Maths Medium Term Plan – Small Steps (White Rose)

Reception Small Steps

Autumn	**Baseline – statutory and in class baseline.** **Cardinality and counting** Accurate counting of sets of objects 1-5 recognition of 0 in a set 1-1 correspondence	**Subitising** 1-3 numeral recognition 1-5	**Composition** Conceptual subitising numbers within numbers - 5	**Comparison** Comparing sets using vocab of more and less/fewer 1-5	**Pattern** AB patterns – errors to be corrected.	**Cardinality and counting** Accurate counting of sets of objects 1-10. Ordering numbers 0-10	**Composition** Applied conceptual subitising 1-5/ 1-7 Part whole model to look at inverse operations	**Comparison** Comparing numbers using vocab of more and less/fewer. Find 1 more using tens frames/number track.	**Shape and space** Shapes that have the same features/properties -3D and 2D	**Pattern** Continuing AB and ABC patterns **Measures** Height – comparing heights using tall/short
Spring	**Cardinality and counting** Counting backwards and ordering 10-0	**Composition** Systematic approach to partitioning sets of objects 1-5 1-7 Learn number bonds – recall 1-5	**Comparison** Find 1 less using tens frames and number tracks 1 more/1 less	**Measures** Length – long/short using 3 objects	**Shape and space** Spatial vocabulary	**Pattern** Complex patterns – transferring to shapes (circles/squares) ABB ABBC	**Composition** Inverse operations to split and recombine sets of objects 6-9	**Comparison** 1 more/1 less using reasoning	**Measures** Mass- heavier/lighter using 3 objects	**Shape and space** Positional lan-guage and recap on 2Dand 3D shapes and their features
Summer	**Cardinality and counting** Counting beyond 10 noticing patterns that change Composition	**Comparison** Consolidating bonds to 5,4,3,2,1. Use part whole model to explain their reasons. Inverse operations	**Measures** Time – ordering of day and understanding about sequence of day and night	**Pattern** Numerical patterns including odds and evens. Link to staircase patterns.	**Cardinality and counting** Counting beyond 20 noticing patterns that change and patterns in tens	**Composition** Doubles and halves and exploring number bonds with halves. Sharing numbers and understanding their composition	**Comparison** Sharing and link to odds and evens.	**Measures** Capacity-language and ordering	**Shape and space** Features and explaining properties about shapes	**Pattern** Symmetry and reflections Number patterns numerically doubles/halves/odd/even

Year 1 Small Steps

Autumn	Number: Place Value (within 10)		Number: Addition and subtraction (within 10)		Geometry: Shape
	• Sort objects • Count objects • Count objects from a larger group • Represent objects • Recognise numbers as words • Count on from any number • 1 more/1 less	• Count backwards within 10 • Compare groups by matching • Fewer, more, same • Less than, greater than, equal to • Compare numbers • Order objects and numbers • The number line	• Introduce parts and wholes • Part-whole model • Write number sentences • Fact families – addition facts • Number bonds within 10 • Systematic number bonds within 10 • Number bonds to 10 Addition – add together	• Addition – add more • Addition problems • Find a part • Subtraction – find a part • Fact families – the eight facts • Subtraction – take away/cross out • Take away (How many left?) • Subtraction on number line • Add or subtract 1 or 2	• Recognise and name 3D Shapes • Sort 3D shapes • Recognise and name 2D shapes • Sort 2D Shapes • Patterns with 2D and 2D shapes
Spring	Number: Place value (within 20)	Number: Addition and subtraction (within 20)	Number: Place value (within 50)	Measurement: Length and Height	Measurement: Mass and Volume
	• Count within 20 • Understand 10 • Understand 11, 12 and 13 • Understand 14,15 and 16 • Understand 17, 18 and 19 • Understand 20 • 1 more and 1 less • The number line to 20 • Use a number line to 20 • Estimate on a number line to 20 • Compare numbers to 20 • Order numbers to 20	• Add by counting on within 20 • Add ones using number bonds • Find and make number bonds to 20 • Doubles • Near doubles • Subtract using number bonds • Subtraction – count back • Subtraction – finding the difference • Related facts • Missing number problems	• Count from 20 – 50 • 20, 30, 40 and 50 • Count by making groups of tens • Groups of tens and ones • Partition into tens and ones • The number line to 50 • Estimate on a number line to 50 • 1 more, 1 less	• Compare lengths and heights • Measure length using objects • Measure length in centimetres	• Heavier and lighter • Measure mass • Compare mass • Full and empty • Compare volume • Measure capacity • Compare capacity
Summer	Number: Multiplication and division	Number: Fractions	Geometry: Position and direction	Number: Place value (within 100)	Measurement: Money	Measurement: Time
	• Count in 2s • Count in 10s • Count in 5s • Recognise equal groups • Add equal groups • Add equal groups • Make arrays • Make doubles • Make equal groups – grouping • Make equal groups - sharing	• Recognise half of an object or shape • Find half of an object or shape • Recognise half of a quantity • Find half of a quantity • Recognise quarter of a object or shape • Find a quarter of object or shape • Recognise a quarter of a quantity Find a quarter of a quantity	• Describe turns • Describe position – left and right • Describe position – forwards and backwards • Describe position – above and below • Ordinal numbers	• Count from 50 – 100 • Tens to 100 • Partition into tens and ones • The number line to 100 • 1 more, 1 less • Compare numbers with the same number of tens • Compare any two numbers	• Unitising • Recognising coins • Recognising notes • Count in coins	• Before and after • Days of the week • Months of the year • Hours, minutes and seconds • Tell the time to the hour • Tell the time to the half hour

Year 2 Small Steps

Autumn				
Number: Place Value • Numbers to 20 • Count objects to 100 by making 10s • Recognise tens and ones • Use a place value chart • Partition numbers to 100 • Write numbers to 100 in words • Flexibly partition numbers to 100 • Write numbers to 100 in expanded form	• 10s on the number line to 100 • 10s and 1s on the number line to 100 • Estimate numbers on a number line • Compare objects • Compare numbers • Order objects and numbers	**Number: Addition and subtraction** • Bonds to 10 • Fact families – addition and subtraction bonds within 20 • Related facts • Bonds to 100 (tens) • Add and subtract 1s • Add by making 10 • Add three 1 digit numbers • Add to the next 10 • Add across a 10 • Subtract across 10 • Subtract from a 10 • Subtract a 1 digit number from a 2 digit number	• 10 more, 10 less • Add and subtract 10s • Add two digit numbers (not across 10) • Add two 2 digit numbers (across a 10) • Subtract two 2 digit numbers (no across a 10) • Subtract two 3 digit numbers (across a 10) • Mixed addition and subtraction • Compare number sentences • Missing number problems	**Geometry: Shape** • Recognise and name 2D and 3D Shapes • Count sides on 2D shapes • Count vertices on 2D shapes • Draw 2Dshapes • Lines of symmetry • Use lines of symmetry to complete shapes • Sort 2D shapes • Count faces on 3D shapes • Count edges on 3D shapes • Count vertices on 3D shapes • Sort 3D shapes • Make patterns with 2D and 3D shapes

Spring				
Measurement: Money • Count money – pence • Count money – pounds (notes and coins) • Count money – pounds and pence • Choose notes and coins • Make the same amount • Compare amounts of money • Calculate with money • Make a pound • Find change • Two step money problems	**Number: Multiplication and division** • Recognise equal groups • Make equal groups • Add equal groups • Introduce the multiplication symbol • Multiplication sentences • Use arrays • Make equal groups – grouping • Make equal groups – sharing	• The 2 times table • Divide by 2 • Doubling and halving • Odd and even numbers • The 10 times table • Divide by 10 • The 5 times tables • Divide by 5 • The 5 and 10 times table	**Measurement: Length and Height** • Measure in centimetres • Measure in metres • Compare lengths and heights • Order lengths and heights • Four operations with lengths and heights	**Measurement: Mass, capacity and volume** • Compare mass • Measure in grams • Measure in kilometres • Four operations with mass • Compare volume and capacity • Measure in millilitres • Measure in litres • Four operations with volume and capacity • Temperature

Summer				
Number: Fractions • Introduction to parts and wholes • Equal and unequal parts • Recognise a half • Find a half • Recognise a quarter • Find a quarter • Recognise a third	• Find a third • Find the whole • Unit fractions • Non-unit fractions • Recognise the equivalence of half and two quarters • Recognise three-quarters • Find three quarters • Count in fractions up to a whole	**Measurement: Time** • O'clock and half past • Quarter past and quarter to • Tell the time past the hour • Tell the time to the hour • Tell the time to 5 minutes • Minutes to the hour • Hours in a day	**Statistics** • Make a tally chart • Tables • Block diagrams • Draw pictograms (1-1) • Interpret pictograms (1-1) • Draw pictograms (2, 5 and 10) • Interpret pictograms (2, 5 and 10)	**Geometry: Position and direction** • Language of position • Describe movement • Describe turns • Describe movement and turns • Shape patterns with turns

Year 3 Small Steps

Autumn	**Number: Place Value**		**Number: Addition and subtraction**		**Number: Multiplication and division A**	
	• Represent numbers to 100 • Partition numbers to 100 • Number line to 100 • Hundreds • Represent numbers to 1000 • Partition numbers to 1000 • Flexible partitioning of numbers to 1000 • Hundreds, tens and ones • Find 1, 10 or 100 more or less	• Number line 1000 • Estimate on a number line to 1000 • Compare numbers to 1000 • Order numbers to 1000 • Count in 50s	• apply number bonds within 10 • add and subtract 1s • add and subtract 10s • add and subtract 100s • spot the pattern • add 1s across a 10 • add 10s across a 100 • subtract 1s across a 10 • subtract 10s across a 100 • make connections • add two numbers (no exchange) • Subtract two numbers (no exchange) • Add two numbers (across a 10)	• Add two numbers (across a 100) • Subtract two numbers (across a 10) • Subtract two numbers (across a 100) • Add 2 digit and 3 digit numbers • Subtract a 2-digit number from a 3-digit number • Complements to 100 • Estimate answers • Inverse operations • Make decisions	• Multiplication – equal groups • Use arrays • Multiples of 2 • Multiples of 5 and 10 • Sharing and grouping • Multiply by 3 • Divide by 3	• The 3 times table • Multiply by 4 • Divide by 4 • The 4 times table • Multiply by 8 • Divide by 8 • The 8 times table • The 2,4 and 8 times table
Spring	**Number: Multiplication and division B**		**Measurement: Length and Height**	**Number: Fractions A**	**Measurement: Mass and capacity**	
	• Multiples of 10 • Related calculations • Reasoning about multiplication • Multiply a 2-digit number by a 1-digit number (no exchange) • Multiply a 2-digit number by a 1-digit number (with exchange)	• Link multiplication and division • Divide a 2-digit number by a 1-digit number – no exchange • Divide a 2-digit number by a 1-digit number – flexible partitioning • Divide a 2-digit number by a 1-digit number – with remainders • Scaling • How many ways?	• Measure in metres and centimetres • Measure in millimetres • Measure in centimetres and millimetres • Metres, centimetres and millimetres • Equivalent lengths (metres and centimetres) • Equivalent lengths (centimetres and millimetres) • Compare lengths • Add lengths • Subtract lengths • What is perimeter? • Measure perimeter • Calculate perimeter	• Understand the denominators of unit fractions • Compare and order unit fractions • Understand the numerators of non-unit fractions • Understand the whole • Compare and order non-unit fractions • Fractions and scales • Fractions on a number line • Count in fractions on a number line • Equivalent fractions on a number line • Equivalent fractions as bar models	• Use scales • Measure mass in grams • Measure mass in kilograms and grams • Equivalent masses (kilograms and grams) • Compare mass • Add and subtract mass • Measure capacity and volumes in millilitres • Measure capacity and volume in litres and millilitres • Equivalent capacities and volumes (litres and millilitres) • Compare capacity and volume • Add and subtract capacity and volume	
Summer	**Number: Fractions B**	**Measurement: Money**	**Measurement: Time**		**Geometry: Shape**	**Statistics**
	• Add fractions • Subtract fractions • Partition the whole • Unit fractions of a set of objects • Non-unit fractions of a set of objects • Reasoning with fractions of an amount	• Pounds and pence • Convert pounds and pence • Add money • Subtract money • Find change	• Roman numerals to 12 • Tell the time to 5 minutes • Tell the time to the minute • Read time on digital clock • Use am and pm	• Years, months and days • Days and hours • Hours and minutes – start and end times • Hours and minutes – duration • Minutes and seconds • Units of time • Solve problems with time	• Turns and angles • Right angles • Compare angles • Measure and draw accurately • Horizontal and vertical • Parallel and perpendicular • Recognise and describe 2D shapes • Draw polygons • Recognise and describe 3D shapes • Make 3d shapes	• Interpret pictograms • Draw pictograms • Interpret bar charts • Draw bar charts • Collect and represent data • Two way tables

Year 4 Small Steps

Autumn	Number: Place Value		Number: Addition and subtraction	Measurement: Area	Number: Multiplication and division A
	• Represent number to 1,000 • Partition number to 1,000 • Number line to 1,000 • Thousands • Represent numbers to 10,000 • Partition numbers to 10,000 • Flexible partitioning of number to 10,000 • Find 1, 10, 100, 1,000 more or less • Number line to 10,000	• Estimate on a number line to 10,000 • Compare numbers to 10,000 • Compare numbers to 10,000 • Order number to 10,000 • Roman numerals • Round to the nearest 10 • Round to the nearest 100 • Round to the nearest 1,000 • Round to the nearest 10, 100 or 1,000	• Add and subtract 1s, 10s, 100s and 1,000s • Add up to two 4-digit numbers (no exchange) • Add two 4-digit numbers - one exchange • Add two 4-digit numbers – more than one exchange • Subtract two 4-digit numbers – no exchange • Subtract two 4-digit number – one exchange • Subtract two 4 digit numbers – more than one exchange • Efficient subtraction • Estimate answers • Checking strategies	• What is area? • Count squares • Make shapes • Compare areas	• Multiples of 3 • Multiply and divide by 6 • 6 times table and division facts • Multiply and divide by 9 • 9 times table and division facts • The 3, 6 and 9 times table • Multiply and divide by 7 • 7 times table and division facts • 11 times table and division facts • 12 times table and division facts • Multiply by 1 and 0 • Divide a number by 1 and itself • Multiply 3 numbers
Spring	Number: Multiplication and division B	Measurement: Length and perimeter	Number: Fractions		Number: Decimals A
	• Factor pairs • Use factor pairs • Multiply by 10 • Multiply by 100 • Divide by 10 • Divide by 100 • Related facts – multiplication and division • Informal written methods for multiplication • Multiply a 2-digit number by a 1 digit • Multiply a 3-digit number by a 1 digit • Divide a 2-digit number by a 1 digit • Divide a 2-digit number by a 1 digit (2) • Divide a 3-digit number by a 1 digit • Correspondence problems • Efficient multiplication	• Measure in kilometres and metres • Equivalent lengths (kilometres and metres) • Perimeter on a grid • Perimeter of a rectangle • Perimeter of rectilinear shapes • Find missing lengths in rectilinear shapes • Calculate perimeter of rectilinear shapes • Perimeter of regular polygons • Perimeter of polygons	• Understand the whole • Count beyond 1 • Partition a mixed number • Number lines with mixed numbers • Compare and order mixed numbers • Understand Improper fraction • Convert mixed numbers to improper fractions	• Convert improper fractions to mixed numbers • Equivalent fractions on number line • Equivalent fraction families • Add two or more fractions • Add fractions and mixed numbers • Subtract two fractions • Subtract from whole amounts • Subtract from mixed numbers	• Tenths as fractions • Tenths as decimals • Tenths on a place value chart • Tenths on a number line • Divide 1-digit number by 10 • Divide 2-digit number by 10 • Hundredths as fractions • Hundredths as decimals • Hundredths on place value chart • Divide 1 or 2-digit number by 100
Summer	Number: Decimals B	Measurement: Money	Measurement: Time	Geometry: Shape	Statistics	Geometry: Position and Direction
	• Make a whole with tenths • Make a whole with hundredths • Partition decimals • Flexibly partition decimals • Compare decimals • Order decimals • Round to the nearest whole number • Halves and quarters as decimals	• Write money using decimals • Convert between pounds and pence • Compare amounts of money • Estimate with money • Calculate with money • Solve problems with money	• Years, moths, weeks and days • Hours, minutes and seconds • Convert between analogue and digital times • Convert to the 24- hour clock • Convert from the 24-hour clock	• Understand angles and turns • Identify angles • Compare and order angles • Triangles • Quadrilaterals • Polygons • Lines of symmetry • Compete a symmetric figure	• Interpret charts • Comparison, sum and difference • Interpret line graphs • Draw line graphs	• Describe position using coordinated • Plot coordinates • Draw 2D shapes on a grid • Translate on a grid • Describe translation on a grid

Year 5 Small Steps

Autumn	**Number: Place Value** • Roman numerals to 1,000 • Numbers to 10,000 • Numbers to 100,00 • Numbers to 1,000,000 • Read and write numbers to 1,000,000 • Powers of 10 • 10/1--/1,000/10,000/100,000 more or less • Partition numbers to 1,000,000	• Number line to 1,000,000 • Compare and order numbers to 100,000 • Compare and order numbers to 1,000,000 • Round to the nearest 10,100 or 1,000 • Round within 100,000 • Round within 1,000,000	**Number: Addition and subtraction** • Mental strategies • Add whole numbers with more than four digits • Subtract whole numbers with more than four digits • Round to check answers • Inverse operations (addition and subtraction) • Multi-step addition and subtraction problems • Compare calculations • Find missing numbers	**Number: Multiplication and division A** • Multiples • Common multiples • Factors • Common factors • Prime numbers • Square numbers • Cube numbers • Multiply by 10, 100 and 1,000 • Divide by 10, 100 and 1,000 • Multiples of 10, 100 and 1,000	**Number: Fractions A** • Find fraction equivalent to a unit fraction • Find fractions equivalent to a non-unit fraction • Recognise equivalent fractions • Convert improper fractions to mixed numbers • Convert mixed number to improper fractions • Compare fractions less than 1 • Order fractions less than 1 • Compare and order fractions greater than 1 • Add and subtract fractions with the same denominator	• Add fractions within 1 • Add fractions with total greater than 1 • Add to a mixed number • Add two mixed numbers • Subtract fractions • Subtract from a mixed number • Subtract a mixed number – breaking the whole • Subtract two mixed numbers
Spring	**Number: Multiplication and division B** • Multiply up to a 4-digit number by a 1-digit number • Multiply 2-digit number by 2-digit number (area model) • Multiply 2-digit number by 2-digit number • Multiply 3-digit number by a 2-digit number • Multiply 4-digit number by 2-digit number • Solve problems with multiplication • Short division • Divide 4-digit number by 1-digit number • Divide with remainders • Efficient division • Solve problems with multiplication and division		**Number: Fractions B** • Multiply a unit fraction by an integer • Multiply a non-unit fraction by an integer • Multiply a mixed number by an integer • Calculate a fraction of a quantity • Fraction of an amount • Find the whole • Use fractions as operations	**Number: Decimals and percentages** • Decimals up to 2 decimal places • Equivalent fractions and decimals (tenths) • Equivalent fraction and decimals (hundredths) • Equivalent fractions and decimals • Thousandths as fractions • Thousandths as decimals • Thousandths on a place value chart	• Order and compare decimals (some number of decimal places) • Order and compare any decimals with up to 3 decimal places • Round to the nearest whole number • Round to 1 decimal place • Understand percentages • Percentages as fractions • Percentages as decimals • Equivalent fractions, decimals and percentages	**Measurement: Perimeter and area** • Perimeter of rectangles • Perimeter of rectilinear shapes • Perimeter of polygons • Area of rectangles • Area of compound shapes • Estimate area	**Statistics** • Draw line graphs • Read and interpret line graphs • Read and interpret tables • Two way tables • Read and interpret timetables
Summer	**Geometry: Shape** • Understand and use degrees • Classify angles • Estimate angles • Measure angles up to 180 degrees • Draw lines and angles accurately • Calculate angles around a point • Calculate angles on a straight line • Lengths and angles in shapes • Regular and irregular polygons • 3D shapes	**Geometry: Position and direction** • Read and plot coordinates • Problem solving with coordinates • Translation • Translation with coordinated • Lines of symmetry • Reflection in horizontal and vertical lines	**Number: Decimals** • Use known facts to add and subtract decimals within 1 • Complements to 1 • Add and subtract decimals across 1 • Add decimals with the same number of decimals places • Subtract decimals with the same number of decimal places • Add decimals with different numbers of decimals places • Subtract decimals with different numbers of decimal places • Efficient strategies for adding and subtracting decimals • Decimal sequences • Multiply by 10, 100 and 1,000 • Divide by 10, 100 and 1,000 • Multiply and divide decimals – missing values	**Number: Negative numbers** • Understand negative numbers • Count through zero in 1s • Count through zero in multiples • Compare and order negative numbers • Find the difference	**Measurement: Converting units** • Kilograms and kilometres • Millimetres and millilitres • Convert units of length • Convert between metric and imperial units • Convert units of time • Calculate with timetables	**Measurement: Volume** • Cubic centimetres • Compare volume • Estimate volume • Estimate capacity

Year 6 Small Steps

Autumn	Number: Place Value	Number: Addition and subtraction, multiplication and division		Number: Fractions A	Number: Fractions B	Measurement: converting units
	• Numbers to 1,000,000 • Number to 10,000,000 • Read and write numbers to 10,000,000 • Powers of 10 • Number line to 10,000,000 • Compare and order any integers • Round any integer Negative numbers	• Add and subtract integers • Common factors • Common multiples • Rules of divisibility • Primes to 100 • Square and cube numbers	• Multiply up to 4-digit number by 2-digit number • Solve problems with multiplication • Short division • Division using factors • Introduction to long division • Long division with remainders • Solve problems with division • Solve multi-step problems • Order of operations • Mental calculations and estimation • Reason from known facts	• Equivalent fractions and simplifying • Equivalent fractions on a number line • Compare and order (denominator) • Compare and order (numerator) • Add and subtract simple fractions • Add and subtract any two fractions • Add mixed numbers • Subtract mixed numbers • Multi-step problems	• Multiply fractions by integers • Multiply fractions by fractions • Divide a fraction by an integer • Divide any fraction by an integer • Mixed questions with fractions • Fraction of an amount • Fraction of an amount – find the whole	• Metric measures • Convert metric measure • Calculate with metric measures • Miles and kilometres • Imperial measures
Spring	Ratio	Algebra	Number: Decimals	Number: Fractions, decimals and percentages	Measurement: area, perimeter and volume	Statistics
	• Add or multiply? • Use ration language • Introduction to the ratio symbol • Ratio and fractions • Scale drawing • Use scale factors • Similar shapes • Ratio problems • Proportion problems • Recipes	• 1-step function machines • 2-step function machines • Form expressions • Substitution • Formulae • Form equations • Solve 1-step equations • Solve 2-step equations • Find pairs of values • Solve problems with two unknowns	• Place value within 1 • Place value – integers and decimals • Round decimals • Add and subtract decimals • Multiply by 10, 00 and 1,000 • Divide by 10, 100 and 1,000 • Multiply decimals by integers • Divide decimals by integers • Multiply and divide decimals in context	• Decimal and fraction equivalents • Fractions as divisions • Understand percentages • Fractions to percentages • Equivalent fractions, decimals and percentages • Order fractions, decimals and percentages • Percentage of an amount – one step • Percentage of an amount – multi-step • Percentages – missing values	• Shapes – same area • Area and perimeter • Area of a triangle – counting square • Area of a right-angles triangle • Area of any triangle • Area of a parallelogram • Volume – counting cubes • Volume of a cuboid	• Line graphs • Dual bar charts • Read and interpret pie charts • Pie charts with percentages • Draw pie charts • The mean
Summer	Geometry: Shape		Geometry: Position and direction	Consolation, problem solving and SATs preparation		
	• Measure and classify angles • Calculate angles • Vertically opposite angles • Angles in a triangle • Angles in a triangle – special cases	• Angles in a triangle – missing angles • Angles in a quadrilateral • Angles in polygons • Circles • Draw shapes accurately • Nets of 3D shapes	• The first quadrant • Read and plot points in four quadrants • Solve problems with coordinates • Translations • reflections			