



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	<u>Place Value (within 10)</u> - 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					<u>Addition & Subtraction (within 10)</u> - 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					<u>Shape</u> - Recognise and name 3D shapes - Sort 3D shapes - Recognise and name 2D shapes - Sort 2D shapes - Patterns with 2D and 3D shapes	
	Spring	<u>Place Value (within 20)</u> - 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			<u>Addition & Subtraction (within 20)</u> - 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 - Subtraction – find the difference - Related facts - Missing number problems			<u>Place Value (Within 50)</u> - 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		<u>Length & Height</u> - Compare lengths and heights - Measure length using objects - Measure length in centimetres		<u>Mass & Volume</u> - Heavier and lighter - Measure mass - Compare mass - Full and empty - Compare volume - Measure capacity - Compare capacity	

	Summer	<u>Multiplication & Division</u> - - 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	<u>Fractions</u> - Recognise a half - Find a half - Recognise a quarter - Find a quarter	<u>Position & Direction</u> - Describe turns - Left & right - Forwards & backwards - Above & below - Ordinal numbers	<u>Place Value (within 100)</u> - 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	<u>Money</u> - Unitising - Recognise coins - Recognise notes count in coins	<u>Time</u> - 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	<u>Place Value</u> - 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 and 10s - Count in 3s				<u>Addition & Subtraction</u> - 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				<u>Shape</u> - 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			

Year 3	Autumn	<u>Place Value</u> - 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	<u>Addition & Subtraction -</u> - Apply number bonds within 10 - Add and subtract 1s - Add and subtract 10's - Add and subtract 100's - Spot the pattern - Add 1s across a 10 - Add 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	<u>Multiplication & Division A –</u> - 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- - 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
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Spring		<u>Multiplication & Division B –</u> - Multiples of 10 - Related calculations - Reasoning about multiplication - Multiply a 2exchange) - Multiply a 2-digit (with exchanging - ink 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?				<u>Length & perimeter</u> - 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				<u>Fractions A</u> - 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				<u>Mass & Capacity</u> - 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		<u>Fractions B</u> - 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		<u>Money</u> - Pounds and pence - Convert pounds and pence - Add money - Subtract money - Find change		<u>Time</u> - 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				<u>Shape</u> - 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		<u>Statistics</u> - Interpret pictograms - Draw pictograms - Interpret bar charts - Draw bar charts - Collect and represent data - Two-way tables			
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Year 4	Autumn	<u>Place Value</u> - 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		<u>Addition & Subtraction -</u> - Add and subtract 1s, 10s, 100s and 1,0 -Add up to two 4-digit numbers – no ex digit numbers -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	<u>Multiplication & Division A</u> - Multiples of 3 - 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	<u>Multiplication & Division B –</u> - 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	<u>Length & Perimeter</u> - 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	<u>Fractions</u> - 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		<u>Decimals A</u> - 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	<u>Decimals B</u> - 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	<u>Money</u> Write money using decimals - Convert between pounds and pence Compare amounts of money - Estimate with money - Calculate with money - Solve problems with money	<u>Time</u> - Years, months, weeks and days - Hours, minutes and seconds - Convert between analogue and digital times - Convert to the 24hour clock - Convert from the 24-hour clock		<u>Shape</u> - Understand angles as turns - Identify angles - Compare and order angles - Triangles - Quadrilaterals - Polygons - Lines of symmetry - Complete a symmetric figure	<u>Statistics</u> - Interpret charts -Comparison, sum and difference -Interpret line graphs -Draw line graphs	<u>Position & Direction</u> - 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	<u>Place Value</u> - 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			<u>Addition & Subtraction -</u> - 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	<u>Multiplication & Division A -</u> - 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			<u>Fractions A</u> - 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	<u>Multiplication & Division B -</u> - 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	<u>Fractions B</u> - 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 quantity - Fraction of an amount - Find the whole - Use fractions as operators	<u>Decimals & Percentages</u> - 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 wi to 3 decimal places - Round to the nearest whole numbe - Round to 1 decimal place - Understand percentages - Percentages as fractions - Percentages as decimals - Equivalent fractions, decimals and percentages th up	<u>Perimeter & Area</u> - Perimeter of rectangles - Perimeter of rectilinear shapes - Perimeter of polygons - Area of rectangles - Area of compound shapes - Estimate area	<u>Statistics -</u> -Draw line graphs -Read and interpret line graphs -Read and interpret tables -Read and interpret two-way tables -Read and interpret timetables	
	Summer	<u>Shape</u> - 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	<u>Position & Direction</u> -Read and plot coordinates -Problem solving with coordinates -Translation -Translation with coordinates -Lines of symmetry -Reflection in horizontal and vertical lines	<u>Decimals</u> - 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 number decimal places - Subtract decimals with different number 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	<u>Negative numbers</u> - Understand negative numbers - Count through zero in 1s - Count through zero in multiples - Compare and order negative numbers - Find the difference	<u>Converting Units</u> - Kilograms and kilometres - Millimetres and millilitres - Convert units of length - Convert between metric and imperial units - Convert units of time - Calculate with timetables	<u>Volume</u> - Cubic centimetres - Compare volume - Estimate volume - Estimate capacity
				- Multiply and divide decimals – missing values			

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