Maths Scheme of Work – Year 2

Year 2	Autumn a	Autumn b	Spring a	Spring b	Summer a	Summer b
Number and place value	• count in steps of 2 ... and 5 from 0, and in tens from any number, forward or 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 ...= signs • read and write numbers to at least 100 in numerals ... • use place value and number facts to solve problems.	• identify, represent and estimate numbers using different representations, including the number line • compare and order numbers from 0 up to 100; use ... = signs • count in steps of 2…5 from 0, and in tens • recognise the place value of each digit in a two-digit number (tens, ones) • use place value and number facts to solve problems • read and write numbers to at least 100 in numerals and in words	• count in steps…3…from 0, and in tens from and to any number • 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	• count in steps of 2, 3, and 5 from 0, and in tens from any number	• forward or 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.	

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Addition and subtraction	• 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 [involving multiples of 10] • add and subtract numbers using concrete objects, pictorial representations, and mentally, including: ➢ a two-digit number and ones ➢ a two-digit number and tens ➢ adding three one-digit numbers • show that addition of two numbers can be done in any order (commutative) . • recognise and use the inverse relationship between addition and subtraction ...			• 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 • show that…subtraction of one number from another cannot [be done in any order] • use…[inverse relationships]…to check calculations and missing number problems	• Pupils should partition numbers in different ways (e.g. 23 = 20 + 3 and 23 = 10 + 13) to support subtraction. • 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 [involving multiples of 10] •	• add and subtract numbers using concrete objects, pictorial representations, and mentally, including: ➢ a two-digit number and ones ➢ a two-digit number and tens ➢ two two-digit numbers ➢ 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 missing number problems

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Multiplication and division	• recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers • solve problems involving multiplication and division, using materials, arrays, repeated addition…	• calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs • solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts	• 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	• 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 • They begin to use other multiplication tables and recall multiplication facts, including using related division facts to perform written and mental calculations. • They use commutativity and inverse relations to develop multiplicative reasoning (e.g. 4 × 5 = 20 and 20 ÷ 5 = 4).	
Fractions	• recognise, find, name and write fractions: ¼ of a shape, set of objects or quantity	• recognise, find, name and write fractions 1/3 and ¼ , of a shape, set of objects or quantity	• recognise, find, name and write fractions 1/3, ¼ 2/4 and ¾ of a length… • write simple fractions e.g. ½ of 6 = 3 and recognise the equivalence of 2/4 and ½		• Revisit Spring b • Pupils should count in fractions up to 10, starting from any number and using the 1/2 and 2/4 equivalence on the number line (e.g. 1 1/4, 1 2 /4 (or 11/2), 1 ¾ , 2). This reinforces the concept of fractions as numbers and that they can add up to more than one.	

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Statistics		• interpret and construct simple pictograms, tally charts…and simple tables • ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity		• interpret and construct simple…block diagrams • ask and answer questions about totalling and comparing categorical data		• 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. • Pupils record, interpret, collate, organise and compare information (e.g. using many-to-one correspondence with simple ratios 2, 5, 10).
Measurement	• recognise and use symbols for pounds (£) and pence (p)… • 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 • compare and sequence intervals of time • tell and write the time…, including quarter past/to the hour and draw the hands on a clock face to show these times	• choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); ...using rulers, scales... • compare and order lengths, mass, volume/capacity and record the results using ... = ...	• 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. • choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm	• combine amounts [of money] to make a particular value • find different combinations of coins that equal the same amounts of money • choose and use appropriate standard units to estimate and measure…mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using…scales, thermometers and measuring vessels • compare and order lengths, mass, volume/capacity and record the results using >, < and =	• 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.	• 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 = • They use the appropriate language and record using standard abbreviations.

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Geometry		• identify and describe the properties of 2-D shapes, including the number of sides • compare and sort common 2-D shapes and everyday objects		• identify and describe the properties of 2-D shapes, including…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…		• identify and describe the properties of 2-D shapes, including the number of sides and 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
Position and direction			• use mathematical vocabulary to describe position, direction and movement including distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise), and movement in a straight line.	• order and arrange combinations of mathematical objects in patterns • use mathematical vocabulary to describe position, direction and movement including distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise), and movement in a straight line.		• order and arrange combinations of mathematical objects in patterns • use mathematical vocabulary to describe position, direction and movement including distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise), and movement in a straight line.