

# Mathletics NSW Syllabus

## Scope & Sequence



Stage 1, Year 2

Mathletics

Learning sequence	Term one	Term two	Term three	Term four
LS 1	<b>Number and Algebra</b> <b>Big idea:</b> Collections of ten are really useful <b>Numbers to 1000</b> <ul style="list-style-type: none"> <li>Place value to 1000</li> <li>Comparing and ordering 3-digit numbers</li> </ul>	<b>Number and Algebra</b> <b>Big idea:</b> Equal means equivalent <b>Additive relations</b> <ul style="list-style-type: none"> <li>Number bonds to 20</li> <li>Addition and subtraction fact families</li> <li>Commutative property for addition</li> <li>Equivalence</li> </ul>	<b>Number and Algebra</b> <b>Big idea:</b> Collections of ten are really useful <b>Number review</b> Review: <ul style="list-style-type: none"> <li>Term 1, Learning Sequence 1</li> <li>Term 2, Learning Sequence 1</li> </ul>	<b>Number and Algebra</b> <b>Big idea:</b> There are many different situations where addition, subtraction, multiplication and division can be used <b>Everyday operations and money</b> <ul style="list-style-type: none"> <li>Everyday operations: addition, subtraction, multiplication and division</li> <li>Word problems: addition and subtraction</li> </ul>
	<b>Number and Algebra</b> <b>Measurement and Space</b> <b>Big idea:</b> Patterns have something that repeats over and over and over again <b>Patterns</b> <ul style="list-style-type: none"> <li>Counting patterns</li> <li>Increasing and decreasing patterns</li> <li>Shape patterns</li> </ul>	<b>Statistics and Probability</b> <b>Number and Algebra</b> <b>Big idea:</b> Data helps describe and wonder about the world <b>Data</b> <ul style="list-style-type: none"> <li>Posing questions</li> <li>Data representations: tables, lists, picture graphs</li> <li>Interpreting data</li> </ul>	<b>Number and Algebra</b> <b>Big idea:</b> Patterns have something that repeats over and over and over again <b>Multiplicative patterns</b> <ul style="list-style-type: none"> <li>Skip counting patterns</li> </ul>	<b>Measurement and Space</b> <b>Number and Algebra</b> <b>Big idea:</b> What needs to be measured determines the unit of measurement <b>Length and mass</b> <ul style="list-style-type: none"> <li>Measuring length using formal units</li> <li>Comparing mass</li> </ul>
LS 3	<b>Measurement and Space</b> <b>Number and Algebra</b> <b>Big idea:</b> What needs to be measured determines the unit of measurement <b>Comparing measurements</b> <ul style="list-style-type: none"> <li>Comparing measurements</li> </ul>	<b>Measurement and Space</b> <b>Number and Algebra</b> <b>Big idea:</b> What needs to be measured determines the unit of measurement <b>Time</b> <ul style="list-style-type: none"> <li>Duration of events</li> <li>Tell time to the half and quarter hour</li> </ul>	<b>Number and Algebra</b> <b>Big idea:</b> Making and using equal groups <b>Multiplication and division</b> <ul style="list-style-type: none"> <li>Multiplication turnarounds</li> <li>Multiplication models</li> <li>Dividing 2, 3, 4, 5 and 10's</li> </ul>	<b>Statistics and Probability</b> <b>Number and Algebra</b> <b>Big idea:</b> Data is collected to solve problems <b>Chance (and data review)</b> Review: <ul style="list-style-type: none"> <li>Term 2, Learning Sequence 2</li> </ul>
	<b>Number and Algebra</b> <b>Big idea:</b> Smaller numbers can be found hiding in bigger numbers <b>Partitioning &amp; adding 3-digit numbers</b> <ul style="list-style-type: none"> <li>Partitioning 3-digit numbers</li> <li>Rounding to nearest 100</li> </ul>	<b>Number and Algebra</b> <b>Big idea:</b> Collections of objects can be changed by adding more (combining) or taking some away (separating) <b>Addition and subtraction</b> <ul style="list-style-type: none"> <li>Addition and subtraction as inverse operations</li> <li>Using place value to add and subtract</li> </ul>	<b>Measurement and Space</b> <b>Number and Algebra</b> <b>Big idea:</b> What needs to be measured determines the unit of measurement <b>Area and volume</b> <ul style="list-style-type: none"> <li>Comparing areas (review)</li> <li>Comparing and measuring volumes</li> </ul>	<b>Measurement and Space</b> <b>Big idea:</b> Objects can be sorted and classified in different ways <b>3D objects</b> <ul style="list-style-type: none"> <li>Name and sort 3D objects</li> <li>Identify faces, edges and vertices</li> </ul>
LS 5	<b>Measurement and Space</b> <b>Big idea:</b> New shapes can be made by joining (combining) or partitioning (breaking apart) existing shapes <b>Building up shapes</b> <ul style="list-style-type: none"> <li>2D Shapes Review</li> <li>Composite 2D shapes</li> <li>Building up 3D objects</li> </ul>	<b>Measurement and Space</b> <b>Big idea:</b> Sometimes things move and change location <b>Position</b> <ul style="list-style-type: none"> <li>Interpret simple maps</li> <li>Following directions</li> </ul>	<b>Number and Algebra</b> <b>Measurement and Space</b> <b>Big idea:</b> A fraction (like one half) can mean half of a collection, half of an object or half of a measure. A whole unit can be partitioned into smaller parts <b>Fractions</b> <ul style="list-style-type: none"> <li>Doubling and halving</li> <li>Model halves, quarters and eighths</li> </ul>	<b>Number and Algebra</b> <b>Big idea:</b> Problems can be solved and represented in different ways <b>Problem solving</b> <ul style="list-style-type: none"> <li>Word problems with multiplication and division</li> <li>Describe duration of time</li> </ul>

Outcomes	Focus	Content	Located
<b>MA1-RWN-01</b> applies an understanding of place value and the role of zero to read, write and order two-and three-digit numbers	<b>Representing whole numbers B</b>	Use counting sequences of ones and tens flexibly	Term 1 All LS Term 2 All LS Term 3 All LS Term 4 All LS
<b>MA1-RWN-02</b> reasons about representations of whole numbers to 1000, partitioning numbers to use and record quantity values		Form, regroup, and rename three-digit numbers	Term 1 All LS Term 2 All LS Term 3 All LS Term 4 All LS
<b>MA1-CSQ-01</b> uses number bonds and the relationship between addition and subtraction to solve problems involving partitioning	<b>Combining and separating quantities B</b>	Represent and reason about additive relations	Term 1 LS 1, 2 Term 2 LS 1, 4 Term 3 LS 1 Term 4 LS 1
		Form multiples of ten when adding and subtracting two-digit numbers	Term 2 LS 4 Term 3 LS 1 Term 4 LS 1
		Use knowledge of equality to solve related problems	Term 1 LS 1, 2 Term 2 LS 4 Term 3 LS 1 Term 4 LS 1
<b>MA1-FG-01</b> uses the structure of equal groups to solve multiplication problems, and shares or groups to solve division problems	<b>Forming groups B</b>	Represent and explain multiplication as the combining of equal groups	Term 1 LS 2 Term 2 LS 4 Term 3 LS 2, 3, 4 Term 4 LS 1
		Model doubling and halving with fractions	Term 2 LS 3 Term 3 LS 5 Term 4 LS 1
		Represent multiplication and division problems	Term 2 LS 4 Term 3 LS 3 Term 4 LS 1, 5
<b>MA1-GM-01</b> represents and describes the positions of objects in familiar locations	<b>Geometric measure B</b>	Position: Explore simple maps of familiar locations	Term 2 LS 5
<b>MA1-GM-02</b> measures, records, compares and estimates lengths and distances using uniform informal units, as well as metres and centimetres		Length: Compare and order lengths, using appropriate uniform informal units	Term 1 LS 3 Term 4 LS 2
		Length: Recognise and use formal units to measure the lengths of objects	Term 4 LS 2
		Length: Subdivide lengths to find halves and quarters	Term 3 LS 5
<b>MA1-GM-03</b> creates and recognises halves, quarters and eighths as part measures of a whole length		Length: Repeatedly halve lengths to form eighths	Term 3 LS 5

Outcomes	Focus	Content	Located
<b>MA1-2DS-01</b> recognises, describes and represents shapes including quadrilaterals and other common polygons	<b>Two-dimensional spatial structure B</b>	2D shapes: Represent, combine and separate two-dimensional shapes	Term 1 LS 2
		2D shapes: Identify and describe the orientation of shapes using quarter turns	Term 2 LS 5
<b>MA1-2DS-02</b> measures and compares areas using uniform informal units in rows and columns		Area: Compare rectangular areas using uniform square units of an appropriate size in rows and columns	Term 1 LS 3 Term 3 LS 4
<b>MA1-3DS-01</b> recognises, describes and represents familiar three-dimensional objects	<b>Three-dimensional spatial structure B</b>	3D objects: Describe the features of three-dimensional objects	Term 1 LS 5 Term 4 LS 4
		<b>MA1-3DS-02</b> measures, records, compares and estimates internal volumes (capacities) and volumes using uniform informal units	Volume: Compare containers based on internal volume (capacity) by filling and packing  Volume: Compare volumes using uniform informal units
<b>MA1-NSM-01</b> measures, records, compares and estimates the masses of objects using uniform informal units		<b>Non-spatial measure B</b>	Mass: Compare the masses of objects using an equal-arm balance
<b>MA1-NSM-02</b> describes, compares and orders durations of events, and reads half- and quarter-hour time	Time: Describe duration using units of time  Time: Tell time to the quarter-hour using the language of 'past' and 'to'		Term 2 LS 3 Term 4 LS 5  Term 2 LS 3
<b>MA1-DATA-01</b> gathers and organises data, displays data in lists, tables and picture graphs	<b>Data B</b>		Identify a question of interest and gather relevant data
<b>MA1-DATA-02</b> reasons about representations of data to describe and interpret the results		Create displays of data and interpret them	Term 2 LS 2 Term 4 LS 3
<b>MA1-CHAN-01</b> recognises and describes the element of chance in everyday events	<b>Chance B</b>	Identify and describe activities that involve chance	Term 4 LS 3

LS & Topic	Outcomes	Focus	Content	Activities (courses)	Skill Quests	Challenges	Ebooks
<b>LS 1</b> <b>Big idea</b> Collections of ten are really useful  <b>Topic</b> Numbers to 1000	<b>MA1-RWN-01</b> applies an understanding of place value and the role of zero to read, write and order two-and three-digit numbers  <b>MA1-RWN-02</b> reasons about representations of whole numbers to 1000, partitioning numbers to use and record quantity values  <b>MA1-CSQ-01</b> uses number bonds and the relationship between addition and subtraction to solve problems involving partitioning	<b>Representing whole numbers B</b>  <b>Combining and separating quantities B</b>	<ul style="list-style-type: none"> <li>Use counting sequences of ones and tens flexibly</li> <li>Form, regroup, and rename three-digit numbers</li> <li>Represent and reason about additive relations</li> <li>Use knowledge of equality to solve related problems</li> </ul>	<b>Representing whole numbers (B)</b> <ul style="list-style-type: none"> <li>Nearest 10?</li> <li>Smallest and largest numbers</li> <li>1 More, 10 Less</li> </ul>	<b>Read &amp; write 3-digit numbers</b> <ul style="list-style-type: none"> <li>Reading &amp; representing 3-digit numbers</li> </ul> <b>Place value of 3-digit numbers</b> <ul style="list-style-type: none"> <li>Identifying digit values in 3-digit numbers</li> </ul> <b>Compare &amp; order numbers to 1000</b> <ul style="list-style-type: none"> <li>Comparing &amp; ordering numbers to 1000</li> </ul> <b>Whole numbers to 1000 counting in ones</b> <ul style="list-style-type: none"> <li>Counting in ones to 1000</li> <li>Identifying numbers before &amp; after up to 1000</li> </ul> <b>Count in tens to 1000</b> <ul style="list-style-type: none"> <li>Counting in tens with 2- &amp; 3-digit numbers</li> <li>Finding numbers 10 before &amp; 10 after up to 1000</li> </ul> <b>Round to the nearest 100</b> <ul style="list-style-type: none"> <li>Rounding numbers up to 1000 to the nearest 100</li> </ul>	<b>Number &amp; Algebra, Whole Number 2-4</b> <ul style="list-style-type: none"> <li>Swap the numbers <b>(DOK 2)</b></li> </ul>	<b>(Y3-C) Numbers</b> <ul style="list-style-type: none"> <li>2 digit revision pp 1–3</li> <li>Numbers to 999 pp 4–18</li> <li>Skip counting by 10s off decade p 43</li> </ul>
<b>LS 2</b> <b>Big idea</b> Patterns have something that repeats over and over and over again  <b>Topic</b> Patterns	<b>MA1-2DS-01</b> recognises, describes and represents shapes including quadrilaterals and other common polygons  <b>MA1-RWN-01</b> applies an understanding of place value and the role of zero to read, write and order two-and three-digit numbers  <b>MA1-RWN-02</b> reasons about representations of whole numbers to 1000, partitioning numbers to use and record quantity values  <b>MA1-CSQ-01</b> uses number bonds and the relationship between addition and subtraction to solve problems involving partitioning  <b>MA1-FG-01</b> uses the structure of equal groups to solve multiplication problems, and shares or groups to solve division problems	<b>Two-dimensional spatial structure B</b>  <b>Representing whole numbers B</b>  <b>Combining and separating quantities B</b>  <b>Forming groups B</b>	<ul style="list-style-type: none"> <li>2D shapes: Represent, combine and separate two-dimensional shapes</li> <li>Use counting sequences of ones and tens flexibly</li> <li>Form, regroup, and rename three-digit numbers</li> <li>Represent and reason about additive relations</li> <li>Use knowledge of equality to solve related problems</li> <li>Represent and reason about additive relations</li> <li>Use knowledge of equality to solve related problems</li> <li>Represent and explain multiplication as the combining of equal groups</li> </ul>	<b>2D spatial structure: 2D shapes (B)</b> <ul style="list-style-type: none"> <li>Simple Patterns</li> <li>Complete the Pattern</li> </ul>			<b>(Y2-B) Patterns and Relationships</b> <ul style="list-style-type: none"> <li>Patterns pp 1–16</li> </ul> <b>(Y3-C) Patterns and Relationships</b> <ul style="list-style-type: none"> <li>Patterns pp 1–8, 12–13</li> </ul>

NSW New Syllabus (2023) S1 Year 2

LS & Topic	Outcomes	Focus	Content	Activities (courses)	Skill Quests	Challenges	Ebooks
<b>LS 3</b> <b>Big idea</b> What needs to be measured determines the unit of measurement <b>Topic</b> Comparing measurements	<b>MA1-GM-02</b> measures, records, compares and estimates lengths and distances using uniform informal units, as well as metres and centimetres <b>MA1-2DS-02</b> measures and compares areas using uniform informal units in rows and columns <b>MA1-3DS-02</b> measures, records, compares and estimates internal volumes (capacities) and volumes using uniform informal units <b>MA1-RWN-01</b> applies an understanding of place value and the role of zero to read, write and order two-and three-digit numbers <b>MA1-RWN-02</b> reasons about representations of whole numbers to 1000, partitioning numbers to use and record quantity values	<b>Geometric measure B</b>  <b>Two-dimensional spatial structure B</b>  <b>Three-dimensional spatial structure B</b>  <b>Representing whole numbers B</b>	<ul style="list-style-type: none"> <li>Length: Compare and order lengths, using appropriate uniform informal units</li> <li>Area: Compare rectangular areas using uniform square units of an appropriate size in rows and columns</li> <li>Volume: Compare containers based on internal volume (capacity) by filling and packing</li> <li>Use counting sequences of ones and tens flexibly</li> <li>Form, regroup, and rename three-digit numbers</li> </ul>	<b>Geometric measure: length (B)</b> <ul style="list-style-type: none"> <li>Comparing Length</li> <li>Measuring Length with Blocks</li> <li>Measuring Length</li> <li>How Long is That?</li> <li>Ordering Lengths (cm)</li> </ul> <b>3D spatial structure: volume (B)</b> <ul style="list-style-type: none"> <li>How Full?</li> <li>Which Holds More?</li> <li>Filling Fast!</li> </ul>	<b>Compare lengths - informal units</b> <ul style="list-style-type: none"> <li>Comparing &amp; ordering lengths using informal units</li> </ul> <b>Compare &amp; order volume &amp; capacity</b> <ul style="list-style-type: none"> <li>Compare &amp; order volume/capacity (informal units)</li> </ul>		<b>(Y2-B) Measurement</b> <ul style="list-style-type: none"> <li>Length pp 1–14</li> <li>Capacity pp 26–33</li> </ul> <b>(Y3-C) Measurement</b> <ul style="list-style-type: none"> <li>Length pp 1–4</li> </ul>
<b>LS 4</b> <b>Big idea</b> Smaller numbers can be found hiding in bigger numbers <b>Topic</b> Partitioning 3-digit numbers	<b>MA1-RWN-01</b> applies an understanding of place value and the role of zero to read, write and order two-and three-digit numbers <b>MA1-RWN-02</b> reasons about representations of whole numbers to 1000, partitioning numbers to use and record quantity values	<b>Representing whole numbers B</b>	<ul style="list-style-type: none"> <li>Use counting sequences of ones and tens flexibly</li> <li>Form, regroup, and rename three-digit numbers</li> </ul>	<b>Representing whole numbers (B)</b> <ul style="list-style-type: none"> <li>Count by Tens</li> <li>Nearest 10?</li> <li>Nearest 100?</li> <li>Place Value 2</li> <li>Partition and Rename 1</li> <li>Place Value Partitioning</li> <li>Smallest and Largest numbers</li> </ul>	<b>Count in 100s, 10s, 1s</b> <ul style="list-style-type: none"> <li>Counting in hundreds, tens &amp; ones</li> </ul> <b>Partition 3-digit numbers</b> <ul style="list-style-type: none"> <li>Partitioning 3-digit numbers</li> <li>Partitioning 3-digit numbers (non-standard)</li> </ul>		<b>(Y3-C) Numbers</b> <ul style="list-style-type: none"> <li>Place value to 999 pp 19–32</li> </ul>
<b>LS 5</b> <b>Big idea</b> New shapes can be made by joining (combining) or partitioning (breaking apart) existing shapes <b>Topic</b> Building up shapes	<b>MA1-3DS-01</b> recognises, describes and represents familiar three-dimensional objects <b>MA1-RWN-01</b> applies an understanding of place value and the role of zero to read, write and order two-and three-digit numbers <b>MA1-RWN-02</b> reasons about representations of whole numbers to 1000, partitioning numbers to use and record quantity values	<b>Three-dimensional spatial structure B</b>  <b>Representing whole numbers B</b>	<ul style="list-style-type: none"> <li>3D objects: Describe the features of three-dimensional objects</li> <li>Use counting sequences of ones and tens flexibly</li> <li>Form, regroup, and rename three-digit numbers</li> </ul>	<b>3D spatial structure: properties (B)</b> <ul style="list-style-type: none"> <li>Faces, Edges, and Vertices 1</li> <li>How many Edges?</li> <li>How many Vertices?</li> </ul>	<b>3D objects</b> <ul style="list-style-type: none"> <li>Comparing 2D shapes &amp; 3D objects</li> </ul>		<b>(Y2-B) Space and Shape</b> <ul style="list-style-type: none"> <li>2D shapes REVIEW pp 1–12</li> <li>Composite shapes pp 13–14</li> <li>3D shapes pp 19–30</li> </ul> <b>(Y3-C) Space and Shape</b> <ul style="list-style-type: none"> <li>pp 18–24</li> </ul>

LS & Topic	Outcomes	Focus	Content	Activities (courses)	Skill Quests	Challenges	Ebooks
<b>LS 1</b> <b>Big idea</b> Equal means equivalent  <b>Topic</b> Additive relations	<b>MA1-CSQ-01</b> uses number bonds and the relationship between addition and subtraction to solve problems involving partitioning  <b>MA1-RWN-01</b> applies an understanding of place value and the role of zero ...  <b>MA1-RWN-02</b> reasons about representations of whole numbers to 1000 ...	<b>Combining and separating quantities B</b>  <b>Representing whole numbers B</b>	<ul style="list-style-type: none"> <li>Represent and reason about additive relations</li> <li>Use counting sequences of ones and tens flexibly</li> <li>Form, regroup, and rename three-digit numbers</li> </ul>	<b>Combine and separate quantities (B)</b> <ul style="list-style-type: none"> <li>All about Twenty</li> <li>Related Facts 1</li> <li>Balance Numbers to 20</li> <li>Adding In Any Order</li> <li>Fact Families: Add and Subtract</li> </ul>	<b>Additive relations</b> <ul style="list-style-type: none"> <li>Model &amp; record combinations that make 11 – 20</li> <li>Finding fact families for addition &amp; subtraction</li> <li>Commutative property for addition</li> </ul> <b>Use equality to solve problems</b> <ul style="list-style-type: none"> <li>Determining a missing number</li> <li>Recognising equality to 18</li> </ul>	<b>Number &amp; Algebra, Addition &amp; Subtraction 2-4</b> <ul style="list-style-type: none"> <li>The key to adding (DOK2)</li> </ul>	<b>(Y2-B) Patterns and Relationships</b> <ul style="list-style-type: none"> <li>Equivalence pp 17–21</li> <li>Addition combinations pp 22–30</li> </ul> <b>(Y3-C) Operations with Numbers</b> <ul style="list-style-type: none"> <li>Revising basic addition number facts pp 1–4</li> <li>Subtraction facts to 10 revision pp 26–27</li> <li>Relating addition and subtraction pp 32–35</li> </ul>
<b>LS 2</b> <b>Big idea</b> Data helps describe and wonder about the world  <b>Topic</b> Data	<b>MA1-DATA-01</b> gathers and organises data, displays data in lists, tables and picture graphs  <b>MA1-DATA-02</b> reasons about representations of data to describe and interpret the results  <b>MA1-RWN-01</b> applies an understanding of place value and the role of zero ...  <b>MA1-RWN-02</b> reasons about representations of whole numbers to 1000 ...  <b>MA1-CSQ-01</b> uses number bonds and the relationship between addition and subtraction to solve ...	<b>Data B</b>  <b>Representing whole numbers B</b>	<ul style="list-style-type: none"> <li>Identify a question of interest and gather relevant data</li> <li>Create displays of data and interpret them</li> <li>Use counting sequences of ones and tens flexibly</li> <li>Form, regroup, and rename three-digit numbers</li> </ul>	<b>Data: collect &amp; interpret data (B)</b> <ul style="list-style-type: none"> <li>Tallies</li> <li>Read Graphs</li> <li>Picture Graphs: Who has the Goods?</li> <li>Making Picture Graphs: With Scale</li> <li>Picture Graphs: More or Less</li> <li>Picture Graphs: Single-Unit Scale</li> </ul>	<b>Use tables &amp; lists</b> <ul style="list-style-type: none"> <li>Representing &amp; reading data in tables or lists</li> </ul> <b>Create &amp; interpret data displays</b> <ul style="list-style-type: none"> <li>Reading &amp; interpreting simple picture graph</li> <li>Using a tally chart, table or picture graph</li> </ul>	<b>Statistics &amp; data 2-4</b> <ul style="list-style-type: none"> <li>Pampered pets (DOK2)</li> </ul>	<b>(Y2-B) Chance and Data</b> <ul style="list-style-type: none"> <li>Data pp 7–11</li> <li>Collecting &amp; representing data pp 12–17</li> </ul> <b>(Y3-C) Chance and Data displays</b> <ul style="list-style-type: none"> <li>Tallies p 6</li> <li>Collecting &amp; representing Data pp 9–14</li> </ul>
<b>LS 3</b> <b>Big idea</b> What needs to be measured determines the unit of measurement  <b>Topic</b> Time	<b>MA1-NSM-02</b> describes, compares and orders durations of events, and reads half- and quarter-hour time  <b>MA1-RWN-01</b> applies an understanding of place value and the role of zero ...  <b>MA1-RWN-02</b> reasons about representations of whole numbers to 1000 ...  <b>MA1-FG-01</b> uses the structure of equal groups to solve multiplication problems, and shares or groups to solve division problems	<b>Non-spatial measure B</b>  <b>Representing whole numbers B</b>  <b>Forming groups B</b>	<ul style="list-style-type: none"> <li>Time: Describe duration using units of time</li> <li>Time: Tell time to the quarter-hour using the language of 'past' and 'to'</li> <li>Model doubling and halving with fractions</li> <li>Use counting sequences of ones and tens flexibly</li> <li>Form, regroup, and rename three-digit numbers</li> </ul>	<b>Non-spatial measure: duration (B)</b> <ul style="list-style-type: none"> <li>Months of the Year</li> <li>Months After and Before</li> <li>Using a Calendar</li> <li>Seasons (AU/NZ)</li> <li>Hour Times</li> <li>Half Hour Times</li> <li>Tell Time to the Hour (UK)</li> <li>Tell Time to the Half Hour (UK)</li> <li>Quarter To and Quarter Past</li> </ul>	<b>Time – calendars</b> <ul style="list-style-type: none"> <li>Using calendars to solve simple problems</li> </ul> <b>Time – formal units</b> <ul style="list-style-type: none"> <li>Choosing appropriate units of time</li> <li>Using hours to measure time</li> <li>Using minutes to measure time</li> <li>Using seconds to measure time</li> <li>Comparing hours, minutes &amp; seconds</li> </ul> <b>Tell time - half &amp; quarter hours</b> <ul style="list-style-type: none"> <li>Telling time to the half &amp; quarter hour</li> </ul> <b>Tell time - review hour &amp; half hour</b> <ul style="list-style-type: none"> <li>Telling time to the hour &amp; half hour (analogue)</li> <li>Telling time to the hour &amp; half hour (digital)</li> </ul>	<b>(Y2-B) Time and Money</b> <ul style="list-style-type: none"> <li>Time pp 1–10</li> <li>Analogue clocks pp 11–18</li> </ul> <b>(Y3-C) Time and Money</b> <ul style="list-style-type: none"> <li>Time pp 1–10</li> <li>O'clock p 14</li> <li>Half past pp 15–19</li> <li>Quarter past pp 20–21</li> <li>Quarter to pp 22–23</li> </ul>	

NSW New Syllabus (2023) S1 Year 2

LS & Topic	Outcomes	Focus	Content	Activities (courses)	Skill Quests	Challenges	Ebooks
<p><b>LS 4</b></p> <p><b>Big idea</b> Collections of objects can be changed by adding more (combining) or taking some away (separating)</p> <p><b>Topic</b> Addition and subtraction</p>	<p><b>MA1-CSQ-01</b> uses number bonds and the relationship between addition and subtraction to solve problems involving partitioning</p> <p><b>MA1-FG-01</b> uses the structure of equal groups to solve multiplication problems, and shares or groups to solve division problems</p> <p><b>MA1-RWN-01</b> applies an understanding of place value and the role of zero to read, write and order two-and three-digit numbers</p> <p><b>MA1-RWN-02</b> reasons about representations of whole numbers to 1000, partitioning numbers to use and record quantity values</p>	<p><b>Combining and separating quantities B</b></p> <p><b>Forming groups B</b></p> <p><b>Representing whole numbers B</b></p>	<ul style="list-style-type: none"> <li>Form multiples of ten when adding and subtracting two-digit numbers</li> <li>Use knowledge of equality to solve related problems</li> <li>Represent and explain multiplication as the combining of equal groups</li> <li>Represent multiplication and division problems</li> <li>Use counting sequences of ones and tens flexibly</li> <li>Form, regroup, and rename three-digit numbers</li> <li>Represent and reason about additive relations</li> </ul>	<p><b>Combine and separate quantities (B)</b></p> <ul style="list-style-type: none"> <li>Additive Addition</li> <li>Subtraction Facts to 18</li> <li>Subtract Tens</li> <li>10 More, 10 Less</li> <li>Doubles and Halves to 20</li> <li>More, Less or the Same to 20</li> </ul>	<p><b>Add &amp; subtract 2-digit numbers</b></p> <ul style="list-style-type: none"> <li>Using the bar model within 20</li> <li>Adding 2-digit &amp; 1-digit numbers</li> <li>Using mental strategies to add &amp; subtract (to 100)</li> <li>Adding &amp; subtracting tens from a 2-digit number</li> <li>Introducing place value to add &amp; subtract (to 200)</li> <li>Using place value to add &amp; subtract (to 200)</li> <li>Using place value (no models) to add &amp; subtract</li> <li>Using place value to add (crossing a 10)</li> <li>Subtracting using addition</li> </ul>	<p><b>Number &amp; Algebra, Addition &amp; Subtraction, 2-4</b></p> <ul style="list-style-type: none"> <li>Make 200 (DOK3)</li> <li>Calculate through this maze (3 digit numbers) (DOK3)</li> </ul>	<p>(Y3-C) <b>Operations with Numbers</b></p> <ul style="list-style-type: none"> <li>Counting on pp 5–8</li> <li>Using numbers lines p 9</li> <li>Doubling &amp; near doubles pp 10–16</li> <li>Bridging to 10 pp 17–18</li> <li>Counting on and counting back pp 28–31</li> <li>Difference pp 36–40</li> <li>Subtracting 2-digit numbers p 41</li> <li>Jump strategy pp 42–43, 48</li> </ul>
<p><b>LS 5</b></p> <p><b>Big idea</b> Sometimes things move and change location</p> <p><b>Topic</b> Position</p>	<p><b>MA1-GM-01</b> represents and describes the positions of objects in familiar locations</p> <p><b>MA1-ZDS-01</b> recognises, describes and represents shapes including quadrilaterals and other common polygons</p> <p><b>MA1-RWN-01</b> applies an understanding of place value and the role of zero to read, write and order two-and three-digit numbers</p> <p><b>MA1-RWN-02</b> reasons about representations of whole numbers to 1000, partitioning numbers to use and record quantity values</p>	<p><b>Geometric measure B</b></p> <p><b>Two-dimensional spatial structure B</b></p> <p><b>Representing whole numbers B</b></p>	<ul style="list-style-type: none"> <li>Position: Explore simple maps of familiar locations</li> <li>2D shapes: Identify and describe the orientation of shapes using quarter turns</li> <li>Use counting sequences of ones and tens flexibly</li> <li>Form, regroup, and rename three-digit numbers</li> </ul>	<p><b>2D spatial structure: 2D shapes (B)</b></p> <ul style="list-style-type: none"> <li>Collect Simple Shapes</li> <li>Count Sides and Corners</li> <li>Collect the Shapes 2</li> <li>Symmetry</li> </ul>	<p><b>Position with maps</b></p> <ul style="list-style-type: none"> <li>Reading simple maps</li> <li>Following a path</li> </ul> <p><b>Two-dimensional shapes</b></p> <ul style="list-style-type: none"> <li>Sorting quadrilaterals from other 2D shapes</li> <li>Identifying &amp; naming simple 2D shapes</li> <li>Comparing, describing &amp; sorting simple 2D shapes</li> <li>Representing &amp; describing regular polygons</li> </ul> <p><b>Slides, flips &amp; turns</b></p> <ul style="list-style-type: none"> <li>Slides, flips &amp; turns</li> </ul> <p><b>Symmetry</b></p> <ul style="list-style-type: none"> <li>Recognising line symmetry</li> </ul>	<p>(Y2-B) <b>Space and Shape</b></p> <ul style="list-style-type: none"> <li>Position pp 31–38</li> </ul> <p>(Y3-C) <b>Space and Shape</b></p> <ul style="list-style-type: none"> <li>Describing position pp 30–37</li> </ul>	

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LS & Topic	Outcomes	Focus	Content	Activities (courses)	Skill Quests	Challenges	Ebooks
<b>LS 1</b> <b>Big idea</b> Collections of ten are really useful  <b>Topic</b> Number review	<b>MA1-RWN-01</b> applies an understanding of place value and the role of zero to read, write and order two-and three-digit numbers  <b>MA1-RWN-02</b> reasons about representations of whole numbers to 1000, partitioning numbers to use and record quantity values  <b>MA1-CSQ-01</b> uses number bonds and the relationship between addition and subtraction to solve problems involving partitioning	<b>Representing whole numbers B</b>  <b>Combining and separating quantities B</b>	<ul style="list-style-type: none"> <li>Use counting sequences of ones and tens flexibly</li> <li>Form, regroup, and rename three-digit numbers</li> <li>Represent and reason about additive relations</li> <li>Form multiples of ten when adding and subtracting two-digit numbers</li> <li>Use knowledge of equality to solve related problems</li> </ul>	<b>Review earlier content</b>	<b>Review earlier content</b>	<b>Review earlier content</b>	<b>Review earlier content</b>
<b>LS 2</b> <b>Big idea</b> Patterns have something that repeats over and over and over again  <b>Topic</b> Multiplicative patterns	<b>MA1-FG-01</b> uses the structure of equal groups to solve multiplication problems, and shares or groups to solve division problems  <b>MA1-RWN-01</b> applies an understanding of place value and the role of zero to read, write and order two-and three-digit numbers  <b>MA1-RWN-02</b> reasons about representations of whole numbers to 1000, partitioning numbers to use and record quantity values	<b>Forming groups B</b>  <b>Representing whole numbers B</b>	<ul style="list-style-type: none"> <li>Represent and explain multiplication as the combining of equal groups</li> <li>Use counting sequences of ones and tens flexibly</li> <li>Form, regroup, and rename three-digit numbers</li> </ul>	<b>Review earlier content</b>	<b>Review earlier content</b>	<b>Number &amp; Algebra, Multiplication &amp; Division 2-4</b> <ul style="list-style-type: none"> <li>Trading card count (DOK 3)</li> <li>How many stickers? (DOK 3)</li> </ul>	(Y2-B) <b>Patterns and Relationships</b> <ul style="list-style-type: none"> <li>Patterns and rules - growing patterns pp 12-16</li> </ul>
<b>LS 3</b> <b>Big idea</b> Making and using equal groups  <b>Topic</b> Multiplication and division	<b>MA1-FG-01</b> uses the structure of equal groups to solve multiplication problems, and shares or groups to solve division problems  <b>MA1-RWN-01</b> applies an understanding of place value and the role of zero to read, write and order two-and three-digit numbers  <b>MA1-RWN-02</b> reasons about representations of whole numbers to 1000, partitioning numbers to use and record quantity values	<b>Forming groups B</b>  <b>Representing whole numbers B</b>	<ul style="list-style-type: none"> <li>Represent and explain multiplication as the combining of equal groups</li> <li>Represent multiplication and division problems</li> <li>Use counting sequences of ones and tens flexibly</li> <li>Form, regroup, and rename three-digit numbers</li> </ul>	<b>Forming groups (B)</b> <ul style="list-style-type: none"> <li>Multiplication Turnarounds</li> <li>Dividing Twos</li> <li>Dividing Fives</li> <li>Dividing Tens</li> <li>Dividing Threes</li> <li>Dividing Fours</li> <li>Model multiplication to <math>5 \times 5</math></li> <li>Multiplication Arrays</li> <li>Arrays 1</li> </ul>	<b>Multiplication as equal groups</b> <ul style="list-style-type: none"> <li>Adding to multiply</li> <li>Using the commutative property of multiplication</li> </ul> <b>Multiply &amp; divide using equal groups</b> <ul style="list-style-type: none"> <li>Dividing by sharing &amp; grouping</li> <li>Using repeated subtraction to divide</li> <li>Solving simple multiplication problems (2, 5, 10x)</li> </ul> <b>Explore leftovers</b> <ul style="list-style-type: none"> <li>Fair shares with/without remainders</li> </ul>	(Y3-C) <b>Four Times as Big</b> (Y3-C) <b>Operations with Numbers</b> <ul style="list-style-type: none"> <li>Equal groups pp 49-61</li> <li>Sharing pp 67-74</li> <li>Relating multiplication and division pp 75-78</li> </ul>	

LS & Topic	Outcomes	Focus	Content	Activities (courses)	Skill Quests	Challenges	Ebooks
<p><b>LS 4</b></p> <p><b>Big idea</b> What needs to be measured determines the unit of measurement</p> <p><b>Topic</b> Area and volume</p>	<p><b>MA1-2DS-02</b> measures and compares areas using uniform informal units in rows and columns</p> <p><b>MA1-3DS-02</b> measures, records, compares and estimates internal volumes (capacities) and volumes using uniform informal units</p> <p><b>MA1-FG-01</b> uses the structure of equal groups to solve multiplication problems, and shares or groups to solve division problems</p> <p><b>MA1-RWN-01</b> applies an understanding of place value and the role of zero to read, write and order two-and three-digit numbers</p> <p><b>MA1-RWN-02</b> reasons about representations of whole numbers to 1000, partitioning numbers to use and record quantity values</p>	<p><b>Two-dimensional spatial structure B</b></p> <p><b>Three-dimensional spatial structure B</b></p> <p><b>Forming groups B</b></p> <p><b>Representing whole numbers B</b></p>	<ul style="list-style-type: none"> <li>Area: Compare rectangular areas using uniform square units of an appropriate size in rows and columns</li> <li>Volume: Compare containers based on internal volume (capacity) by filling and packing</li> <li>Volume: Compare volumes using uniform informal units</li> <li>Represent and explain multiplication as the combining of equal groups</li> <li>Use counting sequences of ones and tens flexibly</li> <li>Form, regroup, and rename three-digit numbers</li> </ul>	<p><b>2D spatial structure: 2D shapes (B)</b></p> <ul style="list-style-type: none"> <li>Equal areas</li> </ul> <p><b>3D spatial structure: volume (B)</b></p> <ul style="list-style-type: none"> <li>How many Blocks?</li> <li>Comparing Volume</li> </ul>	<p><b>Measure area</b></p> <ul style="list-style-type: none"> <li>Measuring &amp; estimating area using square units</li> </ul> <p><b>Measure volume &amp; capacity</b></p> <ul style="list-style-type: none"> <li>Measuring volume &amp; capacity (informal units)</li> </ul> <p><b>Compare &amp; order volume &amp; capacity</b></p> <ul style="list-style-type: none"> <li>Comparing &amp; ordering volume using blocks</li> <li>Comparing &amp; ordering volume using displacement</li> </ul>	<p><b>Measurement, Area 2-4</b></p> <ul style="list-style-type: none"> <li>Rectangles of equal area (DOK 3)</li> </ul>	
<p><b>LS 5</b></p> <p><b>Big idea</b> A fraction (like one half) can mean half of a collection, half of an object or half of a measure. A whole unit can be partitioned into smaller parts</p> <p><b>Topic</b> Fractions</p>	<p><b>MA1-GM-03</b> creates and recognises halves, quarters and eighths as part measures of a whole length</p> <p><b>MA1-FG-01</b> uses the structure of equal groups to solve multiplication problems, and shares or groups to solve division problems</p> <p><b>MA1-RWN-01</b> applies an understanding of place value and the role of zero to read, write and order two-and three-digit numbers</p> <p><b>MA1-RWN-02</b> reasons about representations of whole numbers to 1000, partitioning numbers to use and record quantity values</p>	<p><b>Geometric measure B</b></p> <p><b>Forming groups B</b></p> <p><b>Representing whole numbers B</b></p>	<ul style="list-style-type: none"> <li>Length: Repeatedly halve lengths to form eighths</li> <li>Length: Subdivide lengths to find halves and quarters</li> <li>Model doubling and halving with fractions</li> <li>Use counting sequences of ones and tens flexibly</li> <li>Form, regroup, and rename three-digit numbers</li> </ul>		<p><b>Halves, quarters &amp; eighths</b></p> <ul style="list-style-type: none"> <li>Exploring the meaning of fraction symbols</li> <li>Finding quarters of sets or shapes (no symbols)</li> <li>Finding quarters of sets or shapes (symbols)</li> <li>Finding halves &amp; quarters (no symbols)</li> <li>Finding halves &amp; quarters (symbols)</li> <li>Finding eighths of objects or shapes</li> <li>Finding halves, quarters &amp; eighths of shapes</li> </ul> <p><b>Eighths &amp; repeated halving</b></p> <ul style="list-style-type: none"> <li>Relating eighths to repeated halving</li> </ul>	<p><b>Number &amp; Algebra, Fractions 2-4</b></p> <ul style="list-style-type: none"> <li>Monstrous proportions (DOK 2)</li> </ul>	<p><b>Y3-C Operations with Numbers</b></p> <ul style="list-style-type: none"> <li>Relating division and fractions p 79</li> </ul>

LS & Topic	Outcomes	Focus	Content	Activities (courses)	Skill Quests	Challenges	Ebooks
<b>LS 1</b> <b>Big idea</b> There are many different situations where addition, subtraction, multiplication and division can be used  <b>Topic</b> Everyday operations & money	<b>MA1-CSQ-01</b> uses number bonds and the relationship between addition and subtraction to solve problems involving partitioning  <b>MA1-FG-01</b> uses the structure of equal groups to solve multiplication problems, and shares or groups to solve division problems  <b>MA1-RWN-01</b> applies an understanding of place value and the role of zero ...  <b>MA1-RWN-02</b> reasons about representations of whole numbers to 1000 ...	<b>Combining and separating quantities B</b>  <b>Forming groups B</b>  <b>Representing whole numbers B</b>	<ul style="list-style-type: none"> <li>Represent and reason about additive relations</li> <li>Form multiples of ten when adding and subtracting two-digit numbers</li> <li>Use knowledge of equality to solve related problems</li> <li>Represent and explain multiplication as the combining of equal groups</li> <li>Model doubling and halving with fractions</li> <li>Represent multiplication and division problems</li> <li>Use counting sequences of ones and tens flexibly</li> <li>Form, regroup, and rename three-digit numbers</li> </ul>	<b>Combine and separate quantities (B)</b> <ul style="list-style-type: none"> <li>Add and Subtract Problems</li> </ul>	<b>Whole number – money</b> <ul style="list-style-type: none"> <li>Counting &amp; ordering Australian notes &amp; coins</li> </ul> <b>Add &amp; subtract 2-digit numbers</b> <ul style="list-style-type: none"> <li>Solving word problems with start or change unknown</li> </ul>		<b>(Y2-B) Time and Money</b> <ul style="list-style-type: none"> <li>Money pp 20–35</li> </ul>
<b>LS 2</b> <b>Big idea</b> What needs to be measured determines the unit of measurement  <b>Topic</b> Length and mass	<b>MA1-GM-02</b> measures, records, compares and estimates lengths and distances using uniform informal units ...  <b>MA1-NSM-01</b> measures, records, compares and estimates the masses of objects using uniform informal units  <b>MA1-RWN-01</b> applies an understanding of place value and the role of zero ...  <b>MA1-RWN-02</b> reasons about representations of whole numbers to 1000 ...	<b>Geometric measure B</b>  <b>Non-spatial measure B</b>  <b>Representing whole numbers B</b>	<ul style="list-style-type: none"> <li>Length: Compare and order lengths, using appropriate uniform informal units</li> <li>Length: Recognise and use formal units to measure the lengths of objects</li> <li>Mass: Compare the masses of objects using an equal-arm balance</li> <li>Use counting sequences of ones and tens flexibly</li> <li>Form, regroup, and rename three-digit numbers</li> </ul>	<b>Geometric measure: length (B)</b> <ul style="list-style-type: none"> <li>Measuring Length</li> <li>Comparing Length</li> <li>Measuring Length with Blocks</li> <li>How Long is That?</li> <li>Ordering Lengths (cm)</li> </ul> <b>Non-spatial measure: mass (B)</b> <ul style="list-style-type: none"> <li>Balancing Act</li> <li>Everyday Mass</li> </ul>	<b>Measure using formal units</b> <ul style="list-style-type: none"> <li>Introducing formal units for length (m)</li> <li>Measuring using formal units for length (cm)</li> </ul> <b>Compare &amp; order mass</b> <ul style="list-style-type: none"> <li>Comparing &amp; ordering mass using informal units</li> </ul>		<b>(Y2-B) Measurement</b> <ul style="list-style-type: none"> <li>Mass pp 15–25</li> </ul>
<b>LS 3</b> <b>Big idea</b> Data is collected to solve problems  <b>Topic</b> Chance (and data review)	<b>MA1-CHAN-01</b> recognises and describes the element of chance in everyday events  <b>MA1-DATA-01</b> gathers and organises data, displays data in lists, tables and picture graphs  <b>MA1-DATA-02</b> reasons about representations of data to describe and interpret the results  <b>MA1-RWN-01</b> applies an understanding of place value and the role of zero ...  <b>MA1-RWN-02</b> reasons about representations of whole numbers to 1000 ...	<b>Chance B</b>  <b>Data B</b>  <b>Representing whole numbers B</b>	<ul style="list-style-type: none"> <li>Identify and describe activities that involve chance</li> <li>Identify a question of interest and gather relevant data</li> <li>Create displays of data and interpret them</li> <li>Use counting sequences of ones and tens flexibly</li> <li>Form, regroup, and rename three-digit numbers</li> </ul>	<b>Chance (B)</b> <ul style="list-style-type: none"> <li>Will it Happen?</li> <li>Most Likely and Least Likely</li> </ul>	<b>Chance – basic language</b> <ul style="list-style-type: none"> <li>Using basic probability language</li> </ul>	<b>Chance &amp; Probability 2-4</b> <ul style="list-style-type: none"> <li>Selective <b>(DOK 3)</b></li> <li>Matt's day <b>(DOK 3)</b></li> <li>Everyday events <b>(DOK 3)</b></li> </ul>	<b>(Y2-B) Chance and Data</b> <ul style="list-style-type: none"> <li>Analysing data pp 18–21</li> <li>Chance pp 1–6</li> </ul> <b>(Y3-C) Chance and Data</b> <ul style="list-style-type: none"> <li>Chance pp 1–3</li> </ul>

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LS & Topic	Outcomes	Focus	Content	Activities (courses)	Skill Quests	Challenges	Ebooks
<b>LS 4</b> <b>Big idea</b> Objects can be sorted and classified in different ways  <b>Topic</b> 3D objects	<b>MA1-3DS-01</b> recognises, describes and represents familiar three-dimensional objects  <b>MA1-3DS-02</b> measures, records, compares and estimates internal volumes (capacities) and volumes using uniform informal units  <b>MA1-RWN-01</b> applies an understanding of place value and the role of zero to read, write and order two-and three-digit numbers  <b>MA1-RWN-02</b> reasons about representations of whole numbers to 1000, partitioning numbers to use and record quantity values	<b>Three-dimensional spatial structure B</b>  <b>Representing whole numbers B</b>	<ul style="list-style-type: none"> <li>3D objects: Describe the features of three-dimensional objects</li> <li>Volume: Compare containers based on internal volume (capacity) by filling and packing</li> <li>Volume: Compare volumes using uniform informal units</li> <li>Form, regroup, and rename three-digit numbers</li> <li>Use counting sequences of ones and tens flexibly</li> </ul>	<b>3D spatial structure: properties (B)</b> <ul style="list-style-type: none"> <li>Faces, Edges, and Vertices 1</li> <li>How many Edges?</li> <li>How many Vertices?</li> </ul>	<b>3D objects</b> <ul style="list-style-type: none"> <li>Identifying faces, edges &amp; vertices on 3D objects</li> <li>Describing &amp; sorting 3D objects</li> </ul>	<b>Geometry, 3D Shapes 2-4</b> <ul style="list-style-type: none"> <li>Shape sums <b>(DOK3)</b></li> </ul>	
<b>LS 5</b> <b>Big idea</b> Problems can be solved and represented in different ways  <b>Topic</b> Problem solving	<b>MA1-RWN-01</b> applies an understanding of place value and the role of zero to read, write and order two-and three-digit numbers  <b>MA1-RWN-02</b> reasons about representations of whole numbers to 1000, partitioning numbers to use and record quantity values  <b>MA1-FG-01</b> uses the structure of equal groups to solve multiplication problems, and shares or groups to solve division problems  <b>MA1-NSM-02</b> describes, compares and orders durations of events, and reads half- and quarter-hour time	<b>Representing whole numbers B</b>  <b>Forming groups B</b>  <b>Non-spatial measure B</b>	<ul style="list-style-type: none"> <li>Use counting sequences of ones and tens flexibly</li> <li>Form, regroup, and rename three-digit numbers</li> <li>Represent multiplication and division problems</li> <li>Time: Describe duration using units of time</li> </ul>	<b>Teacher directed</b>	<b>Teacher directed</b>		<b>(Y3-C) Operations with Numbers</b> <ul style="list-style-type: none"> <li>Multiplication pp 65–66</li> </ul>

# Mathletics

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