Scope & Sequence NSW Stage 3 (A) Yearly overview

Learning Term four Term three Term one Term two sequence Number and Algebra Number and Algebra Number and Algebra Number and Algebra **Big idea:** The number system extends infinitely to very Big idea: The number system extends infinitely to very large and Big idea: The number system extends infinitely to very large Big idea: The number system extends infinitely to very large and very small numbers very small numbers and very small numbers large and very small numbers LS 1 Numbers to 1 billion Decimals Patterns Number review • Apply place value to hundred millions • Express decimals as thousandths • Determine products and factors for given whole numbers Review: Read, represent and order numbers • Determine prime and composite numbers Use place value to partition decimals • Term 1, Learning Sequence 1 • Term 2, Learning Sequence 1 Partition numbers to 1 billion Compare and order decimals to 3 places Patterns Round to specified place value · Place decimals on a number line Algebra • Term 3, Learning Sequence 1 Number and Algebra **Number and Algebra** Number and Algebra **Measurement and Space Measurement and Space** Big idea: Addition and subtraction problems can be Big ideg: Multiplicative thinking involves flexible use of multiplication Big idea: Understanding relationships between the properties Big idea: Fractions represent multiple ideas and can be solved by using a variety of strategies and division concepts, strategies and representations of 2D shapes helps visualise and organise spaces in the world represented in different ways Mental multiplication and division **Classifying 2D shapes** Addition and subtraction Fractions applications LS 2 Apply efficient mental and written strategies • Multiply by 10, 100, 1000 Identify and classify triangles: equilateral, isosceles & scalene Add and subtract fractions with the same denominator • Solve word problems that involve fractions with the Solve multistep problems Use mental strategies to multiply and divide: area model, Classify triangles and quadrilaterals • Use a calculator partitioning and factorisation Identify regular and irregular polygons same denominator Round and estimate to check for reasonableness Use the distributive property Model division involving remainders Round and estimate to check for reasonableness **Measurement and Space** Measurement and Space Number and Alaebra **Statistics and Probability** Statistics and Probability Big idea: What needs to be measured determines the Big idea: Visual representations help to understand aspects of the Big idea: Multiplicative thinking involves flexible use of Big idea: Questions can be asked and answered by unit of measurement world (chance and position) multiplication and division concepts, strategies, and collecting and interpreting data representations LS 3 12- and 24-hour time Position Linking multiplication with area Chance Read time using 24-hour time notation Identify point of intersection on cartesian plane • Record area in square kilometres and hectares • Use the term probability Plot and label points in the first quadrant Convert between 24- and 12-hour time Find area of triangles • Recognise outcomes that are equally likely Record outcomes in chance experiments • Use am and pm notation Identify and record coordinates • Investigate and compare relationships between area and Read, interpret and use timetables Link cartesian plane to line graphs perimeter of rectangles with different dimensions Represent probabilities using fractions **Number and Algebra** Number and Algebra Number and Algebra **Measurement and Space** Measurement and Space Measurement and Space Big idea: Fractions represent multiple ideas and can be Big idea: What needs to be measured determines the unit of Big idea: What needs to be measured determines the unit of **Big idea:** Multiplicative thinking involves flexible use represented in different ways measurement measurement of multiplication and division concepts, strategies and representations Fractions **3D Objects and capacity** Length and mass Written multiplication and division LS₄ Compare halves and quarters of different sized wholes Identify properties of prisms and pyramids Measure lengths using km Revise mental strategies for multiplication and division · Compare and order unit fractions Visualise and sketch 3D objects · Estimate and measure lengths • Use algorithms to multiply by a one-digit number • Visualise and sketch nets for 3D objects Calculate perimeters · Solve word problems involving multiplication and Use appropriate units to measure capacity Use appropriate units to measure mass division Use displacement to investigate volume Interpret decimal notation for mass · Interpret decimal notation for capacities Number and Alaebra **Measurement and Space** Number and Alaebra Measurement and Space Statistics and probability Big idea: Questions can be asked and answered by Big idea: Angles are the primary structural component of many Big idea: Addition and subtraction problems can be solved by Big idea: Shapes encountered in daily life can be collecting and interpreting data using a variety of strategies classified by their attributes shapes LS 5 Angles Addition and subtraction problems 2D shape angle properties Data Collect categorical and discrete numerical data • Estimate and describe the size of angles Use flexible strategies to solve word problems involving • Review 2D shape properties Construct graphs using many-to-one scale · Measure and record angles using degrees addition and subtraction • Compare side and angle properties of triangles and Create angles using a protractor Use addition and subtraction to solve problems involving quadrilaterals Create timelines Classify angles: right, straight, acute, obtuse, reflex and revolution money and budgeting Investigate symmetry properties of quadrilaterals • Interpret data displays: tables, column graphs and line graphs

Scope & Sequence NSW Stage 3 (A) Outcome map

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 A	Whole numbers: Recognise, represent and order numbers in the millions	Term 1 LS 1, 2, 5 Term 2 LS 1 Term 3 LS 1, 5 Term 4 LS 1
		Whole numbers: Apply place value to partition, regroup and rename numbers to 1 billion	Term 1 LS 1, 2 Term 2 LS 1, 2 Term 3 LS 1, 5 Term 4 LS 1, 4
MA3-RN-02 compares and orders decimals up to 3 decimal places	Represent numbers A	Decimals and percentages: Recognise that the place value system can be extended beyond hundredths	Term 1 LS 1, 5 Term 2 LS 1, 4 Term 3 LS 1, 4, 5 Term 4 LS 1
		Decimals and percentages: Compare, order and represent decimals	Term 1 LS 1, 5 Term 2 LS 1, 4 Term 3 LS 1, 4, 5 Term 4 LS 1
MA3-AR-01 selects and applies appropriate strategies to solve addition and	Additive relations A	Apply efficient mental and written strategies to solve addition and subtraction problems	Term 1 LS 2, 4 Term 3 LS 5 Term 4 LS 1, 2
subtraction problems		Use estimation and place value understanding to determine the reasonableness of solutions	Term 1 LS 2 Term 3 LS 5 Term 4 LS 1
MA3-MR-01 selects and applies appropriate strategies to solve multiplication and division problems	Multiplicative relations A	Determine products and factors	Term 1 LS 1 Term 2 LS 2 Term 3 LS 1, 3 Term 4 LS 4, 5
		Use partitioning and place value to multiply 2-, 3- and 4-digit numbers by one-digit numbers	Term 1 LS 1 Term 2 LS 2 Term 3 LS 3 Term 4 LS 4, 5
		Select and apply mental and written strategies to multiply 2- and 3-digit numbers by 2-digit numbers	Term 2 LS 2 Term 4 LS 4 DEL
		Represent and solve division problems with whole number remainders	Term 2 LS 2 Term 4 LS 4
		Select and apply strategies to divide a number with 3 or more digits by a one-digit divisor	Term 2 LS 2 Term 4 LS 4 DEL
		Use estimation and rounding to check the reasonableness of answers to calculations	Term 2 LS 2 Term 3 LS 3 Term 4 LS 4, 5
MA3-RQF-01 compares and orders fractions with	Representing quantity fractions	Recognise the role of the number 1 as representing the whole	Term 1 LS 4 Term 4 LS 2
denominators of 2, 3, 4, 5, 6, 8 and 10	A	Compare and order common unit fractions	Term 1 LS 4 Term 4 LS 2
		Solve problems involving addition and subtraction of fractions with the same denominator	Term 1 LS 4 Term 2 LS 5 Term 4 LS 2
MA3-GM-01 locates and describes points on a coordinate plane	Geometric measure A	Position: Explore the Cartesian coordinate system	Term 2 LS 3

Outcomes	Focus	Content	Located
MA3-GM-02 selects and uses the appropriate unit and	Geometric measure A	Length: Use metres and kilometres for length and distances	Term 3 LS 4
device to measure lengths and distances including perimeters		Length: Measure lengths to find perimeters	Term 3 LS 3, 4
MA3-GM-03 measures and constructs angles, and	Geometric measure A	Angles: Estimate, measure and compare angles using degrees	Term 2 LS 5 Term 4 LS 5
identifies the relationships between angles on a straight line and angles at a point		Angles: Use a protractor to measure and identify types of angles	Term 2 LS 5 Term 4 LS 5
MA3-2DS-01 investigates and classifies two-dimensional shapes, including triangles and quadrilaterals based on their properties	Two-dimensional spatial structure A	2D shapes: Classify two-dimensional shapes and describe their properties	Term 3 LS 2 Term 4 LS 5
MA3-2DS-02 selects and uses the appropriate unit to calculate areas, including areas of	Two-dimensional spatial structure A	Area: Use hectares and square kilometres as units of measurement for area	Term 4 LS 5
rectangles		Area: Calculate the areas of rectangles using familiar metric units	Term 4 LS 5
MA3-3DS-01 visualises, sketches and constructs	Three-dimensional spatial structure A	3D objects: Compare, describe and name prisms and pyramids	Term 2 LS 4
three-dimensional objects, including prisms and pyramids, making connections to two-dimensional representations		3D objects: Connect three-dimensional objects with two-dimensional representations	Term 2 LS 4
MA3-3DS-02 selects and uses the appropriate unit to	Three-dimensional spatial structure A	Volume: Choose appropriate units of measurement for capacity	Term 2 LS 4
estimate, measure and calculate volumes and capacities		Volume: Use displacement to investigate volumes of irregular solids	Term 2 LS 4
		Volume: Connect decimal representations to the metric system	Term 2 LS 4
MA3-NSM-01 selects and uses the appropriate unit and	Non-spatial measure A	Mass: Choose appropriate units of measurement for mass	Term 3 LS 4
device to measure the masses of objects		Mass: Connect decimal representations to the metric system	Term 3 LS 4
MA3-NSM-02 measures and compares duration, using 12- and 24-hour time and am and pm notation	Non-spatial measure A	Time: Compare 12- and 24-hour time systems and convert between them	Term 1 LS 3
MA3-DATA-01 constructs graphs using many-to-one scales	Data A	Collect categorical and discrete numerical data by observation or survey	Term 1 LS 5 Term 2 LS 3 Term 4 LS 3
		Choose and use appropriate tables and graphs	Term 1 LS 5 Term 2 LS 3 Term 4 LS 3
MA3-DATA-02 interprets data displays, including timelines and line graphs	Data A	Describe and interpret different datasets in context	Term 1 LS 5 Term 2 LS 3 Term 4 LS 3
MA3-CHAN-01 conducts chance experiments and quantifies the probability	Chance A	List outcomes of chance experiments involving equally likely outcomes and represent probabilities	Term 2 LS 3 Term 4 LS 3

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LS & Topic	Outcomes	Focus	Content	Course Topic & Activities	Skill Quests	Challenges	Ebooks
LS 1 Big idea The number system extends infinitely to very large and very small numbers Topic Numbers to 1 billion	 MA3-RN-01 applies an understanding of place value and the role of zero to MA3-RN-02 compares and orders decimals up to 3 decimal places MA3-MR-01 selects and applies appropriate strategies to solve multiplication 	Represent numbers A Multiplicative relations A	 Whole numbers: Recognise, represent and order numbers in the millions Whole numbers: Apply place value to partition, regroup and rename numbers to 1 billion Decimals and percentages: Recognise that the place value system can be extended beyond hundredths Decimals and percentages: Compare, order and represent decimals Determine products and factors Use partitioning and place value to multiply 2-, 3- and 4-digit numbers by one-digit numbers 	 A. Whole Numbers Numbers from Words to Digits 2 Numbers from Words to Digits 3 Place Value – Millions Place Value to Millions Place Value to Billions Equal, Less or Greater than? Comparing Numbers 	 Represent numbers of any size Representing & ordering numbers of any size Rounding numbers to a specified place Partitioning numbers of any size 	Number & Algebra, Whole Number 4-6 • Unknown values in uneven partitioned shapes, DOK 2	Year 6 Series F Reading and Understanding Whole Numbers • Read and understand numbers pp 2–5 • Round and estimate pp 19–24
LS 2 Big idea Addition and subtraction problems can be solved by using a variety of strategies Topic Addition and subtraction	MA3-RN-01 applies an understanding of place value and the role of zero to MA3-AR-01 selects and applies appropriate strategies to solve addition	Represent numbers A Additive relations A	 Whole numbers: Recognise, represent and order numbers in the millions Whole numbers: Apply place value to partition, regroup and rename numbers to 1 billion Apply efficient mental and written strategies to solve addition and subtraction problems Use estimation and place value understanding to determine the reasonableness of solutions 	A. Addition & subtraction mentally & estimation • Magic Mental Addition/Mental Addition (US) • Magic Mental Subtraction/Mental Subtraction (US) • Split Add and Subtract • Pyramid Puzzles 1 • Pyramid Puzzles 2 • Partition Puzzles 1 • Addition Properties • Estimation: Add and Subtract • Estimate Sums • Estimate Differences	Add & subtract numbers of any size • Adding strategies with numbers of any size • Subtracting strategies with numbers of any size • Selecting efficient strategies to add & subtract • Using rounding to estimate • Checking the accuracy of answers		Year 5 Series E Addition and Subtraction • Addition mental strategies pp 1–8 • Subtraction mental strategies pp 9–16 • Written methods pp 17–22

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LS & Topic	Outcomes	Focus	Content	Course Topic & Activities	Skill Quests	Challenges	Ebooks
LS 3 Big idea What needs to be measured determines the unit of measurement Topic 12- and 24-hour time	MA3-NSM-02 measures and compares duration, using 12- and 24-hr	Non-spatial measure A	Time: Compare 12- and 24-hour time systems and convert between them	 A. Time 24 Hour Time Using Timetables Time Conversions: Whole Numbers 1 Time Conversions: Whole Numbers 2 Time Conversions: Simple Fractions 	 Use 12 & 24 hour time Converting between 12 & 24 hour time Using timetables 	Measurement, Time 3-5 • A lesson in time, DOK 2 • Puppy-sitting, DOK 3 Measurement, Time 4-6 • 24-hour train time, DOK 2 • Ordering times, DOK 2 • Time to explore 4, DOK 3	Year 5 Series E Time • Measuring time pp 1–8 • Calculating time pp 9–14 • Timetables pp 15–20
LS 1 Big idea Fractions represent multiple ideas and can be represented in different ways Topic Fractions	MA3-AR-01 selects and applies appropriate strategies to solve addition MA3-RQF-01 compares and orders fractions with denominators of 2, 3, 4, 5	Additive relations A Representing quantity fractions A	 Apply efficient mental and written strategies to solve addition and subtraction problems Recognise the role of the number 1 as representing the whole Compare and order common unit fractions Solve problems involving addition and subtraction of fractions with the same denominator 	 A. Fractions Compare Fractions 1a B.More fractions Compare Fractions 2 Fractions Common Denominator Unit Fractions One Take Fraction 	 Compare fractions with same denominator Identifying fractions equivalent to 1 whole Comparing & ordering common unit fractions 	 Number & Algebra, Fractions 3-5 Which is closer to 1? DOK 2 What fraction is that? DOK 2 Drinking equivalent fractions, DOK 3 	Year 5 Series E Fractions, Decimals and Percentages • Fractions pp 1–8 • Types of fractions pp 9–16
LS 3 Big idea What needs to be measured determines the unit of measurement Topic Data	 MA3-RN-01 applies an understanding of place value and the role of MA3-RN-02 compares and orders decimals up to 3 decimal places MA3-DATA-01 constructs graphs using many-to-one scales MA3-DATA-02 interprets data displays, including timelines and line 	Represent numbers A Data A	 Whole numbers: Recognise, represent and order numbers in the millions Decimals and percentages: Recognise that the place value system can be extended beyond hundredths Decimals and percentages: Compare, order and represent decimals Collect categorical and discrete numerical data by observation or survey Choose and use appropriate tables and graphs Describe and interpret different datasets in context 	A. Displaying numerical data • Tallies • Sorting Data • Column Graphs A. Interpret data • Interpreting Tables • Reading from a Column Graph • Line Graphs: Interpretation	 Collect & display discrete data Collecting discrete data Choosing & using appropriate tables/graphs Interpret discrete data Interpreting discrete data using various displays Interpreting line graphs 	Statistics & datad 3-5 • Create a line graph, DOK 3	Year 5 Series E Data Representation • Types of graphs 1 pp 1–6 • Types of graphs 2 pp 7–11 • Types of graphs 3 pp 12–17 • Collecting and analysing data pp 18–23 • Data investigations pp 24–28

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LS & Topic	Outcomes	Focus	Content	Course Topic & Activities	Skill Quests	Challenges	Ebooks
LS 1 Big idea The number system extends infinitely to very large and very small numbers Topic Decimals	MA3-RN-01 applies an understanding of place value and the role of zero to MA3-RN-02 compares and orders decimals up to 3 decimal places	Represent numbers A	 Whole numbers: Recognise, represent and order numbers in the millions Whole numbers: Apply place value to partition, regroup and rename numbers to 1 billion Decimals and percentages: Recognise that the place value system can be extended beyond hundredths Decimals and percentages: Compare, order and represent decimals 	 A. Decimals Decimals from Words to Digits 1 Decimals from Words to Digits 2 Decimal Place Value Comparing Decimals 1 Comparing Decimals 2 Decimal Order Decimal Order 2 Decimals on the Number Line Rounding Decimals 1 	 Compare & order decimals Recognising decimals up to thousandths Partitioning decimals up to thousandths Comparing & ordering decimals up to thousandths 	Number & Algebra, Patterns 4-6 • Egyptian patterns, DOK 3	Year 5 Series E Fractions, decimals and percentages • Fractions, decimals and percentages pp 20–21 Year 6 Series F Fractions, decimals and percentages • Decimal fractions pp 12–16
LS 2 Big idea Multiplicative thinking involves flexible use of multiplication and division concepts, strategies and representations Topic Mental multiplication and division	MA3-RN-01 applies an understanding of place value and the role of zero to MA3-MR-01 selects and applies appropriate strategies to solve multiplication	Represent numbers A Multiplicative relations A	 Whole numbers: Apply place value to partition, regroup and rename numbers to 1 billion Determine products and factors Use partitioning and place value to multiply 2-, 3- and 4-digit numbers by one-digit numbers Select and apply mental and written strategies to multiply 2- and 3-digit numbers by 2-digit numbers Represent and solve division problems with whole number remainders Select and apply strategies to divide a number with 3 or more digits by a one-digit divisor Use estimation and rounding to check the reasonableness of answers to calculations 	 A. Multiplication & division Fact Families: Multiply and Divide Multiplication Turnarounds Missing Numbers: × and ÷ facts Times Tables Solve Equations: Multiply, Divide 1 Bar model × ÷ Multiply 3 single-digit numbers Multiply More Multiples of 10 Multiply More Multiples of 10 Multiplying Whole Numbers by 10, 100, and 1000 Double and Halve to Multiply Mental Methods Multiplication 1 	 Multiply by multiples of 10 Multiply using double & halve strategy Using doubling & related facts to multiply by 2 Using doubling & related facts to multiply by 4 Using doubling & related facts to multiply by 8 Partitioning & compensating to double & halve Using double & halve to multiply Using double/halve or triple/third Multiply up to 4 digits by 1 digit Multiplying using factorising Multiplying using the round & compensate strategy Multiply up to 4 digits by 2 digits Strategies to multiply by a 2-digit number Division with remainders Introducing division with remainders Divide up to 4 digits by 1-digit divisor Solving division problems with 1-digit divisor Solving division problems with 1-digit divisors Using estimation/rounding to check answers 	Number & Algebra, Multiplication & Division 4-6 • Number shuffle, DOK 2 • The two sides of the pyramid, DOK 2	Year 5 Series E Multiplication and Division • Mental multiplication strategies pp 1–10 • Mental division strategies pp 11–19

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LS & Topic	Outcomes	Focus	Content	Course Topic & Activities	Skill Quests	Challenges	Ebooks
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 MA3-DATA-01 constructs graphs using many-to-one scales MA3-DATA-02 interprets data displays, including timelines and line graphs MA3-CHAN-01 conducts chance experiments and quantifies the probability 	Geometric measure A Data A Chance A	 Position: Explore the Cartesian coordinate system Collect categorical and discrete numerical data by observation or survey Choose and use appropriate tables and graphs Describe and interpret different datasets in context List outcomes of chance experiments involving equally likely outcomes and represent probabilities 	A/B. Coordinate plane position • Coordinate Graphs: 1st Quadrant • Ordered Pairs • Horizontal and Vertical Change • Transformations: Coordinate Plane A. Interpret data • Line Graphs: Interpretation	 Locate position in the first quadrant Using the first quadrant to locate position Plotting coordinates in the first quadrant 		Year 5 Series E Position • Spatial orientation pp 1–6 • Coordinates pp 7–12 • Directions pp 13–16
LS 1 Big idea What needs to be measured determines the unit of measurement Topic 3D objects and capacity	MA3-RN-02 compares and orders decimals up to 3 decimal places MA3-3DS-01 visualises, sketches and constructs three-dimensional MA3-3DS-02 selects and uses the appropriate unit to estimate, measure and	Represent numbers A Three-dimensional spatial structure A	 Decimals and percentages: Recognise that the place value system can be extended beyond hundredths Decimals and percentages: Compare, order and represent decimals 3D objects: Compare, describe and name prisms and pyramids 3D objects: Connect three-dimensional objects with two-dimensional representations Volume: Choose appropriate units of measurement for capacity Volume: Use displacement to investigate volumes of irregular solids Volume: Connect decimal representations to the metric system 	 A. Prisms & pyramids What Prism Am I? What Pyramid Am I? Prisms and Pyramids A/B. Volume Millilitres and Litres 	Connect 3D with 2D representations • Naming prisms & pyramids • Connecting prisms with their nets • Connecting 3D objects with their nets Use appropriate units for capacity • Using appropriate units for capacity (L & mL)	Geometry, 3D Shape 3-5 • Nets and prisms, DOK 3 Geometry, 3D Shape 4-6 • Creating cubes, DOK 2 • Notty nets, DOK 2 • Looking at faces, edges and vertices, DOK 3 • Pyramids and prisms, DOK 3	Year 5 Series E Volume, Capacity and Mass • Volume and capacity pp 1–8 Year 6 Series F Volume, Capacity and Mass • Volume and capacity pp 1–2, 5–8 Year 5 Series E Geometry • 3D shapes pp 25–34
LS 3 Big idea Angles are the primary structural component of many shapes Topic Angles	MA3-RQF-01 compares and orders fractions with denominators of 2, 3, 4, 5 MA3-GM-03 measures and constructs angles, and identifies the relationships	Representing quantity fractions A Geometric measure A	 Solve problems involving addition and subtraction of fractions with the same denominator Angles: Estimate, measure and compare angles using degrees Angles: Use a protractor to measure and identify types of angles 	A/B Identifying angles • Estimating Angles • Measuring Angles • What Type of Angle? • Classifying Angles	 Measure & identify angles Estimating, measuring & comparing angles Constructing angles & identifying different types 	Measurement, Angles 4-6 • Angle estimation, DOK 3	Year 5 Series E Geometry • Lines and angles pp 2–6

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LS & Topic	Outcomes	Focus	Content	Course Topic & Activities	Skill Quests	Challenges	Ebooks
LS 1 Big idea The number system extends infinitely to very large and very small numbers Topic Patterns	MA3-RN-01 applies an understanding of place value and the role of zero to MA3-RN-02 compares and orders decimals up to 3 decimal places MA3-MR-01 selects and applies appropriate strategies to solve multiplication	Represent numbers A Multiplicative relations A	 Whole numbers: Recognise, represent and order numbers in the millions Whole numbers: Apply place value to partition, regroup and rename numbers to 1 billion Decimals and percentages: Recognise that the place value system can be extended beyond hundredths Decimals and percentages: Compare, order and represent decimals Determine products and factors 	A. Multiplication & division • Lowest Common Multiple • Find the Factor • Factors • Highest Common Factor • Prime or Composite?	Use products, factors & primes • Determining products & factors • Primes & composite numbers	Number & Algebra, Multiplication & Division 4-6 • Who let the critters out? DOK 2 • Always reasoning about numbers, DOK 3 • Peculiar patterns with multiples, DOK 3 • Multiple muffins, DOK 3 • Supermarket stock dilemma, DOK 3 • Factor in our clues, DOK 3 • Factor finding, DOK 3 • Factor finding, DOK 3 • Tricky factors, DOK 3 • Clue me in, DOK 3 • Peculiar patterns with multiples, DOK 3	Year 5 Series E Multiplication and Division • Mental multiplication strategies pp 9–10 Year 6 Series F Reading and Understanding Whole Numbers • Types of numbers pp 11–12 Year 5 Rich Learning Task • Factors and Multiples Year 5 Series E Patterns and Algebra • Patterns and functions pp 1–17 • Algebraic thinking pp 18–25 • Solving equations pp 26–33
LS 2 Big idea Understanding relationships between the properties of 2D shapes helps visualise and organise spaces in the world Topic Classifying 2D shapes	MA3-2DS-01 investigates and classifies two-dimensional shapes	Two-dimensional spatial structure A	 2D shapes: Classify two-dimensional shapes and describe their properties 	A. Classify two-dimensional shapes • Triangle Tasters • Sides, Angles and Diagonals • Plane Figure Terms • Collect the Polygons	Describe properties of 2D shapes • Classifying 2D shapes & describe properties	 Geometry, 2D Shape 3-5 Big shapes made smaller, DOK 2 Shape shifter, DOK 2 Hidden shapes, DOK 3 Comparing shapes, DOK 3 Geometry, 2D Shape 4-6 Trying triangles, DOK 2 Square split, DOK 3 	Year 5 Series E Geometry • 2D shapes pp 7–15 Year 5 Rich Learning Task • What Triangle?

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LS & Topic	Outcomes	Focus	Content	Course Topic & Activities	Skill Quests	Challenges	Ebooks	
LS 3 Big idea Multiplicative thinking involves flexible use of multiplication and division concepts, strategies and representations Topic 12- and 24-hour time	MA3-NSM-02 measures and compares duration, using 12- and 24-hr	Non-spatial measure A	• Time: Compare 12- and 24-hour time systems and convert between them	 A. Time 24 Hour Time Using Timetables Time Conversions: Whole Numbers 1 Time Conversions: Whole Numbers 2 Time Conversions: Simple Fractions 	Use 12 & 24 hour time • Converting between 12 & 24 hour time • Using timetables	Measurement, Time 3-5 • A lesson in time, DOK 2 • Puppy-sitting, DOK 3 Measurement, Time 4-6 • 24-hour train time, DOK 2 • Ordering times, DOK 2 • Time to explore 4, DOK 3	Year 5 Series E Time • Measuring time pp 1–8 • Calculating time pp 9–14 • Timetables pp 15–20	
LS 1 Big idea Fractions represent multiple ideas and can be represented in different ways Topic Fractions	MA3-AR-01 selects and applies appropriate strategies to solve addition MA3-RQF-01 compares and orders fractions with denominators of 2, 3, 4, 5	Additive relations A Representing quantity fractions A	 Apply efficient mental and written strategies to solve addition and subtraction problems Recognise the role of the number 1 as representing the whole Compare and order common unit fractions Solve problems involving addition and subtraction of fractions with the same denominator 	 A. Fractions Compare Fractions 1a B.More fractions Compare Fractions 2 Fractions Common Denominator Unit Fractions One Take Fraction 	Compare fractions with same denominator • Identifying fractions equivalent to 1 whole • Comparing & ordering common unit fractions	Number & Algebra, Fractions 3-5 • Which is closer to 1? DOK 2 • What fraction is that? DOK 2 • Drinking equivalent fractions, DOK 3	Year 5 Series E Fractions, Decimals and Percentages • Fractions pp 1–8 • Types of fractions pp 9–16	
LS 3 Big idea What needs to be measured determines the unit of measurement Topic Data	 MA3-RN-01 applies an understanding of place value and the role of MA3-RN-02 compares and orders decimals up to 3 decimal places MA3-DATA-01 constructs graphs using many-to-one scales MA3-DATA-02 interprets data displays, including timelines and line 	Represent numbers A Data A	 Whole numbers: Recognise, represent and order numbers in the millions Decimals and percentages: Recognise that the place value system can be extended beyond hundredths Decimals and percentages: Compare, order and represent decimals Collect categorical and discrete numerical data by observation or survey Choose and use appropriate tables and graphs Describe and interpret different datasets in context 	A. Displaying numerical data • Tallies • Sorting Data • Column Graphs A. Interpret data • Interpreting Tables • Reading from a Column Graph • Line Graphs: Interpretation	Collect & display discrete data • Collecting discrete data • Choosing & using appropriate tables/graphs Interpret discrete data • Interpreting discrete data using various displays • Interpreting line graphs	Statistics & datad 3-5 • Create a line graph, DOK 3	Year 5 Series E Data Representation • Types of graphs 1 pp 1–6 • Types of graphs 2 pp 7–11 • Types of graphs 3 pp 12–17 • Collecting and analysing data pp 18–23 • Data investigations pp 24–28	

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LS & Topic	Outcomes	Focus	Content	Course Topic & Activities	Skill Quests	Challenges	Ebooks
LS 1 Big idea The number system extends infinitely to very large and very small numbers Topic Decimals	MA3-RN-01 applies an understanding of place value and the role of zero to MA3-RN-02 compares and orders decimals up to 3 decimal places	Represent numbers A	 Whole numbers: Recognise, represent and order numbers in the millions Whole numbers: Apply place value to partition, regroup and rename numbers to 1 billion Decimals and percentages: Recognise that the place value system can be extended beyond hundredths Decimals and percentages: Compare, order and represent decimals 	 A. Decimals Decimals from Words to Digits 1 Decimals from Words to Digits 2 Decimal Place Value Comparing Decimals 1 Comparing Decimals 2 Decimal Order Decimal Order 2 Decimals on the Number Line Rounding Decimals 1 	 Compare & order decimals Recognising decimals up to thousandths Partitioning decimals up to thousandths Comparing & ordering decimals up to thousandths 	Number & Algebra, Patterns 4–6 • Egyptian patterns, DOK 3	Year 5 Series E Fractions, decimals and percentages • Fractions, decimals and percentages pp 20–21 Year 6 Series F Fractions, decimals and percentages • Decimal fractions pp 12–16
LS 2 Big idea Multiplicative thinking involves flexible use of multiplication and division concepts, strategies and representations Topic Mental multiplication and division	MA3-RN-01 applies an understanding of place value and the role of zero to MA3-MR-01 selects and applies appropriate strategies to solve multiplication	Represent numbers A Multiplicative relations A	 Whole numbers: Apply place value to partition, regroup and rename numbers to 1 billion Determine products and factors Use partitioning and place value to multiply 2-, 3- and 4-digit numbers by one-digit numbers Select and apply mental and written strategies to multiply 2- and 3-digit numbers by 2-digit numbers Represent and solve division problems with whole number remainders Select and apply strategies to divide a number with 3 or more digits by a one-digit divisor Use estimation and rounding to check the reasonableness of answers to calculations 	 A. Multiplication & division Fact Families: Multiply and Divide Multiplication Turnarounds Missing Numbers: × and ÷ facts Times Tables Solve Equations: Multiply, Divide 1 Bar model × ÷ Multiply 3 single-digit numbers Multiply Mole Play of 10 Multiply More Multiples of 10 Multiply Mole Numbers by 10, 100, and 1000 Double and Halve to Multiply Mental Methods Multiplication 1 	 Multiply by multiples of 10 Multiply using double & halve strategy Using doubling & related facts to multiply by 2 Using doubling & related facts to multiply by 4 Using doubling & related facts to multiply by 8 Partitioning & compensating to double & halve Using double & halve to multiply Using double & halve to multiply Using double & halve or triple/third Multiply up to 4 digits by 1 digit Multiplying using place value Multiplying using the round & compensate strategy Multiply up to 4 digits by 2 digits Strategies to multiply by a 2-digit number Division with remainders Introducing division with remainders Divide up to 4 digits by 1-digit divisor Solving division problems with 1-digit divisor Solving division problems with 1-digit divisors Using estimation/rounding to check answers 	Number & Algebra, Multiplication & Division 4-6 • Number shuffle, DOK 2 • The two sides of the pyramid, DOK 2	Year 5 Series E Multiplication and Division • Mental multiplication strategies pp 1–10 • Mental division strategies pp 11–19

	NSW New Syllabus (2022) S1							
LS & Topic	Outcomes	Focus	Content	Course Topic & Activities	Skill Quests	Challenges	Ebooks	
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 MA3-DATA-01 constructs graphs using many-to-one scales MA3-DATA-02 interprets data displays, including timelines and line graphs MA3-CHAN-01 conducts chance experiments and quantifies the probability 	Geometric measure A Data A Chance A	 Position: Explore the Cartesian coordinate system Collect categorical and discrete numerical data by observation or survey Choose and use appropriate tables and graphs Describe and interpret different datasets in context List outcomes of chance experiments involving equally likely outcomes and represent probabilities 	A/B. Coordinate plane position • Coordinate Graphs: 1st Quadrant • Ordered Pairs • Horizontal and Vertical Change • Transformations: Coordinate Plane A. Interpret data • Line Graphs: Interpretation	 Locate position in the first quadrant Using the first quadrant to locate position Plotting coordinates in the first quadrant 		Year 5 Series E Position • Spatial orientation pp 1–6 • Coordinates pp 7–12 • Directions pp 13–16	
LS 1 Big idea What needs to be measured determines the unit of measurement Topic 3D objects and capacity	MA3-RN-02 compares and orders decimals up to 3 decimal places MA3-3DS-01 visualises, sketches and constructs three-dimensional MA3-3DS-02 selects and uses the appropriate unit to estimate, measure and	Represent numbers A Three-dimensional spatial structure A	 Decimals and percentages: Recognise that the place value system can be extended beyond hundredths Decimals and percentages: Compare, order and represent decimals 3D objects: Compare, describe and name prisms and pyramids 3D objects: Connect three-dimensional objects with two-dimensional representations Volume: Choose appropriate units of measurement for capacity Volume: Use displacement to investigate volumes of irregular solids Volume: Connect decimal representations to the metric system 	 A. Prisms & pyramids What Prism Am I? What Pyramid Am I? Prisms and Pyramids A/B. Volume Millilitres and Litres 	Connect 3D with 2D representations • Naming prisms & pyramids • Connecting prisms with their nets • Connecting 3D objects with their nets Use appropriate units for capacity • Using appropriate units for capacity (L & mL)	 Geometry, 3D Shape 3-5 Nets and prisms, DOK 3 Geometry, 3D Shape 4-6 Creating cubes, DOK 2 Notty nets, DOK 2 Looking at faces, edges and vertices, DOK 3 Pyramids and prisms, DOK 3 	Year 5 Series E Volume, Capacity and Mass • Volume and capacity pp 1–8 Year 6 Series F Volume, Capacity and Mass • Volume and capacity pp 1–2, 5–8 Year 5 Series E Geometry • 3D shapes pp 25–34	
LS 3 Big idea Angles are the primary structural component of many shapes Topic Angles	MA3-RQF-01 compares and orders fractions with denominators of 2, 3, 4, 5 MA3-GM-03 measures and constructs angles, and identifies the relationships	Representing quantity fractions A Geometric measure A	 Solve problems involving addition and subtraction of fractions with the same denominator Angles: Estimate, measure and compare angles using degrees Angles: Use a protractor to measure and identify types of angles 	A/B Identifying angles • Estimating Angles • Measuring Angles • What Type of Angle? • Classifying Angles	 Measure & identify angles Estimating, measuring & comparing angles Constructing angles & identifying different types 	Measurement, Angles 4-6 • Angle estimation, DOK 3	Year 5 Series E Geometry • Lines and angles pp 2–6	