addition &amp; subtraction using algorithms <ul> <li>Addition algorithms (without regrouping)</li> <li>Addition algorithms (with regrouping)</li> <li>Addition algorithms (with &amp; without regrouping)</li> <li>Subtraction algorithms (with decomposing)</li> <li>Subtraction algorithms (with decomposing)</li> <li>Subtraction algorithms (with decomposing)</li> </ul> </li> <li>Use estimation &amp; rounding <ul> <li>Rounding &amp; estimating with addition</li> <li>Rounding &amp; estimating with subtraction</li> <li>Checking accuracy of addition &amp; subtraction</li> </ul> </li> <li>Addition &amp; subtraction word problems <ul> <li>Addition &amp; subtraction problems</li> <li>Expressing word problems as equations</li> </ul> </li> <li>Addition &amp; subtraction number sentences <ul> <li>Using inverse operations for add/sub equations</li> <li>Relationship between addition &amp; subtraction</li> <li>Equivalent number sentences</li> <li>Word problems for finding unknown quanitities</li> </ul> </li> </ul>	Number & Algebra: Addition & Subtraction LEVEL 3–5 • Missing numbers! (DOK 2) • Shuffle those numbers! (DOK 3) • Mystery number (DOK 3) • Explore an addition game (DOK 3) • Exchanging the ones (DOK 3)	Modifier         Addition and Subtraction           • Written methods (pp 28–35)
Unit 2 Number Multiplication and division Multiplication and division number sentences Choose efficient strategies to multiply and divide	AC9M4NO6 develop efficient strategies and use appropriate digital tools for solving problems AC9M4NO7 choose and use estimation and rounding AC9M4NO5 solve problems involving multiplying or dividing natural numbers AC9M4NO8 use mathematical modelling to solve practical problems involving additive and multiplicative situations	Coming soon	Efficient strategies with operations • Grid Methods 1 • Problems: Times and Divide	<ul> <li>Mult &amp; div strategies, no remainder</li> <li>Multiplying 2-digit numbers by a 1-digit number</li> <li>Multiplying 2-digit numbers using doubling</li> <li>Multiplying 2-digit numbers using factorising</li> <li>Selecting effective multiplication strategies</li> <li>Comparisons using the language of multiplication</li> <li>Dividing a 2-digit number by a 1-digit number</li> </ul>		<ul> <li>Multiplication and Division</li> <li>Mental multiplication strategies (pp 13–21)</li> <li>Division (pp 22–28)</li> <li>Mental division strategies (pp 29–33)</li> </ul>



Strand & Topic	Outcomes	New Courses	Activities (Courses)	Skill Quests	Challenges	Ebooks
Unit 3 Number Fractions: Mixed number and improper fractions and decimals Mixed numerals Improper fractions Simplify fractions	AC9M4N01 recognise and extend the application of place value to tenths and hundredths AC9M4N03 find equivalent representations of fractions AC9M4N04 count by fractions including mixed numerals AC9M4N08 use mathematical modelling to solve practical problems involving additive and multiplicative situations	<ul> <li>Y4 Fractions</li> <li>Mixed numbers and improper fractions</li> <li>Mixed numbers to improper fractions</li> <li>Improper fractions to mixed numbers</li> </ul>	Fractions & equivalents • What Mixed Number Is Shaded? • Simplifying Fractions • Improper to Mixed • Mixed to Improper • Converting Mixed and Improper • Identifying Fractions Beyond 1 • Mixed and Improper	<ul> <li>Equivalent fractions</li> <li>Investigating equivalent fractions greater than 1</li> <li>Convert fraction types using models</li> <li>Converting mixed numerals to improper fractions</li> </ul>		(Y4-E) <b>Fractions</b> • Types of fractions (pp 12–23)
Unit 4 Measurement Time Read time Duration of events Convert units of time	AC9M4M01 interpret unmarked and partial units when measuring and comparing attributes of length, mass, capacity, duration and temperature, using scaled and digital instruments and appropriate units AC9M4M03 solve problems involving the duration of time including situations involving "am" and "pm" and conversions between units of time	Coming soon	Measuring converting & comparing • What is the Time? • Time Conversions: Whole Numbers 1 • Time Conversions: Whole Numbers 2 • Time Conversions: Simple Fractions • Time Conversions: Simple Decimals	Convert units of time • Converting units of time Solve duration of time problems • Understanding am & pm notation • Solving duration of time problems	Measurement: Time LEVEL 3-5 • Comparing different measures of time (DOK 2) • A lesson in time (DOK 2)	(Y4-E) <b>Time</b> • Telling time (pp 1–6) • Measuring time (pp 7–14)
Unit 5 Space Position Use grid reference maps and systems Enlarge and reduce Use directional language	AC9M4SP02 create and interpret grid reference systems using grid references and directions to locate and describe positions and pathways	Coming soon	Space shape & angle • Coordinate Meeting Place • Map Coordinates • Using a key • What Direction was That? • More Directions!	Create & interpret grid references • Working with grid reference systems	Geometry: Symmetry, Transformation & Location LEVEL 2-4 • Mighty maze (OCK 4) LEVEL 3-5 • Map the way (OCK 2) • Program the robot (OCK 3) • Drawing with grids (DCK 3)	(Y4-E) Space, Shape and Position • Position (pp 18–24)



Strand & Topic	Outcomes	New Courses	Activities (Courses)	Skill Quests	Challenges	Ebooks
Unit 1 Number Algebra Patterns and algebra Work with related number sentences Explore and generating patterns Find missing values Equivalent number sentences	AC9M4N06 develop efficient strategies and use appropriate digital tools for solving problems involving addition and subtraction AC9M4A01 find unknown values in numerical equations involving addition and subtraction, using the properties of numbers and operations	Coming soon	Patterns & missing numbers • Describing Patterns • Missing Values • I am Thinking of a Number! • Balance Numbers to 20 • Numbers 1	<ul> <li>Sequences &amp; patterns</li> <li>Investigating sequences with multiples</li> <li>Exploring number patterns</li> <li>Finding &amp; generating shape patterns from a rule</li> <li>Generating add/sub patterns from a rule</li> <li>Generating multiplication patterns from a rule</li> <li>Using a function machine to apply rules to numbers</li> <li>Working with code to create algorithms</li> </ul>	Number & Algebra: Money LEVEL 3-5 • Stick squares (DOK 3) • Trains and number patterns (DOK 3) • Decorating with tiles (DOK 4)	<ul> <li>(¥4-E) Patterns and Algebra</li> <li>Patterns and functions (pp 1–12)</li> <li>Equations and equivalence (pp 13–21)</li> </ul>
Unit 2 Number Operations review	AC9M4N06 develop efficient strategies and use appropriate digital tools AC9M4N07 choose and use estimation and rounding AC9M4N05 solve problems involving multiplying or dividing AC9M4N08 use mathematical modelling to solve practical problems	Coming soon	ری Review earlier content	Review earlier content	بری Review earlier content	√ <u>()</u> Review earlier content
Unit 3 Measurement Space Angles and 2D shapes Classify and compare angles Identify line properties Symmetry	AC9M4M04 estimate and compare angles using angle names including acute, obtuse, straight angle, reflex and revolution, and recognise their relationship to a right angle AC9M4SP03 recognise line and rotational symmetry of shapes and create symmetrical patterns and pictures, using dynamic geometric software where appropriate	Coming soon	Space shape & angle • Equal Angles • Comparing Angles • Right Angle Relation • What Type of Angle? • Symmetry • Symmetry or Not? • Rotational Symmetry	Classify angles • Classifying angles Line & rotational symmetry • Recognising & drawing line symmetry • Rotational symmetry Symmetrical patterns, pictures & shapes • Creating & drawing symmetrical designs • Recognising tessellations	Geometry: Angles LEVEL 3-5 • Angles and answers (DOK3) Geometry: Symmetry, Transformation & Location LEVEL 2-4 • Flutter bye (DOK2) • Reflections of 'R' (DOK3)	<ul> <li>Y4-E Space, Shape and Position</li> <li>Lines, angles and shapes (pp 1–3, 8–9)</li> <li>Y6-G Geometry</li> <li>Transformation, tessellation and symmetry (p 17)</li> </ul>

#### **Term 4** South Australia | Year 4



Strand & Topic	Outcomes	New Courses	Activities (Courses)	Skill Quests	Challenges	Ebooks
Unit 4 Probability Statistics Chance and data Language of chance Predict outcomes Conduct statistical investigations Data distributions Analyse data displays and visualisations	AC9M4P01 describe possible everyday events and the possible outcomes of chance experiments AC9M4P02 conduct repeated chance experiments AC9M4ST01 acquire data for categorical and discrete numerical variables AC9M4ST02 analyse the effectiveness of different displays or visualisations AC9M4ST03 conduct statistical investigations	Coming soon	<ul> <li>Chance Gauge</li> <li>What are the Chances?</li> <li>Counting Techniques 1</li> </ul>	<ul> <li>Chance events</li> <li>Describing the chance of events occurring</li> <li>Non-simultaneous everyday events</li> <li>Exploring non-simultaneous everyday events</li> <li>Independent &amp; dependent events</li> <li>Independent &amp; dependent events</li> <li>Conduct chance experiments</li> <li>Conducting chance experiments</li> <li>Investigating equally likely outcomes of chance</li> </ul>	Chance & Probability LEVEL 3-5 • Pulling marbles (DOK 3) • Independent vs. not independent (DOK 3) LEVEL 4-6 • Healthy lunch (DOK 2) • Double dice (DOK 4)	(W-E) Chance and Data • Chance (pp 1–11)
Unit 5 Measurement Measurement review and application Choose appropriate units Use measurement in everyday situations	AC9M4M01 interpret unmarked and partial units when measuring and comparing attributes of length, mass, capacity, duration and temperature, using scaled and digital instruments and appropriate units AC9M4M02 recognise ways of measuring and approximating the perimeter and area of shapes and enclosed spaces, using appropriate formal and informal units AC9M4M03 solve problems involving the duration of time including situations involving "am" and "pm" and conversions between units of time	Coming soon	Classroom directed	Classroom directed	Measurement: Length LEVEL 3-5 • Area and perimeter challenge (DOK 3) LEVEL 2-4 • Perimeter problems (DOK 3) • Planning that pool (DOK 3)	Classroom directed