Year 2. Maths Long term plan. Small step progression 2024 – 2025

Numbers 10 – 100 (NCETM cp unit 1)

National Curriculum	NCETM 'suggested steps'	KPI small step progression
Number – number and place value Pupils should be taught to: • count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward • recognise the place value of each digit in a two-digit number (tens, ones) • identify, represent and estimate numbers using different representations, including the number line • compare and order numbers from 0 up to 100; use and = signs • read and write numbers to at least 100 in numerals and in words • use place value and number facts to solve problems.	Pupils explain that one ten is equivalent to ten ones	To make a multiple of 10
	Pupils represent multiples of ten using their numerals	
	Pupils represent multiples of ten using their numerals and names	
	Pupils represent multiples of ten in an expression or an equation	
	Pupils estimate the position of multiples of ten on a 0-100 number line	To place a multiple of 10 on a number line
	Pupils explain what happens when you add and subtract ten to a multiple of ten	To add and subtract a ten
	Pupils use knowledge of facts and unitising to add and subtract multiples of ten	To add and subtract multiples of 10
	Pupils add and subtract multiples of ten	
	Pupils explore the counting sequence for counting to 100 and beyond	To identify a 2 digit number
	Pupils count a large group of objects by counting groups of tens and the extra ones	
	Pupils count a large group of objects by using knowledge of unitising by counting tens and ones	
	Pupils represent a number from 20-99 in different ways	To make a 2 digit number
		To know 1 more/1 less than a 2 digit number
	Pupils explain and mark the position of numbers 20-99 on a number line	Identify the 2 multiples of ten that a 2 digit lies between Identify numbers on a number line. Estimate numbers on a number line
	Pupils explain that numbers 20-99 can be represented as a length	
	Pupils compare two, two-digit numbers	Compare numbers using language Compare numbers using ≤ ≥ and = signs
	Pupils partition a two-digit number into tens and ones	Partition and recombine a 2 digit number To find a missing part
	Pupils add two, two-digit numbers by partitioning into tens and ones	Use partitioning knowledge to fill in equations

Calculations within 20 (NCETM CP unit 2)

National Curriculum	NCETM 'suggested steps'	KPI small step progression
Pupils should be taught to: solve problems with addition and subtraction: • using concrete objects and pictorial representations, including those involving numbers, quantities and measures • applying their increasing knowledge of mental and written methods • recall and use addition and subtraction facts to 20 fluently, • add and subtract numbers using concrete objects, pictorial representations, and mentally, including: • adding three one-digit numbers • show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot • recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.	Pupils add three addends	Add 3 one digit numbers (under 10)
	Pupils use a 'First… Then… Now" story to add 3 addends	
	Pupils explain that addends can be added in any order	
	Pupils add 3 addends efficiently	
	Pupils add 3 addends efficiently by finding two addends that total 10	Add 3 digits (add to make 10 then add remaining digit)
	Pupils add two numbers that bridge through 10	To add by bridging through 10
	Pupils subtract two numbers that bridge through 10	To subtract by bridging through 10
	Pupils compare numbers and describe how many more or less there are in each set	To compare numbers and describe how many more or less there are in each set
	Pupils calculate the difference	To calculate the difference
	Pupils use knowledge of subtraction to solve problems in a range of contexts	To explain what difference is between consecutive numbers
	Pupils explain what the difference is between consecutive numbers	
	Pupils calculate difference when information is presented in a pictogram	To calculate difference when information is presented in a pictogram and bar chart
	Pupils calculate difference when information is presented in a bar chart	

Fluently add and subtract within 10 (NCETM cp unit 3)

National Curriculum	NCETM 'suggested steps'	KPI small step progression
As above	Pupils demonstrate their fluency of addition and subtraction within ten	
	Pupils practise addition and subtraction strategies as required	

Addition and subtraction of two-digit numbers (1) (NCETM cp unit 4)

National Curriculum	NCETM 'suggested steps'	KPI small step progression
Pupils should be taught to: • solve problems with addition and subtraction: • using concrete objects and pictorial representations, including those involving numbers, quantities and measures • applying their increasing knowledge of mental and written methods • recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 • add and subtract numbers using concrete objects, pictorial representations, and mentally, including: - a two-digit number and ones - a two-digit number and tens • show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot • recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.	Pupils add and subtract one to and from a two-digit number	Covered in place value unit when we did: To know 1 more/1 less than a 2 digit number
	Pupils add and subtract one to and from a two-digit number that crosses a tens boundary	
	Pupils add and subtract one from any two-digit number	
	Pupils use number facts to add a single-digit number to a two-digit number	use number facts to add a single-digit number to a two-digit number
	Pupils use number facts to subtract a single-digit number from a two-digit number	use number facts to subtract a single-digit number to a two-digit number
	Pupils use a part-part-whole model to represent addition and subtraction	To use a part-part-whole model to represent addition and subtraction Using facts to add and subtract
	Pupils use number bonds to ten to add a single-digit number to a two-digit number	Use number bonds to ten to add a single-digit number to a two-digit number
	Pupils use number bonds to ten to subtract a single-digit number from a two-digit number	Use number bonds to ten to subtract a single-digit number from a two-digit number
	Pupils use knowledge of 'make ten' to add a one-digit number to a two-digit number	Use knowledge of 'make ten' to add a single-digit number to a two-digit number
	Pupils use knowledge of 'make ten' to subtract a multiple of ten or a single-digit from a two-digit number	Use knowledge of 'make ten' to subtract a single- digit from a two-digit number
	Pupils solve problems using knowledge of addition and subtraction	
	Pupils find ten more or ten less than a two-digit number (1)	To find ten more or ten less than a two-digit number
	Pupils find ten more or ten less than a two-digit number (2)	
	Pupils add and subtract ten to/from a two-digit number	To add and subtract a ten
	Pupils explain the patterns when adding and subtracting ten	
	Pupils use knowledge of adding and subtracting ten to solve problems	Addition and subtraction Christmas word problems adding and subtracting a ten

	Pupils use number facts to add a multiple of ten to a two-digit number	To use number facts to add a multiple of 10 to a 2 digit number using practical equipment. To use number facts to add a multiple of 10 to a 2 digit number.
	Pupils use number facts to subtract a multiple of ten from a two-digit number	To use number facts to subtract a multiple of 10 from a 2 digit number. To use number facts to subtract a multiple of 10 from a 2 digit number (first using practical equipment).
	Pupils partition a two-digit number into parts in different ways (two and three parts)	To use practical equipment to partition a 2 digit number in different ways (2 parts) To partition a 2 digit number in different ways (2 parts) To use practical equipment to partition a 2 digit number in different ways (3 parts)
	Pupils use knowledge of adding and subtracting multiples of ten to solve problems	Pupils use knowledge of adding and subtracting multiples of ten to solve problems

SHAPE (NCETM CP unit 7)

National Curriculum	NCETM 'suggested steps'	KPI small step progression
Geometry – properties of shapes Pupils should be taught to: • identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line • identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces • identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid] • compare and sort common 2-D and 3-D shapes and everyday objects.	Pupils learn that a polygon is a 2D shape with straight sides that meet at vertices	Identify and describe known 2D shapes Identify and describe hexagon, pentagon and octagon Know 2D shapes and their properties.
	Pupils describe polygons and find different ways to sort them	To understand line of symmetry Use lines of symmetry to complete shape Sort 2D shape
	Pupils learn that polygons can be sorted and named according to the number of sides and vertices	
	Pupils discuss, and compare by direct comparison, the shape and size of polygons	
	Pupils discuss, and compare by direct comparison, the vertices of polygons	
	Pupils investigate how polygons can be joined and folded to form 3-dimensional shapes	To explore faces of 3D shapes
	Pupils describe 3-dimensional shapes and find different ways to sort them	To count vertices and edges on 3D shapes.
	Pupils discuss, and compare by direct comparison, the shape and size of 3-dimensional shapes	Answer applying and reasoning questions about 3D shapes Sort 3D shape

Introduction to multiplication (NCETM cp unit 5)

National Curriculum	NCETM 'suggested steps'	KPI small step progression
Pupils should be taught to: • recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers • calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs • show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot • solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.	Pupils explain that objects can be grouped in different ways	Equal and unequal groups
	Pupils describe how objects have been grouped	
	Pupils represent equal groups as repeated addition	Add equal groups – repeated addition
	Pupils represent equal groups as repeated addition and multiplication	
	Pupils represent equal groups as multiplication	The multiplication sign
	Pupils explain and represent multiplication when a group contains zero or one items	To work out multiplication with jottings To work out multiplication mentally To understand arrays
	Pupils identify and explain each part of a multiplication equation	
	Pupils use knowledge of multiplication to calculate the product	
	Pupils represent the two times table in different ways	
	Pupils use knowledge of the two times table to solve problems	
	Pupils explain the relationship between adjacent multiples of two	
	Pupils explain that factor pairs can be written in any order	
	Pupils represent counting in tens as the ten times table	
	Pupils represent the ten times table in different ways	
	Pupils explain the relationship between adjacent multiples of ten	
	Pupils represent counting in fives as the five times table	
	Pupils represent the five times table in different ways	
	Pupils explain the relationship between adjacent multiples of five	
	Pupils explain how groups of five and ten are related	
	Pupils explain the relationship between multiples of five and ten	
	Pupils use knowledge of the relationships between the five and ten times tables to solve problems	
	Pupils explain how a factor of zero or one affect the product	

	Pupils represent multiplication equations in different ways	
	Pupils use knowledge of the two, five and ten times tables to solve problems (1)	Use knowledge of 2s 5s and 10s to solve problem
	Pupils use knowledge of the two, five and ten times tables to solve problems (2)	
	Pupils explain what each factor represents in a multiplication story	
	Pupils explain what each factor represents in a multiplication story when one of the factors is one	
	Pupils explain how a multiplication equation with two as a factor is related to doubling	
	Pupils double two-digit numbers	
	Pupils multiply efficiently when one of the factors is two	
	Pupils explain how halving and doubling are related	
	Pupils explain the relationship between factors and products	
	Pupils halve two-digit numbers	
	Pupils use knowledge of doubling, halving and the two times table to solve problems	

Introduction to division structures (NCETM CP unit 6)

National Curriculum	NCETM 'suggested steps'	KPI small step progression
	Pupils explain that objects can be grouped equally	Make equal groups -grouping
Pupils should be taught to: • recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers • calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs • show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot • solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.	Pupils identify and explain when objects cannot be grouped equally	
	Pupils explain the relationship between division expressions and division stories	
	Pupils calculate the number of equal groups in a division story	Groupings using division symbol
	Pupils use their knowledge of skip counting and division to solve problems relating to measure	
	Pupils skip count using the divisor to find the quotient	
	Pupils use their knowledge of division to solve problems	
	Pupils explain that objects can be shared equally	Sharing equally Solve division by jottings
	Pupils use skip counting to solve a sharing problem	Solve division mentally
	Pupils skip count using the divisor to find the quotient	
	Pupils solve a variety of division problems, explaining their understanding	Apply and reason for division

Addition and subtraction of 2 digit numbers (2) (NCETM CP unit 8)

	NCTEM 'suggested steps'	KPI small step progression
Pupils should be taught to: • solve problems with addition and subtraction: • using concrete objects and pictorial representations, including those involving numbers, quantities and measures • applying their increasing knowledge of mental and written methods • recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 • add and subtract numbers using concrete objects, pictorial representations, and mentally, including: - two two-digit numbers - recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.	Pupils explain strategies used to add	
	Pupils add a two-digit number to a two-digit number	Pupils add a two-digit number to a two-digit number
	Pupils add a two-digit number to a two-digit number when not crossing ten (i)	Pupils add a two-digit number to a two-digit number when not crossing ten (i)
	Pupils add a two-digit number to a two-digit number when not crossing ten (ii)	Pupils add a two-digit number to a two-digit number when not crossing ten (ii)
	Pupils add a two-digit number to a two-digit number when crossing ten	Pupils add a two-digit number to a two-digit number when crossing ten
	Pupils explain strategies used to subtract	To subtract a 2 digit number from a 2 digit number (not crossing) using dienes. *(Subtrahend presented as tens and then separate ones)* To subtract a 2 digit number from a 2 digit number (not crossing) pictorial To subtract a 2 digit number from a 2 digit number (not crossing) *(Subtrahend presented as tens and ones together)* To subtract a 2 digit number from a 2 digit number in different contexts then word problems (not crossing)
	Pupils subtract a two-digit number from a two-digit number	
	Pupils partition the subtrahend to help with subtraction	
	Pupils subtract a two-digit number from a two-digit number when not crossing ten (i)	
	Pupils subtract a two-digit number from a two-digit number when not crossing ten (ii)	
	Pupils subtract a two-digit number from a two-digit number when crossing ten	To subtract a 2 digit number from a multiple of 10 number. L.I. To subtract a 2 digit number from a 2 digit number (crossing the 10) To solve word problems that involve subtracting a 2 digit number from a 2 digit number (crossing the 10)
	Pupils subtract efficiently using knowledge of two-digit numbers	Consecutive 2 digit numbers Equal subtrahends To solve a variety of subtraction problems.

Fractions (NCETM CP unit 10)

National Curriculum	NCETM 'suggested steps'	KPI small step progression
Fractions Pupils should be taught to: • recognise, find, name and write fractions 1/3, ¼, 2/4, and ¾ of a length, shape, set of objects or quantity • write simple fractions for example, ½ of 6 = 3 and recognise the equivalence of 2/4 and 1/3 .	Pupils identify whether something has or has not been split into equal parts	Name a fraction as one half
	Pupils name the fraction 'one-half' in relation to a fraction of a length, shape or set of objects	
	Pupils name the fraction 'one-quarter' in relation to a fraction of a length, shape or set of objects	Name a fraction as 1 quarter and 1 third
	Pupils name the fraction 'one-third' in relation to a fraction of a length, shape or set of objects	
	Pupils read and write the fraction notation ½, ⅓ and ¼ and relate this to a fraction of a length, shape or set of objects	Read and write fraction notation
	Pupils find half of numbers	Find ½ of numbers
	Pupils find ⅓ or ¼ of a number	Find ¼ of a number Finding ½ and ¼ of numbers
	Pupils find ¼ and ¾ of an object, shape, set of objects, length or quantity	Find 2/4 and ¾ of a shape Find 2/4 and ¾ of a quantity
	Pupils recognise the equivalence of 2/4 and ½	Recognise equivalence of 2/4 and 1/2

Money (cp unit 9 but no CP unit) White Rose

National Curriculum	NCETM 'suggested steps'	KPI small step progression
Money Pupils should be taught to: • recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value • find different combinations of coins that equal the same amounts of money • solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change.		Understand value of different coins.
		Counting money (pence)
		Counting money (pound)
		Count pounds and pence
		Choose coins and notes to make an amount
		Make the same amount in different ways
		Compare money
		Calculating with money – adding
		Calculating with money – how much more.
		Make a pound
		Finding change

Time (cp unit 11 but no CP unit) White Rose and Oak academy

National Curriculum	NCETM 'suggested steps'	KPI small step progression
Pupils should be taught to • compare and sequence intervals of time • tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times • know the number of minutes in an hour and the number of hours in a day.		Reading o'clock and half past (Autumn 1 term) Writing o'clock and half past
		Quarter past and quarter to (Autumn 2 term) Writing Quarter past and quarter to (Spring 1 term)
		Tell the time past the hour (Main lesson) Tell the time to the hour (Main lesson)
		Tell the time to 5 minutes (Main lesson)
		Using Oak academy objectives. Compare intervals of time Order sequence of time

Position and Direction (cp unit 12)

National Curriculum	NCETM 'suggested steps'	KPI small step progression
Shape – position and direction Pupils should be taught to: • order and arrange combinations of mathematical objects in patterns and sequences • use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anticlockwise).		Using Oak academy objectives, planning and resources: use mathematical vocabulary such as left, right, above, below and between to describe position. use mathematical vocabulary such as forwards, backwards, left and right to describe movement. describe turns as a quarter, half, three-quarter or full turn. Give and follow directions involving movements to the left and right, forwards and backwards and turning clockwise and anticlockwise. order and arrange objects in patterns and I can talk about the patterns I have made.

Sense of Measure – Capacity, Volume and Mass (cp unit 14)

National Curriculum	NCETM 'suggested steps'	KPI small step progression
Measure – length, mass and volume Pupils should be taught to: • choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels • compare and order lengths, mass, volume/capacity and record the results using >, < and =		Using Oak academy objectives, planning and resources: measure length in any direction to give height, length and distance. measure length in any direction to give height, length and distance. describe the size of a metre and a centimetre, and choose which unit might be best to measure different lengths. read scales in metres and centimetres. compare and order lengths. describe the mass of a kilogram and a gram, and choose which unit might be best to measure different masses. compare and order measurements of mass. describe the volume of a litre and a millilitre, and choose which unit might be best to measure different capacities and volumes. compare and order measurements of volume and capacity. explain what temperature means and read scales in the context of temperature.

Statistics

National Curriculum	NCETM 'suggested steps'	KPI small step progression
Pupils should be taught to: • interpret and construct simple pictograms, tally charts, block diagrams and simple tables • ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity • ask and answer questions about totalling and comparing categorical data		COVERED IN FIND THE DIFFERENCE LESSONS