National Curriculum Year 4	Ready to Progress	White Rose Workbook & Step	Curriculum Prioritisation	NCETM Spine
Number & Place Value				
Counting				
Count backwards through 0 to include negative numbers		**Autumn 1 - Place Value**		
Represent				
Identify, represent and estimate numbers using different representations		**Autumn 1 - Place Value** 1 Represent numbers to 1,000 2 Partition numbers to 1,000 3 Number line to 1,000		
Read **Roman numerals** to 100 (I to C) and know that over time, the numeral system changed to include the concept of 0 and place value		**Autumn 1 - Place Value** 13 Roman numerals		
Use Place Value & Compare				
Find 1,000 more or less than a given number		**Autumn 1 - Place Value**	**UNIT 2 Numbers to 10000**	
Recognise the place value of each digit in a four-digit number (1,000s, 100s, 10s and 1s)	**4NPV-1** Know that 10 hundreds are equivalent to 1 thousand, and that 1,000 is 10 times the size of 100; apply this to identify and work out how many 100s there are in other four-digit multiples of 100	**Autumn 1 - Place Value** 4 – Thousands **Spring 2 – Multiplication & division B** 3 Multiply by 10 4 Multiply by 100 5 Divide by 10 6 Divide by 100	**UNIT 2 Numbers to 10000**	**1.22** Composition & calculation: 1000 and four-digit numbers
	4NPV-2 Recognise the place value of each digit in four-digit numbers, and compose and decompose four-digit numbers using standard and non-standard partitioning	**Autumn 1 - Place Value** 5 Represent numbers to 10,000 6 Partition numbers to 10,000 7 Flexible partitioning of numbers to 10,000		
Order and compare numbers beyond **1,000**	**4NPV-3** Reason about the location of any four-digit number in the linear number system, including identifying the previous and next multiple of 1,000 and 100, and rounding to the nearest of each	**Autumn 1 - Place Value** 8 Find 1, 10, 100, 1,000 more or less 9-10 11 Compare numbers to 10,000 12 Order numbers to 10,000 14-17		
Problems & Rounding				
Round any number to the nearest 10, 100 or 1,000		**Autumn 1 - Place Value** 14 Round to the nearest 10 15 Round to the nearest 100 16 Round to the nearest 1,000 17 Round to the nearest 10, 100 or 1,000		**1.22** Composition & calculation: 1000 and four-digit numbers
Solve number and practical problems that involve all of the above and with increasingly large positive numbers	**4NPV-4** Divide 1,000 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 1,000 with 2, 4, 5 and 10 equal parts.	**Autumn 1 - Place Value** 9 Number line to 10,000 10 Estimate on a number line to 10,000		
Addition and subtraction				
Recall, Represent, Use				
Estimate and use inverse operations to check answers to a calculation				
Calculations				
Add and subtract numbers with up to 4 digits using the **formal written methods** of columnar addition and subtraction where appropriate	**3AS–2** Add and subtract up to three-digit numbers using columnar methods.	**Autumn 2 - Addition and subtraction** 1 Add and subtract 1s, 10s, 100s and 1,000s 2 Add up to two 4-digit numbers – no exchange	**UNIT 1 Review of column addition and subtraction**	**1.20** Algorithms: column addition **1.21** Algorithms: column subtraction

		3 Add two 4-digit numbers – one exchange 4 Add two 4-digit numbers – more than one exchange 5 Subtract two 4-digit numbers – no exchange 6 Subtract two 4-digit numbers – one exchange 7 Subtract two 4-digit numbers – more than one exchange		**1.22** Composition & calculation: 1000 and four-digit numbers
Solve problems				
Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.		**Autumn 2 - Addition and subtraction** 8 Efficient subtraction		
Multiply and divide				
Recall, Represent, Use				
Recall multiplication and division facts for multiplication tables up to 12 × 12	**4NF-1** Recall multiplication and division facts up to 12×12, and recognise products in multiplication tables as multiples of the corresponding number	**Autumn 4 Multiplication and division A** 1 Multiples of 3 2 Multiply and divide by 6 3 6 times-table and division facts 4 Multiply and divide by 9 5 9 times-table and division facts 6 The 3, 6 and 9 times-tables 7 Multiply and divide by 7 8 7 times-table and division facts 9 11 times-table and division facts 10 12 times-table and division facts	**UNIT 4 The 3 6 9 x tables** **UNIT 5 The 7 x table**	**2:8** 3, 6 and 9x table and the relationship between them **2.9** 7x table and patterns within/across times tables
Use place value, known and derived facts to multiply and divide mentally, including multiplying by 0 and 1; dividing by 1; multiplying together 3 numbers	**4MD-1** Multiply and divide whole numbers by 10 and 100 (keeping to whole number quotients); understand this as equivalent to making a number 10 or 100 times the size.	**Autumn 4 Multiplication and division A** 11 Multiply by 1 and 0 12 Divide a number by 1 and itself **Spring 1 Multiplication and division B** 3 Multiply by 10 4 Multiply by 100 5 Divide by 10 6 Divide by 100	**UNIT 6 Multiplicative relationships**	**2:10** Connecting multiplication and division & the distributive law **2:13** Calculation: multiplying & dividing by 10 or 100
Recognise and use **factor pairs** and commutativity in mental calculations	**4MD-2** Manipulate multiplication and division equations, and understand and apply the commutative property of multiplication **4MD-3** Understand and apply the distributive property of multiplication	**Autumn 4 Multiplication and division A** 13 Multiply three numbers **Spring 1 Multiplication and division B** 1 Factor pairs 2 Use factor pairs		
Count in multiples of 6, 7, 9, 25 and 1,000		**Autumn 4 Multiplication and division A**		
Calculations				
Multiply two-digit and three-digit numbers by a one-digit number using **formal written** layout	**4NF-3** Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 100)	**Spring 1 Multiplication and division B** 7 Related facts – multiplication and division 8 Informal written methods for multiplication 9 Multiply a 2-digit number by a 1-digit number 10 Multiply a 3-digit number by a 1-digit number		**2:14** Multiplication: partitioning leading to short multiplication
	4NF-2 Solve division problems, with two-digit dividends and one-digit divisors, that involve remainders	**Spring 1 Multiplication and division B** 11 Divide a 2-digit number by a 1-digit number (1) 12 Divide a 2-digit number by a 1-digit number (2)	**UNIT 12 Division with remainders**	**2:12** Division with remainders

		13 Divide a 3-digit number by a 1-digit number		
Solve problems				
Solve problems involving multiplying and adding, including using the distributive law to multiply two-digit numbers by 1 digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects.		**Spring 1 Multiplication and division B** 14 Correspondence problems 15 Efficient multiplication		
Fractions Decimals Percentages				
Recognising and Write				
Count up and down in **hundredths**; recognise that hundredths arise when dividing an object by a 100 and dividing tenths by 10.		**Spring 4 - Decimals A** 7-10 **Summer 1 Decimals B**	**UNIT 9 Fractions greater than 1**	
Comparing fractions				
Recognise and show, using diagrams, families of **common equivalent fractions**	**3F-1** Interpret and write proper fractions to represent 1 or several parts of a whole that is divided into equal parts	**Spring 3 Fractions** 1 Understand the whole 2 Count beyond 1 9 Equivalent fractions on a number line 10 Equivalent fraction families	**UNIT 8 Fractions**	**3:1** Preparing for fractions: the part-whole model
	4F-1 Reason about the location of mixed numbers in the linear number system.	3 Partition a mixed number 4 Number lines with mixed numbers 5 Compare and order mixed numbers 6 Understand improper fractions		
	4F-2 Convert mixed numbers to improper fractions and vice versa.	7 Convert mixed numbers to improper fractions 8 Convert improper fractions to mixed numbers		
Fractions: calculations				
Add and subtract fractions with the same denominator	**4F-3** Add and subtract improper and mixed fractions with the same denominator, including bridging whole numbers	**Spring 3 Fractions** 11 Add two or more fractions 12 Add fractions and mixed numbers 13 Subtract two fractions 14 Subtract from whole amounts 15 Subtract from mixed numbers	**UNIT 9 Fractions greater than 1**	**3:5** Working across one whole: improper fractions and mixed numbers
Fractions: Solve Problems				
Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number		**Spring 3 Fractions**		
Decimals: Recognise and Write				
Recognise and write **decimal equivalents** to ¼; ½; ¾				
Recognise and write decimal equivalents of any number of **tenths or hundredths**		**Spring 4 - Decimals A** 1 Tenths as fractions 2 Tenths as decimals 3 Tenths on a place value chart 4 Tenths on a number line 7 Hundredths as fractions 8 Hundredths as decimals 9 Hundredths on a place value chart 10 Divide a 1- or 2-digit number by 100		

Decimals: Comparing & rounding				
Round decimals with 1 decimal place to the nearest whole number				
Compare numbers with the same number of decimal places up to 2 decimal places				
Decimals: Calculations & Problems				
Find the effect of **dividing** a one- or two-digit number **by 10 and 100**, identifying the value of the digits in the answer as ones, tenths and hundredths		**Spring 4 - Decimals A** 5 Divide a 1-digit number by 10 6 Divide a 2-digit number by 10		
Fractions Decimals & Percentages				
Solve simple measure and money problems involving fractions and decimals to 2 decimal places.		**Spring 3 Fractions** **Spring 4 Decimals A** **Summer 1 Decimals B**		
Measurement				
Using Measures				
Convert between different units of measure		**Spring 2 Length & perimeter** 1 Measure in kilometres and metres		
Estimate, compare and calculate different measures		2 Equivalent lengths (kilometres and metres)		
Money				
Estimate, compare and calculate different measures, including **money** in pounds and pence		**Summer 2 Money** 1 Write money using decimals 2 Convert between pounds and pence 3 Compare amounts of money 4 Estimate with money 5 Calculate with money 6 Solve problems with money		
Time				
Read, write and **convert time** between analogue and digital 12 and 24-hour clocks		**Summer 3 Time** 1 Years, months, weeks and days 2 Hours, minutes and seconds 3 Convert between analogue and digital times 4 Convert to the 24-hour clock 5 Convert from the 24-hour clock	**UNIT 11 Time**	
Solve problems involving converting from hours to minutes, minutes to seconds, years to months, weeks to days		**Summer 3 Time** 1-5		
Perimeter, Area & Volume				
Measure and calculate the **perimeter** of a rectilinear figure (including squares) in centimetres and metres	**4G-2 …** Find the perimeter of regular and irregular polygons	**Spring 2 Length & perimeter** 3 Perimeter on a grid 4 Perimeter of a rectangle 5 Perimeter of rectilinear shapes 6 Find missing lengths in rectilinear shapes 7 Calculate perimeter of rectilinear shapes 8 Perimeter of regular polygons 9 Perimeter of polygons	**UNIT 3 Perimeter**	**2:16** Multiplicative contexts: area & perimeter 1
Find the **area** of rectilinear shapes by counting squares		**Autumn 3 Area** 1 What is area? 2 Count squares 3 Make shapes 4 Compare areas		

Geometry				
2-D Shapes				
Compare and classify geometric shapes, including **quadrilaterals and triangles**, based on their properties and sizes	**4G-2** Identify regular polygons, including equilateral triangles and squares, as those in which the side-lengths are equal, and the angles are equal…	**Summer 4** 4 Triangles 5 Quadrilaterals 6 Polygons		
Identify **lines of symmetry** in 2-D shapes presented in different orientations	**4G-3** Identify line symmetry in 2D shapes presented in different orientations…	**Summer 4** 7 Lines of symmetry	**UNIT 10 Symmetry**	
Complete a simple symmetric figure with respect to a specific line of symmetry.	**4G-3** ... Reflect shapes in a line of symmetry and complete a symmetric figure or pattern with respect to a specified line of symmetry	**Summer 4** 8 Complete a symmetric figure		
Angles & Lines				
Identify **acute and obtuse angles** and compare and order angles up to 2 right angles by size		**Summer 4** 1 Understand angles as turns 2 Identify angles 3 Compare and order angles		
Position & Direction				
Describe positions on a 2-D grid as **coordinates** in the first quadrant		**Summer 6** 1 Describe position using coordinates 2 Plot coordinates	**UNIT 7 Coordinates**	
Plot specified points and draw sides to complete a given polygon.	**4G-1** Draw polygons, specified by coordinates in the first quadrant, and translate within the first quadrant	**Summer 6** 3 Draw 2-D shapes on a grid		
Describe movements between positions as **translations** of a given unit to the left/right and up/down		**Summer 6** 4 Translate on a grid 5 Describe translation on a grid		
Statistics				
Present and Interpret				
Interpret and present discrete and continuous data using appropriate graphical methods, including **bar charts and time graphs**		**Summer 5** 1 Interpret charts 3 Interpret line graphs 4 Draw line graphs		
Solve Problems				
Solve comparison, sum and difference problems using information presented in **bar charts, pictograms, tables, and other graphs**.		**Summer 5** 2 Comparison, sum and difference		