

# Mathletics

## Australian Capital Territory (Australian Curriculum v9)

### Scope & Sequence



Year 3

Mathletics

	Term one	Term two	Term three	Term four
Unit 1	<b>Number</b>	<b>Number Algebra</b>	<b>Number</b>	<b>Measurement Number</b>
	<b>Addition and subtraction: mental strategies</b> <ul style="list-style-type: none"> <li>Review 3-digit numbers</li> <li>Number facts to 20</li> <li>Place value</li> <li>Read, write and order 4-digit numbers</li> <li>Round numbers</li> <li>Partitioning</li> </ul>	<b>Number Facts and Patterns</b> <ul style="list-style-type: none"> <li>Number facts: 2, 3, 4, 5 and 10</li> <li>Identify and make patterns using shapes &amp; numbers</li> <li>Describe patterns and determine rules</li> <li>Find missing terms</li> </ul>	<b>Numbers to 1 000 000</b> <ul style="list-style-type: none"> <li>Read, write and represent numbers to 1 000 000</li> <li>Place value</li> <li>Compare and order numbers to 1 000 000</li> <li>Round to nearest 10, 100, 1000</li> </ul>	<b>Money and number review</b> <ul style="list-style-type: none"> <li>Recognise money</li> <li>Count money</li> <li>Money conversions</li> </ul>
Unit 2	<b>Number Algebra</b>	<b>Number Algebra</b>	<b>Number</b>	<b>Number Algebra</b>
	<b>Addition and subtraction (2-digit numbers)</b> <ul style="list-style-type: none"> <li>Addition and subtraction facts to 10 and 20</li> <li>Inverse operations</li> <li>Efficient mental strategies to add and subtract 2-digit numbers</li> </ul>	<b>Multiplication and division: 1- by 1-digit numbers</b> <ul style="list-style-type: none"> <li>Use efficient mental strategies for multiplication and division</li> <li>Solve problems involving multiplication and division</li> </ul>	<b>Addition and subtraction (3-digit numbers)</b> <ul style="list-style-type: none"> <li>Efficient mental strategies to add and subtract 3-digit numbers</li> </ul>	<b>Operations review</b> Review earlier content
Unit 3	<b>Number</b>	<b>Number</b>	<b>Number Algebra</b>	<b>Measurement</b>
	<b>Fractions: Halves, quarters and eights</b> <ul style="list-style-type: none"> <li>Represent unit fractions</li> <li>Create wholes using unit fractions</li> <li>Find fractions of a collection</li> <li>Count in fractions</li> </ul>	<b>Fractions: Thirds, fifths, and multiples</b> <ul style="list-style-type: none"> <li>Count with fractions</li> <li>Fractions of a collection</li> <li>Equivalent fractions</li> </ul>	<b>Multiplication and division: 1- by 2-digit numbers</b> <ul style="list-style-type: none"> <li>Efficient mental strategies to multiply and divide 2-digit numbers</li> <li>Solve problems involving multiplication and division</li> </ul>	<b>Time</b> <ul style="list-style-type: none"> <li>Use formal units of time</li> <li>Estimate durations</li> <li>Read and represent digital and analogue time</li> <li>Use timers</li> </ul>
Unit 4	<b>Measurement Algebra</b>	<b>Statistics</b>	<b>Probability Statistics</b>	<b>Space</b>
	<b>Length</b> <ul style="list-style-type: none"> <li>Identify appropriate units of measurement</li> <li>Measure length using mm, cm &amp; m</li> <li>Estimate and compare length</li> </ul>	<b>Data</b> <ul style="list-style-type: none"> <li>Collect data</li> <li>Represent data using graphs and tables</li> <li>Interpret data</li> </ul>	<b>Chance and data</b> <ul style="list-style-type: none"> <li>Use language of probability</li> <li>Conduct simple chance experiments</li> <li>Graph results</li> <li>Interpret data</li> </ul>	<b>Position and 2D shape</b> <ul style="list-style-type: none"> <li>Interpret 2D representations of environments</li> <li>Interpret maps</li> <li>Create and follow directions</li> </ul>
Unit 5	<b>Space</b>	<b>Space Measurement</b>	<b>Measurement</b>	<b>Measurement</b>
	<b>3D Objects</b> <ul style="list-style-type: none"> <li>Recognise 2D shapes in 3D objects</li> <li>Describe, sort and compare 3D objects</li> <li>Create 3D models</li> </ul>	<b>2D shape and angles</b> <ul style="list-style-type: none"> <li>Review properties of shapes</li> <li>Use quarter, half, and three-quarter turns</li> <li>Compare angles to right angles</li> </ul>	<b>Mass and capacity</b> <ul style="list-style-type: none"> <li>Measure weight using g &amp; kg</li> <li>Compare the weight of objects</li> <li>Measure capacity using mL &amp; L</li> <li>Compare the capacity of containers</li> </ul>	<b>Measurement review and applications</b> <ul style="list-style-type: none"> <li>Choose appropriate units</li> <li>Use measurement in everyday situations</li> </ul>

Strand	Outcomes and content descriptions	Located
Number	<b>AC9M3N01</b> recognise, represent and order natural numbers using naming and writing conventions for numerals beyond 10 000	T1 U1 T3 U1 T4 U1
	<b>AC9M3N02</b> recognise and represent unit fractions including $\frac{1}{2}$ , $\frac{1}{3}$ , $\frac{1}{4}$ , $\frac{1}{5}$ and $\frac{1}{10}$ and their multiples in different ways; combine fractions with the same denominator to complete the whole	T1 U3 T2 U3
	<b>AC9M3N03</b> add and subtract two- and three-digit numbers using place value to partition, rearrange and regroup numbers to assist in calculations without a calculator	T1 U2 T3 U2 T4 U2
	<b>AC9M3N04</b> multiply and divide one- and two-digit numbers, representing problems using number sentences, diagrams and arrays, and using a variety of calculation strategies	T2 U2 T3 U3 T4 U2
	<b>AC9M3N05</b> estimate the quantity of objects in collections and make estimates when solving problems to determine the reasonableness of calculations	T1 U1, U2 T3 U2 T4 U1, U2
	<b>AC9M3N06</b> use mathematical modelling to solve practical problems involving additive and multiplicative situations including financial contexts; formulate problems using number sentences and choose calculation strategies, using digital tools where appropriate; interpret and communicate solutions in terms of the situation	T1 U2, U3 T2 U2, U3 T3 U2, U3 T4 U2
	<b>AC9M3N07</b> follow and create algorithms involving a sequence of steps and decisions to investigate numbers; describe any emerging patterns	T2 U1 T3 U3
Algebra	<b>AC9M3A01</b> recognise and explain the connection between addition and subtraction as inverse operations, apply to partition numbers and find unknown values in number sentences	T1 U2 T4 U2
	<b>AC9M3A02</b> extend and apply knowledge of addition and subtraction facts to 20 to develop efficient mental strategies for computation with larger numbers without a calculator	T1 U2, U4 T4 U2
	<b>AC9M3A03</b> recall and demonstrate proficiency with multiplication facts for 3, 4, 5 and 10; extend and apply facts to develop the related division facts	T2 U1, U2 T3 U3 T4 U2
Measurement	<b>AC9M3M01</b> identify which metric units are used to measure everyday items; use measurements of familiar items and known units to make estimates	T1 U4 T3 U5 T4 U5
	<b>AC9M3M02</b> measure and compare objects using familiar metric units of length, mass and capacity, and instruments with labelled markings	T1 U4 T3 U5 T4 U5
	<b>AC9M3M03</b> recognise and use the relationship between formal units of time including days, hours, minutes and seconds to estimate and compare the duration of events	T4 U3 T4 U5
	<b>AC9M3M04</b> describe the relationship between the hours and minutes on analogue and digital clocks, and read the time to the nearest minute	T4 U3 T4 U5

Strand	Outcomes and content descriptions	Located
Measurement (cont'd)	<b>AC9M3M05</b> identify angles as measures of turn and compare angles with right angles in everyday situations	T2 U5
	<b>AC9M3M06</b> recognise the relationships between dollars and cents and represent money values in different ways	T4 U1
Space	<b>AC9M3SP01</b> make, compare and classify objects, identifying key features and explaining why these features make them suited to their uses	T1 U5
	<b>AC9M3SP02</b> interpret and create two-dimensional representations of familiar environments, locating key landmarks and objects relative to each other	T4 U4
Statistics	<b>AC9M3ST01</b> acquire data for categorical and discrete numerical variables to address a question of interest or purpose by observing, collecting and accessing data sets; record the data using appropriate methods including frequency tables and spreadsheets	T2 U4 T3 U4
	<b>AC9M3ST02</b> create and compare different graphical representations of data sets including using software where appropriate; interpret the data in terms of the context	T2 U4 T3 U4
	<b>AC9M3ST03</b> conduct guided statistical investigations involving the collection, representation and interpretation of data for categorical and discrete numerical variables with respect to questions of interest	T2 U4 T3 U4
Probability	<b>AC9M3P01</b> identify practical activities and everyday events involving chance; describe possible outcomes and events as 'likely' or 'unlikely' and identify some events as 'certain' or 'impossible' explaining reasoning	T3 U4
	<b>AC9M3P02</b> conduct repeated chance experiments; identify and describe possible outcomes, record the results, recognise and discuss the variation	T3 U4

Strand & Topic	Outcomes	New Courses	Activities (Courses)	Skill Quests	Challenges	Ebooks
<p><b>Unit 1</b> Number</p> <p><b>Numbers to at least 10 000</b></p> <p>Review 3-digit numbers Number facts to 20 Place value Read, write and order 4-digit numbers Round numbers Partitioning</p>	<p><b>AC9M3N01</b> recognise, represent and order natural numbers using naming and writing conventions for numerals beyond 10 000</p> <p><b>AC9M3N05</b> estimate the quantity of objects in collections and make estimates when solving problems to determine the reasonableness of calculations</p>	<p><b>Y3 Whole number and Place Value</b></p> <ul style="list-style-type: none"> <li>Numbers to at least 10 000s</li> <li>Place value</li> <li>Partitioning</li> <li>Number lines</li> </ul>	<p><b>Numbers beyond 10 000 with 5 digits</b></p> <ul style="list-style-type: none"> <li>Place Value 3</li> <li>Place Value</li> <li>Thousands</li> <li>Partition and Rename 2</li> <li>Ascending Order</li> <li>Descending Order</li> <li>Smallest and largest numbers</li> </ul>	<p><b>Apply knowledge of facts to 20</b></p> <ul style="list-style-type: none"> <li>Finding fact families</li> <li>Numbers bonds to 20</li> <li>Applying facts to 20 to larger numbers</li> </ul> <p><b>Numbers to 10 000</b></p> <ul style="list-style-type: none"> <li>Identifying &amp; counting numbers to 4 digits</li> <li>Reading &amp; representing numbers to 4 digits</li> <li>Comparing &amp; ordering numbers to 4 digits</li> <li>Place value to 4 digits</li> <li>Partitioning numbers to 4 digits</li> <li>Rounding numbers to 4 digits</li> </ul>	<p><b>Number &amp; Algebra: Whole Number</b> LEVEL 2–4</p> <ul style="list-style-type: none"> <li>Swap the numbers (DOK 2)</li> <li>Partitioning 4-digit numbers (DOK 3)</li> <li>Bank mistake (DOK 3)</li> <li>Alex's number (DOK 3)</li> <li>Find the 4 digits (DOK 3)</li> <li>Football friends (DOK 3)</li> <li>Top score (DOK 2)</li> <li>33 beads (DOK 3)</li> </ul> <p>LEVEL 3–5</p> <ul style="list-style-type: none"> <li>Target numbers! (DOK 3)</li> <li>Build the number (DOK 3)</li> </ul>	<p>(Y3) <b>Reading and Understanding Whole Numbers</b></p> <ul style="list-style-type: none"> <li>Build a number</li> </ul> <p>(Y3-D) <b>Reading and Understanding Whole Numbers</b></p> <ul style="list-style-type: none"> <li>Looking at whole numbers (pp 1–10)</li> <li>Place value of whole numbers (pp 11–18)</li> <li>Round and estimate (pp 19–26)</li> </ul> <p>(Y4-E) <b>Reading and Understanding Whole Numbers</b></p> <ul style="list-style-type: none"> <li>Looking at whole numbers (pp 1–8)</li> <li>Place value of whole numbers (pp 9–16)</li> <li>Round and estimate (pp 17–24)</li> </ul>
<p><b>Unit 2</b> Number Algebra</p> <p><b>Addition and subtraction (2-digit numbers)</b></p> <p>Addition and subtraction facts to 10 and 20 Inverse operations Efficient mental strategies to add and subtract 2-digit numbers</p>	<p><b>AC9M3N03</b> add and subtract two- and three-digit numbers...</p> <p><b>AC9M3N05</b> estimate the quantity of objects in collections...</p> <p><b>AC9M3N06</b> use mathematical modelling to solve practical problems ...</p> <p><b>AC9M3A01</b> recognise and explain the connection between addition and subtraction ...</p> <p><b>AC9M3A02</b> extend and apply knowledge of addition and subtraction facts ...</p>	<p><b>Y3 Addition</b></p> <ul style="list-style-type: none"> <li>Make easier additions</li> <li>Split strategy +</li> </ul> <p><b>Y3 Subtraction</b></p> <ul style="list-style-type: none"> <li>Using addition to subtract</li> <li>Split strategy -</li> </ul>	<p><b>Up to 3 digit add &amp; subtract</b></p> <ul style="list-style-type: none"> <li>Add 3 Numbers: Bonds to 100</li> <li>Partition Puzzles 2</li> <li>Repartition to Subtract</li> <li>Estimate Differences</li> <li>Estimate Sums</li> <li>Bar Model Problems 1</li> <li>Bar Model Problems 2</li> </ul>	<p><b>Addition &amp; subtraction using place value</b></p> <ul style="list-style-type: none"> <li>Add &amp; subtract using number facts within 1000</li> <li>Add &amp; subtract 2- &amp; 3-digit using jump strategy</li> <li>Add &amp; subtract 2- &amp; 3-digit using place value</li> <li>Add &amp; subtract 2- &amp; 3-digit using bridging to 10</li> <li>Add &amp; subtract 2- &amp; 3-digit using split strategy</li> <li>Add &amp; subtract 2-digit rounding &amp; compensation</li> <li>Adding &amp; subtracting to make 100</li> </ul> <p><b>Addition &amp; subtraction relationship</b></p> <ul style="list-style-type: none"> <li>Relationship between addition &amp; subtraction</li> <li>Equivalent number sentences</li> <li>Word problems for finding unknown quantities</li> <li>Representing add &amp; subtract using a bar model</li> </ul>	<p><b>Number &amp; Algebra: Addition &amp; Subtraction</b> LEVEL 2–4</p> <ul style="list-style-type: none"> <li>The key to adding (DOK 2)</li> <li>Make 200 (DOK 3)</li> <li>Game over (DOK 3)</li> <li>Choosing chores (DOK 4)</li> </ul>	<p>(Y3-D) <b>Addition and Subtraction</b></p> <ul style="list-style-type: none"> <li>Addition mental strategies (pp 1–14)</li> <li>Subtraction mental strategies (pp 15–30)</li> </ul>
<p><b>Unit 3</b> Number</p> <p><b>Fractions: Halves, quarters and eighths</b></p> <p>Represent unit fractions Create wholes using unit fractions Find fractions of a collection Count in fractions</p>	<p><b>AC9M3N02</b> recognise and represent unit fractions including <math>\frac{1}{2}</math>, <math>\frac{1}{3}</math>, <math>\frac{1}{4}</math>, <math>\frac{1}{5}</math> and <math>\frac{1}{10}</math> and their multiples in different ways; combine fractions with the same denominator ...</p> <p><b>AC9M3N02</b> use mathematical modelling to solve practical problems involving additive and multiplicative situations ...</p>	<p><b>Y3 Fractions</b></p> <ul style="list-style-type: none"> <li>Halves, Quarters and Eighths</li> <li>Unit fractions 1</li> <li>Unit fractions 2</li> <li>Proper fractions</li> </ul>		<p><b>Fraction symbols</b></p> <ul style="list-style-type: none"> <li>Exploring the meaning of fraction symbols</li> <li>Introducing terms numerator &amp; denominator</li> </ul> <p><b>Find &amp; count in halves &amp; quarters</b></p> <ul style="list-style-type: none"> <li>Finding half of a set or quantity (symbols)</li> <li>Finding quarters of sets or shapes (symbols)</li> <li>Finding halves &amp; quarters (symbols)</li> <li>Counting in halves &amp; quarters to 1</li> </ul> <p><b>Introduce eighths</b></p> <ul style="list-style-type: none"> <li>Introducing eighths</li> <li>Using fractions: halves, quarters &amp; eighths</li> </ul> <p><b>Introduce tenths</b></p> <ul style="list-style-type: none"> <li>Introducing tenths</li> </ul>	<p><b>Number &amp; Algebra: Fractions</b> LEVEL 2–4</p> <ul style="list-style-type: none"> <li>Monstrous proportions (DOK 2)</li> </ul>	<p>(Y3-D) <b>Fractions</b></p> <ul style="list-style-type: none"> <li>Introducing fractions (pp 1–12)</li> </ul>





Strand & Topic	Outcomes	New Courses	Activities (Courses)	Skill Quests	Challenges	Ebooks
<p><b>Unit 4</b> Measurement Algebra</p> <hr/> <p><b>Length</b></p> <p>Identify appropriate units of measurement Measure length using mm, cm &amp; m Estimate and comparing length</p>	<p><b>AC9M3M01</b> identify which metric units are used to measure everyday items; use measurements of familiar items and known units to make estimates</p> <p><b>AC9M3M02</b> measure and compare objects using familiar metric units of length, mass and capacity, and instruments with labelled markings</p> <p><b>AC9M3A02</b> extend and apply knowledge of addition and subtraction facts to 20 to develop efficient mental strategies for computation with larger numbers without a calculator</p>	<p><b>Y3 Fractions</b></p> <ul style="list-style-type: none"> <li>Halves, Quarters and Eighths</li> </ul>	<p><b>Measurements</b></p> <ul style="list-style-type: none"> <li>How Long is That?</li> <li>Measure to the Nearest Half Centimetre</li> </ul> <p><b>Unit fractions</b></p> <ul style="list-style-type: none"> <li>Fraction Length Models 1</li> </ul>	<p><b>Length, mass &amp; capacity</b></p> <ul style="list-style-type: none"> <li>Comparing, ordering &amp; measuring length</li> </ul> <p><b>Identify metric units of measure</b></p> <ul style="list-style-type: none"> <li>Introducing centimetres</li> <li>Introducing millimetres</li> <li>Selecting appropriate units to measure length</li> </ul>	<p><b>Measurement: Length</b> LEVEL 2–4</p> <ul style="list-style-type: none"> <li>Measured to perfection (mm) <b>(DOK 2)</b></li> <li>Parking problems <b>(DOK 3)</b></li> <li>Paw prints <b>(DOK 3)</b></li> <li>Robot race <b>(DOK 2)</b></li> <li>Metres or centimetres? <b>(DOK 3)</b></li> </ul>	<p><b>(Y3-D) Measurement</b></p> <ul style="list-style-type: none"> <li>Units of length (pp 1–5)</li> </ul>
<p><b>Unit 5</b> Space</p> <hr/> <p><b>3D objects</b></p> <p>Recognise 2D shapes in 3D objects Describe, sort and compare 3D objects Create 3D models</p>	<p><b>AC9M3SP01</b> make, compare and classify objects, identifying key features and explaining why these features make them suited to their uses</p>		<p><b>Shape &amp; space</b></p> <ul style="list-style-type: none"> <li>How Many Faces?</li> <li>How many Edges?</li> <li>Count the Corners</li> <li>Relate Shapes and Solids</li> <li>Collect the Objects</li> </ul>	<p><b>3D objects</b></p> <ul style="list-style-type: none"> <li>Exploring prisms &amp; pyramids</li> <li>Introducing nets</li> <li>Recognising &amp; comparing 3D objects</li> <li>Describing &amp; sorting 3D objects</li> <li>Comparing 2D shapes &amp; 3D objects</li> </ul>	<p><b>Geometry: 3D Shapes</b> LEVEL 2–4</p> <ul style="list-style-type: none"> <li>Shape sums <b>(DOK 3)</b></li> <li>Opposite shapes <b>(DOK 2)</b></li> <li>Faces, edges and vertices <b>(DOK 3)</b></li> </ul>	<p><b>(Y3-D) Space, Shape and Position</b></p> <ul style="list-style-type: none"> <li>Investigating 3D shapes (pp 14–21)</li> </ul>



Strand & Topic	Outcomes	New Courses	Activities (Courses)	Skill Quests	Challenges	Ebooks
<b>Unit 1</b> Number Algebra  <b>Number facts and patterns</b>  Number facts: 2, 3, 4, 5 and 10 Identify and make patterns using shapes & numbers Describe patterns and determine rules Find missing terms	<b>AC9M3N07</b> follow and create algorithms involving a sequence of steps and decisions to investigate numbers; describe any emerging patterns  <b>AC9M3A03</b> recall and demonstrate proficiency with multiplication facts for 3, 4, 5 and 10; extend and apply facts to develop the related division facts	Coming soon	<b>Patterns &amp; missing numbers</b> <ul style="list-style-type: none"> <li>• Odd and Even Numbers 1</li> <li>• Pick the Next Number</li> <li>• Describing Patterns</li> <li>• Find the Missing Number 1</li> <li>• Missing Values</li> <li>• Counting by Twos</li> <li>• Counting by Fives</li> <li>• Counting by Tens</li> <li>• Count by 2s, 5s and 10s</li> <li>• Dividing Twos</li> <li>• Dividing Fives</li> <li>• Dividing Tens</li> <li>• Skip Counting with Coins</li> <li>• Grouping in Fours</li> <li>• Dividing Fours</li> <li>• Grouping in Threes</li> <li>• Dividing Threes</li> </ul>	<b>Multiplication &amp; division facts for 2</b> <ul style="list-style-type: none"> <li>• Recalling multiplication &amp; division facts for 2</li> </ul> <b>Multiplication &amp; division facts for 10</b> <ul style="list-style-type: none"> <li>• Exploring multiplication by 10</li> <li>• Recalling multiplication &amp; division facts for 10</li> </ul> <b>Multiplication &amp; division facts for 5</b> <ul style="list-style-type: none"> <li>• Exploring multiplication by 5</li> <li>• Recalling multiplication &amp; division facts for 5</li> </ul> <b>Mult/div facts for 2, 5 &amp; 10</b> <ul style="list-style-type: none"> <li>• Multiplication &amp; division facts for 2, 5, 10</li> </ul> <b>Multiplication &amp; division facts for 3</b> <ul style="list-style-type: none"> <li>• Exploring multiplication by 3</li> <li>• Recalling multiplication &amp; division facts for 3</li> </ul> <b>Multiplication &amp; division facts for 4</b> <ul style="list-style-type: none"> <li>• Exploring multiplication by 4</li> <li>• Recalling multiplication &amp; division facts for 4</li> </ul> <b>Create algorithms to investigate numbers</b> <ul style="list-style-type: none"> <li>• Identifying &amp; creating number patterns</li> <li>• Working with code to create algorithms</li> </ul>	<b>Number &amp; Algebra: Multiplication &amp; Division</b> LEVEL 2–4 <ul style="list-style-type: none"> <li>• Trading card count (DOK 3)</li> <li>• How many stickers? (DOK 3)</li> </ul> <b>Number &amp; Algebra: Patterns</b> LEVEL 2–4 <ul style="list-style-type: none"> <li>• Table patterns (DOK 3)</li> <li>• Jamie's patterns (DOK 2)</li> <li>• Multiplication table patterns (DOK 3)</li> <li>• Take-away time (DOK 3)</li> <li>• Puzzling patterns (DOK 4)</li> </ul>	(Y3-D) <b>Patterns and Algebra</b> <ul style="list-style-type: none"> <li>• Patterns and functions (pp 1–12)</li> </ul> (Y3-D) <b>Multiplication and Division</b> <ul style="list-style-type: none"> <li>• Multiplication facts (pp 8–19)</li> </ul>
<b>Unit 2</b> Number Algebra  <b>Multiplication and division: 1- by 1-digit numbers</b>  Use efficient mental strategies for multiplication and division Solve problems involving multiplication and division	<b>AC9M3N04</b> multiply and divide one- and two-digit numbers, representing problems using number sentences, diagrams and arrays ...  <b>AC9M3N06</b> use mathematical modelling to solve practical problems ...  <b>AC9M3A03</b> recall and demonstrate proficiency with multiplication facts for 3, 4, 5 and 10 ...	<b>Y3 Multiplication</b> <ul style="list-style-type: none"> <li>• Multiplication facts</li> <li>• More multiplication facts</li> <li>• Doubling and tripling</li> <li>• Multiply with tens</li> </ul> <b>Y3 Division</b> <ul style="list-style-type: none"> <li>• Division and repeated subtraction</li> <li>• Division facts 2,3,4,5 and 10</li> <li>• Arrays and division facts</li> </ul>	<b>Multiply &amp; Divide</b> <ul style="list-style-type: none"> <li>• Related Facts 2</li> <li>• Frog Jump Multiplication</li> <li>• Frog Jump Division</li> <li>• Equivalent Facts: Multiply</li> <li>• Divide Into Equal Groups</li> </ul>	<b>Multiplication &amp; division</b> <ul style="list-style-type: none"> <li>• Using repeated addition to multiply</li> <li>• Using repeated subtraction to divide</li> <li>• Relating multiplication &amp; division</li> <li>• Interpreting &amp; solving mult/div word problems</li> <li>• Multiplication strategies: 1-digit numbers</li> </ul>	<b>Number &amp; Algebra: Multiplication &amp; Division</b> LEVEL 2–4 <ul style="list-style-type: none"> <li>• Party time (DOK 2)</li> <li>• A wheel problem (DOK 3)</li> </ul>	(Y3-D) <b>Multiplication and Division</b> <ul style="list-style-type: none"> <li>• Introducing multiplication (pp 1–7)</li> <li>• Mental multiplication strategies (pp 20–25)</li> <li>• Division (pp 26–31)</li> </ul>
<b>Unit 3</b> Number  <b>Fractions: Thirds, fifths, and multiples</b>  Count with fractions Fractions of a collection Equivalent fractions	<b>AC9M3N02</b> recognise and represent unit fractions including $\frac{1}{2}$ , $\frac{1}{3}$ , $\frac{1}{4}$ , $\frac{1}{5}$ and $\frac{1}{10}$ and their multiples in different ways ...  <b>AC9M3N06</b> use mathematical modelling to solve practical problems involving additive and multiplicative situations ...	<b>Y3 Fractions</b> <ul style="list-style-type: none"> <li>• Fractions and wholes</li> <li>• Unit Fractions and Sharing</li> </ul>	<b>Unit fractions</b> <ul style="list-style-type: none"> <li>• Shade fractions</li> <li>• Identifying Fractions on a Number Line</li> <li>• Fractions of a Collection 1</li> <li>• Unit Fractions</li> </ul>	<b>Introduce thirds</b> <ul style="list-style-type: none"> <li>• Introducing thirds</li> <li>• Using fractions: halves, thirds &amp; quarters</li> </ul> <b>Introduce sixths</b> <ul style="list-style-type: none"> <li>• Introducing sixths</li> </ul> <b>Introduce fifths</b> <ul style="list-style-type: none"> <li>• Introducing fifths</li> </ul>	<b>Number &amp; Algebra: Fractions</b> LEVEL 2–4 <ul style="list-style-type: none"> <li>• Decorate using fractions (DOK 2)</li> </ul>	(Y3-D) <b>Fractions</b> <ul style="list-style-type: none"> <li>• Types of fractions (pp 13–21)</li> </ul> (Y4-E) <b>Fractions</b> <ul style="list-style-type: none"> <li>• Working with fractions (pp 1–11)</li> <li>• Types of fractions (pp 12–14)</li> </ul>

Strand & Topic	Outcomes	New Courses	Activities (Courses)	Skill Quests	Challenges	Ebooks
<p><b>Unit 4</b> Statistics</p> <p><b>Data</b></p> <p>Collect data</p> <p>Represent data using graphs and tables</p> <p>Interpret data</p>	<p><b>AC9M3ST01</b> acquire data for categorical and discrete numerical variables to address a question of interest or purpose ...</p> <p><b>AC9M3ST02</b> create and compare different graphical representations of data sets ...</p> <p><b>AC9M3ST03</b> conduct guided statistical investigations involving the collection, representation and interpretation of data ...</p>		<p><b>Record sort read &amp; interpret data</b></p> <ul style="list-style-type: none"> <li>Tallies</li> <li>Sorting Data</li> <li>Pictographs</li> <li>Interpreting Tables</li> <li>Reading from a Column Graph</li> <li>Column Graphs</li> </ul>	<p><b>Collect &amp; record data</b></p> <ul style="list-style-type: none"> <li>Collecting &amp; recording category data</li> <li>Using tables</li> </ul> <p><b>Create &amp; compare data representations</b></p> <ul style="list-style-type: none"> <li>Representing &amp; interpreting data displays</li> <li>Comparing data displays</li> </ul> <p><b>Understand statistical investigations</b></p> <ul style="list-style-type: none"> <li>Introducing the statistical investigation process</li> <li>Conducting a statistical investigation</li> </ul>	<p><b>Statistics &amp; Data</b> LEVEL 2–4</p> <ul style="list-style-type: none"> <li>Transport trouble (DOK 3)</li> <li>What's missing? (DOK 3)</li> <li>Pampered pets (DOK 2)</li> <li>Fruitful investigation (DOK 3)</li> <li>Lynn investigates (DOK 4)</li> </ul>	<p>(Y3-D) <b>Chance and Data</b></p> <ul style="list-style-type: none"> <li>Data (pp 10–21)</li> </ul>
<p><b>Unit 5</b> Space Measurement</p> <p><b>2D shape and angles</b></p> <p>Review properties of shapes</p> <p>Use quarter, half, and three-quarter turns</p> <p>Compare angles to right angles</p>	<p><b>AC9M3M05</b> identify angles as measures of turn and compare angles with right angles in everyday situations</p>		<p><b>Shape &amp; space</b></p> <ul style="list-style-type: none"> <li>Comparing Angles</li> <li>Equal Angles</li> </ul>	<p><b>Identify &amp; compare angles</b></p> <ul style="list-style-type: none"> <li>Introducing angles</li> <li>Introducing right angles</li> </ul>	<p><b>Geometry: Angles</b> LEVEL 2–4</p> <ul style="list-style-type: none"> <li>Right angle sort (DOK 3)</li> <li>Flag flying (DOK 4)</li> </ul>	<p>(Y3-D) <b>Space, Shape and Position</b></p> <ul style="list-style-type: none"> <li>Lines and angles (pp 1–5)</li> <li>Investigating 2D shapes (pp 6–8)</li> </ul>

Strand & Topic	Outcomes	New Courses	Activities (Courses)	Skill Quests	Challenges	Ebooks
<p><b>Unit 1</b> Number</p> <hr/> <p><b>Numbers to 1 000 000</b></p> <p>Read, write and represent numbers to 1 000 000</p> <p>Place value</p> <p>Compare and order numbers to 1 000 000</p> <p>Round to nearest 10, 100, 1000</p>	<p><b>AC9M3N01</b> recognise, represent and order natural numbers using naming and writing conventions for numerals beyond 10 000</p>	<p><b>Y3 Whole number and Place Value</b></p> <ul style="list-style-type: none"> <li>• Rounding</li> <li>• Compare numbers</li> <li>• Order numbers</li> </ul>	<p><b>Numbers beyond 10 000 with 5 digits</b></p> <ul style="list-style-type: none"> <li>• Partition and Rename 3</li> <li>• Numbers from Words to Digits 1</li> <li>• Rounding Numbers</li> </ul>	<p><b>Numbers to 100 000</b></p> <ul style="list-style-type: none"> <li>• Comparing &amp; ordering numbers to 5 digits</li> <li>• Place value to 5 digits</li> <li>• Partitioning numbers to 5 digits</li> <li>• Rounding numbers to 5 digits</li> </ul>	<p><b>Number &amp; Algebra: Whole Number</b> LEVEL 3–5</p> <ul style="list-style-type: none"> <li>• Swap the digits (DOK2)</li> <li>• Exploring a 5-digit number (DOK2)</li> <li>• Too much information (DOK3)</li> </ul>	<p>(Y5-F) <b>Reading and Understanding Whole Numbers</b></p> <ul style="list-style-type: none"> <li>• Looking at whole numbers (pp 1–8)</li> <li>• Place value of whole numbers (pp 9–16)</li> <li>• Round and estimate (pp 17–18)</li> </ul>
<p><b>Unit 2</b> Number</p> <hr/> <p><b>Addition and subtraction (3-digit numbers)</b></p> <p>Efficient mental strategies to add and subtract 3-digit numbers</p>	<p><b>AC9M3N03</b> add and subtract two- and three-digit numbers using place value to partition, rearrange and regroup numbers to assist in calculations without a calculator</p> <p><b>AC9M3N05</b> estimate the quantity of objects in collections and make estimates when solving problems to determine the reasonableness of calculations</p> <p><b>AC9M3N06</b> mathematical modelling to solve practical problems involving additive and multiplicative situations including financial contexts; formulate problems using number sentences and choose calculation strategies, using digital tools where appropriate; interpret and communicate solutions in terms of the situation</p>	<p><b>Y3 Addition</b></p> <ul style="list-style-type: none"> <li>• Partitioning strategy +</li> <li>• Bridging strategy +</li> </ul> <p><b>Y3 Subtraction</b></p> <ul style="list-style-type: none"> <li>• Partitioning strategy –</li> <li>• Bridging strategy –</li> </ul>		<p><b>Addition &amp; subtraction using place value</b></p> <ul style="list-style-type: none"> <li>• Adding &amp; subtracting - bridging with unknowns</li> <li>• Adding &amp; subtracting 3-digits using partitioning</li> <li>• Adding &amp; subtracting 3-digits using place value</li> <li>• Add &amp; subtract 3-digit rounding &amp; compensation</li> <li>• Add &amp; subtract multiples of 100, 1000 &amp; 10 000</li> <li>• Add &amp; subtract using non-standard partitioning</li> <li>• Add &amp; subtract: choosing efficient strategies</li> </ul> <p><b>Estimation strategies</b></p> <ul style="list-style-type: none"> <li>• Estimating additions</li> <li>• Estimating subtractions</li> <li>• Judging the reasonableness of answers</li> </ul> <p><b>Solve practical problems</b></p> <ul style="list-style-type: none"> <li>• Solving addition &amp; subtraction practical problems</li> </ul>	<p><b>Number &amp; Algebra: Addition &amp; Subtraction</b> LEVEL 2–4</p> <ul style="list-style-type: none"> <li>• Calculate through this maze (DOK3)</li> </ul>	<p>(Y4-E) <b>Addition and Subtraction</b></p> <ul style="list-style-type: none"> <li>• Addition mental strategies (pp 1–15)</li> <li>• Subtraction mental strategies (pp 16–27)</li> </ul>

Strand & Topic	Outcomes	New Courses	Activities (Courses)	Skill Quests	Challenges	Ebooks
<p><b>Unit 3</b> Number Algebra</p> <p><b>Multiplication and division: 1- by 2-digit numbers</b></p> <p>Efficient mental strategies to multiply and divide 2-digit numbers Solve problems involving multiplication and division</p>	<p><b>AC9M3N04</b> multiply and divide one- and two-digit numbers ...</p> <p><b>AC9M3N06</b> use mathematical modelling to solve practical problems...</p> <p><b>AC9M3N07</b> follow and create algorithms ...</p> <p><b>AC9M3A03</b> recall and demonstrate proficiency with multiplication facts for 3, 4, 5 and 10 ...</p>	<p><b>Y3 Multiplication</b></p> <ul style="list-style-type: none"> <li>• Multiply larger numbers</li> <li>• Problem solving with <math>\times</math></li> </ul> <p><b>Y3 Division</b></p> <ul style="list-style-type: none"> <li>• Division and repeated subtraction</li> <li>• Division facts 2,3,4,5 and 10</li> <li>• Arrays and division facts</li> </ul>		<p><b>Multiplication &amp; division</b></p> <ul style="list-style-type: none"> <li>• Multiplying 2-digit numbers by a 1-digit number</li> </ul> <p><b>Solve practical problems</b></p> <ul style="list-style-type: none"> <li>• Solve multiplication &amp; division practical problems</li> <li>• Missing number problems using all four operations</li> </ul>		<p><b>(Y4-E) Multiplication and Division</b></p> <ul style="list-style-type: none"> <li>• Using known facts (pp 8–12)</li> <li>• Mental multiplication strategies (pp 13–21)</li> <li>• Division (pp 22–28)</li> <li>• Mental division strategies (pp 29–33)</li> </ul>
<p><b>Unit 4</b> Probability Statistics</p> <p><b>Chance and data</b></p> <p>Use language of probability Conduct simple chance experiments Graph results Interpret data</p>	<p><b>AC9M3P01</b> identify practical activities and everyday events involving chance ...</p> <p><b>AC9M3P02</b> conduct repeated chance experiments ...</p> <p><b>AC9M3ST01</b> acquire data for categorical and discrete numerical variables ...</p> <p><b>AC9M3ST02</b> create and compare different graphical representations of data ...</p> <p><b>AC9M3ST03</b> conduct guided statistical investigations ...</p>		<p><b>Probability and chance</b></p> <ul style="list-style-type: none"> <li>• Will it Happen?</li> <li>• Most Likely and Least Likely</li> <li>• Introductory probability</li> <li>• What are the Chances?</li> <li>• How many Combinations?</li> </ul>	<p><b>Language of chance</b></p> <ul style="list-style-type: none"> <li>• Using basic probability language</li> </ul> <p><b>Chance experiments</b></p> <ul style="list-style-type: none"> <li>• Conducting chance experiments</li> </ul>	<p><b>Chance &amp; Probability</b> LEVEL 2–4</p> <ul style="list-style-type: none"> <li>• Selective sleeperover (DOK 3)</li> <li>• Picking plums (DOK 3)</li> <li>• Sock sort (DOK 2)</li> <li>• Multiple mayhem (DOK 4)</li> </ul> <p>LEVEL 3–5</p> <ul style="list-style-type: none"> <li>• Matt's day (DOK 2)</li> <li>• Roll of the dice (DOK 4)</li> <li>• Everyday events (DOK 3)</li> <li>• Pulling marbles (DOK 3)</li> </ul>	<p><b>(Y3-D) Chance and Data</b></p> <ul style="list-style-type: none"> <li>• Chance (pp 1–9)</li> </ul>
<p><b>Unit 5</b> Space Measurement</p> <p><b>Mass and capacity</b></p> <p>Measure weight using g &amp; kg Compare the weight of objects Measure capacity using mL &amp; L Compare the capacity of containers</p>	<p><b>AC9M3M01</b> identify which metric units are used to measure everyday items; use measurements of familiar items and known units to make estimates</p> <p><b>AC9M3M02</b> measure and compare objects using familiar metric units of length, mass and capacity, and instruments with labelled markings</p>		<p><b>Measurements</b></p> <ul style="list-style-type: none"> <li>• Using a Litre</li> <li>• How Heavy?</li> <li>• Ordering Mass (g)</li> </ul>	<p><b>Length, mass &amp; capacity</b></p> <ul style="list-style-type: none"> <li>• Comparing, ordering &amp; measuring mass</li> <li>• Comparing, ordering &amp; measuring capacity</li> </ul> <p><b>Identify metric units of measure</b></p> <ul style="list-style-type: none"> <li>• Introducing kilograms</li> <li>• Introducing grams</li> <li>• Selecting appropriate units to measure mass</li> <li>• Introducing millilitres Introducing litres</li> <li>• Selecting appropriate units to measure capacity</li> </ul>	<p><b>Measurement: Mass</b> LEVEL 2–4</p> <ul style="list-style-type: none"> <li>• Beryl the St Bernard (DOK 3)</li> <li>• Placing pumpkins (DOK 2)</li> </ul>	<p><b>(Y3-D) Measurement</b></p> <ul style="list-style-type: none"> <li>• Mass (pp 21–25)</li> <li>• Volume and capacity (pp 16–18)</li> </ul>

Strand & Topic	Outcomes	New Courses	Activities (Courses)	Skill Quets	Challenges	Ebooks
<b>Unit 1</b> Measurement Number <hr/> <b>Money and number review</b> Recognise money Count money Money conversions	<b>AC9M3N05</b> estimate the quantity of objects in collections and make estimates when solving problems to determine the reasonableness of calculations <b>AC9M3M06</b> recognise the relationships between dollars and cents and represent money values in different ways <b>AC9M3N01</b> recognise, represent and order natural numbers using naming and writing conventions for numerals beyond 10 000		<b>Money, Dollars &amp; Cents</b> <ul style="list-style-type: none"> <li>• Money</li> <li>• Who's got the Money?</li> </ul>	<b>Money</b> <ul style="list-style-type: none"> <li>• Recognising Australian notes &amp; coins</li> <li>• Counting Australian dollars &amp; cents</li> <li>• Using money to make purchases</li> </ul>	<b>Number &amp; Algebra: Money</b> LEVEL 2–4 <ul style="list-style-type: none"> <li>• Bike for sale (DOK 3)</li> <li>• Fruit salad (DOK 3)</li> </ul>	(Y3-D) <b>Addition and Subtraction</b> <ul style="list-style-type: none"> <li>• Money (pp 41–48)</li> </ul>
<b>Unit 2</b> Number Algebra <hr/> <b>Operations review</b>	<b>AC9M3N03</b> add and subtract two- and three-digit numbers ... <b>AC9M3N04</b> multiply and divide one- and two-digit numbers ... <b>AC9M3N05</b> estimate the quantity of objects in collections ... <b>AC9M3N06</b> use mathematical modelling to solve practical problem s... <b>AC9M3A01</b> recognise and explain the connection between addition and subtraction ... <b>AC9M3A02</b> extend and apply knowledge of addition and subtraction facts ... <b>AC9M3A03</b> recall and demonstrate proficiency with multiplication facts for 3, 4, 5 and 10 ...	<b>Y3 Addition</b> <ul style="list-style-type: none"> <li>• Rounding strategy +</li> <li>• Written methods +</li> <li>• Problem solving with +</li> </ul> <b>Y3 Subtraction</b> <ul style="list-style-type: none"> <li>• Rounding strategy –</li> <li>• Written methods –</li> </ul>	 Review earlier content	 Review earlier content	 Review earlier content	 Review earlier content

Strand & Topic	Outcomes	New Courses	Activities (Courses)	Skill Quests	Challenges	Ebooks
<b>Unit 3</b> Measurement  <b>Time</b>  Use formal units of time Estimate durations Read and represent digital and analogue time Use timers	<b>AC9M3M03</b> recognise and use the relationship between formal units of time including days, hours, minutes and seconds to estimate and compare the duration of events  <b>AC9M3M04</b> describe the relationship between the hours and minutes on analogue and digital clocks, and read the time to the nearest minute		<b>Measurements</b> <ul style="list-style-type: none"> <li>• Five Minute Times</li> <li>• What is the Time?</li> </ul>	<b>Introduce units of time</b> <ul style="list-style-type: none"> <li>• Introducing hours</li> <li>• Introducing minutes</li> <li>• Introducing seconds</li> </ul> <b>Duration &amp; units of time</b> <ul style="list-style-type: none"> <li>• Understanding relationship between units of time</li> <li>• Understanding duration</li> </ul> <b>Tell time</b> <ul style="list-style-type: none"> <li>• Telling time to five minutes</li> <li>• Telling time to the minute</li> </ul>	<b>Measurement: Time</b> LEVEL 2–4 <ul style="list-style-type: none"> <li>• Scenic stroll (DOK 3)</li> <li>• Time for T.V. (DOK 3)</li> <li>• Mystery birthdate (DOK 3)</li> </ul>	<b>(Y3-D) Time</b> <ul style="list-style-type: none"> <li>• Telling time (pp 1–8)</li> <li>• Measuring time (pp 9–16)</li> </ul>
<b>Unit 4</b> Space  <b>Position and 2D shapes</b>  Interpret 2D representations of environments Interpret maps Create and follow directions	<b>AC9M3SP02</b> interpret and create two-dimensional representations of familiar environments, locating key landmarks and objects relative to each other		<b>Shape &amp; space</b> <ul style="list-style-type: none"> <li>• Following Directions</li> <li>• Coordinate Meeting Place</li> <li>• Map Coordinates</li> <li>• Where is it?</li> <li>• Symmetry</li> </ul>	<b>Interpret &amp; create maps</b> <ul style="list-style-type: none"> <li>• Interpreting simple maps</li> </ul>	<b>Geometry: Symmetry, Transformation &amp; Location</b> LEVEL 2–4 <ul style="list-style-type: none"> <li>• A day on the farm (DOK 3)</li> </ul>	<b>(Y3-D) Space, Shape and Position</b> <ul style="list-style-type: none"> <li>• Position (pp 22–28)</li> </ul>
<b>Unit 5</b> Measurement  <b>Measurement review and applications</b>  Choose appropriate units Use measurement in everyday situations	<b>AC9M3M01</b> identify which metric units are used to measure everyday items ...  <b>AC9M3M02</b> measure and compare objects using familiar metric units of length, mass and capacity ...  <b>AC9M3M03</b> recognise and use the relationship between formal units of time including days, hours, minutes and seconds ...  <b>AC9M3M04</b> describe the relationship between the hours and minutes on analogue and digital clocks ...		<b>Measurements</b> <ul style="list-style-type: none"> <li>• Which Unit of Measurement?</li> <li>• Which Measuring Tool?</li> </ul>	<b>Identify metric units of measure</b> <ul style="list-style-type: none"> <li>• Identifying correct units of measurement</li> </ul>	 <b>Review earlier content</b>	 <b>Review earlier content</b>

# Mathletics

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