

NSW Mathematics K-10 Syllabus (2012)				NSW Mathematics 3-6 Syllabus (2023)				Activities (courses): Topics	Skill Quests
Strand	Substrands	Outcomes	Code	Strand	Substrands	Outcomes	Code	NSW New Syllabus (2023) S3 Year 6	
Number and Algebra	Whole Numbers 2	orders, reads and represents integers of any size and describes properties of whole numbers	MA3-4NA	Number and Algebra	Represents numbers B	applies an understanding of place value and the role of zero to represent the properties of numbers	MA3-RN-01	Represents numbers: including decimals (B)	Represent numbers of any size Represent integers
	Addition and Subtraction 2	selects and applies appropriate strategies for addition and subtraction with counting numbers of any size	MA3-5NA			compares and orders decimals up to 3 decimal places	MA3-RN-02		Compare & order decimals
						determines percentages of quantities, and finds equivalent fractions and decimals for benchmark percentage values	MA3-RN-03	Represents numbers: including decimals (B) Represents quantity fractions (B)	Calculate percentage of an amount Convert fraction, decimal & percentage
					Additive relations B	selects and applies appropriate strategies to solve addition and subtraction problems	MA3-AR-01	Additive relations: add sub strategies (B)	Solve problems with numbers of any size Add & subtract to 1 decimal place Add & subtract to 2 decimal places Add & subtract to 3 decimal places Add/sub fractions: related denominators
					Multiplication and Division 2	selects and applies appropriate strategies for multiplication and division, and applies the order of operations to calculations involving more than one operation	MA3-6NA	Multiplicative relations B	selects and applies appropriate strategies to solve multiplication and division problems
constructs and completes number sentences involving multiplicative relations, applying the order of operations to calculations	MA3-MR-02								
Patterns and Algebra 2	analyses and creates geometric and number patterns, constructs and completes number sentences, and locates points on the Cartesian plane	MA3-8NA	Representing quantity fractions B	compares and orders fractions with denominators of 2, 3, 4, 5, 6, 8 and 10	MA3-RQF-01	Represents quantity fractions (B)	Compare fractions: related denominators		
Fractions and Decimals 2	compares, orders and calculates with fractions, decimals and percentages	MA3-7NA		determines $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$ and $\frac{1}{10}$ of measures and quantities	MA3-RQF-02		Calculate fraction of an amount		

NSW Mathematics K-10 Syllabus (2012)				NSW Mathematics 3-6 Syllabus (2023)				Activities (courses): Topics	Skill Quests
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Measurement and Geometry	Position 2	locates and describes position on maps using a grid-reference system	MA3-17MG	Measurement and Space	Geometric measure B: Position	locates and describes points on a coordinate plane	MA3-GM-01	Geometric measure: coordinate plane (B)	Locate position in the four quadrants
	Length 2	selects and uses the appropriate unit and device to measure lengths and distances, calculates perimeters, and converts between units of length	MA3-9MG		Geometric measure B: Length	selects and uses the appropriate unit and device to measure lengths and distances including perimeters	MA3-GM-02	Geometric measure: length application (B)	Understand the metric system for length
	Angles 2	measures and constructs angles, and applies angle relationships to find unknown angles	MA3-16MG		Geometric measure B: Angle	measures and constructs angles, and identifies the relationships between angles on a straight line and angles at a point	MA3-GM-03	Geometric measure: angle (B)	Identify angle relationships
	Two-dimensional Space 2	manipulates, classifies and draws two-dimensional shapes, including equilateral, isosceles and scalene triangles, and describes their properties	MA3-15MG		Two-dimensional spatial structure B: 2D shapes	investigates and classifies two-dimensional shapes, including triangles and quadrilaterals based on their properties	MA3-2DS-01	2D spatial structure: transformations (B)	Transform 2-dimensional shapes
	Area 2	selects and uses the appropriate unit to calculate areas, including areas of squares, rectangles and triangles	MA3-10MG		Two-dimensional spatial structure B: Area	selects and uses the appropriate unit to calculate areas, including areas of rectangles	MA3-2DS-02	2D spatial structure: area (B)	Calculate area of shapes
						combines, splits and rearranges shapes to determine the area of parallelograms and triangles	MA3-2DS-03		
	Three-dimensional Space 2	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	MA3-14MG		Three-dimensional spatial structure B: 3D Objects	visualises, sketches and constructs three-dimensional objects, including prisms and pyramids, making connections to two-dimensional representations	MA3-3DS-01		Prisms & Pyramids
	Volume and Capacity 2	selects and uses the appropriate unit to estimate, measure and calculate volumes and capacities, and converts between units of capacity	MA3-11MG		Three-dimensional spatial structure B: Volume	selects and uses the appropriate unit to estimate, measure and calculate volumes and capacities	MA3-3DS-02	3D spatial structure: volume (B)	Calculate volume in m^3 & cm^3
	Mass 2	selects and uses the appropriate unit and device to measure the masses of objects, and converts between units of mass	MA3-12MG		Non-spatial measure B: Mass	selects and uses the appropriate unit and device to measure the masses of objects	MA3-NSM-01	Non-spatial measure: mass (B)	Convert between units of mass
Time 2	uses 24-hour time and am and pm notation in real-life situations, and constructs timelines	MA3-13MG	Non-spatial measure B: Time	measures and compares duration, using 12- and 24-hour time and am and pm notation	MA3-NSM-02	Non-spatial measure: time (B)	Solve duration problems		

Syllabus comparison chart

NSW Mathematics K-10 Syllabus (2012)				NSW Mathematics 3-6 Syllabus (2023)				Activities (courses): Topics	Skill Quests
Strand	Substrands	Outcomes	Code	Strand	Substrands	Outcomes	Code	NSW New Syllabus (2023) S3 Year 6	
Statistics and Probability	Data 2	uses appropriate methods to collect data and constructs, interprets and evaluates data displays, including dot plots, line graphs and two-way tables	MA3-18SP	Statistics and Probability	Data B	constructs graphs using many-to-one scales	MA3-DATA-01	Data: mode and range (B)	Interpret data displays
						interprets data displays, including timelines and line graphs	MA3-DATA-02		
	Chance 2	conducts chance experiments and assigns probabilities as values between 0 and 1 to describe their outcomes	MA3-19SP		Chance B	conducts chance experiments and quantifies the probability	MA3-CHAN-01	Chance (B)	Compare observed with expected results

Learning sequence	Term one	Term two	Term three	Term four
LS 1	Number and Algebra Big idea: The number system extends infinitely to very large and very small numbers Number and patterns <ul style="list-style-type: none"> Review numbers to billions Identify factors and multiples Patterns Algebra 	Number and Algebra Big idea: The number system extends infinitely to very large and very small numbers Integers <ul style="list-style-type: none"> Identify and place negative whole numbers on a number line Use the term integer Interpret integers in everyday contexts Recognise the relationship between negative numbers and subtraction 	Number and Algebra Big idea: The number system extends infinitely to very large and very small numbers Connecting fractions, decimals, and percentages <ul style="list-style-type: none"> Recognise 100% is whole amount Recall commonly used equivalent percentages, decimals and fractions Represent common percentages as fractions and decimals 	Number and Algebra Big idea: The number system extends infinitely to very large and very small numbers Number review Review: <ul style="list-style-type: none"> Term 1, Learning Sequence 1 Term 2, Learning Sequence 1 Term 3, Learning Sequence 1
	Number and Algebra Big idea: Addition and subtraction problems can be solved by using a variety of strategies Addition and subtraction <ul style="list-style-type: none"> Compare, evaluate, communicate and justify strategies Solve multistep word problems Add and subtract decimals to 3 places 	Number and Algebra Big idea: Multiplicative thinking involves flexible use of multiplication and division concepts, strategies and representations Multiplication and division <ul style="list-style-type: none"> Use efficient strategies to multiply Multiply and divide decimals by powers of 10 Apply inverse operations Apply order of operations (brackets) 	Measurement and Space Big idea: Understanding relationships between the properties of 2D shapes helps visualise and organise spaces in the world 2D shape and area <ul style="list-style-type: none"> Find area of composite shapes Transform parallelograms to find area Use relationships with parallelograms to find the area of triangles 	Number and Algebra Big idea: Fractions represent multiple ideas and can be represented in different ways Fractions problems <ul style="list-style-type: none"> Review fractions Add and subtract fractions with same or related denominators Calculate fractions of quantities Solve word problems involving fractions
LS 3	Measurement and Space Big idea: What needs to be measured determines the unit of measurement Time <ul style="list-style-type: none"> Calculate elapsed time Add and subtract time using bridging Round to nearest minute or hour Represent time intervals as decimals Solve problems involving duration 	Number and Algebra Measurement and Space Big idea: Visual representations help to understand aspects of the world (chance and position) Position <ul style="list-style-type: none"> Plot and label points in 4 quadrants Identify and record coordinates in 4 quadrants Describe coordinate translations and reflections 	Number and Algebra Measurement and Space Big idea: Multiplicative thinking involves flexible use of multiplication and division concepts, strategies, and representations Linking multiplication to volume <ul style="list-style-type: none"> Describe dimensions of a rectangular prisms: length, width and height Use multiplicative structure to find volumes using cm^3 and m^3 	Statistics and Probability Big idea: Questions can be asked and answered by collecting and interpreting data Chance <ul style="list-style-type: none"> Create random generators Use fractions, decimals and percentages to assign expected probabilities Distinguish between frequency and probability Compare expected and observed probabilities and frequencies Use sampling to determine the likely make up of a large collection Record outcomes and display data
	Number and Algebra Big idea: Fractions represent multiple ideas and can be represented in different ways Fractions <ul style="list-style-type: none"> Compare, order and represent fractions with related denominators Create and record equivalent fractions Build wholes from fractional parts 	Measurement and Space Big idea: What needs to be measured determines the unit of measurement 3D objects and volume <ul style="list-style-type: none"> Create skeletal models of prisms and pyramids Construct 3D models of prisms and pyramids Construct, estimate and use cubic metres to measure larger volumes 	Number and Algebra Measurement and Space Big idea: What needs to be measured determines the unit of measurement Length and mass <ul style="list-style-type: none"> Interpret and record lengths using decimals Convert m and km Investigate and compare perimeters Convert between g and kg, kg and t Solve problems with different units of mass 	Number and Algebra Big idea: Multiplicative thinking involves flexible use of multiplication and division concepts, strategies, and representations Multiplication and division problems <ul style="list-style-type: none"> Solve word problems involving multiplication and division Use multiplication and division to solve problems involving money and budgeting
LS 5	Statistics and Probability Big idea: Questions can be asked and answered by collecting and interpreting data Data <ul style="list-style-type: none"> Interpret side-by-side column graphs Interpret timelines using scales Interpret and compare distributions: range and mode Identify sources of bias and misleading representations in media data displays 	Measurement and Space Number and Algebra Big idea: Angles are the primary structural component of many shapes Angles <ul style="list-style-type: none"> Recognise angles: right, angles on a straight line and angles at a point Investigate properties of angles: perpendicular lines, adjacent angles and angles at a point 	Number and Algebra Big idea: Addition and subtraction problems can be solved by using a variety of strategies Addition and subtraction problems <ul style="list-style-type: none"> Add and subtract decimals Solve word problems involving addition and subtraction Use addition and subtraction to solve problems involving money and budgeting Determine percentage discounts 	Measurement and Space Big idea: Shapes encountered in daily life can be classified by their attributes Shape transformations <ul style="list-style-type: none"> Describe transformations of 2D shapes Dissect and rearrange shapes

Outcomes	Focus	Content	Located
MA3-RN-01 applies an understanding of place value and the role of zero to represent the properties of numbers	Represent numbers B	Whole numbers: Locate and represent integers on a number line	Term 1 LS 5 Term 2 LS 1 Term 4 LS 1
MA3-RN-03 determines percentages of quantities, and finds equivalent fractions and decimals for benchmark percentage values		Decimals and percentages: Make connections between benchmark fractions, decimals and percentages	Term 3 LS 1, 4 Term 4 LS 1
		Decimals and percentages: Determine percentage discounts of 10%, 25% and 50%	Term 3 LS 5 Term 4 LS 1
MA3-AR-01 selects and applies appropriate strategies to solve addition and subtraction problems	Additive relations B	Choose and use efficient strategies to solve addition and subtraction problems	Term 1 LS 2 Term 2 LS 1 Term 3 LS 5 Term 4 LS 1
		Applies known strategies to add and subtract decimals	Term 1 LS 2 Term 2 LS 1 Term 3 LS 5 Term 4 LS 1
MA3-MR-01 selects and applies appropriate strategies to solve multiplication and division problems	Multiplicative relations B	Select and apply strategies to solve problems involving multiplication and division with whole numbers	Term 2 LS 2 Term 3 LS 1, 2, 3 Term 4 LS 4
		Multiply and divide decimals by powers of 10	Term 2 LS 2 Term 3 LS 1 Term 4 LS 4
MA3-MR-02 constructs and completes number sentences involving multiplicative relations, applying the order of operations to calculations		Use equivalent number sentences involving multiplication and division to find unknown quantities	Term 2 LS 2 Term 3 LS 1 Term 4 LS 4
		Represent and describe number patterns formed by multiples	Term 1 LS 1 Term 2 LS 2 Term 3 LS 1 Term 4 LS 4
		Explore the use of brackets and the order of operations to write number sentences	Term 2 LS 2 Term 4 LS 4
MA3-RQF-01 compares and orders fractions with denominators of 2, 3, 4, 5, 6, 8 and 10	Representing quantity fractions B	Recognise that a fraction can represent a division	Term 1 LS 4 Term 2 LS 5 Term 4 LS 2
		Compare common fractions with related denominators	Term 1 LS 4 Term 2 LS 5 Term 4 LS 2
		Build up to the whole from a given fractional part	Term 1 LS 4 Term 2 LS 5 Term 4 LS 2
		Use equivalence to add and subtract fractional quantities	Term 1 LS 4 Term 2 LS 5 Term 4 LS 2
MA3-RQF-02 determines $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$ and $\frac{1}{10}$ of measures and quantities		Find fractional quantities of whole numbers (halves, quarters, fifths and tenths)	Term 1 LS 4 Term 4 LS 2
MA3-GM-01 locates and describes points on a coordinate plane	Geometric measure B	Position: Use the 4 quadrants of the coordinate plane	Term 2 LS 3

Outcomes	Focus	Content	Located
MA3-GM-02 selects and uses the appropriate unit and device to measure lengths and distances including perimeters	Geometric measure B	Length: Connect decimal representations to the metric system	Term 3 LS 4
		Length: Convert between common metric units of length	Term 3 LS 4
		Length: Solve problems involving the comparison of lengths using appropriate units	Term 3 LS 4
MA3-GM-03 measures and constructs angles, and identifies the relationships between angles on a straight line and angles at a point		Angles: Investigate angles on a straight line and angles at a point	Term 2 LS 5
		Angles: Investigate the relationships formed by the intersection of straight lines	Term 2 LS 5
MA3-2DS-01 investigates and classifies two-dimensional shapes, including triangles and quadrilaterals based on their properties	Two-dimensional spatial structure B	2D shapes: Dissect two-dimensional shapes and rearrange them using translations, reflections and rotations	Term 3 LS 2 Term 4 LS 5
MA3-2DS-03 combines, splits and rearranges shapes to determine the area of parallelograms and triangles		Area: Find the area of composite figures	Term 3 LS 2
		Area: Calculate the area of a parallelogram using subdivision and rearrangement	Term 3 LS 2
		Area: Determine the area of a triangle	Term 3 LS 2
MA3-3DS-01 visualises, sketches and constructs three-dimensional objects, including prisms and pyramids, making connections to two-dimensional representations	Three-dimensional spatial structure B	3D objects: Construct prisms and pyramids	Term 2 LS 4
MA3-3DS-02 selects and uses the appropriate unit to estimate, measure and calculate volumes and capacities		Volume: Use cubic metres for measurement of volume	Term 3 LS 3
		Volume: Recognise the multiplicative structure for finding volume	Term 3 LS 3
		Volume: Find the volumes of rectangular prisms in cubic centimetres and cubic metres	Term 3 LS 3
MA3-NSM-01 selects and uses the appropriate unit and device to measure the masses of objects	Non-spatial measure B	Mass: Convert between common metric units of mass	Term 3 LS 4
MA3-NSM-02 measures and compares duration, using 12- and 24-hour time and am and pm notation		Time: Solve problems involving duration, using 12- and 24-hour time	Term 1 LS 3
MA3-DATA-02 interprets data displays, including timelines and line graphs	Data B	Interpret and compare a range of data displays	Term 1 LS 5 Term 4 LS 3
		Interpret data presented in digital media and elsewhere	Term 1 LS 5 Term 4 LS 3
MA3-CHAN-01 conducts chance experiments and quantifies the probability	Chance B	Compare observed frequencies of outcomes with expected results	Term 4 LS 3
		Create random generators and describe probabilities using fractions	Term 4 LS 3
		Conduct chance experiments with both small and large numbers of trials	Term 4 LS 3

NSW New Syllabus (2023) S3 Year 6

LS & Topic	Outcomes	Focus	Content	New Courses	Activities (courses)	Skill Quests	Challenges	Ebooks
<p>LS 1</p> <p>Big idea The number system extends infinitely to very large and very small numbers</p> <p>Topic Number and patterns</p>	<p>MA3-MR-02 constructs and completes number sentences involving multiplicative relations, applying the order of operations to calculations</p> <p>MA3-RN-01 applies an understanding of place value and the role of zero to represent the properties of numbers</p> <p>MA3-RN-02 Compares and orders decimals up to 3 decimal places</p>	<p>Multiplicative relations B</p> <p>Represent numbers B</p>	<ul style="list-style-type: none"> Represent and describe number patterns formed by multiples Whole numbers: Recognise, represent and order numbers in the millions Whole numbers: Apply place value to partition, regroup and rename numbers to 1 billion 	<p>Y6 Decimals</p> <ul style="list-style-type: none"> Decimals and place value Rounding decimals Decimals and the number line Compare and order decimals 	<p>Review earlier content</p>	<p>Represent numbers of any size</p> <ul style="list-style-type: none"> Representing & ordering numbers of any size <p>Compare & order decimals</p> <ul style="list-style-type: none"> Comparing & ordering decimals up to thousandths 	<p>Number & Algebra, Decimals 4-6</p> <ul style="list-style-type: none"> Code cracker (DOK 2) <p>Number & Algebra, Multiplication & Division 4-6</p> <ul style="list-style-type: none"> Reasoning with numbers (DOK 2) 	<p>(Y6-F) Multiplication and Division</p> <ul style="list-style-type: none"> Mental multiplication strategies p 1 <p>(Y7-G) Whole Numbers</p> <ul style="list-style-type: none"> Place value pp 2-5 <p>(Y6-F) Patterns and Algebra</p> <ul style="list-style-type: none"> Patterns and functions pp 1-17 Algebraic thinking pp 18-25 Solving equations pp 26-33
<p>LS 2</p> <p>Big idea Addition and subtraction problems can be solved by using a variety of strategies</p> <p>Topic Addition and subtraction</p>	<p>MA3-AR-01 selects and applies appropriate strategies to solve addition and subtraction problems</p>	<p>Additive relations B</p>	<ul style="list-style-type: none"> Choose and use efficient strategies to solve addition and subtraction problems Applies known strategies to add and subtract decimals 	<p>Y6 Decimals</p> <ul style="list-style-type: none"> Add decimals Subtract decimals Addition strategies with decimals Subtraction strategies with decimals 	<p>Represents numbers: including decimals (B)</p> <ul style="list-style-type: none"> Percentage of an amount using Fractions (<100%) <p>Additive relations: add sub strategies (B)</p> <ul style="list-style-type: none"> Add Three 2-Digit Numbers: Regroup Add 3-Digit Numbers Add 3-Digit Numbers: Regroup Adding Colossal Columns Add Multi-Digit Numbers 1 Bump Add and Subtract Jump Add and Subtract Compensation - Add Magic Symbols 1 Adding Decimals Add Decimals 2 Subtracting Colossal Columns 3-Digit Differences 3-Digit Differences: 1 Regrouping 3-Digit Differences: 2 Groupings 3-Digit Differences with Zeros Subtracting Decimals Subtract Decimals 2 Magic Symbols 2 	<p>Solve problems with numbers of any size</p> <ul style="list-style-type: none"> Adding & subtracting to solve problems <p>Add & subtract to 2 decimal places</p> <ul style="list-style-type: none"> Adding decimals to 2 decimal places Subtracting decimals to 2 decimal places Adding & subtracting decimals to 2 decimal places <p>Calculate percentage of an amount</p> <ul style="list-style-type: none"> Calculating a percentage of an amount using 10% Calculating percentage discounts <p>Add & subtract to 3 decimal places</p> <ul style="list-style-type: none"> Adding & subtracting a whole & a decimal Adding decimals to 3 decimal places (models) Adding decimals to 3 decimal places (no models) Subtracting decimals to 3 decimal places (models) Subtracting to 3 decimal places (no models) 	<p>Number & Algebra, Decimals 5-7</p> <ul style="list-style-type: none"> Pedro's project (DOK 3) 	<p>(Y6-F) Addition and Subtraction</p> <ul style="list-style-type: none"> Mental strategies pp 1-10 Applying strategies pp 11-19 Written methods pp 20-28

LS & Topic	Outcomes	Focus	Content	New Courses	Activities (courses)	Skill Quests	Challenges	Ebooks
LS 3 Big idea What needs to be measured determines the unit of measurement Topic Time	MA3-NSM-02 measures and compares duration, using 12- and 24-hour time and am and pm notation	Non-spatial measure B	<ul style="list-style-type: none"> Time: Solve problems involving duration, using 12- and 24-hour time 	Coming soon	Non-spatial measure: time (B) <ul style="list-style-type: none"> Time Mentals Elapsed Time Time Conversions: Simple Decimals (0.25, 0.5, 0.75) Australian Time Zones Time Zones What Time Will it Be? 	Solve duration problems <ul style="list-style-type: none"> Solving problems with duration using 12 & 24 hours 	Measurement, Time 4-6 <ul style="list-style-type: none"> Muesli bar time jumble (DOK 2) Time for a break? (DOK 2) Mrs Baker's cookie conundrum (DOK 2) Measurement, Time 5-7 <ul style="list-style-type: none"> Find the fastest ferry (DOK 2) 24-hour travel times (DOK 2) 	(Y6-F) Time <ul style="list-style-type: none"> Telling time pp 1-8 Calculating time pp 9-17 Time applications pp 18-26
LS 4 Big idea Fractions represent multiple ideas and can be represented in different ways Topic Fractions	MA3-RQF-01 compares and orders fractions with denominators of 2, 3, 4, 5, 6, 8 and 10 MA3-RQF-02 determines $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$ and $\frac{1}{10}$ of measures and quantities	Representing quantity fractions B	<ul style="list-style-type: none"> Recognise that a fraction can represent a division Compare common fractions with related denominators Build up to the whole from a given fractional part Use equivalence to add and subtract fractional quantities Find fractional quantities of whole numbers (halves, quarters, fifths and tenths) 	Y6 Representing quantity fractions <ul style="list-style-type: none"> Represent fractions Types of fractions Compare and order fractions with like denominators Equivalent fractions Simplifying Fractions Compare and order fractions Add and subtract fractions Add related fractions Subtract related fractions 	Represents quantity fractions (B) <ul style="list-style-type: none"> Compare Fractions 2 Shading Equivalent Fractions Selecting Equivalent Fractions The Equivalent Fraction Equivalent Fraction Wall 1 Equivalent Fraction Wall 2 Equivalent Fractions on a Number Line 1 Equivalent Fractions on a Number Line 2 Counting with Fractions on a Number Line What Mixed Number Is Shaded? Fractions of a Collection 1 Fractions of a Collection 2 Fraction Fruit Sets 1 Fraction Fruit Sets 2 Fractions of a Collection 	Compare fractions: related denominators <ul style="list-style-type: none"> Recognising a fraction as division Finding equivalent fractions & simplifying Comparing fractions with related denominators Building up to the whole from a fractional part 	Number & Algebra, Fractions 5-7 <ul style="list-style-type: none"> Some fraction action (DOK 2) 	(Y6-F) Fractions, Decimals and Percentages <ul style="list-style-type: none"> Fractions pp 1-11
LS 5 Big idea Questions can be asked and answered by collecting and interpreting data Topic Data	MA3-DATA-02 interprets data displays, including timelines and line graphs MA3-RN-01 applies an understanding of place value and the role of zero to represent the properties of numbers	Data B Represent numbers B	<ul style="list-style-type: none"> Interpret and compare a range of data displays Interpret data presented in digital media and elsewhere Whole numbers: Locate and represent integers on a number line 	Coming soon	Data (B) <ul style="list-style-type: none"> Mode Data Extremes and Range Reading from a Column Graph Line Graphs: Interpretation 	Interpret data displays <ul style="list-style-type: none"> Interpreting & comparing data in various displays Calculating & interpreting the range Calculating & interpreting the mode Interpreting data presented in digital media 	Statistics & data 4-6 <ul style="list-style-type: none"> Arrange the range (DOK 2) Discover the digits (DOK 2) Leap to the mode (DOK 2) Statistics & data 5-7 <ul style="list-style-type: none"> Lake Scaley fish (DOK 3) World rankings (DOK 4) 	(Y6-F) Data Representation <ul style="list-style-type: none"> Types of graphs 1 pp 1-6 Types of graphs 2 pp 7-11 Types of graphs 3 pp 12-19 Collecting and analysing data pp 20-34 Data investigations pp 35-39

NSW New Syllabus (2023) S3 Year 6

LS & Topic	Outcomes	Focus	Content	New Courses	Activities (courses)	Skill Quests	Challenges	Ebooks
LS 1 Big idea The number system extends infinitely to very large and very small numbers Topic Integers	MA3-RN-01 applies an understanding of place value and the role of zero to represent the properties of numbers MA3-AR-01 selects and applies appropriate strategies to solve addition and subtraction problems	Represent numbers B Additive relations B	<ul style="list-style-type: none"> Whole numbers: Locate and represent integers on a number line Choose and use efficient strategies to solve addition and subtraction problems Applies known strategies to add and subtract decimal 	Coming soon: Y6 Integers <ul style="list-style-type: none"> Integers on the Number Line Integers on the Cartesian Plane Compare and order integers Integers in Context Adding integers 	Represents numbers: whole number (B) <ul style="list-style-type: none"> Directed Numbers 	Represent integers <ul style="list-style-type: none"> Locating & representing integers on a number line Interpreting integers in context 		(Y6-F) Reading and Understanding Whole Numbers <ul style="list-style-type: none"> Types of numbers pp 9–10
LS 2 Big idea Multiplicative thinking involves flexible use of multiplication and division concepts, strategies and representations Topic Multiplication and division	MA3-MR-01 selects and applies appropriate strategies to solve multiplication and division problems MA3-MR-02 constructs and completes number sentences involving multiplicative relations, applying the order of operations to calculations	Multiplicative relations B	<ul style="list-style-type: none"> Select and apply strategies to solve problems involving multiplication and division with whole numbers Multiply and divide decimals by powers of 10 Use equivalent number sentences involving multiplication and division to find unknown quantities Represent and describe number patterns formed by multiples Explore the use of brackets and the order of operations to write number sentences 	Y6 Decimals <ul style="list-style-type: none"> Multiply decimals by powers of 10 Divide decimals by powers of 10 	Multiplicative relations (B) <ul style="list-style-type: none"> Grid Methods 1 Grid Methods 2 Grid Methods 3 Equivalent Facts: Multiply Division Facts to Twelve Short Division Multiply Decimals and Powers of 10 Estimate Quotients Divide by Powers of 10 Table of Values Decreasing Patterns Patterns – Decreasing Order of Operations 1 (BIDMAS)/Order of Operations 1 (BEDMAS) Identifying Errors in Applying the Order of Operations 	Multiply/divide to 4 digits by 2 digits <ul style="list-style-type: none"> Multiplying 4-digit numbers by up to 2 digits Dividing up to 4-digit numbers by 2 digits Selecting efficient strategies to multiply/divide Solving multiplication & division word problems Multiply & divide decimals <ul style="list-style-type: none"> Multiplying decimals by powers of 10 Dividing decimals by powers of 10 Multiplicative number sentences <ul style="list-style-type: none"> Finding unknown quantities - multiply/divide Applying order of operations & grouping symbols 	Number & Algebra, Multiplication & Division 5-7 <ul style="list-style-type: none"> Build the pyramid (DOK 2) 	(Y6-F) Multiplication and Division <ul style="list-style-type: none"> Mental multiplication strategies pp 1–6 Mental division strategies pp 7–12 Written methods pp 13–18
LS 3 Big idea Visual representations help to understand aspects of the world (chance and position) Topic Position	MA3-GM-01 locates and describes points on a coordinate plane	Geometric measure B	<ul style="list-style-type: none"> Position: Use the 4 quadrants of the coordinate plane 	Coming soon	Geometric measure: coordinate plane (B) <ul style="list-style-type: none"> Coordinate Graphs: 1st Quadrant Ordered Pairs Horizontal and Vertical Change Transformations: Coordinate Plane 	Locate position in the four quadrants <ul style="list-style-type: none"> Using the four quadrants to locate position 	Geometry, Symmetry, Transformation & Location 3-5 <ul style="list-style-type: none"> Map the way (DOK 2) Routes on a map (DOK 3) Program the robot (DOK 3) Geometry, Symmetry, Transformation & Location 4-6 <ul style="list-style-type: none"> A journey back in time (DOK 2) Island towns (DOK 3) Which way? (DOK 3) 	(Y4-D) Space, Shape and Position <ul style="list-style-type: none"> Position – grids and coordinates p 21 Position – using a map p 22 Position – compass directions pp 23–24 Year 5 Series E Position Directions – using a compass pp 13–14 Directions – maps pp 15–16

NSW New Syllabus (2023) S3 Year 6

LS & Topic	Outcomes	Focus	Content	New Courses	Activities (courses)	Skill Quests	Challenges	Ebooks
<p>LS 4</p> <p>Big idea What needs to be measured determines the unit of measurement</p> <p>Topic 3D objects and volume</p>	<p>MA3-3DS-01 visualises, sketches and constructs three-dimensional objects, including prisms and pyramids, making connections to two-dimensional representations</p>	<p>Three-dimensional spatial structure B</p>	<ul style="list-style-type: none"> 3D objects: Construct prisms and pyramids 	Coming soon		<p>Calculate volume in m^3 & cm^3</p> <ul style="list-style-type: none"> Calculating volume of cubes (m^3 & cm^3) Calculating volume rectangular prisms (m^3 & cm^3) <p>Prisms and pyramids</p> <ul style="list-style-type: none"> Connecting 3D objects with their nets 	<p>Geometry, 3D Shape 5-7</p> <ul style="list-style-type: none"> Prism charts (DOK 2) Prisms made of straw (DOK 3) 	<p>(Y6-F) Geometry</p> <ul style="list-style-type: none"> 3D shapes pp 25–32
<p>LS 5</p> <p>Big idea Angles are the primary structural component of many shapes</p> <p>Topic Angles</p>	<p>MA3-GM-03 measures, sketches, and identifies the relationships between angles on a straight line and angles at a point</p> <p>MA3-RQF-01 compares and orders fractions with denominators of 2, 3, 4, 5, 6, 8 and 10</p>	<p>Geometric measure B</p> <p>Representing quantity fractions B</p>	<ul style="list-style-type: none"> Angles: Investigate angles on a straight line and angles at a point Angles: Investigate the relationships formed by the intersection of straight lines Recognise that a fraction can represent a division Compare common fractions with related denominators Build up to the whole from a given fractional part Use equivalence to add and subtract fractional quantities 	Coming soon	<p>Geometric measure: angle (B)</p> <ul style="list-style-type: none"> Estimating Angles Measuring Angles What Type of Angle? Classifying Angles 	<p>Identify angle relationships</p> <ul style="list-style-type: none"> Adjacent, complementary & supplementary angles Exploring angle relationships 	<p>Measurement, Angle 5-7</p> <ul style="list-style-type: none"> What's your angle? (DOK 3) 	<p>(Y6-F) Geometry</p> <ul style="list-style-type: none"> Lines and angles pp 1–6

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<p>LS 1</p> <p>Big idea The number system extends infinitely to very large and very small numbers</p> <p>Topic Connecting fractions, decimals, and percentages</p>	<p>MA3-RN-03 determines percentages of quantities, and finds equivalent fractions and decimals ...</p> <p>MA3-MR-01 selects and applies appropriate strategies to solve multiplication and division problems</p> <p>MA3-MR-02 constructs and completes number sentences involving multiplicative relations ...</p>	<p>Represent numbers B</p> <p>Multiplicative relations B</p>	<ul style="list-style-type: none"> Decimals and percentages: Make connections between benchmark fractions, decimals and percentages Select and apply strategies to solve problems involving multiplication and division with whole numbers Multiply and divide decimals by powers of 10 Use equivalent number sentences involving multiplication and division to find unknown quantities Represent and describe number patterns formed by multiples 	<p>Y6 Percentages</p> <ul style="list-style-type: none"> Percentages Fractions, decimals, percentages Percentages to fractions Fractions to percentages Percentages to decimals Decimals to percentages Decimals to fractions Fractions to decimals Expressing as a percentage 	<p>Represents numbers: including decimals (B)</p> <ul style="list-style-type: none"> Modelling Percentages Percents and Decimals Calculating Percentages (Mental) Match Decimals and Percentages Complementary Percentages 	<p>Convert fraction, decimal & percentage</p> <ul style="list-style-type: none"> Converting fractions, decimals & percentages 		<p>(Y5-E) Fractions, Decimals and Percentages</p> <ul style="list-style-type: none"> Fractions, decimals and percentages pp 17–19, 22–25 <p>(Y6-F) Fractions, Decimals and percentages</p> <ul style="list-style-type: none"> Decimal fractions pp 17–20
<p>LS 2</p> <p>Big idea Understanding relationships between the properties of 2D shapes helps visualise and organise spaces in the world</p> <p>Topic 2D shapes and area</p>	<p>MA3-2DS-01 investigates and classifies two-dimensional shapes ...</p> <p>MA3-2DS-03 combines, splits and rearranges shapes to determine the area ...</p> <p>MA3-MR-01 selects and applies appropriate strategies to solve multiplication and division problems</p>	<p>Two-dimensional spatial structure B</p> <p>Multiplicative relations B</p>	<ul style="list-style-type: none"> 2D shapes: Dissect two-dimensional shapes and rearrange them using translations, reflections and rotations Area: Find the area of composite figures Area: Calculate the area of a parallelogram using subdivision and rearrangement Area: Determine the area of a triangle Select and apply strategies to solve problems involving multiplication and division with whole numbers 	Coming soon	<p>2D spatial structure: area (B)</p> <ul style="list-style-type: none"> Area: Squares and Rectangles Calculate Area of Squares and Rectangles Converting Units of Area Area: Parallelograms (Metric) 	<p>Calculate area of shapes</p> <ul style="list-style-type: none"> Calculating area of composite shapes Calculating area of parallelograms Calculating area of triangles 	<p>Measurement, Area 5-7</p> <ul style="list-style-type: none"> Can you cut it? (DOK 2) Two line draw (DOK 2) Calculations with patterns (DOK 2) 	<p>(Y6-F) Geometry</p> <ul style="list-style-type: none"> 2D shapes pp 7–15 <p>(Y6-F) Length, Perimeter and Area</p> <ul style="list-style-type: none"> Area pp 16–25 <p>(Y6) Rich Learning Task</p> <ul style="list-style-type: none"> Predicting Area Wrapping a Prism
<p>LS 3</p> <p>Big idea Multiplicative thinking involves flexible use of multiplication and division concepts, strategies and representations</p> <p>Topic Linking multiplication with volume</p>	<p>MA3-3DS-02 selects and uses the appropriate unit to estimate, measure and calculate volumes and capacities</p> <p>MA3-MR-01 selects and applies appropriate strategies to solve multiplication and division problems</p>	<p>Three-dimensional spatial structure B</p> <p>Multiplicative relations B</p>	<ul style="list-style-type: none"> Volume: Use cubic metres for measurement of volume Volume: Recognise the multiplicative structure for finding volume Volume: Find the volumes of rectangular prisms in cubic centimetres and cubic metres Select and apply strategies to solve problems involving multiplication and division with whole numbers 	Coming soon	<p>3D spatial structure: volume (B)</p> <ul style="list-style-type: none"> Volume of Solids and Prisms - 1cm³ blocks Volume: Rectangular Prisms 1 Millilitres and Litres 			<p>(Y6-F) Volume, Capacity and Mass</p> <ul style="list-style-type: none"> Volume and capacity pp 3–4

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<p>LS 4</p> <p>Big idea What needs to be measured determines the unit of measurement</p> <p>Topic Length and mass</p>	<p>MA3-GM-02 selects and uses the appropriate unit and device to measure lengths and distances including perimeters</p> <p>MA3-NSM-01 selects and uses the appropriate unit and device to measure the masses of objects</p> <p>MA3-RN-03 determines percentages of quantities, and finds equivalent fractions and decimals for benchmark percentage values</p>	<p>Geometric measure B</p> <p>Non-spatial measure B</p> <p>Represent numbers B</p>	<ul style="list-style-type: none"> Length: Connect decimal representations to the metric system Length: Convert between common metric units of length Length: Solve problems involving the comparison of lengths using appropriate units Mass: Convert between common metric units of mass Decimals and percentages: Make connections between benchmark fractions, decimals and percentages 	Coming soon	<p>Geometric measure: length application (B)</p> <ul style="list-style-type: none"> Converting Units of Length Metres and Kilometres Perimeter: Triangles Perimeter Detectives 2 Operations with Length <p>Non-spatial measure: mass (B)</p> <ul style="list-style-type: none"> Kilogram Conversions Grams and Kilograms Converting Units of Mass Mass Word Problems 	<p>Understand the metric system for length</p> <ul style="list-style-type: none"> Using decimal representations for length Converting between metric units for length Solving problems involving length <p>Convert between units of mass</p> <ul style="list-style-type: none"> Converting between metric units of mass 	<p>Number, Decimals 5-7</p> <ul style="list-style-type: none"> Posting parcels (DOK 2) <p>Measurement, Length 4-6</p> <ul style="list-style-type: none"> Card crafting calculation (DOK 2) Lengthy thinking (DOK 2) Platinum wire earrings (DOK 3) 	<p>(Y6-F) Volume, Capacity and Mass</p> <ul style="list-style-type: none"> Mass pp 9–16 <p>(Y6-F) Length, Perimeter and Area</p> <ul style="list-style-type: none"> Units of length pp 1–7 Perimeter pp 8–12
<p>LS 5</p> <p>Big idea Addition and subtraction problems can be solved by using a variety of strategies</p> <p>Topic Addition and subtraction problems</p>	<p>MA3-AR-01 selects and applies appropriate strategies to solve addition and subtraction problems</p> <p>MA3-RN-03 determines percentages of quantities, and finds equivalent fractions and decimals for benchmark percentage values</p>	<p>Additive relations B</p> <p>Represent numbers B</p>	<ul style="list-style-type: none"> Choose and use efficient strategies to solve addition and subtraction problems Applies known strategies to add and subtract decimals Decimals and percentages: Determine percentage discounts of 10%, 25% and 50% 	Coming soon	<p>Represents quantity fractions (B)</p> <ul style="list-style-type: none"> Add Unlike Fractions Subtract Unlike Fractions 	<p>Calculate percentage of an amount</p> <ul style="list-style-type: none"> Calculating a percentage of an amount using 10% Calculating percentage discounts 	<p>Number & Algebra, Money 4-6</p> <ul style="list-style-type: none"> Harry's bike shop (DOK 3) <p>Number & Algebra, Addition & Subtraction 5-7</p> <ul style="list-style-type: none"> Add-venn-turous adding (DOK 2) Ropes and mazes (DOK 4) <p>Number & Algebra, Money 2-4</p> <ul style="list-style-type: none"> Keep it balanced (DOK 3) <p>Number & Algebra, Money 5-7</p> <ul style="list-style-type: none"> Bike for sale (DOK 3) Fruit salad (DOK 3) 	

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LS 1 Big idea The number system extends infinitely to very large and very small numbers Topic Number review	MA3-RN-01 applies an understanding of place value and the role of zero to represent the properties of numbers MA3-RN-03 determines percentages of quantities, and finds equivalent fractions and decimals for benchmark percentage values MA3-AR-01 selects and applies appropriate strategies to solve addition and subtraction problems	Represent numbers B Additive relations B	<ul style="list-style-type: none"> Whole numbers: Locate and represent integers on a number line Decimals and percentages: Make connections between benchmark fractions, decimals and percentages Decimals and percentages: Determine percentage discounts of 10%, 25% and 50% Choose and use efficient strategies to solve addition and subtraction problems Applies known strategies to add and subtract decimals 	Coming soon	Refer to: <ul style="list-style-type: none"> Term 1, Learning Sequence 1 Term 2, Learning Sequence 1 Term 3, Learning Sequence 1 		Number & Algebra, Equations & Expressions 4-6 <ul style="list-style-type: none"> Solving unknowns (DOK 3) Writing & interpreting (DOK 3) 	
LS 2 Big idea Fractions represent multiple ideas and can be represented in different ways Topic Fractions problems	MA3-RQF-01 compares and orders fractions with denominators of 2, 3, 4, 5, 6, 8 and 10 MA3-RQF-02 determines $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$ and $\frac{1}{10}$ of measures and quantities	Representing quantity fractions B	<ul style="list-style-type: none"> Recognise that a fraction can represent a division Compare common fractions with related denominators Build up to the whole from a given fractional part Use equivalence to add and subtract fractional quantities Find fractional quantities of whole numbers (halves, quarters, fifths and tenths) 	Y6 Representing quantity fractions <ul style="list-style-type: none"> Problem solving with fractions Find a fraction of an amount Problem solving fractions of amounts 		<ul style="list-style-type: none"> Add/sub fractions: related denominators Adding/subtracting fractions: related denominators Adding/subtracting simple fractions: related Adding/subtracting mixed numbers: related Calculate fraction of an amount <ul style="list-style-type: none"> Calculating a fraction of a whole Solving word problems: fraction of an amount 	Number & Algebra, Fractions 4-6 <ul style="list-style-type: none"> Thunder Radio competition winners (DOK 2) The case of the missing superhero capes (DOK 2) It's a piece of pie! (DOK 2) Number & Algebra, Fractions 5-7 <ul style="list-style-type: none"> Fractional differences (DOK 2) Paint pot fractions (DOK 3) 	(Y6-F) Fractions, Decimals and Percentages <ul style="list-style-type: none"> Fractions of an amount pp 21-27 Calculating pp 28-32 (Y6) Rich Learning Task <ul style="list-style-type: none"> The Gumball Heist
LS 3 Big idea Questions can be asked and answered by collecting and interpreting data Topic Chance	MA3-CHAN-01 conducts chance experiments and quantifies the probability MA3-DATA-02 interprets data displays, including timelines and line graphs	Chance B Data B	<ul style="list-style-type: none"> Compare observed frequencies of outcomes with expected results Create random generators and describe probabilities using fractions Conduct chance experiments with both small and large numbers of trials Interpret and compare a range of data displays Interpret data presented in digital media and elsewhere 	Coming soon	Chance (B) <ul style="list-style-type: none"> Fair Games 	Compare observed with expected results <ul style="list-style-type: none"> Comparing observed frequency with expected results Describing probability of single events 	Chance & Probability 4-6 <ul style="list-style-type: none"> What are the chances? (DOK 3) 	(Y6-F) Chance and Probability <ul style="list-style-type: none"> Chance – ordering events pp 1-2 Chance – probability pp 3-5 Chance – fair and unfair p 6 Chance – coin investigation p 7 Chance – two dice investigation pp 8-9

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LS 4 Big idea Multiplicative thinking involves flexible use of multiplication and division concepts, strategies and representations Topic Multiplication and division problems	MA3-MR-01 selects and applies appropriate strategies to solve multiplication and division problems MA3-MR-02 constructs and completes number sentences involving multiplicative relations, applying the order of operations to calculations	Multiplicative relations B	<ul style="list-style-type: none"> Select and apply strategies to solve problems involving multiplication and division with whole numbers Multiply and divide decimals by powers of 10 Use equivalent number sentences involving multiplication and division to find unknown quantities Represent and describe number patterns formed by multiples Explore the use of brackets and the order of operations to write number sentences 	Y6 Decimals <ul style="list-style-type: none"> Multiply decimals by powers of 10 Divide decimals by powers of 10 Multiply decimals by whole numbers Multiply decimals by whole numbers 			Number & Algebra, Multiplication & Division 5-7 <ul style="list-style-type: none"> True or false? (DOK 2) Pyramid puzzler (DOK 2) 	(Y6-F) Multiplication and Division Puzzles and investigations pp 19–24
LS 5 Big idea Shapes encountered in daily life can be classified by their attributes Topic Shape transformations	MA3-2DS-01 combines, splits and rearranges shapes to determine the area of parallelograms and triangles	Two-dimensional spatial structure B	<ul style="list-style-type: none"> 2D shapes: Dissect two-dimensional shapes and rearrange them using translations, reflections and rotations 	Coming soon	2D spatial structure: transformations (B) <ul style="list-style-type: none"> Flip, Side, Turn Transformations Rotational Symmetry Rotational Symmetry of Shapes 	Transform 2-dimensional shapes <ul style="list-style-type: none"> Translating points on the Cartesian plane Reflecting points on the Cartesian plane Rotating shapes & find the order of symmetry Creating patterns using transformations Combinations of transformations 	Geometry, 2D Shape 4-6 <ul style="list-style-type: none"> Relating 2D shapes (DOK 3) Tricky triangles (DOK 4) 	(Y6-F) Geometry <ul style="list-style-type: none"> Transformation, tessellation and symmetry pp 16–24