Y4 small steps

Year 4			
Number and Place Value			
Vocabulary: Numbers to ten thousand; Roman numerals to one hundred; round, nearest; approximately; negative, minus, count through zero; tenths, hundredths, 0.25, 0.5, 0.75 (digit, integer, ascending, descending)			
Autumn 4-week block			
Step		**NC links**	**Notes:**
1	Represent numbers to 10,000	Recognise the place value of each digit in a 4-digit number(thousands, hundreds, tens and ones) Identify, represent and estimate numbers using different representations	If a recap is needed of numbers to 1,000, consolidate this first.
2	Partition numbers to 10,000 (including flexible partitioning)		
3	Find 1,10,100,1000 more or less	Find 1,000 more or less than a given number	This step will be covered during basic knowledge and arithmetic too.
4	Estimate on a number line to 10,000	Identify, represent and estimate numbers using different representations	
5	Compare and order numbers to 10,000	Order and compare numbers beyond 1,000	
6	Count backwards through 0	Count backwards through zero to include negative numbers	**National Curriculum coverage – not on WRM**
7	Roman numerals	Read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value	
8	Round to the nearest 10	Round any number to the nearest 10, 100 or 1,000	
9	Round to the nearest 100		
10	Round to the nearest 1,000		
11	Application	solve number and practical problems that involve all of the above and with increasingly large positive numbers	

Year 4			
Addition and Subtraction			
Vocabulary: Formal method (Column, column addition and subtraction; regroup; efficient; estimate, bar model, exchange)			
Autumn 3-week block			
Step		**NC links**	**Notes:**
1	Add and subtract 1s, 10s, 100s, and 1000s	Add and subtract numbers with up to four digits using the formal written methods of columnar addition and subtraction where appropriate	
2	Add two 4-digit numbers – one exchange		If adding with no exchange is needed first – add the step in, however there are ooo
3	Add two 4-digit numbers – more than one exchange		

4	Subtract two 4-digit numbers – one exchange		
5	Subtract two 4-digit numbers – more than one exchange		
6	Estimate and check answers	Estimate and use inverse operations to check answers to a calculation	This is two steps on WRM – break down if needed.
7	Application	Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why	
Year 4			
Multiplication and Division			
Vocabulary: Sixes, sevens, nines; produce, product; associative law; commutativity; factor, factor pair; formal method(remainder; divisor, dividend, quotient)			
Autumn 5-week block			
Step		**NC links**	**Notes:**
If needed	(Reason and problem solve using multiplication and division facts up to 12x12	Recall multiplication and division facts for multiplication tables up to 12 × 12 Recognise and use factor pairs and commutativity in mental calculations Recognise and use factor pairs and commutativity in mental calculations	This will be taught daily in Basic knowledge (tables sticks, rekenreks etc) so break this step down as needed for your class. WRM Multiplication and Division A is also covered in weekly arithmetic across the year.
1	Multiply 3 numbers		
2	Identify and use factor pairs		May be broken down into two steps.
3	Multiply by 10 and 100	Multiply and divide whole numbers and those involving decimals by 10, 100 and 1,000 (Y5)	More time can be spent consolidating this in arithmetic sessions too.
4	Divide by 10 and 100		
5	Informal methods of multiplication	Recognise and use factor pairs and commutativity in mental calculations	
6	Multiply a 2-digit number by a 1-digit number	Multiply 2-digit and 3-digit numbers by a 1-digit number using formal written layout	
7	Multiply a 3-digit number by a 1-digit number		
8	Divide a 2-digit number by a 1-digit Number	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	
9	Divide a 3-digit number by a 1-digit Number		
10	Correspondence problems	Solve problems involving multiplying and adding, including using the distributive law to multiply 2-digit numbers by 1 digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects	
11	Application		

Y4 small steps

Year 4			
Fractions			
Vocabulary: Proper fraction, improper fraction, mixed number; hundredths (*numerator, denominator, equivalence, equivalent, unit fraction, non-unit fraction)*			
Spring 4-week block			
Step		**NC links**	**Notes:**
1	Understanding the whole – partition improper fractions and mixed numbers	This small step is not taken from the Year 4 National Curriculum. It is included to take into account the non-statutory DfE Ready to Progress guidance	*Include converting between mixed numbers and improper fractions – can be more than one lesson if needed.
2	Compare and order fractions and mixed numbers		
3	Equivalent fractions	Recognise and show, using diagrams, families of common equivalent Fractions	
4	Add two or more fractions	Add and subtract fractions with the same denominator 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	
5	Add fractions and mixed numbers		
6	Subtract two fractions		
7	Subtract from whole amounts		
8	Subtract from mixed numbers		
9	Application		

Year 4			
Decimals			
Vocabulary: count through zero; tenths, hundredths, 0.25, 0.5, 0.75 (decimal point)			
Spring 5 - week block			
Step		**NC links**	**Notes:**
1	Tenths as decimals and fractions	Recognise and write decimal equivalents of any number of tenths or Hundredths	These steps are taught best at the same time – so pupils clearly make the link between the two.
2	Tenths on a number line and PV chart		This step can be broken down into two if needed.
3	Divide 1 and 2-digit numbers by 10	Find the effect of dividing a 1- or 2-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths	Opportunities to consolidate in arithmetic sessions.
4	Hundredths as fractions and decimals	Count up and down in hundredths; recognise that hundredths arise when dividing an object by 100 and dividing tenths by 10 Recognise and write decimal equivalents of any number of tenths or hundredths Compare numbers with the same number of decimal places up to 2 decimal places	
5	Place value of tenths and hundredths		Including ordering and comparing – break down into separate lessons if needed.
6	Divide a 1 or 2-digit number by 100	Find the effect of dividing a 1- or 2-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths	Opportunities to consolidate in arithmetic sessions.

7	Make a whole with tenths and hundredths	Recognise and write decimal equivalents of any number of tenths or Hundredths	This is two steps on WR – can be broken down or consolidated in arithmetic sessions.
8	Partitioning decimals (including flexible partitioning)		
9	Compare and order decimals		
10	Rounding to the nearest whole number	Round decimals with 1 decimal place to the nearest whole number	
11	Halves and quarters as decimals	Recognise and write decimal equivalents to 1/4, 1/2 and 3/4	
12	Application	Solve simple measure and money problems involving fractions and decimals to 2 decimal places	

Year 4			
Money			
Vocabulary: *(Value, coin, note, amount, total, change, value, pence, pound)*			
Spring 2-week block			
Step		**NC links**	**Notes:**
1	Write money totals using decimals	Estimate, compare and calculate different measures, including money in pounds and pence solve simple measure and money problems involving fractions and decimals to two decimal places	
2	Convert between pounds and pence		
3	Estimate and compare amounts of money		This can be broken down into two steps where needed.
4	Calculate with money		
5	Application		

Year 4			
Time			
Vocabulary: (Leap year; minutes past/to; a.m., p.m.; analogue, digital; twelve-hour /twenty-four- hour clock)			
Summer 2-week block			
Step		**NC links**	**Notes**
1	Years, months, weeks and days	Solve problems involving converting from hours to minutes, minutes to seconds, years to months, weeks to days	
2	Hours, minutes and seconds		
3	Convert between analogue and digital times	Read, write and convert time between analogue and digital 12- and 24-hour clocks	This step may need to be taught over more than one lesson
4	Convert to and from the 24-hour clock		This step may need to be taught over more than one lesson
5	Application		

Y4 small steps

Year 4			
Area, length and perimeter			
Vocabulary: Km; rectilinear; area, square centimetres (mm; perimeter, *distance, metres, length)*			
Summer 3 week block			
Step		**NC links**	**Notes:**
1	Understanding area – counting squares	Find the area of rectilinear shapes by counting squares	
2	Making shapes		
3	Comparing area		
4	Equivalent lengths (Km and m)	Convert between different units of measure [for example, kilometre to metre; hour to minute]	
5	Perimeter of a rectangle	Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres	
6	Perimeter of rectilinear shapes		
7	Find missing lengths and calculate perimeter of rectilinear shapes		Break this steps down as needed and provide opportunities for pupils to measure the perimeter of shapes.
8	Perimeter of polygons		

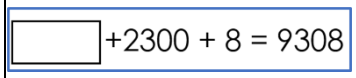
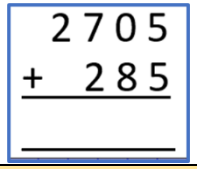
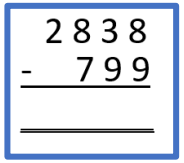
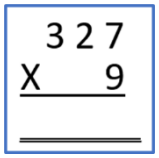
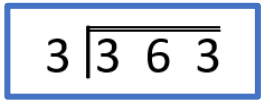
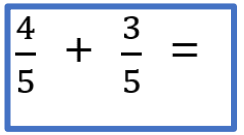
Year 4			
Shape			
Vocabulary: Isosceles, scalene, equilateral; rhombus, parallelogram, trapezium; regular polygon; mirror line, reflect (Parallel, perpendicular; surface; acute angle, obtuse angle, quadrilateral, polygon)			
Summer 2-week block			
Step		**NC links**	**Notes:**
1	Identify angles	Identify acute and obtuse angles and compare and order angles up to two right angles by size	
2	Compare and order angles		
3	Triangles	Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes	
4	Quadrilaterals and polygons		
5	Lines of symmetry	Identify lines of symmetry in 2-D shapes presented in different orientations	
6	Complete a symmetric figure	Complete a simple symmetric figure with respect to a specific line of symmetry	

Y4 small steps

Year 4			
Position and direction			
Vocabulary: Coordinates, translation, first quadrant, x-axis, y-axis.			
Summer 2-week block			
Step		**NC links**	**Notes:**
1	Describe position using coordinates	Describe positions on a 2-D grid as coordinates in the first quadrant	
2	Plot coordinates	Plot specified points and draw sides to complete a given polygon	
3	Draw 2D shapes on a grid		
4	Translate on a grid	Describe movements between positions as translations of a given unit to the left/right and up/down	
5	Describe transition on a grid		

Year 4			
Statistics			
Vocabulary: Continuous data, discrete data; line graph, x-axis, y-axis			
Summer 2-week block			
Step		**NC links**	**Notes:**
1	Interpret charts	Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs	
2	Interpret line graphs		
3	Draw line graphs		
4	Comparison, sum and difference	Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs	

Y4 small steps

Year 4					
Basic Knowledge DELTA progression to MTC and beyond:					
count in multiples of 6, 7, 9, 25 and 1000 recall multiplication and division facts for multiplication tables up to 12 × 12 **non-stat:** Pupils continue to practise recalling and using multiplication tables and related division facts to aid fluency					
DELTA SSA end points:					
Place Value	Addition	Subtraction	Multiplication	Division	Fractions
					
Basic Knowledge and Basic Skills from NC					

Strand		NC links	Notes:
PV	Thousands	Count in multiples of 6, 7, 9, 25 and 1,000	
A&S	Efficient subtraction	Add and subtract numbers with up to four digits using the formal written methods of columnar addition and subtraction where appropriate	Ensure a range of mental and written methods are modelled and discussed during arithmetic sessions
M&D	Multiples of 3	Recall multiplication and division facts for multiplication tables up to 12 × 12 Count in multiples of 6, 7, 9, 25 and 1,000	Daily tables stick sessions – teaching multiplication and division facts to the point of automaticity.
M&D	Multiply and divide by 6		
M&D	Multiply and divide by 9		

Y4 small steps

M&D	The 3, 6 and 9 times tables	Recognise and use factor pairs and commutativity in mental calculations Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers	
M&D	Multiply and divide by 7		
M&D	11 times-table and division facts		
M&D	12 times table and division facts		
M&D	Multiply by 1 and 0		
M&D	Divide a number by 1 and itself		
M&D	Multiply 3 numbers		
M&D	Related facts – multiplication and division	Solve problems involving multiplying and adding, including using the distributive law to multiply 2-digit numbers by 1 digit, integer scaling problems and harder correspondence problems such as n objects are connected to m object	
M&D	Multiply and divide by 10 and 100	Multiply and divide whole numbers and those involving decimals by 10, 100 and 1,000 (Y5)	Ensure this is taught using place value knowledge
M&D	Efficient multiplication	Solve problems involving multiplying and adding, including using the distributive law to multiply 2-digit numbers by 1 digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects	Take care to model mental methods during arithmetic sessions