Kingsland CE Primary School

Maths Curriculum Year 2

Yearly overview

The yearly overview provides suggested timings for each block of learning, which can be adapted to suit different term dates or other requirements.

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number **Place value**				Number **Addition and subtraction**					Geometry **Shape**		
Spring	Measurement **Money**				Number **Multiplication and division**				Measurement **Length and height**	Measurement **Mass, capacity and temperature**		
Summer	Number **Fractions**				Measurement **Time**			**Statistics**	Geometry **Position and direction**		Consolidation	

Autumn Term Weeks 1 – 4

Place value

Y2 Autumn Term Scheme of Learning.pdf

NCETM links	National Curriculum	National Curriculum non-statutory guidance	NRich Problem Solving	Ready to Progress
Refer back to Y1 Place Value learning: Composition of numbers: 20–100 | NCETM **1.9 Composition of numbers: 20–100** Build on multiples of ten, by introducing non-zero values in the ones place; apply the partitioning structure to these two-digit numbers, decomposing them into tens and ones. • **Teaching point 1**: There is a set counting sequence for counting to 100 and beyond. • **Teaching point 2**: Objects can be counted efficiently by making groups of ten. The digits in the numbers 20–99 tell us about their value. • **Teaching point 3**: Each number on the 0–100 number line has a unique position. • **Teaching point 4**: The relative size of two two-digit numbers can be determined by first examining the tens digits and then, if necessary, examining the ones digits, with reference to the cardinal or ordinal value of the numbers. • **Teaching point 5**: Each two-digit number can be partitioned into a tens part and a ones part. • **Teaching point 6**: The tens and ones structure of two-digit numbers can be used to support additive calculation.	Read and write numbers from 1 to 20 in numerals and words (Y1) Read and write numbers to at least 100 in numerals and in words 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 Use place value and number facts to solve problems Count in steps of 2, 3 and 5 from 0, and in 10s from any number, forward and backward Compare and order numbers from 0 up to 100; use < > and = signs	Using materials and a range of representations, pupils practise counting, reading, writing and comparing numbers to at least 100 and solving a variety of related problems to develop fluency. They count in multiples of three to support their later understanding of a third. As they become more confident with numbers up to 100, pupils are introduced to larger numbers to develop further their recognition of patterns within the number system and represent them in different ways, including spatial representations. Pupils should partition numbers in different ways (for example, 23 = 20 + 3 and 23 = 10 + 13) to support subtraction. They become fluent and apply their knowledge of numbers to reason with, discuss and solve problems that emphasise the value of each digit in two-digit numbers. They begin to understand zero as a place holder.	Same Length Trains	2NPV–1 Recognise the place value of each digit in two-digit numbers, and compose and decompose two-digit numbers using standard and non standard partitioning. 2NPV–2 Reason about the location of any two digit number in the linear number system, including identifying the previous and next multiple of 10.
Counting, unitising and coins | NCETM **2.1 Counting, unitising and coins:** Explore the concept of unitising by counting in units of two, five or ten; investigate how objects can be counted efficiently by counting in units other than one; apply unitising in the context of the low-denomination coins (1 p, 2 p, 5 p and 10 p).			Lots of Biscuits! Share Bears Doubling Fives	

• **Teaching point 1**: We can count efficiently by counting in groups of two. • **Teaching point 2**: We can count efficiently by counting in groups of ten. • **Teaching point 3**: We can count efficiently by counting in groups of five. • **Teaching point 4**: A coin has a value which is independent of its size, shape, colour or mass. • **Teaching point 5**: The *number* of coins in a set is different from the *value* of the coins in a set; knowledge of counting in groups of two, five or ten can be used to work out the value of a set of identical low-denomination coins. • **Teaching point 6**: Knowledge of counting in groups of two, five or ten can be used to work out how many identical low-denomination coins are needed to make a given value.				

Autumn Term Weeks 5 – 9 (*flexible timings)

Addition and Subtraction

Y2 Autumn Term Scheme of Learning.pdf

NCETM links	National Curriculum	National Curriculum non-statutory guidance	NRich Problem Solving	Ready to Progress
Addition and subtraction: bridging 10 | NCETM **1.11 Addition & subtraction: bridging 10** Apply the aggregation and augmentation structures of addition to three single-digit numbers, exploring commutativity and associativity, to work towards strategies for adding and subtracting across ten. • **Teaching point 1**: Addition of three addends can be described by an aggregation story with three parts. • **Teaching point 2**: Addition of three addends can be described by an augmentation story with a ***'first..., then..., then..., now...'*** structure.	Represent and use number bonds and related subtraction facts within 20 (Y1) 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 2-digit number and	Pupils extend their understanding of the language of addition and subtraction to include sum and difference. Pupils practise addition and subtraction to 20 to become increasingly fluent in deriving facts such as using 3 + 7 = 10; 10 – 7 = 3 and 7 = 10 – 3 to calculate 30 + 70 = 100; 100 – 70 = 30 and 70 = 100 – 30. They check their	Buzzy Bee Buzzy Bee Five Steps to 50 6 Beads Two-digit targets Snail One Hundred	2NF–1 Secure fluency in addition and subtraction facts within 10, through continued practice. 2AS–1

• **Teaching point 3**: The order in which addends (parts) are added or grouped does not change the sum (associative and commutative laws). • **Teaching point 4**: When we are adding three numbers, we choose the most efficient order in which to add them, including identifying two addends that make ten (combining). • **Teaching point 5**: We can add two numbers which bridge the tens boundary by using a 'make ten' strategy. • **Teaching point 6**: We can subtract across the tens boundary by subtracting *through* ten or subtracting *from* ten.	1s, a 2-digit number and 10s, two 2-digit numbers and adding three 1-digit numbers Compare and order numbers from 0 up to 100; use < > and = signs 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 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.	calculations, including by adding to check subtraction and adding numbers in a different order to check addition (for example, 5 + 2 + 1 = 1 + 5 + 2 = 1 + 2 + 5). This establishes commutativity and associativity of addition. Recording addition and subtraction in columns supports place value and prepares for formal written methods with larger numbers. Pupils should partition numbers in different ways (for example, 23 = 20 + 3 and 23 = 10 + 13) to support subtraction. They become fluent and apply their knowledge of numbers to reason with, discuss and solve problems that emphasise the value of each digit in two-digit numbers. They begin to understand zero as a place holder. Pupils extend their understanding of the language of addition and subtraction to include sum and difference. Recording addition and subtraction in columns supports place value and prepares for formal written methods with larger numbers.	Digit Addition Next Domino That number square 100 Square Jigsaw How Many? How would we count? Count the Crayons Tug of War Round the Two Dice Round the Two Dice I Like … Light the Lights Largest Even	Add and subtract across 10. 2AS–2 Recognise the subtraction structure of 'difference' and answer questions of the form, "How many more…?". 2AS–3 Add and subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract only ones or only tens to/from a two digit number.

Subtraction as difference | NCETM **1.12 Subtraction as difference** Introduce children to subtraction as difference, the third and final subtraction structure; review consecutive numbers, as well as consecutive odd/even numbers, in the context of difference. • **Teaching point 1**: Difference compares the number of objects in one set with the number of objects in another set; or the difference between two measures. • **Teaching point 2**: Difference is one of the structures of subtraction. • **Teaching point 3**: Consecutive whole numbers have a difference of one; consecutive odd/even numbers have a difference of two. • **Teaching point 4**: We can apply the structure of difference to compare data.				
Addition and subtraction: two-digit and single-digit numbers | NCETM **1.13 Addition and subtraction: two-digit and single-digit numbers** Build on segments 1.8, 1.9 and 1.10 to equip children with useful strategies for addition and subtraction of a single-digit number to/from two-digit numbers. • **Teaching point 1**: Knowledge of the number line, and quantity values of numbers, can be applied to add/subtract one to/from a given two-digit number. • **Teaching point 2**: Known facts for the numbers *within* ten can be applied to addition/subtraction of a single-digit number to/from a two-digit number. • **Teaching point 3**: Knowledge of numbers which sum to ten can be applied to the addition of a single-digit number and two-digit number that sum to a multiple of ten, or subtraction of a single-digit number from a multiple of ten. • **Teaching point 4**: Known strategies for addition or subtraction bridging ten can be applied to addition or subtraction bridging a multiple of ten	Represent and use number bonds and related subtraction facts within 20 (Y1) 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 2-digit number and 1s, a 2-digit number and 10s, two 2-digit numbers and adding three 1-digit numbers Compare and order numbers from 0 up to 100; use < > and = signs Solve problems with addition and subtraction: using concrete	Pupils extend their understanding of the language of addition and subtraction to include sum and difference. Pupils practise addition and subtraction to 20 to become increasingly fluent in deriving facts such as using 3 + 7 = 10; 10 – 7 = 3 and 7 = 10 – 3 to calculate 30 + 70 = 100; 100 – 70 = 30 and 70 = 100 – 30. They check their calculations, including by adding to check subtraction and adding numbers in a different order to check addition (for example, 5 + 2 + 1 = 1 + 5 + 2 = 1 + 2 + 5). This establishes commutativity and associativity of addition. Recording addition and subtraction in columns supports	Number Round Up Strike it Out How Many? Secret Number The add and take-away path What was in the Box? Doing and undoing	2AS–2 Recognise the subtraction structure of 'difference' and answer questions of the form, "How many more…?". 2AS–3 Add and subtract within 100 by applying related one-digit addition and subtraction facts: add and

Addition and subtraction: two-digit numbers and multiples of ten | NCETM **1.14 Addition and subtraction: two-digit numbers and multiples of ten** Explore counting on, and back, in ten from any two-digit number; apply number facts within ten to the addition and subtraction of multiples of ten. • **Teaching point 1**: When finding ten more or ten less than any two-digit number, the ones digit does not change. • **Teaching point 2**: When ten is added or subtracted to/from a two-digit number, the tens digit changes and the ones digit stays the same. • **Teaching point 3**: Knowledge of number facts within ten can be applied to adding or subtracting multiples of ten to/from a two-digit number. • **Teaching point 4**: Two-digit numbers can be partitioned in different ways.	objects and pictorial representations, including those involving numbers, quantities and measures; applying their increasing knowledge of mental and written methods 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.	place value and prepares for formal written methods with larger numbers. Pupils should partition numbers in different ways (for example, 23 = 20 + 3 and 23 = 10 + 13) to support subtraction. They become fluent and apply their knowledge of numbers to reason with, discuss and solve problems that emphasise the value of each digit in two-digit numbers. They begin to understand zero as a place holder. Pupils extend their understanding of the language of addition and subtraction to include sum and difference. Recording addition and subtraction in columns supports place value and prepares for formal written methods with larger numbers.	Jumping squares Unit Differences Dicey Addition Arranging Additions and Sorting Subtractions Subtraction Slip	subtract only ones or only tens to/from a two digit number. 2AS–4 Add and subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract any 2 two digit numbers.
It is suggested that there is a gap in the numbers teaching of Spine 1 after adding and subtracting to digit numbers, and two digit numbers and multiples of 10 (segments 1.13 and 1.14), to allow consolidation of the skills and a bridging 10 (1.11) outside of the main, before more complex additive calculations are considered in segment 1.15 onwards.				

Addition: two-digit and two-digit numbers | NCETM **1.15 Addition: two-digit and two-digit numbers** Build on segments 1.13 and 1.14 to equip children with useful strategies for addition of two or more two-digit numbers, partitioning two-digit numbers into tens and ones before calculation. • **Teaching point 1**: Known strategies can be combined to add two multiples of ten to two single-digit numbers. • **Teaching point 2**: Two two-digit numbers can be added by partitioning one or both of them into tens and ones. **Subtraction: two-digit and two-digit numbers | NCETM** **1.16 Subtraction: two-digit and two-digit numbers** Build on segments 1.13 and 1.14 to equip children with useful strategies for subtraction of one two-digit number from another, partitioning two-digit numbers into tens and ones before calculation. • **Teaching point 1**: Known strategies can be used to subtract a multiple of ten and a single-digit number from a two-digit number. • **Teaching point 2**: A two-digit number can be subtracted from a two-digit number by partitioning the subtrahend into tens and ones.	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 Read and write numbers to at least 100 in numerals and in words Use place value and number facts to solve problems 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.	As they become more confident with numbers up to 100, pupils are introduced to larger numbers to develop further their recognition of patterns within the number system and represent them in different ways, including spatial representations.	Birthday Cakes The Brown family Eggs in Baskets What's in a Name? Cuisenaire Counting Sitting round the party tables Half Time Two Spinners Heads and Feet Noah	2AS–3 Add and subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract only ones or only tens to/from a two digit number. 2AS–4 Add and subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract any 2 two digit numbers.

Autumn Term Weeks 10 – 12				
Geometry – Shape **Y2 Autumn Term Scheme of Learning.pdf**				
NCETM links	**National Curriculum**	**National Curriculum non-statutory guidance**	**NRich Problem Solving**	**Ready to Progress**
N/A	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 handle and name a wide variety of common 2-D and 3-D shapes including: quadrilaterals and polygons, and cuboids, prisms and cones, and identify the properties of each shape (for example, number of sides, number of faces). Pupils identify, compare and sort shapes on the basis of their properties and use vocabulary precisely, such as sides, edges, vertices and faces. Pupils read and write names for shapes that are appropriate for their word reading and spelling. Pupils draw lines and shapes using a straight edge.	Shapely Lines Poly Plug Rectangles Let's Investigate Triangles Colouring Triangles Chain of Changes Complete the Square Inside Triangles Exploded Squares Triangle or No Triangle?	2G–1 Use precise language to describe the properties of 2D and 3D shapes, and compare shapes by reasoning about similarities and differences in properties.

End of term assessment

Spring Term Weeks 1 – 2				
Money **Y2 Spring Term Scheme of Learning.pdf**				
NCETM links	**National Curriculum**	**National Curriculum non-statutory guidance**	**NRich Problem Solving**	**Ready to Progress**
N/A	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	Pupils become fluent in counting and recognising coins. They read and say amounts of money confidently and use the symbols £ and p accurately, recording pounds and pence separately.	Five Coins The Puzzling Sweet Shop Fruity Pairs	

Spring Term Weeks 3 – 7				
Multiplication and Division **Y2 Spring Term Scheme of Learning.pdf**				
NCETM links	**National Curriculum**	**National Curriculum non-statutory guidance**	**NRich Problem Solving**	**Ready to Progress**
As required, refer back to … Y1 unit … **Counting, unitising and coins | NCETM** **2.1 Counting, unitising and coins:** Explore the concept of unitising by counting in units of two, five or ten; investigate how objects can be counted efficiently by counting in units other than one; apply unitising in the context of the low-denomination coins (1 p, 2 p, 5 p and 10 p). • **Teaching point 1**: We can count efficiently by counting in groups of two. • **Teaching point 2**: We can count efficiently by counting in groups of ten. • **Teaching point 3**: We can count efficiently by counting in groups of five. • **Teaching point 4**: A coin has a value which is independent of its size, shape, colour or mass. • **Teaching point 5**: The *number* of coins in a set is different from the *value* of the coins in a set; knowledge of counting in groups of two, five or ten can be used to work out the value of a set of identical low-denomination coins. • **Teaching point 6**: Knowledge of counting in groups of two, five or ten can be used to work out how many identical low-denomination coins are needed to make a given value.	Recognise and know the value of different denominations of coins and notes	N/A	Lots of Biscuits! Share Bears Doubling Fives	

Structures: multiplication representing equal groups | NCETM **2.2 Structures: multiplication representing equal groups** Explore how objects can be arranged in equal groups, and how the number of groups and the size of the groups can be described; represent equally grouped objects with addition and multiplication expressions, connecting multiplication to repeated addition. • **Teaching point 1**: Objects can be grouped into equal or unequal groups. • **Teaching point 2**: When describing equally grouped objects, the number of groups and the size of the groups must both be defined. • **Teaching point 3**: Equal groups can be represented with a repeated addition expression. • **Teaching point 4**: Equal groups can be represented with a multiplication expression. • **Teaching point 5**: Multiplication expressions can be written for cases where the groups each contain zero items, and for cases where the groups each contain one item.	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 use a variety of language to describe multiplication and division. Pupils are introduced to the multiplication tables. They practise to become fluent in the 2, 5 and 10 multiplication tables and connect them to each other. They connect the 10 multiplication table to place value, and the 5 multiplication table to the divisions on the clock face. They begin to use other multiplication tables and recall multiplication facts, including using related division facts to perform written and mental calculations. Pupils work with a range of materials and contexts in which multiplication and division relate to grouping and sharing discrete and continuous quantities, to arrays and to repeated addition. They begin to relate these to fractions and measures (for example, 40 ÷ 2 = 20, 20 is a half of 40). They use commutativity and inverse relations to develop multiplicative reasoning (for example, 4 × 5 = 20 and 20 ÷ 5 = 4).	Double or Halve? Ring a Ring of Numbers Make 37 Number Detective Clapping Times Even and odd How Odd Pairs of legs Two numbers under the microscope Odd times Even Tables Teaser More Numbers in the Ring Always, Sometimes or Never?	2MD–1 Recognise repeated addition contexts, representing them with multiplication equations and calculating the product, within the 2, 5 and 10 multiplication tables. 2MD–2 Relate grouping problems where the number of groups is unknown to multiplication equations with a missing factor, and to division equations (quotitive division).

Times tables: groups of 2 and commutativity (part 1) | NCETM **2.3 Times tables: groups of 2 and commutativity (part 1)** Build up the two times table by combining children's experience of counting in units of two and of representing equal groups; explore how, in a multiplication equation, the factors can appear in either order and the product remains the same. • **Teaching point 1**: For equally grouped objects, the number of groups is a factor, the group size is a factor, and the overall number of objects is the product; this can be represented with a multiplication equation. Counting in multiples of two can be used to find the product when the group size is two. • **Teaching point 2**: Counting in multiples of two can be represented by the two times table. Adjacent multiples of two have a difference of two. Facts from the two times table can be used to solve problems about groups of two. • **Teaching point 3**: Factor pairs can be written in either order, with the product remaining the same (commutativity)	Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward 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 use a variety of language to describe multiplication and division. Pupils are introduced to the multiplication tables. They practise to become fluent in the 2, 5 and 10 multiplication tables and connect them to each other. They connect the 10 multiplication table to place value, and the 5 multiplication table to the divisions on the clock face. They begin to use other multiplication tables and recall multiplication facts, including using related division facts to perform written and mental calculations.	I'm Eight How Many? Secret Number The add and take-away path What was in the Box? Doing and undoing	2MD–1 Recognise repeated addition contexts, representing them with multiplication equations and calculating the product, within the 2, 5 and 10 multiplication tables. 2MD–2 Relate grouping problems where the number of groups is unknown to multiplication equations with a missing factor, and to division equations (quotitive division).
Times tables: groups of 10 and of 5, and factors of 0 and 1 | NCETM **2.4 Times tables: groups of 10 and of 5, and factors of 0 and 1** Build up the ten and five times tables, combining children's experience of counting in units of five or ten and of representing equal groups; explore patterns in the ten and five times tables, and generalise about the product when one factor is zero or one.	Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication	Using materials and a range of representations, pupils practise counting, reading, writing and comparing numbers to at least 100 and solving a variety of related problems to develop fluency. They count in multiples of three to support their later understanding of a third.	Are you well Balanced? Magic Plant	2MD–1 Recognise repeated addition contexts, representing them with multiplication equations and calculating the

• **Teaching point 1**: Counting in multiples of ten can be represented by the ten times table. Adjacent multiples of ten have a difference of ten. Facts from the ten times table can be used to solve problems about groups of ten. • **Teaching point 2**: Counting in multiples of five can be represented by the five times table. Adjacent multiples of five have a difference of five. Facts from the five times table can be used to solve problems about groups of five. • **Teaching point 3**: Skip counting and grouping can be used to explore the relationship between the five times table and the ten times table. • **Teaching point 4**: When zero is a factor, the product is zero. When one is a factor, the product is equal to the other factor (if there are only two factors).	(×), 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 use a variety of language to describe multiplication and division. Pupils are introduced to the multiplication tables. They practise to become fluent in the 2, 5 and 10 multiplication tables and connect them to each other. They connect the 10 multiplication table to place value, and the 5 multiplication table to the divisions on the clock face. They begin to use other multiplication tables and recall multiplication facts, including using related division facts to perform written and mental calculations.	The Amazing Splitting Plant Catrina's Cards The tomato and the bean Lots of Lollies Growing Garlic Our Numbers Ip Dip Birthday Sharing	product, within the 2, 5 and 10 multiplication tables. 2MD–2 Relate grouping problems where the number of groups is unknown to multiplication equations with a missing factor, and to division equations (quotitive division).
Commutativity (part 2), doubling and halving | NCETM **2.5 Commutativity (part two), doubling and halving** Explore how one multiplication equation can have two different grouping interpretations (e.g., an equation from the two times table can be interpreted in terms of groups of two, or two equal groups); make connections between the two times table, doubling and halving. • **Teaching point 1**: The same multiplication equation can have two different grouping interpretations. Problems about two/five/ten equal groups can be solved using facts from the two/five/ten times table. (commutativity) • **Teaching point 2**: If two is a factor, knowledge of doubling facts can be used to find the product; problems about doubling can be solved using facts from the two times table. • **Teaching point 3**: Halving is the inverse of doubling; problems about halving can be solved using facts from the two times table and known doubling facts. • **Teaching point 4**: Products in the ten times table are double the products in the five times table; products in the five times table are half of the products in the ten times table.	Identify, represent and estimate numbers using different representations, including the number line Read and write numbers to at least 100 in numerals and in words Use place value and number facts to solve problems 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	Pupils work with a range of materials and contexts in which multiplication and division relate to grouping and sharing discrete and continuous quantities, to arrays and to repeated addition. They begin to relate these to fractions and measures (for example, 40 ÷ 2 = 20, 20 is a half of 40). They use commutativity and inverse relations to develop multiplicative reasoning (for example, 4 × 5 = 20 and 20 ÷ 5 = 4).		

	check calculations and solve missing number problems. 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.			
Structures: quotitive and partitive division | NCETM **2.6 Structures: quotitive and partitive division** Introduce the quotitive and partitive structures of division; skip count using the divisor, or use known multiplication facts, to find the quotient; generalise about the quotient when dividend = 0, dividend = divisor, or divisor = 1 • **Teaching point 1:** Objects can be grouped equally, sometimes with a remainder. • **Teaching point 2:** Division equations can be used to represent 'grouping' problems, where the total quantity (dividend) and the group size (divisor) are known; the number of groups (quotient) can be calculated by skip counting in the divisor. (quotitive division)	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	Pupils work with a range of materials and contexts in which multiplication and division relate to grouping and sharing discrete and continuous quantities, to arrays and to repeated addition. They begin to relate these to fractions and measures (for example, 40 ÷ 2 = 20, 20 is a half of 40). They use commutativity and inverse relations to develop multiplicative reasoning (for example, 4 × 5 = 20 and 20 ÷ 5 = 4).		

• **Teaching point 3:** Division equations can be used to represent 'sharing' problems, where the total quantity (dividend) and the number we are sharing between (divisor) are known; the size of the shares (quotient) can be calculated by skip counting in the divisor. (partitive division) • **Teaching point 4:** Strategies for finding the quotient, that are more efficient than skip counting, include using known multiplication facts and, when the divisor is two, using known halving facts. • **Teaching point 5:** When the dividend is zero, the quotient is zero; when the dividend is equal to the divisor, the quotient is one; when the divisor is equal to one, the quotient is equal to the dividend.	Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.			

Spring Term Weeks 8 – 9				
Measurement – Length and Height **Y2 Spring Term Scheme of Learning.pdf**				
NCETM links	**National Curriculum**	**National Curriculum non-statutory guidance**	**NRich Problem Solving**	**Ready to Progress**
N/A	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 =	Pupils use standard units of measurement with increasing accuracy, using their knowledge of the number system. They use the appropriate language and record using standard abbreviations. Comparing measures includes simple multiples such as 'half as high'; 'twice as wide'.	Making Longer, Making Shorter Order, Order! Compare the Cups Little Man Car Journey	

Spring Term Weeks 10 – 12				
Measurement – Mass, Capacity and Temperature **Y2 Spring Term Scheme of Learning.pdf**				
NCETM links	**National Curriculum**	**National Curriculum non-statutory guidance**	**NRich Problem Solving**	**Ready to Progress**
N/A	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 =	Pupils use standard units of measurement with increasing accuracy, using their knowledge of the number system. They use the appropriate language and record using standard abbreviations. Comparing measures includes simple multiples such as 'half as high'; 'twice as wide'.		

End of term assessment

Summer Term Weeks 1 – 3

Fractions

Y2 Summer Term Scheme of Learning.pdf

NCETM links	National Curriculum	National Curriculum non-statutory guidance	NRich Problem Solving	Ready to Progress
Guidance on the teaching of fractions in Key Stage 1 | NCETM **3.0 Guidance on the teaching of fractions in Key Stage 1** Cover the Key Stage 1 statutory requirements for fractions, including recognising, finding, naming and writing one-quarter, one-third, one-half/two-quarters, and three-quarters of an object, shape or quantity. Suggested teaching progression: **1**: Name the fractions 'one-half', 'one-quarter' and 'one-third' in relation to a fraction of a length, shape or set of objects. **2**: Read and write the fraction notation $\frac{1}{2}$, $\frac{1}{3}$ and $\frac{1}{4}$, and relate this to a fraction of a length, shape or set of objects. **3**: Find half of numbers. **4**: Find $\frac{1}{3}$ or $\frac{1}{4}$ of a number. **5**: Find $\frac{2}{4}$ and $\frac{3}{4}$ of an object, shape, set of objects, length or quantity; recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$.	Recognise, find, name and write fractions 1/3, 1/4, 2/4 and 3/4 of a length, shape, set of objects or quantity Write simple fractions for example, 1/2 of 6 = 3 and recognise the equivalence of 2/4 and 1/2. Identify, represent and estimate numbers using different representations, including the number line Compare and order numbers from 0 up to 100; use < > and = signs	Pupils use fractions as 'fractions of' discrete and continuous quantities by solving problems using shapes, objects and quantities. They connect unit fractions to equal sharing and grouping, to numbers when they can be calculated, and to measures, finding fractions of lengths, quantities, sets of objects or shapes. They meet 4 3 as the first example of a non-unit fraction. Pupils should count in fractions up to 10, starting from any number and using the ½ and 2/4 equivalence on the number line (for example, 1 1/4, 1 2/4 (or 1 1/2), 1 3/4, 2). This reinforces the concept of fractions as numbers and that they can add up to more than one.		

Summer Term Weeks 4 – 6				
Measurement – Time Y2 Summer Term Scheme of Learning.pdf				
NCETM links	**National Curriculum**	**National Curriculum non-statutory guidance**	**NRich Problem Solving**	**Ready to Progress**
N/A	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.	They become fluent in telling the time on analogue clocks and recording it.	What is the time? Stop the Clock Matching Time	

Summer Term Week 7 – 8				
Statistics Y2 Summer Term Scheme of Learning.pdf				
NCETM links	**National Curriculum**	**National Curriculum non-statutory guidance**	**NRich Problem Solving**	**Ready to Progress**
N/A	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	Pupils record, interpret, collate, organise and compare information (for example, using many-to-one correspondence in pictograms with simple ratios 2, 5, 10).		

	Ask and answer questions about totalling and comparing categorical data.			

Summer Term Weeks 9 – 10				
Geometry – Position and Direction **Y2 Summer Term Scheme of Learning.pdf**				
NCETM links	**National Curriculum**	**National Curriculum non-statutory guidance**	**NRich Problem Solving**	**Ready to Progress**
N/A	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 anti clockwise).	Pupils should work with patterns of shapes, including those in different orientations. Pupils use the concept and language of angles to describe 'turn' by applying rotations, including in practical contexts (for example, pupils themselves moving in turns, giving instructions to other pupils to do so, and programming robots using instructions given in right angles).	Cover the Camel Walking round a triangle Turning Man Coloured Squares Triangle Animals En-counters	

End of term assessment

Resources:

White Rose - My Account - Resources

NCETM TfM Assessment Questions 01-Yr2_Front cover-ccp.indd

DfE Ready to progress criteria - Mathematics guidance: key stages 1 and 2 (covers years 1 to 6)

NCETM Ready to Progress slides - Exemplification of ready-to-progress criteria | NCETM