White Rose Maths Long Term Plan-small steps progression

Year	Term	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Year 1	Autumn	**Place Value (within 10)** - Sort Objects - Count Objects - Count objects from a larger group - Represent objects - Represent numbers as words - Count on from any number - 1 more - Count backwards within 10 - 1 less - Compare groups by matching - Fewer, more, same - Less than, greater than, equal to - Compare numbers - Order objects and numbers - The number line					**Addition & Subtraction (within 10)** - 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 - Find a part - Facts families – the eight facts - Subtraction – take away/cross out (how many left?) - Subtraction on a number line - Add or subtract 1 or 2					**Shape** - Recognise and name 3D shapes - Sort 3D shapes - Recognise and name 2D shapes - Sort 2D shapes - Patterns with 2D and 3D shapes	
	Spring	**Place Value (within 20)** - 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 - Estimate on a number line to 20 - Compare & order numbers to 20			**Addition & Subtraction (within 20)** - Add by counting on within 20 - Add ones using number bonds - Find and make number bonds to 20 - Doubles - Near doubles - Subtract ones using number bonds - Subtraction – counting back - Subtraction – find the difference - Related facts - Missing number problems		**Place Value (Within 50)** - Count from 20-50 - 20, 30, 40 and 50 - Count by making groups of ten - Groups of tens and ones - Partition into tens and ones - The number line to 50 - Estimate on a number line to 50 - 1 more and 1 less		**Length & Height** - Compare lengths and heights - Measure length using objects - Measure length in centimetres		**Mass & Volume** - Heavier and lighter - Measure mass - Compare mass - Full and empty - Compare volume - Measure capacity - Compare capacity	
	Summer	**Multiplication & Division** - Count in 2s - Count in 10s - Count in 5s - Recognise equal groups - Add equal groups - Make arrays - Make doubles - Make equal groups – grouping - Make equal groups - sharing			**Fractions** - Recognise a half - Find a half - Recognise a quarter - Find a quarter		**Position & Direction** - Describe turns - Left & right - Forwards & backwards - Above & below - Ordinal numbers	**Place Value (within 100)** - Count from 50 – 100 - Tens to 100 - Partition into tens and ones - The number line up to 100 - 1 more and 1 less - Compare numbers with the same tens - Compare any two numbers	**Money** - Unitising - Recognise coins - Recognise notes - count in coins	**Time** - Before & after - Days of the week - Months of the year - Hours, minutes and seconds - Tell the time to the hour - Tell the time to half hour	

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Year 2	Autumn	**Place Value** - Numbers to 20 - Count objects to 100 by making 10 - 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 - Count in 2s, 5s ad 10s - Count in 3s				**Addition & 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 (across a 10) - 10 more, 10 less - Add and subtract 10s - Add two 2-digit number (not across 10) - Add two 2-digit numbers (across a 10) - Subtract two 2-digit numbers (not across a 10) - Subtract two 2-digit numbers (across a 10) - Mixed addition and subtraction - Compare number sentences - Missing number problems					**Shape** - Recognise 2-D and 3-D shapes - Count sides on 2D shapes - Count vertices on 2D shapes - Draw 2D shapes - Lines of symmetry on shapes - 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	**Money** - Count money – pence - Count money – pounds (notes & 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 problems		**Multiplication & 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 table - Divide by 5 - The 5 and 10 times table				**Length & Height** - Measure in centimetres - Measure in metres - Compare lengths and heights - Order lengths and heights - Four operations with lengths and heights			**Mass, Capacity & Temperature** - Compare mass - Measure in grams - Measure in kilograms - Four operations with mass - Compare volume & capacity - Measure millilitres - Measure in litres - Four operations with volume and capacity - Temperature		
	Summer	**Fractions** - Introduction to parts and whole - 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 a half and two quarters - Recognise three-quarters - find three-quarters - count in fractions up to a whole			**Time** - O'clock and half past - Quarter past and quarter to - Tell time past the hour - Tell time to the hour - Tell the time to 5 minutes - Minutes in an hour - Hours in a day		**Statistics** - Make tally charts - Tables - Block diagrams - Draw pictures (1-1) - Interpret pictograms (1-1) - Draw pictures (2, 5 and 10) - Interpret pictograms (2, 5 and 10)		**Position & Direction** - Language of position - Describe movement - Describe turns - Describe movement and turns - Shape patterns with turns		

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Year 3	Autumn	**Place Value** - Represent and partition numbers to 100 - Number line to 100 - Hundreds - Represent numbers to 1,000 - Partition numbers to 1,000 - Flexible partitioning of numbers to 1,000 - Hundreds, tens and ones - Fine 1, 10 or 100 more or less - Number line to 1,000 - Estimate on a number line to 1,000 - Compare numbers to 1,000 - Order numbers to 1,000 - Count in 50s			**Addition & Subtraction - Follow Calculation Policy** - 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 100 - Subtract 1s across a 10 - Subtract 10s across 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 & Division A – Follow Calculation Policy** - Multiplication – equal groups - Use arrays - Multiples of 2 - Multiples of 5 and 10 - Sharing and grouping - Multiply by 3 - Divide by 3 - The three times-table - Multiply by 4 - Divide by 4 - The 4 times-table - Multiple by 8 - Divide by 8 - The 8 times-table - the 2, 4 and 8 times-tables			
	Spring	**Multiplication & Division B – Follow Calculation Policy** - Multiples of 10 - Related calculations - Reasoning about multiplication - Multiply a 2-digit by 1-digit number (no exchange) - Multiply a 2-digit by a 1-digit number (with exchanging) - 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?			**Length & perimeter** - 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			**Fractions A** - Understand the denominators of unit fractions - Compare and order unit fractions - Understand the numerators of non-unit fractions - Fractions and scales - Fractions on a number line - Count in fractions on a number line - Equivalent fractions as bar models		**Mass & Capacity** - Use scales - Measure mass in grams - Measure mass in kilograms and grams - Equivalent masses (KG's & G's) - Compare mass - Add and subtract mass - Measure capacity and volume in millilitres - Equivalent capacities and volumes (l & ml) - Compare capacity and volume - Add and subtract capacity and volume	
	Summer	**Fractions B** - 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		**Money** - Pounds and pence - Convert pounds and pence - Add money - Subtract money - Find change	**Time** - Roman numerals to 12 - Tell the time to 5 minutes - Tell the time to the minute - Read time on a digital clock - Use am and pm - Years, months and days - Days and hours - Hours and minutes – use start and end times - Hours and minutes - use durations - Minutes and seconds - Units of time - Solve problems with time			**Shape** - Turns and angles - Right angles - Compare angles - Measure and draw accurately - Horizontal and vertical - Parallel and perpendicular - Recognise and describe 2-D shapes - Draw polygons - Recognise and describe 3-D shapes - Make 3-D shapes		**Statistics** - Interpret pictograms - Draw pictograms - Interpret bar charts - Draw bar charts - Collect and represent data - Two-way tables	

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Year 4	Autumn	**Place Value** - Represent numbers to 1,000 - Partition numbers to 1,000 - Number line to 1,000 - Thousands - Represent numbers to 10,000 - Partition numbers to 10,000 - Flexible partitioning of numbers 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 - Order numbers 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				**Addition & Subtraction - Follow Calculation Policy** - 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 numbers – one exchange - Subtract two 4-digit numbers – more than one exchange - Efficient subtraction - Estimate - Checking strategies				Area - What is area? - Count squares - Make shapes - Compare areas	**Multiplication & Division A - Follow Calculation Policy** - 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-tables - 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 three numbers		
	Spring	**Multiplication & Division B - Follow Calculation Policy** - 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 number - Multiply a 3-digit number by a 1-digit number - Divide a 2-digit number by a 1-digit number (1) - Divide a 2-digit number by a 1-digit number (2) - Divide a 3-digit number by a 1-digit number - Correspondence problems - Efficient multiplication				**Length & Perimeter** - 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	**Fractions** - Understand the whole - Count beyond 1 - Partition a mixed number - Number lines with mixed numbers - Compare and order mixed numbers - Understand improper fractions - Convert mixed numbers to improper fractions - Convert improper fractions to mixed numbers - Equivalent fractions on a 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				**Decimals A** - Tenths as fractions - Tenths as decimals - Tenths on a place value chart - Tenths on a number line - Divide a 1-digit number by 10 - Divide a 2-digit number by 10 - Hundredths as fractions - Hundredths as decimals - Hundredths on a place value chart - Divide a 1- or 2-digit number by 100		
	Summer	**Decimals B** - 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	**Money** - Write money using decimals - Convert between pounds and pence - Compare amounts of money - Estimate with money - Calculate with money - Solve problems with money		**Time** - Years, months, 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		**Shape** - Understand angles as turns - Identify angles - Compare and order angles - Triangles - Quadrilaterals - Polygons - Lines of symmetry - Complete a symmetric figure			**Statistics** - Interpret charts - Comparison, sum and difference - Interpret line graphs - Draw line graphs	**Position & Direction** - Describe position using coordinates - Plot coordinates - Draw 2-D shapes on a grid - Translate on a grid - Describe translation on a grid

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Year 5	Autumn	**Place Value** - Roman numerals to 1,000 - Numbers to 10,000 - Numbers to 100,000 - Numbers to 1,000,000 - Read and write numbers to 1,000,000 - Powers of 10 - 10/100/1,000/10,000/100,000 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			**Addition & Subtraction - Follow Calculation Policy** - 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		**Multiplication & Division A - Follow Calculation Policy** - 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			**Fractions A** - Find fractions equivalent to a unit fraction - Find fractions equivalent to a non-unit fraction - Recognise equivalent fractions - Convert improper fractions to mixed numbers - Convert mixed numbers 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 from a mixed number – breaking the whole - Subtract two mixed numbers		
	Spring	**Multiplication & Division B - Follow Calculation Policy** - Multiply up to a 4-digit number by a 1-digit number - Multiply a 2-digit number by a 2-digit number (area model) - Multiply a 2-digit number by a 2-digit number - Multiply a 3-digit number by a 2-digit number - Multiply a 4-digit number by a 2-digit number - Solve problems with multiplication - Short division - Divide a 4-digit number by a 1-digit number - Divide with remainders - Efficient division - Solve problems with multiplication and division			**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 operators		**Decimals & Percentages** - Decimals up to 2 decimal places - Equivalent fractions and decimals (tenths) - Equivalent fractions and decimals (hundredths) - Equivalent fractions and decimals - Thousandths as fractions - Thousandths as decimals - Thousandths on a place value chart - Order and compare decimals (same 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			**Perimeter & 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	**Shape** - Understand and use degrees - Classify angles - Estimate angles - Measure angles up to 180° - 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 - 3-D shapes			**Position & Direction** - Read and plot coordinates - Problem solving with coordinates - Translation - Translation with coordinates - Lines of symmetry - Reflection in horizontal and vertical lines		**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 decimal places - Subtract decimals with the same number of decimal places - Add decimals with different numbers of decimal 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			**Negative numbers** - Understand negative numbers - Count through zero in 1s - Count through zero in multiples - Compare and order negative numbers - Find the difference	**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	**Volume** - Cubic centimetres - Compare volume - Estimate volume - Estimate capacity

					- Multiply and divide decimals – missing values							

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Year 6	Autumn	**Place Value** - Numbers to 1,000,000 - Numbers 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		**Addition, subtraction, multiplication & division - Follow Calculation Policy** - Add and subtract integers - Common factors - Common multiples - Rules of divisibility - Primes to 100 - Square and cube numbers - Multiply up to a 4-digit number by a 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				**Fractions A** - 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		**Fractions B** - 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		**Converting Units** - Metric measures - Convert metric measures - Calculate with metric measures - Miles and kilometres - Imperial measures
	Spring	**Ratio** - Add or multiply? - Use ratio language - Introduction to the ratio symbol - Ratio and fractions - Scale drawing - Use scale factors - Similar shapes - Ratio problems - Proportion problems - Recipes		**Algebra** - 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		**Decimals** - Place value within 1 - Place value – integers and decimals - Round decimals - Add and subtract decimals - Multiply by 10, 100 and 1,000 - Divide by 10, 100 and 1,000 - Multiply decimals by integers - Divide decimals by integers - Multiply and divide decimals in context		**Fractions, decimals & percentages** - Decimal and fraction equivalents - Fractions as division - 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		**Area, perimeter & volume** - Shapes – same area - Area and perimeter - Area of a triangle – counting squares - Area of a right-angled triangle - Area of any triangle - Area of a parallelogram - Volume – counting cubes - Volume of a cuboid		**Statistics** - Line graphs - Dual bar charts - Read and interpret pie charts - Pie charts with percentages - Draw pie charts - The mean
	Summer	**Shape** - 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 3-D shapes		**Position & direction** - The first quadrant - Read and plot points in four quadrants - Solve problems with coordinates - Translations - Reflections									

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EYFS	Autumn	**Getting to know you**			**Just like me!** - Matching things that are the same - Sorting objects – colour, size, shape - Compare amounts - Compare size, mass and capacity - Making simple patters			**It's me 1, 2, 3!** - Representing 1, 2 and 3 - Comparing 1, 2 and 3 - Composition of 1, 2 and 3 - Circles & Triangles - Spatial awareness			**Light & Dark** - Number 4 - Number 5 - One more and one less - Shapes with 4 sides - Night and day		
	Spring	**Alive in 5!** - Introducing zero - Comparing numbers to 5 - Composition of 4 and 5 - Compare mass - Compare capacity			**Growing 6, 7, 8** - 6, 7 & 8 - Making pairs - Combining 2 groups - Length & Height - Time			**Building 9 and 10** - 9 & 10 - Comparing numbers to 10 - Bonds to 10 - 3D shape - Patterns -			**Consolidation**		
	Summer	**To 20 and beyond** - Building numbers beyond 10 - Counting patterns beyond 10 - Spatial Reasoning			**First, then, now** - Adding more - Taking away - Spatial Reasoning (2)			**Find my pattern** - Doubling - Sharing and grouping - Even and odd - Spatial Reasoning (3)			**On the move** - Deepening understanding - Patterns and relationships - Spatial Reasoning (4)		