

# Mathletics

## South Australia (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><br>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><br>recognise, represent and order natural numbers using naming and writing conventions for numerals beyond 10 000  | T1 U1<br>T3 U1<br>T4 U1                      |
|             | <b>AC9M3N02</b><br>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<br>T2 U3                               |
|             | <b>AC9M3N03</b><br>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<br>T3 U2<br>T4 U2                      |
|             | <b>AC9M3N04</b><br>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<br>T3 U3<br>T4 U2                      |
|             | <b>AC9M3N05</b><br>estimate the quantity of objects in collections and make estimates when solving problems to determine the reasonableness of calculations  | T1 U1, U2<br>T3 U2<br>T4 U1, U2              |
|             | <b>AC9M3N06</b><br>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<br>T2 U2, U3<br>T3 U2, U3<br>T4 U2 |
|             | <b>AC9M3N07</b><br>follow and create algorithms involving a sequence of steps and decisions to investigate numbers; describe any emerging patterns   | T2 U1<br>T3 U3                               |
| Algebra     | <b>AC9M3A01</b><br>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<br>T4 U2                               |
|             | <b>AC9M3A02</b><br>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<br>T4 U2                           |
|             | <b>AC9M3A03</b><br>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<br>T3 U3<br>T4 U2                  |
| Measurement | <b>AC9M3M01</b><br>identify which metric units are used to measure everyday items; use measurements of familiar items and known units to make estimates  | T1 U4<br>T3 U5<br>T4 U5                      |
|             | <b>AC9M3M02</b><br>measure and compare objects using familiar metric units of length, mass and capacity, and instruments with labelled markings  | T1 U4<br>T3 U5<br>T4 U5                      |
|             | <b>AC9M3M03</b><br>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<br>T4 U5                               |
|             | <b>AC9M3M04</b><br>describe the relationship between the hours and minutes on analogue and digital clocks, and read the time to the nearest minute   | T4 U3<br>T4 U5                               |

| Strand               | Outcomes and content descriptions  | Located        |
|----------------------|--|----------------|
| Measurement (cont'd) | <b>AC9M3M05</b><br>identify angles as measures of turn and compare angles with right angles in everyday situations   | T2 U5          |
|                      | <b>AC9M3M06</b><br>recognise the relationships between dollars and cents and represent money values in different ways  | T4 U1          |
| Space                | <b>AC9M3SP01</b><br>make, compare and classify objects, identifying key features and explaining why these features make them suited to their uses  | T1 U5          |
|                      | <b>AC9M3SP02</b><br>interpret and create two-dimensional representations of familiar environments, locating key landmarks and objects relative to each other   | T4 U4          |
| Statistics           | <b>AC9M3ST01</b><br>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<br>T3 U4 |
|                      | <b>AC9M3ST02</b><br>create and compare different graphical representations of data sets including using software where appropriate; interpret the data in terms of the context   | T2 U4<br>T3 U4 |
|                      | <b>AC9M3ST03</b><br>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<br>T3 U4 |
| Probability          | <b>AC9M3P01</b><br>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><br>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  |
|--|--|---|---|--|--|---|
| <b>Unit 1</b><br>Number<br><br><b>Numbers to at least 10 000</b><br><br>Review 3-digit numbers<br>Number facts to 20<br>Place value<br>Read, write and order 4-digit numbers<br>Round numbers<br>Partitioning                        | <b>AC9M3N01</b><br>recognise, represent and order natural numbers using naming and writing conventions for numerals beyond 10 000<br><br><b>AC9M3N05</b><br>estimate the quantity of objects in collections and make estimates when solving problems to determine the reasonableness of calculations   | <b>Y3 Whole number and Place Value</b><br><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>  | <b>Numbers beyond 10 000 with 5 digits</b><br><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>                          | <b>Apply knowledge of facts to 20</b><br><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> <b>Numbers to 10 000</b><br><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>  | <b>Number &amp; Algebra: Whole Number</b><br>LEVEL 2–4<br><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> LEVEL 3–5<br><ul style="list-style-type: none"> <li>Target numbers! (DOK 3)</li> <li>Build the number (DOK 3)</li> </ul> | (Y3) <b>Reading and Understanding Whole Numbers</b><br><ul style="list-style-type: none"> <li>Build a number</li> </ul> (Y3-D) <b>Reading and Understanding Whole Numbers</b><br><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> (Y4-E) <b>Reading and Understanding Whole Numbers</b><br><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> |
| <b>Unit 2</b><br>Number Algebra<br><br><b>Addition and subtraction (2-digit numbers)</b><br><br>Addition and subtraction facts to 10 and 20<br>Inverse operations<br>Efficient mental strategies to add and subtract 2-digit numbers | <b>AC9M3N03</b><br>add and subtract two- and three-digit numbers...<br><br><b>AC9M3N05</b><br>estimate the quantity of objects in collections...<br><br><b>AC9M3N06</b><br>use mathematical modelling to solve practical problems ...<br><br><b>AC9M3A01</b><br>recognise and explain the connection between addition and subtraction ...<br><br><b>AC9M3A02</b><br>extend and apply knowledge of addition and subtraction facts ... | <b>Y3 Addition</b><br><ul style="list-style-type: none"> <li>Make easier additions</li> <li>Split strategy +</li> </ul> <b>Y3 Subtraction</b><br><ul style="list-style-type: none"> <li>Using addition to subtract</li> <li>Split strategy -</li> </ul> | <b>Up to 3 digit add &amp; subtract</b><br><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> | <b>Addition &amp; subtraction using place value</b><br><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> <b>Addition &amp; subtraction relationship</b><br><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> | <b>Number &amp; Algebra: Addition &amp; Subtraction</b><br>LEVEL 2–4<br><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>  | (Y3-D) <b>Addition and Subtraction</b><br><ul style="list-style-type: none"> <li>Addition mental strategies (pp 1–14)</li> <li>Subtraction mental strategies (pp 15–30)</li> </ul>  |
| <b>Unit 3</b><br>Number<br><br><b>Fractions: Halves, quarters and eighths</b><br><br>Represent unit fractions<br>Create wholes using unit fractions<br>Find fractions of a collection<br>Count in fractions                          | <b>AC9M3N02</b><br>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 ...<br><br><b>AC9M3N02</b><br>use mathematical modelling to solve practical problems involving additive and multiplicative situations ...  | <b>Y3 Fractions</b><br><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>   |   | <b>Fraction symbols</b><br><ul style="list-style-type: none"> <li>Exploring the meaning of fraction symbols</li> <li>Introducing terms numerator &amp; denominator</li> </ul> <b>Find &amp; count in halves &amp; quarters</b><br><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> <b>Introduce eighths</b><br><ul style="list-style-type: none"> <li>Introducing eighths</li> <li>Using fractions: halves, quarters &amp; eighths</li> </ul> <b>Introduce tenths</b><br><ul style="list-style-type: none"> <li>Introducing tenths</li> </ul>  | <b>Number &amp; Algebra: Fractions</b><br>LEVEL 2–4<br><ul style="list-style-type: none"> <li>Monstrous proportions (DOK 2)</li> </ul>   | (Y3-D) <b>Fractions</b><br><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><br/>Measurement<br/>Algebra</p> <hr/> <p><b>Length</b></p> <p>Identify appropriate units of measurement<br/>Measure length using mm, cm &amp; m<br/>Estimate and comparing length</p> | <p><b>AC9M3M01</b><br/>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><br/>measure and compare objects using familiar metric units of length, mass and capacity, and instruments with labelled markings</p> <p><b>AC9M3A02</b><br/>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><br/>LEVEL 2–4</p> <ul style="list-style-type: none"> <li>Measured to perfection (mm) (DOK 2)</li> <li>Parking problems (DOK 3)</li> <li>Paw prints (DOK 3)</li> <li>Robot race (DOK 2)</li> <li>Metres or centimetres? (DOK 3)</li> </ul> | <p>(Y3-D) <b>Measurement</b></p> <ul style="list-style-type: none"> <li>Units of length (pp 1–5)</li> </ul>                         |
| <p><b>Unit 5</b><br/>Space</p> <hr/> <p><b>3D objects</b></p> <p>Recognise 2D shapes in 3D objects<br/>Describe, sort and compare 3D objects<br/>Create 3D models</p>                                  | <p><b>AC9M3SP01</b><br/>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><br/>LEVEL 2–4</p> <ul style="list-style-type: none"> <li>Shape sums (DOK 3)</li> <li>Opposite shapes (DOK 2)</li> <li>Faces, edges and vertices (DOK 3)</li> </ul>  | <p>(Y3-D) <b>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><br>Number Algebra<br><hr/> <b>Number facts and patterns</b><br><hr/> Number facts: 2, 3, 4, 5 and 10<br>Identify and make patterns using shapes & numbers<br>Describe patterns and determine rules<br>Find missing terms | <b>AC9M3N07</b><br>follow and create algorithms involving a sequence of steps and decisions to investigate numbers; describe any emerging patterns<br><br><b>AC9M3A03</b><br>recall and demonstrate proficiency with multiplication facts for 3, 4, 5 and 10; extend and apply facts to develop the related division facts                  | <b>Y3 Number Patterns - coming soon</b> <ul style="list-style-type: none"> <li>Addition patterns 1</li> <li>Addition patterns 2</li> <li>Subtraction patterns 1</li> <li>Subtraction patterns 2</li> </ul>   | <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><br>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><br>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><br>Number Algebra<br><hr/> <b>Multiplication and division: 1- by 1-digit numbers</b><br><hr/> Use efficient mental strategies for multiplication and division<br>Solve problems involving multiplication and division    | <b>AC9M3N04</b><br>multiply and divide one- and two-digit numbers, representing problems using number sentences, diagrams and arrays ...<br><br><b>AC9M3N06</b><br>use mathematical modelling to solve practical problems ...<br><br><b>AC9M3A03</b><br>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><br>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><br>Number<br><hr/> <b>Fractions: Thirds, fifths, and multiples</b><br><hr/> Count with fractions<br>Fractions of a collection<br>Equivalent fractions  | <b>AC9M3N02</b><br>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 ...<br><br><b>AC9M3N06</b><br>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><br>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><br/>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><br/>acquire data for categorical and discrete numerical variables to address a question of interest or purpose ...</p> <p><b>AC9M3ST02</b><br/>create and compare different graphical representations of data sets ...</p> <p><b>AC9M3ST03</b><br/>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><br/>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><br/>Space<br/>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><br/>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><br/>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   |
|---|--|--|---|---|---|--|
| <b>Unit 1</b><br>Number<br><hr/> <b>Numbers to 1 000 000</b><br><hr/> Read, write and represent numbers to 1 000 000<br>Place value<br>Compare and order numbers to 1 000 000<br>Round to nearest 10, 100, 1000 | <b>AC9M3N01</b><br>recognise, represent and order natural numbers using naming and writing conventions for numerals beyond 10 000  | <b>Y3 Whole number and Place Value</b> <ul style="list-style-type: none"> <li>• Rounding</li> <li>• Compare numbers</li> <li>• Order numbers</li> </ul>  | <b>Numbers beyond 10 000 with 5 digits</b> <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> | <b>Numbers to 100 000</b> <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>   | <b>Number &amp; Algebra: Whole Number</b><br>LEVEL 3–5 <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> | <b>(Y5-F) Reading and Understanding Whole Numbers</b> <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> |
| <b>Unit 2</b><br>Number<br><hr/> <b>Addition and subtraction (3-digit numbers)</b><br><hr/> Efficient mental strategies to add and subtract 3-digit numbers   | <b>AC9M3N03</b><br>add and subtract two- and three-digit numbers using place value to partition, rearrange and regroup numbers to assist in calculations without a calculator<br><br><b>AC9M3N05</b><br>estimate the quantity of objects in collections and make estimates when solving problems to determine the reasonableness of calculations<br><br><b>AC9M3N06</b><br>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 | <b>Y3 Addition</b> <ul style="list-style-type: none"> <li>• Partitioning strategy +</li> <li>• Bridging strategy +</li> </ul> <b>Y3 Subtraction</b> <ul style="list-style-type: none"> <li>• Partitioning strategy –</li> <li>• Bridging strategy –</li> </ul> |   | <b>Addition &amp; subtraction using place value</b> <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> <b>Estimation strategies</b> <ul style="list-style-type: none"> <li>• Estimating additions</li> <li>• Estimating subtractions</li> <li>• Judging the reasonableness of answers</li> </ul> <b>Solve practical problems</b> <ul style="list-style-type: none"> <li>• Solving addition &amp; subtraction practical problems</li> </ul> | <b>Number &amp; Algebra: Addition &amp; Subtraction</b><br>LEVEL 2–4 <ul style="list-style-type: none"> <li>• Calculate through this maze (DOK3)</li> </ul>   | <b>(Y4-E) Addition and Subtraction</b> <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><br/>Number<br/>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<br/>Solve problems involving multiplication and division</p> | <p><b>AC9M3N04</b><br/>multiply and divide one- and two-digit numbers ...</p> <p><b>AC9M3N06</b><br/>use mathematical modelling to solve practical problems...</p> <p><b>AC9M3N07</b><br/>follow and create algorithms ...</p> <p><b>AC9M3A03</b><br/>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><br/>Probability<br/>Statistics</p> <p><b>Chance and data</b></p> <p>Use language of probability<br/>Conduct simple chance experiments<br/>Graph results<br/>Interpret data</p>   | <p><b>AC9M3P01</b><br/>identify practical activities and everyday events involving chance ...</p> <p><b>AC9M3P02</b><br/>conduct repeated chance experiments ...</p> <p><b>AC9M3ST01</b><br/>acquire data for categorical and discrete numerical variables ...</p> <p><b>AC9M3ST02</b><br/>create and compare different graphical representations of data ...</p> <p><b>AC9M3ST03</b><br/>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><br/>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><br/>Space<br/>Measurement</p> <p><b>Mass and capacity</b></p> <p>Measure weight using g &amp; kg<br/>Compare the weight of objects<br/>Measure capacity using mL &amp; L<br/>Compare the capacity of containers</p>            | <p><b>AC9M3M01</b><br/>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><br/>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><br/>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 Quests  | Challenges   | Ebooks  |
|---|---|--|---|---|--|---|
| <b>Unit 1</b><br>Measurement<br>Number<br><hr/> <b>Money and number review</b><br>Recognise money<br>Count money<br>Money conversions | <b>AC9M3N05</b><br>estimate the quantity of objects in collections and make estimates when solving problems to determine the reasonableness of calculations<br><b>AC9M3M06</b><br>recognise the relationships between dollars and cents and represent money values in different ways<br><b>AC9M3N01</b><br>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><br>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><br>Number<br>Algebra<br><hr/> <b>Operations review</b>  | <b>AC9M3N03</b><br>add and subtract two- and three-digit numbers ...<br><b>AC9M3N04</b><br>multiply and divide one- and two-digit numbers ...<br><b>AC9M3N05</b><br>estimate the quantity of objects in collections ...<br><b>AC9M3N06</b><br>use mathematical modelling to solve practical problem s...<br><b>AC9M3A01</b><br>recognise and explain the connection between addition and subtraction ...<br><b>AC9M3A02</b><br>extend and apply knowledge of addition and subtraction facts ...<br><b>AC9M3A03</b><br>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> | <br>Review earlier content                 | <br>Review earlier content   | <br>Review earlier content  | <br>Review earlier content |

| Strand & Topic  | Outcomes   | New Courses | Activities (Courses)   | Skill Quests  | Challenges  | Ebooks   |
|---|--|-------------|--|---|---|--|
| <b>Unit 3</b><br>Measurement<br><br><b>Time</b><br><br>Use formal units of time<br>Estimate durations<br>Read and represent digital and analogue time<br>Use timers | <b>AC9M3M03</b><br>recognise and use the relationship between formal units of time including days, hours, minutes and seconds to estimate and compare the duration of events<br><br><b>AC9M3M04</b><br>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><br>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> | (Y3-D) <b>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><br>Space<br><br><b>Position and 2D shapes</b><br><br>Interpret 2D representations of environments<br>Interpret maps<br>Create and follow directions   | <b>AC9M3SP02</b><br>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><br>LEVEL 2–4 <ul style="list-style-type: none"> <li>A day on the farm (DOK 3)</li> </ul>                               | (Y3-D) <b>Space, Shape and Position</b> <ul style="list-style-type: none"> <li>Position (pp 22–28)</li> </ul>                |
| <b>Unit 5</b><br>Measurement<br><br><b>Measurement review and applications</b><br><br>Choose appropriate units<br>Use measurement in everyday situations            | <b>AC9M3M01</b><br>identify which metric units are used to measure everyday items ...<br><br><b>AC9M3M02</b><br>measure and compare objects using familiar metric units of length, mass and capacity ...<br><br><b>AC9M3M03</b><br>recognise and use the relationship between formal units of time including days, hours, minutes and seconds ...<br><br><b>AC9M3M04</b><br>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>  | <br><b>Review earlier content</b>  | <br><b>Review earlier content</b>         |

# Mathletics

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