

# NSW Maths K-10 Syllabus for the Australian Curriculum

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Unit	Focus	Topic	NSW Outcome	Content
<b>Number and Algebra</b>				
1	Addition	Adding 1-20 to multiples of 10	<ul style="list-style-type: none"> <li>Solve addition questions based on multiples of 10</li> <li>Identify and use terms other than addition</li> <li>Solve addition word problems involving whole numbers</li> </ul>	<b>(MA3-5NA)</b> selects and applies appropriate strategies for addition and subtraction with counting numbers of any size
2	Addition	Adding 2-digit numbers	<ul style="list-style-type: none"> <li>Select and apply efficient mental strategies to add 2-digit numbers</li> <li>Identify and use terms other than addition</li> <li>Solve addition word problems involving whole numbers</li> </ul>	<b>(MA3-5NA)</b> selects and applies appropriate strategies for addition and subtraction with counting numbers of any size
3	Subtraction	Subtracting 1-20 from multiples of 10	<ul style="list-style-type: none"> <li>Solve subtraction questions based on multiples of 10</li> <li>Solve subtraction number strings</li> <li>Identify and use terms other than subtraction</li> <li>Solve subtraction word problems involving whole numbers</li> </ul>	<b>(MA3-5NA)</b> selects and applies appropriate strategies for addition and subtraction with counting numbers of any size
4	Subtraction	Subtracting 2-digit numbers	<ul style="list-style-type: none"> <li>Solve subtraction questions with 2-digit numbers</li> <li>Calculate and identify true number sentences</li> <li>Identify and use terms other than subtraction</li> <li>Solve subtraction word problems involving whole numbers</li> </ul>	<b>(MA3-5NA)</b> selects and applies appropriate strategies for addition and subtraction with counting numbers of any size
5	Multiplication	The 1 times to 6 times tables	<ul style="list-style-type: none"> <li>Select and apply efficient mental strategies to recall multiplication facts for tables 1-6</li> <li>Solve subtraction number strings</li> <li>Identify and use terms other than multiplication</li> <li>Solve multiplication word problems involving times table facts</li> </ul>	<b>(MA3-6NA)</b> selects and applies appropriate strategies for multiplication and division, and applies the order of operations to calculations involving more than one operation

6	Multiplication	The 7 times to 12 times tables	<ul style="list-style-type: none"> <li>Select and apply efficient mental strategies to recall multiplication facts for tables 7-12</li> <li>Solve subtraction number strings</li> <li>Identify and use terms other than multiplication</li> <li>Solve multiplication word problems involving times table facts</li> </ul>	(MA3-6NA) selects and applies appropriate strategies for multiplication and division, and applies the order of operations to calculations involving more than one operation
7	Multiplication	Multiples of 10	<ul style="list-style-type: none"> <li>Use mental strategies to multiply numbers by 10, 100 and their multiples</li> <li>Identify and use terms other than multiplication</li> <li>Solve word problems involving multiplication based on multiples of 10.</li> </ul>	(MA3-6NA) selects and applies appropriate strategies for multiplication and division, and applies the order of operations to calculations involving more than one operation
8	Division	Divisors of 1 to 6	<ul style="list-style-type: none"> <li>Select and apply efficient mental strategies to recall division facts for tables 1-6</li> <li>Solve division number strings</li> <li>Identify and use terms other than division</li> <li>Solve division word problems involving times table facts</li> </ul>	(MA3-6NA) selects and applies appropriate strategies for multiplication and division, and applies the order of operations to calculations involving more than one operation
9	Division	Divisors of 7 to 12	<ul style="list-style-type: none"> <li>Select and apply efficient mental strategies to recall division facts for tables 7-12</li> <li>Solve division number strings</li> <li>Identify and use terms other than division</li> <li>Solve division word problems involving times table facts</li> </ul>	(MA3-6NA) selects and applies appropriate strategies for multiplication and division, and applies the order of operations to calculations involving more than one operation
10	Division	Dividing by multiples of 10	<ul style="list-style-type: none"> <li>Use mental strategies to divide numbers by 10, 100 and their multiples.</li> <li>Solve division number strings</li> <li>Identify and use terms other than division</li> <li>Solve word problems involving division</li> </ul>	(MA3-6NA) selects and applies appropriate strategies for multiplication and division, and applies the order of operations to calculations involving more than one operation
11	Multiplication	Multiples and common multiples	<ul style="list-style-type: none"> <li>Identify and describe multiples of whole numbers and use them to solve word problems</li> <li>Find the lowest common multiple</li> <li>Solve word problems involving multiples</li> </ul>	(MA3-6NA) selects and applies appropriate strategies for multiplication and division, and applies the order of operations to calculations involving more than one operation
12	Division	Factors	<ul style="list-style-type: none"> <li>Identify and describe factors of whole numbers and use them to solve problems</li> <li>Identify prime numbers</li> <li>List all the factors of whole numbers</li> <li>Identify prime numbers</li> <li>Solve word problems involving factors</li> </ul>	(MA3-6NA) selects and applies appropriate strategies for multiplication and division, and applies the order of operations to calculations involving more than one operation (MA3-4NA) orders, reads and represents integers of any size and describes properties of whole numbers
13	Addition	Doubling	<ul style="list-style-type: none"> <li>Use mental strategies to double numbers</li> <li>Identify and use terms other than doubling</li> <li>Solve word problems involving doubling numbers</li> </ul>	(MA3-5NA) selects and applies appropriate strategies for addition and subtraction with counting numbers of any size
14	Subtraction	Halving	<ul style="list-style-type: none"> <li>Use mental strategies to halve 2 and 3-digit numbers</li> <li>Identify and use terms other than halving</li> <li>Solve word problems involving halving numbers</li> </ul>	(MA3-5NA) selects and applies appropriate strategies for addition and subtraction with counting numbers of any size
15	Place Value	Place value to 1 million	<ul style="list-style-type: none"> <li>Identifies place value of numbers to 1 million</li> <li>Write numerals with correct numbers of digits</li> <li>Calculate the size difference according to place</li> </ul>	(MA3-4NA) orders, reads and represents integers of any size and describes properties of whole numbers (MA3-5NA) selects and applies appropriate strategies

			<ul style="list-style-type: none"> <li>value</li> <li>Solve word problems using numbers 10, 100, 1000, 10 000, 100 000 and their multiples.</li> </ul>	for addition and subtraction with counting numbers of any size
16	Place Value	Rounding off to 10 000	<ul style="list-style-type: none"> <li>Calculate the halfway numeral between numbers based on multiples of 100, 1000 and 10 000</li> <li>Round numbers to the nearest 100, 1000 and 10 000</li> </ul>	<b>(MA3-6NA)</b> selects and applies appropriate strategies for multiplication and division, and applies the order of operations to calculations involving more than one operation
17	Fractions	Fraction of an amount	<ul style="list-style-type: none"> <li>Select and apply efficient mental strategies to find tenths, thirds and quarters of numbers</li> <li>Select and apply efficient mental strategies to find a multiple fraction of a whole number</li> <li>Solve word problems involving fractions</li> </ul>	<b>(MA3-7NA)</b> compares, orders and calculates with fractions, decimals and percentages
18	Fractions	Equivalence and simplest form	<ul style="list-style-type: none"> <li>Select and apply efficient mental strategies to calculate equal fractions.</li> <li>Calculate improper fractions to whole numbers</li> <li>Write fractions into their simplest form</li> <li>Solve word problems involving fractions</li> </ul>	<b>(MA3-7NA)</b> compares, orders and calculates with fractions, decimals and percentages
19	Fractions and Decimals	Decimals and their fraction equivalences	<ul style="list-style-type: none"> <li>Select and apply efficient mental strategies to change decimals to fractions and fractions to decimals.</li> <li>Change decimals into fractions and then into their simplest form</li> <li>Round decimals to neat whole number</li> <li>Identify place value of decimals and whole numbers</li> <li>Solve word problems involving decimals and fractions</li> </ul>	<b>(MA3-7NA)</b> compares, orders and calculates with fractions, decimals and percentages
20	Decimals	Addition and subtraction	<ul style="list-style-type: none"> <li>Add and subtract decimals up to two decimal places</li> <li>Solve word problems involving decimals</li> </ul>	<b>(MA3-5NA)</b> selects and applies appropriate strategies for addition and subtraction with counting numbers of any size <b>(MA3-7NA)</b> compares, orders and calculates with fractions, decimals and percentages
21	Equations	Sequences	<ul style="list-style-type: none"> <li>Identify and continue number patterns involving addition and subtraction</li> <li>Calculate the 7<sup>th</sup> term from a given sequence</li> <li>Identify missing terms using whole numbers, fractions and decimals.</li> <li>Identify the rule for a sequence</li> </ul>	<b>(MA3-5NA)</b> selects and applies appropriate strategies for addition and subtraction with counting numbers of any size <b>(MA3-8NA)</b> analyses and creates geometric and number patterns, constructs and completes number sentences, and locates points on the Cartesian plane
22	Equations	Number strings	<ul style="list-style-type: none"> <li>Investigate and establish the order of operations</li> <li>Apply the order of operations to perform calculations involving mixed operations</li> <li>Review the use of grouping symbols in order of operations</li> <li>Solve problems involving four basic operations of one- or two-digit numbers using efficient mental and written strategies</li> </ul>	<b>(MA3-5NA)</b> selects and applies appropriate strategies for addition and subtraction with counting numbers of any size <b>(MA3-6NA)</b> selects and applies appropriate strategies for multiplication and division, and applies the order of operations to calculations involving more than one operation
29	Money	Making amounts, addition and subtraction	<ul style="list-style-type: none"> <li>Identify coins and bank notes needed to create a set amount of money in dollars or cents</li> <li>Calculate the amount of coins needed to match a dollar amount with the fewest number of coins</li> </ul>	<b>(MA3-5NA)</b> selects and applies appropriate strategies for addition and subtraction with counting numbers of any size

			<ul style="list-style-type: none"> <li>Calculate the amount of notes needed to match a dollar amount with the fewest number of notes</li> <li>Calculate the totals of money sentences</li> <li>Calculate the change from \$100</li> <li>Solve word problems involving money</li> </ul>	
<b>Measurement and Geometry</b>				
23	Length and Perimeter	Conversions and missing sides	<ul style="list-style-type: none"> <li>Convert between metres in decimal form and centimetres</li> <li>Convert between centimetres and metres</li> <li>Convert between millimetres and centimetres</li> <li>Convert between centimetres in decimal form and millimetres</li> <li>Calculate perimeter of squares and rectangles</li> </ul>	<b>(MA3-9MG)</b> selects and uses the appropriate unit and device to measure lengths and distances, calculates perimeters, and converts between units of length
24	Area	Concept and application	<ul style="list-style-type: none"> <li>Calculate the areas of rectangles using familiar metric units</li> <li>Calculate width of rectangle when given length and area</li> <li>Calculate length and width when given the area.</li> <li>Select appropriate measurement unit of area</li> <li>Solve word problems involving area</li> </ul>	<b>(MA3-10MG)</b> selects and uses the appropriate unit to calculate areas, including areas of squares, rectangles and triangles
25	Mass	Units and conversions	<ul style="list-style-type: none"> <li>Convert between kilograms and grams</li> <li>Convert between grams and kilograms</li> <li>Calculate weight of water from ml and L</li> <li>Add kilograms and grams</li> <li>Identify the link between 1 kg/1000 g = 1 L/1000 mL</li> <li>Solve word problems involving different units of mass</li> </ul>	<b>(MA3-12MG)</b> selects and uses the appropriate unit and device to measure the masses of objects, and converts between units of mass
26	Capacity and volume	Units and conversions	<ul style="list-style-type: none"> <li>Convert decimal litres into millilitres</li> <li>Convert millilitres into decimal litres</li> <li>Calculate the volumes of rectangular prisms in cubic millimetres, centimetres and metres</li> <li>Identify greater volume between various values mL and L</li> <li>Calculate missing value in Volume equations</li> <li>Solve word problems involving different units of capacity</li> </ul>	<b>(MA3-11MG)</b> selects and uses the appropriate unit to estimate, measure and calculate volumes and capacities, and converts between units of capacity
27	Time	Digital and analogue conversions	<ul style="list-style-type: none"> <li>Convert between digital and analogue time</li> <li>Convert between analogue and digital time</li> <li>Calculate time difference in minutes and hours</li> <li>Solve word problems based on time</li> </ul>	<b>(MA3-13MG)</b> uses 24-hour time and am and pm notation in real-life situations, and constructs timelines
28	Time	Unit equivalences	<ul style="list-style-type: none"> <li>Calculate fractions of an hour and year.</li> <li>Calculate day of the week and months of the year</li> <li>Calculate number of days in combination of months</li> <li>Solve word problems based on time.</li> </ul>	<b>(MA3-13MG)</b> uses 24-hour time and am and pm notation in real-life situations, and constructs timelines

30	2D and 3D	Properties and directions	<ul style="list-style-type: none"> <li>• Calculate 2D shapes used to make 3D shapes.</li> <li>• Identify opposite and adjacent directions</li> <li>• Calculate direction based on compass</li> <li>• Solve word problems based on direction</li> </ul>	<p><b>(MA3-14MG)</b> identifies three-dimensional objects, including prisms and pyramids, on the basis of their properties, and visualises, sketches and constructs them given drawings of different views</p> <p><b>(MA3-15MG)</b> manipulates, classifies and draws two-dimensional shapes, including equilateral, isosceles and scalene triangles, and describes their properties</p>
<b>Statistics and Probability</b>				
31	Chance	Concepts of likelihood	<ul style="list-style-type: none"> <li>• Describe the likelihood of a variety of events as being certain, likely, 50/50, unlikely or impossible.</li> <li>• Identify best chance of an event happening</li> <li>• Express likelihood of an event as a fraction</li> <li>• Solve word problems based on chance</li> </ul>	<p><b>(MA3-19SP)</b> conducts chance experiments and assigns probabilities as values between 0 and 1 to describe their outcomes</p>
32	Revision			



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**2007-2013**