Maths

New Curriculum Plan

from

September 2014



Southridge First School

Year 1 Autumn 1	
Topic	Maths Objective
Counting	-To count to 100, forwards and backwards, beginning with 0 or 1, or from any given numberTo identify and represent numbers using objects and pictorial representations including the number line, and use of the language: equal to, more than, less than, most, least.
Addition and subtraction to 5 or more	-To read and write numbers from 1 to 20 in numerals and wordsWhen given a number, identify one more or one lessTo read, write and interpret mathematical statements involving addition and subtraction and equals signsTo add and subtract one digit and two digit numbers to 20, including zero.
Addition and subtraction to 5 or more	-To solve simple one step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems.
Addition totals to 10	-To read, write and interpret mathematical statements involving addition, subtraction and equals signsTo represent and use number bonds and related subtraction facts with 20To add and subtract one and two digit numbers to 20 including zero.
Properties of shape	-To recognise and name common 2D and 3D shapes including: -2D shapes (rectangles, circles and triangles) -3D shapes (cuboids, pyramids and spheres).

Addition and subtraction to 10	-To represent and use number bonds and related subtraction facts within 20To solve one-step problems that involved additions and subtraction, using concrete objects and pictorial representations, and missing number problems.
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	Year 1 Autumn 2	
Topic	Maths Objective	
Counting and number order	-To count to 100, forwards and backwards, beginning with 0 or 1, or from any given numberTo count, read and write numbers to 100 in numerals, count in multiples of twos, fives and tensTo identify and represent numbers using objects and pictorial representations including the number line, and use of the language: equal to, more than, less than, most, leastTo read and write numbers from 1 to 20 in numerals and words.	
Place value and comparing quantities and numbers	-When given a number, identify one more and one lessTo identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than, most, leastTo read and write numbers from 1 to 20 in numerals and words.	
Developing mental strategies for addition	-To read, write and interpret mathematical statements involving addition, subtraction and equals signsTo represent and use number bonds and related subtraction facts within 20To solve one step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems.	
Subtraction as difference	-To read, write and interpret mathematical statements involving addition, subtraction and equals signsTo represent and use number bonds and related subtraction facts within 20To add and subtract one and two digit numbers to 20, including zeroTo solve one step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems.	

Measures	-To compare, describe and solve problems for: -lengths and heights -mass or weight -capacity/volume -time -To recognise and know the value of different denominations of coins and notes
Addition and subtraction using money	 -To read, write and interpret mathematical statements involving addition, subtraction and equals signs. -To represent and use number bonds and related facts within 20. -To add and subtract one and two digit numbers to 20, including zero. -To solve one step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems.

	Year 1 Spring 1	
Topic	Maths Objective	
Counting, reading and writing number patterns	-To count to and across 100 forward and backwards beginning with 0 or 1 or from any given number - To count read and write numbers to 100 in numerals, count multiples of 2, 5s and 10s - When given a number identify 1 more and 1 less - to read and write numbers from 1-120 in words	
Grouping and sharing	-To solve one step problems involving multiplication and division, calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.	
Doubles and near doubles	-To represent and use number bonds and related subtraction facts within 20To add and subtract one digit and two digit numbers, including zeroTo solve one step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems.	
Fractions	-To recognise, find and name a half as one of two equal parts of an object, shape or quantity.	
Measures, including times	-To sequence events in chronological order using language such as: next, first, before, after, yesterday, tomorrowTo tell the time to the hour and half past the hour and draw the hands on a clock face to show these timesTo measure and begin to record the following: -lengths and heights -mass/weight -capacity and volume -time(hours, minutes, seconds)	

	-To add and subtract one and two digit numbers to 20 including zeroTo solve one step problems that involve addition and subtraction, using objects and pictorial representations and missing number problems.
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	Year 1 Spring 2	
Topic	Maths Objective	
Counting and place value	 -To count, read and write numbers to 100 in numerals, count in different multiples including ones, twos, fives and tens. -When given a number, identify one more and one less. -To identify and represent numbers using objects and pictorial representations including number line, and use of the language of: equal to, more than, less than, most, least. 	
Addition and subtraction beyond totals of 10	-To add and subtract one and two digit numbers to 20 including zeroTo solve one step problems that involve addition and subtraction, using objects and pictorial representations and missing number problems.	
Grouping and sharing	-To solve one step problems using multiplication and division, calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.	
Shape, position and movement	-To recognise and name common 2D and 3D shapes including: -2D shapes (rectangles, circles and triangles) -3D shapes (cuboids, pyramids and spheres)Describe position, direction and movements, including half, quarter and three quarter turns.	

Measuring and time	To compare, describe and solve practical problems for: -lengths and heights -mass or weight -capacity/volume -time -To measure and begin to record the following: -length and heights -mass/weight -capacity/volume -time -To sequence event in chronological order using language such as: before, after, next, first, today, yesterday, morning and afternoon.
Addition and totals to 10	-To add and subtract one and two digit numbers to 20 including zeroTo solve one step problems that involve addition and subtraction, using objects and pictorial representations and missing number problems.

Year 1 Summer 1	
Topic	Maths Objective
Addition to totals to 10	-To count to 100, forwards and backwards, beginning with 0 or 1, or from any given numberTo count, read and write numbers to 100 in numerals, count in multiples of twos, fives and tensTo identify and represent numbers using objects and pictorial representations including the number line, and use of the language: equal to, more than, less than, most, leastTo read and write numbers from 1 to 20 in numerals and words.
Addition and subtraction to 20	-To represent and use number bond and related subtraction facts within 20To add and subtract one and two digit numbers to 20 including zeroTo solve one step problems that involve addition and subtraction, using objects and pictorial representations and missing number problems.
Fractions	-To recognise, find and name a half as one of two equal parts of an object, shape or quantityTo recognise, find and name a quarter as one of four equal parts of an object, shape or quantity.
Multiplication and division	-To solve one step problems, involving multiplication and division, calculating the answer using objects, pictorial representations and arrays with the support of a teacher.
Measuring	-To measure and begin to record the following: -lengths and heights -mass/weight -capacity and volume -time (hours, minutes, seconds)
Moving and turning	-To describe position, directions and movement, including half, quarters and three-quarter turns.

	Year 1 Summer 2	
Topic	Maths Objective	
Number and place value	-When given a number, identify one more or one lessTo identify and represent numbers using objects and pictorial representations including the number line, and use of language: equal to, more than, less than, most, least.	
Addition and Subtraction	-To add and subtract one and two digit numbers to 20 including zeroTo solve one step problems that involve addition and subtraction, using objects and pictorial representations and missing number problems.	
Fractions	-To recognise, find and name a half as one of two equal parts of an object, shape or quantityTo recognise, find and name a quarter as one of four equal parts of an object, shape or quantity.	
Multiplication and division	-To solve one step problems, involving multiplication and division, calculating the answer using objects, pictorial representations and arrays with the support of a teacher.	
Time and using standard units	-To measure the following: -lengths and heights -mass/weight -capacity and volume -time (hours, minutes, seconds)To recognise and use language relating to days of the week, weeks, months and yearsTo tell the time to the hour and half past the hour and draw the hands on a clock face to show these times.	
Shape	-To order and arrange combinations of objects and shapes in patternTo recognise and name common 2D and 3D shapes including: -2D shapes (rectangles, circles and triangles) -3D shapes (cuboids, pyramids and spheres).	

Year 2 Autumn 1	
Topic	Maths Objective
Number and place value: counting, reading and writing 2-digit numbers, place value	-To count in steps of 2, 3 and 5 from 0, and count in tens from any number, forward and backwards. -To recognise the place value of each digit in a two digit number. -To identify, represent and estimate numbers using different representations, including the number line. -To compare and order numbers from 0 up to 100; use <, > and = signs. -To read and write number to at least 100 in numerals and in words. -To use place value and number facts to solve problems.
Addition + Subtraction: concrete, visual and number facts	-To solve problems with addition and subtraction: -using concrete objects and pictorial representations, including those involving numbers, quantities and measuresapplying their increasing knowledge of mental and written methodsTo recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100To add and subtract using concrete objects, pictorial representations, and mentally including: a two digit number and ones; a two digit number and tens; two two-digit numbers; and adding three one-digit numbersTo shows that addition can be done in any order and subtraction cannotTo recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems.
Multiplication and division: repeated addition and repeated subtraction	-To recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers. -To calculate mathematical statements for multiplication and division within the multiplication tables and write them using multiplication, division and equals signs. -To recognise and use the inverse relationship between multiplication and division in calculations. -To show that multiplication of two numbers can be done in any order and division for one number by another cannot. -To solve problems involving multiplication and division, using materials arrays, repeated addition, mental methods and multiplication and division facts, including problems in contexts.

Geometry: properties of 3D and 2D shape	-To identify and describe the properties of 2D shapes, including the number of sides and symmetry in a vertical lineTo identify and describe the properties of 3D shapes, including the number of edges, vertices and facesTo identify 2D shapes on the surface of 3D shapes, e.g. circle on a cylinder and a triangle on a pyramidTo compare and sort common 2D and 3D shapes and objects.
Measures: length, mass, capacity, money	-To choose and use appropriate standard units to estimate and measure length/height in any direction; mass; temp; volume and capacity to the nearest appropriate unit using rulers, scaled and measuring vessels. -To compare the lengths and order lengths, mass, volume, and record results using >, < and =. -To recognise and use the symbols for pounds and pence; combine amounts to make a particular value. -to find different combinations of the coins that equal the same amount of money.

	Year 2 Autumn 2	
Topic	Maths Objective	
Number and placed value: estimating, counting and comparing quantities	-To count in steps of 2, 3 and 5 from 0, and count in tens from any number, forward and backwards. -To recognise the place value of each digit in a two digit number. -To identify, represent and estimate numbers using different representations, including the number line. -To compare and order numbers from 0 up to 100; use <, > and = signs. -To read and write number to at least 100 in numerals and in words. -To use place value and number facts to solve problems.	
Addition and subtraction: using recall of addition and subtraction facts and mental calculation strategies	-To solve problems with addition and subtraction: -using concrete objects and pictorial representations, including those involving numbers, quantities and measuresapplying their increasing knowledge of mental and written methodsTo add and subtract using concrete objects, pictorial representations, and mentally including: a two digit number and ones; a two digit number and tens; two two-digit numbers; and adding three one-digit numbersTo shows that addition can be done in any order and subtraction cannotTo recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems.	
Multiplicati ons and division: repeated addition and subtraction, arrays,	 -To recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers. -To calculate mathematical statements for multiplication and division within the multiplication tables and write them using multiplication, division and equals signs. -To recognise and use the inverse relationship between multiplication and division in calculations. -To show that multiplication of two numbers can be done in any order and division for one number by another cannot. 	

grouping and using times table facts	-To solve problems involving multiplication and division, using materials arrays, repeated addition, mental methods and multiplication and division facts, including problems in contexts.
Fractions: finding fractions of quantities, shapes and sets of objects	-To recognise, find, name and write fractions 1/3, 1/4, 2/4 and 3/4To write simple fractions e.g. 1/2 of 6=3 and recognise the equivalence of two quarters and one half.
Geometry: position, direction, motion	-To order and arrange combinations of mathematical objects in patternsTo 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 and movement in a straight lineTo compare and sequence intervals of timeTo tell and write the time to five minutes, including quarter past/ to the hour and draw the hands on a clock face to show those times.
Data: solving problems that involve collecting data in tallies, tables and pictograms	-To interpret and construct simple pictograms, tally charts, block diagrams and simple tablesTo ask and answer simple questions by counting the number of object in each category and sorting the categories by quantityTo ask and answer questions about totalling and compare categorical data.

	Year 2 Spring 1	
Topic	Maths Objective	
Number and place value: estimating, counting, comparing and ordering quantities	-To count in steps of 2, 3 and 5 from 0, and count in tens from any number, forward and backwardsTo recognise the place value of each digit in a two digit numberTo identify, represent and estimate numbers using different representations, including the number lineTo compare and order numbers from 0 up to 100; use <, > and = signsTo read and write number to at least 100 in numerals and in wordsTo use place value and number facts to solve problems.	
Addition and subtraction: using recall of addition and subtraction facts and mental calculation strategies	-To solve problems with addition and subtraction: -using concrete objects and pictorial representations, including those involving numbers, quantities and measuresapplying their increasing knowledge of mental and written methodsTo add and subtract using concrete objects, pictorial representations, and mentally including: a two digit number a ones; a two digit number and tens; two two-digit numbers; and adding three one-digit numbersTo shows that addition can be done in any order and subtraction cannotTo recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems.	
Addition and subtraction: using partitioning and counting on strategies	-To solve problems with addition and subtraction: -Using concrete objects and pictorial representations, including those involving numbers, quantities and measuresApplying their increasing knowledge of mental and written methodsTo add and subtract using concrete objects, pictorial representations, and mentally, including: a two-digit number and ones; a 2-digit number and tens; two 2-digit numbers; adding three one-digit numberTo show that addition can be done in any order and subtraction cannotTo recognise and use inverse relationship between addition and subtraction and use this to check calculations and missing number problems.	
Multiplication and division: repeated addition and subtraction. arrays, grouping and	-To recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbersTo calculate mathematical statements for multiplication and division within the multiplication tables and write them using multiplication, division and equals signsTo recognise and use the inverse relationship between multiplication and division in calculationsTo show that multiplication of two numbers can be done in any order and division for one number by another cannotTo solve problems involving multiplication and division, using materials arrays, repeated addition, mental methods and multiplication and division facts, including problems in contexts.	

using times table facts	
Geometry: properties of 3D and 2D shape	-To identify and describe the properties of 2D shapes, including the number of sides and symmetry in a vertical line -To identify and describe the properties of 3D shapes, including the number of edges, vertices and faces -To identify 2D shapes on the surface of 3D shapes, e.g. circle on a cylinder and a triangle on a pyramid.
Measures: length, mass, capacity and money	-To choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm/mm); mass (kg.g); temperature; volume and capacity (litres/ml) to the nearest appropriate unit using rulers, scales and thermometers and measuring vessels. -To compare and order lengths, mass, volume/capacity and record the results using >, < and =.

	Year 2 Spring 2	
Topic	Maths Objective	
Number and place value: estimating, counting, comparing and ordering quantities	-To count in steps of 2, 3 and 5 from 0, and count in tens from any number, forward and backwardsTo recognise the place value of each digit in a two digit numberTo identify, represent and estimate numbers using different representations, including the number lineTo compare and order numbers from 0 up to 100; use <, > and = signsTo read and write number to at least 100 in numerals and in wordsTo use place value and number facts to solve problems.	
Addition and subtraction: using mental calculation strategies	-To solve problems with addition and subtraction: -using concrete objects and pictorial representations, including those involving numbers, quantities and measuresapplying their increasing knowledge of mental and written methodsTo recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100To add and subtract using concrete objects, pictorial representations, and mentally including: a two digit number a ones; a two digit number and tens; two two-digit numbers; and adding three one-digit numbersTo shows that addition can be done in any order and subtraction cannotTo recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems.	
Multiplication and division: repeated addition and subtraction, arrays, grouping and using times table facts	-To recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers. -To calculate mathematical statements for multiplication and division within the multiplication tables and write them using multiplication, division and equals signs. -To recognise and use the inverse relationship between multiplication and division in calculations. -To show that multiplication of two numbers can be done in any order and division for one number by another cannot. -To solve problems involving multiplication and division, using materials arrays, repeated addition, mental methods and multiplication and division facts, including problems in contexts.	
Fractions: finding fractions of quantities, shapes and sets of objects	-To recognise, find, name and write fractions 1/3, 1/4, 2/4 and 3/4To write simple fractions e.g. 1/2 of 6=3 and recognise the equivalence of two quarters and one half.	

Geometry: position and direction	-To 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 and movement in a straight lineTo 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.
Statistics: solving problems that involve collecting data in tallies, tables and pictograms	-To interpret and construct simple pictograms, tally charts, block diagrams and simple tablesTo ask and answer simple questions by counting the number of object in each category and sorting the categories by quantityTo ask and answer questions about totalling and compare categorical data.

	Year 2 Summer 1	
Topic	Maths Objective	
Number and place value: estimating, counting, comparing and ordering quantities	-To recognise the place value of each digit in a 2-digit number (tens, ones)To identify, represent and estimate numbers using different representations, including the number lineTo compare and order numbers from 0 up to 100; use <,> and = signs -To read and write numbers to at least 100 in numerals and words	
Addition and subtraction: using mental calculation strategies	-To solve problems with addition and subtraction: -Using concrete objects and pictorial representations, including those involving numbers, quantities and measuresApplying their increasing knowledge of mental and written methodsTo add and subtract using concrete objects, pictorial representations, and mentally, including: a two-digit number and ones; a 2-digit number and tens; two 2-digit numbers; adding three one-digit numberTo show that addition can be done in any order and subtraction cannotTo recognise and use inverse relationship between addition and subtraction and use this to check calculations and missing number problems	
Multiplication and division: repeated addition and subtraction, arrays, grouping and using times table facts	-To recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers. -To calculate mathematical statements for multiplication and division within the multiplication tables and write them using multiplication, division and equals signs. -To recognise and use the inverse relationship between multiplication and division in calculations. -To solve problems involving multiplication and division, using materials arrays, repeated addition, mental methods and multiplication and division facts, including problems in contexts.	
Fractions: finding fractions of quantities, shapes and sets of objects	-To recognise find, name and write fractions 1/3, 1/4, 2/4 and 3/4To write simple fractions e.g. 1/2 of 6=3 and recognise the equivalence of two quarters and one half.	

Geometry: properties of 3D and 2D shape	 -To identify and describe properties of 2D and 3D shapes, including the number of sides, symmetry in a vertical line, edges, vertices and faces. -To identify 2D shapes on the surface of 3D shapes, for example circle on a cylinder and triangle on a pyramid. -To compare and sort common 2D and 3D shapes and everyday objects. -To solve one-step problems involving multiplication and division, using materials, arrays, repeated addition, mental methods and multiplication and division facts, including problems in contexts.
Measures: length, mass, capacity and money	-To choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm/mm); mass (kg.g); temperature; volume and capacity (litres/ml) to the nearest appropriate unit using rulers, scales and thermometers and measuring vessels. -To compare and order lengths, mass, volume/capacity and record the results using >, < and =. -To recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value. -To find different combinations of coins to equal the same amounts of money. -To solve simple problems in practical context involving addition and subtraction of money of the same unit, including giving change.

	Year 2 Summer 2	
Topic	Maths Objective	
Number and place value: estimating, counting, comparing and ordering quantities	-To recognise the place value of each digit in a 2-digit number (tens, ones)To identify, represent and estimate numbers using different representations, including the number lineTo compare and order numbers from 0 up to 100; use <,> and =signsTo read and write numbers to at least 100 in numerals and in wordsTo use place value and number facts to solve problems.	
Addition and subtractions: using partitioning and sequencing	-To solve problems with addition and subtraction: -Using concrete objects and pictorial representations, including those involving numbers, quantities and measuresApplying their increasing knowledge of mental and written methodsTo add and subtract using concrete objects, pictorial representations, and mentally, including: a two-digit number and ones; a 2-digit number and tens; two 2-digit numbers; adding three one-digit numberTo recognise and use inverse relationship between addition and subtraction and use this to check calculations and missing number problems.	
Fractions: finding fractions of quantities, shapes and sets of objects	-To recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers. -To calculate mathematical statements for multiplication and division within the multiplication tables and write them using multiplication, division and equals signs. -To recognise and use the inverse relationship between multiplication and division in calculations. -To solve problems involving multiplication and division, using materials arrays, repeated addition, mental methods and multiplication and division facts, including problems in contexts.	
Finding fractions of quantities, shapes and sets of objects	-To recognise, find, name and write fractions 1/3, 1/4, 2/4 and 3/4To write simple fractions e.g. 1/2 of 6=3 and recognise the equivalence of two quarters and one half.	
Geometry: position and direction	-To order and arrange combinations of mathematical objects in patternsTo 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 and movement in a straight lineTo compare and sequence intervals of timeTo 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.	

Solving problems by gathering data and representing in tallies, tables, pictograms and block diagrams	-To interpret and construct simple pictograms, tally charts, block diagrams and simple tablesTo ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantityTo ask and answer questions about totalling and compare categorical data.	
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Year 3 Autumn 1	
Topic	Maths Objective
Reading, writing and ordering two and three digit numbers	-To recognise the place value of each digit in a three-digit number (hundreds, tens, ones)To compare and order numbers up to 1000To read and write numbers up to 1000 in numerals and in words.
Counting and estimating	-To count from 0 in multiples of 4, 8, 50 and 100; finding 10 or 100 more or less than a given numberTo identify, represent and estimate numbers using different representations.
Number facts to 20 and to 100	-To add and subtract numbers mentally, including: -a three-digit number and ones -a three-digit number and tens -a three-digit number and hundredsTo solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.
Multiplication and division facts	-To recall and use multiplication and division facts for the 3, 4 and 8 multiplication tablesTo write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit number times one-digit numbers, using mental and progressing to formal written methodsTo solve problems, including missing number problems, involving multiplication and division, including integer scaling problems and correspondence problems in which n objects are connected to m objects.
Measuring using mm, cm and metres	-To measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)To measure the perimeter of simple 2D shapes.
Recognising, describing and making 2D and 3D shapes	-To draw 2D shapes and make 3D shapes using modelling materials; recognise 3D shapes in different orientations and describe them with increasing accuracyTo identify horizontal, vertical perpendicular and parallel lines in relation to other lines.

	Year 3 Autumn 2	
Topic	Maths Objective	
Counting and estimating	-To add and subtract numbers mentally, including: -a three-digit number and ones -a three-digit number and tens -a three-digit number and hundredsTo solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.	
Addition and subtraction of two and three digit numbers, using a number line and columns	-To add and subtract numbers with up to three digits, using the efficient written methods of columnar addition and subtractionTo estimate the answer to a calculation and use inverse operations to check answersTo solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.	
Multiplication and division: doubling, halving and TU X U	-To recall and use multiplication and division facts for the 3, 4 and 8 multiplication tablesTo write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit number times one-digit numbers, using mental and progressing to formal written methodsTo solve problems, including missing number problems, involving multiplication and division, including integer scaling problems and correspondence problems in which n objects are connected to m objects.	
Fractions: representing, comparing and ordering unit fractions of shapes and numbers	-To recognise, find and write fraction of a discrete set of objects: unit fractions and non-unit fractions and small denominatorsTo recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominatorsTo compare and order unit fractions, and fraction with the same denominatorTo solve problems that involve all of the above.	
Read and write time to 5 minute intervals	-To tell and write the time from an analogue clock, including using Roman numerals from I to XII and 12-hour and 24-hour clocks. -To estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes, hours and o'clock; use vocabulary such as am/pm, morning, afternoon, noon and midnight. -To know the number of seconds in a minute and the number of days in each month, year and leap year. -To compare durations of events, for example to calculate the times taken by particular events of tasks.	
Read, present and interpret	-To interpret and present data using bar charts, pictograms and tables,	

pictograms and tables	-To solve one-step and two-step questions such as 'How many more?' and 'How many fewer?' using information presented in scaled bar charts and pictograms and tables
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	Year 3 Spring 1	
Topic	Maths Objective	
Number, place value and rounding	-To count from 0 in multiples of 4, 8, 50 and 100; finding 10 or 100 more or less than a given numberTo recognise the place value of each digit in a three-digit number (hundreds, tens, ones)To compare and order numbers up to 1000To identify, represent and estimate numbers using different representationsTo read and write numbers up to 1000 in numerals and in wordsTo solve number problems and practical problems involving these ideas.	
Use partitioning to add and subtract two-digit numbers	-To add and subtract numbers mentally, including: -a three-digit number and ones -a three-digit number and tens -a three-digit number and hundredsTo estimate the answer to a calculation and use inverse operations to check answersTo solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.	
Multiplication and division: multiplying one digit numbers by multiples of 10	-To recall and use multiplication and division facts for the 3, 4 and 8 multiplication tablesTo write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit number times one-digit numbers, using mental and progressing to formal written methodsTo solve problems, including missing number problems, involving multiplication and division, including integer scaling problems and correspondence problems in which n objects are connected to m objects.	
Multiplication and division: practical and informal written methods	-To recall and use multiplication and division facts for the 3, 4 and 8 multiplication tablesTo write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit number times one-digit numbers, using mental and progressing to formal written methodsTo solve problems, including missing number problems, involving multiplication and division, including integer scaling problems and correspondence problems in which n objects are connected to m objects.	
Measures: adding and subtracting money	-To add and subtract amounts of money to give change, using both £ and p in practical contexts.	

Recognising and drawing right angles in 2D shapes	-To recognise angles as a property of shape and associate angles with turningTo identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle.
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	Year 3 Spring 2	
Topic	Maths Objective	
Addition and subtraction of two digit numbers using columns	-To add and subtract numbers with up to three digits, using the efficient written methods of columnar addition and subtractionTo estimate and answer to a calculation and use inverse operations to check answersTo solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.	
Multiplication and division: multiplying and dividing larger numbers	-To recall and use multiplication and division facts for the 3, 4 and 8 multiplication tablesTo write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit number times one-digit numbers, using mental and progressing to formal written methodsTo solve problems, including missing number problems, involving multiplication and division, including integer scaling problems and correspondence problems in which n objects are connected to m objects.	
Multiplication and division: multiplying by multiples of 10, and dividing with remainders	-To recall and use multiplication and division facts for the 3, 4 and 8 multiplication tablesTo write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit number times one-digit numbers, using mental and progressing to formal written methodsTo solve problems, including missing number problems, involving multiplication and division, including integer scaling problems and correspondence problems in which n objects are connected to m objects.	
Fractions: representing, comparing and ordering unit and non-unit fractions of shapes and number	-To count up and down in tenths; recognise that tenths arise from dividing and object into 10 equal parts and in dividing one-digit numbers or quantities by 10. -To recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators. -To recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominates. -To compare and order unit fractions with the same	

Read and interpret bar charts, using scales	-To interpret and present data using bar charts, pictograms and tables, -To solve one-step and two-step questions such as 'How many more?' and 'How many fewer?' using information presented in scaled bar charts and pictograms and tables
Measuring using grams and kilograms	-To measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml).

	Year 3 Summer 1	
Topic	Maths Objective	
Read, write and order and round two and three digit numbers	-To count from 0 in multiples of 4, 8, 50 and 100; finding 10 or 100 more or less than a given numberTo recognise the place value of each digit in a three-digit number (hundreds, tens, ones)To compare and order numbers up to 1000To identify, represent and estimate numbers using different representationsTo read and write numbers up to 1000 in numerals and in wordsTo solve number problems and practical problems involving these ideas.	
Multiplication and division problems	-To recall and use multiplication and division facts for the 3, 4 and 8 multiplication tablesTo write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit number times one-digit numbers, using mental and progressing to formal written methodsTo solve problems, including missing number problems, involving multiplication and division, including integer scaling problems and correspondence problems in which n objects are connected to m objects.	
Addition and subtraction of three digit numbers and 1s, 10s and 100s	-To add and subtract numbers mentally, including: -a three-digit number and ones -a three-digit number and tens -a three-digit number and hundredsa three-digit number and hundredsTo estimate the answer to a calculation and use inverse operations to check answersTo solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.	
Addition and subtraction of two and three digit numbers using columns	-To add and subtract numbers with up to three digits, using the efficient written methods of columnar addition and subtractionTo estimate and answer to a calculation and use inverse operations to check answersTo solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.	
Shape: identifying horizontal, vertical, and curved lines	-To draw 2D shapes and make 3D shapes using modelling materials; recognise 3D shapes in different orientations and describe them with increasing accuracy. -To recognise angles as a property of shape and associate angles with turning. -To identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four make a complete turn; identify whether angles are greater than or less than a right angle. -To identify horizontal, vertical perpendicular and parallel lines in relation to other lines	

Measuring using	-To measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml).
millilitres and litres	

Year 3 Summer 2	
Topic	Maths Objective
Addition and subtraction of two and three digit numbers using columns	-To add and subtract numbers with up to three digits, using the efficient written methods of columnar addition and subtractionTo estimate and answer to a calculation and use inverse operations to check answersTo solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.
Multiplication and division problems: written methods	-To recall and use multiplication and division facts for the 3, 4 and 8 multiplication tablesTo write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit number times one-digit numbers, using mental and progressing to formal written methodsTo solve problems, including missing number problems, involving multiplication and division, including integer scaling problems and correspondence problems in which n objects are connected to m objects.
Short multiplication and division	-To recall and use multiplication and division facts for the 3, 4 and 8 multiplication tablesTo write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit number times one-digit numbers, using mental and progressing to formal written methodsTo solve problems, including missing number problems, involving multiplication and division, including integer scaling problems and correspondence problems in which n objects are connected to m objects.
Fractions: equivalence, addition and subtraction within 1, finding tenths	 -To count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10. -To recognise and use fractions as numbers; unit fractions and non-unit fractions with small denominations. -To recognise and show, using diagrams, equivalent fractions with small denominations. -To add and subtract fractions with the same denominator within one whole (5/7 + 1/7 =6/7). -To solve problems that involve all of the above.
Read and write using 12 and 24 hour	-To tell and write the time from an analogue clock, including using Roman numerals from I to XII and 12-hour and 24-hour clocks. -To estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes, hours and o'clock; use vocabulary such as am/pm, morning, afternoon, noon and midnight. -To know the number of seconds in a minute and the number of days in each month, year and leap year. -To compare durations of events, for example to calculate the times taken by particular events of tasks.
Construct and interpret bar charts using scales	-To interpret and present data using bar charts, pictograms and tables, -To solve one-step and two-step questions such as 'How many more?' and 'How many fewer?' using information presented in scaled bar charts and pictograms and tables

Year 4 Autumn 1	
Topic	Maths Objective
Number place value and rounding	-To recognise the place value of each digit in a four-digit number (thousands, hundreds, tens and ones)To identify, represent and estimate numbers using different representationsTo order and compare numbers beyond 1000To round any number to the nearest 10, 100 and 1000To count in multiples of 6, 7, 9, 25, 1000To find 1000 more or less than a given number.
Mental addition and subtraction	-To add and subtract numbers with up to four digits using the efficient written methods of columnar addition and subtraction where appropriateTo solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.
Multiplication	-To recall multiplication facts for multiplication tables up to 12 x 12To use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1l dividing by 1; multiplying together three numbersTo solve problems involving multiplying and adding, including using the distributive law and harder multiplication problems such as which n objects are connected to m objects.
Multiplication and division	-To recall multiplication facts for multiplication tables up to 12x12To 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.
Geometry: properties of shapes	-To compare and classify geometric shapes, including quadrilateral and triangles, based on their properties and sizesTo identify lines of symmetry in 2D shoes presented in different orientationsTo complete a simple symmetric figure with respect to a specific line of symmetry.
Measures	-To convert between different units of measure (for example, kilometre to metre; hour to minute)To measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metresTo solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to daysTo estimate, compare and calculate different measures, including money in pounds and pence.

Year 4 Autumn 2	
Topic	Maths Objective
Mental and written addition and subtraction	-To add and subtract numbers with up to four digits using the efficient written methods of columnar addition and subtraction where appropriateTo solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.
Multiplication	-To recall multiplication facts for multiplication tables up to 12x12. -To 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. -To recognise and use factor pairs and commutativity in mental calculations. -To multiply two-digit and three-digit numbers by a one-digit number using formal written layout. -To solve problems involving multiplying and adding, including using the distributive law and harder multiplication problems such as which n objects are connected to m objects.
Multiplication and division	-To recall multiplication facts for multiplication tables up to 12 x 12. -To use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1l dividing by 1; multiplying together three numbers. -To solve problems involving multiplying and adding, including using the distributive law and harder multiplication problems such as which n objects are connected to m objects.
Fractions	 -To count up and down in hundredths; recognise that hundreds arise when dividing an object by a hundred and dividing by ten. -To solve problems involving increasingly harder fractions to calculate quantities and fractions divide quantities, including non-unit fractions where the answer is a whole number. -To recognise and show, using diagrams, families of common equivalent fractions.
Geometry	-To describe positions on a 2D grid as coordinates in the first quadrantTo plot specified points and draw sides to complete a given polygonTo compare and classify geometric shapes, including quadrilateral and triangles, based on their properties and sizesTo identify acute and obtuse angles and compare and order angles up to two right angles by size.
Data handling and time	-To read, write and convert time between analogue and digital 12- and 24-hour clocksTo solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to daysTo interpret and present discrete and continuous data using appropriate graphical methods, including car charts and time graphsTo solve comparison, sum and difference problems using information presented in car charts, pictograms, tables and simple line graphs.

Year 4 Spring 1	
Topic	Maths Objective
Numbers, place value and rounding	-To find 1000 more or less than a given numberTo recognise the place value of each digit in a four-digit number (thousands, hundreds, tens and ones)To order and compare numbers beyond 1000To identify, represent and estimate numbers using different representationsTo round any number to the nearest 10, 100 or 1000To solve number and practical problems that involve all of the above and with increasingly large positive numbersTo read Roman numerals to 100 (I to C) and understand how, over time, the numeral system changed to include the concept of zero and place value.
Mental and written addition and subtraction	-To add and subtract numbers with up to four digits using the efficient written methods of columnar addition and subtraction where appropriateTo estimate and use inverse operations to check answers in calculationsTo solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and whyTo estimate, compare and calculate different measures, including money in pounds and pence.
Mental and written multiplication	-To recall multiplication facts for multiplication tables up to 12x12. -To 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. -To recognise and use factor pairs and commutativity in mental calculations. -To multiply two-digit and three-digit numbers by a one-digit number using formal written layout. -To solve problems involving multiplying and adding, including using the distributive law and harder multiplication problems such as which n objects are connected to m objects.
Mental and written division	-To recall multiplication facts for multiplication tables up to 12 x 12To use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1l dividing by 1; multiplying together three numbers.
Fractions	-To count up and down in hundredths; recognise that hundreds arise when dividing an object by a hundred and dividing by tenTo solve problems involving increasingly harder fractions to calculate quantities and fractions divide quantities, including non-unit fractions where the answer is a whole numberTo recognise and show, using diagrams, families of common equivalent fractions.
Fractions and decimals	-To recognise and write decimal equivalents of any number of tenths or hundredthsTo recognise and write decimal equivalents to 1/4; 1/2; 3/4To 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 units, tenths and hundredths.

- -To round decimals with one decimal place to the nearest whole number.
 -To solve simple measure and money problems involving fractions and decimals to two decimal places.

Year 4 Spring 2	
Topic	Maths Objective
Mental calculation	-To estimate and use inverse operations to check answers to a calculationTo solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and whyTo recall multiplication facts for multiplication tables up to 12x12To recognise and use factor pairs and commutativity in mental calculationsTo solve problems involving multiplying and adding, including using the distributive law and harder multiplication problems such as which n objects are connected to m objects
Written addition and subtraction	-To add and subtract numbers with up to four digits using the efficient written methods of columnar addition and subtraction where appropriateTo estimate and use inverse operations to check answers in calculationsTo solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.
Time	-To read, write and convert time between analogue and digital 12- and 24-hour clocksTo solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.
Written division and multiplication	-To recall multiplication facts for multiplication tables up to 12x12. -To 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. -To multiply two-digit and three-digit numbers by a one-digit number using formal written layout. -To solve problems involving multiplying and adding, including using the distributive law and harder multiplication problems such as which n objects are connected to m objects.
Geometry	-To compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizesTo identify acute and obtuse angles and compare and order angles up to two right angles by sizeTo describe positions on a 2D grid as coordinates in the first quadrantTo describe movements between positions as translations of a given unit to the left/right and up/downTo plot specified points and draw sides to complete a given polygon.
Data handling and measurement	-To interpret and present discrete data using bar charts and continuous data using time graphsTo convert between different units of measure (kilometre; hour to minute)To estimate, compare and calculate different measures, including money in pounds and penceTo solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and simple line graphs.

Year 4 Summer 1		
Topic	Maths Objective	
Place value ideas	-To count in multiples of 6, 7, 9, 25, 1000To find 1000 more or less than a given numberTo count backwards through zero to include negative numbersTo recognise the place value of each digit in a four-digit number (thousands, hundreds, tens and ones)To order and compare numbers beyond 1000To identify, represent and estimate numbers using different representationsTo round any number to the nearest 10, 100 or 1000To solve number and practical problems that involve all of the above and with increasingly large positive numbers.	
Mental addition and subtraction and measures	-To estimate and use inverse operations to check answers in calculationsTo solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and whyTo estimate, compare and calculate different measures, including money in pounds and pence.	
Written addition and subtraction and measures	-To add and subtract numbers with up to four digits using the efficient written methods of columnar addition and subtraction where appropriateTo estimate and use inverse operations to check answers in calculationsTo solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.	
Mental and written multiplication and division	-To recall multiplication facts for multiplication tables up to 12x12To use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbersTo multiply two-digit and three-digit numbers by a one-digit number using formal written layoutTo solve problems involving multiplying and adding, including using the distributive law and harder multiplication problems such as which n objects are connected to m objects.	
Fractions	-To count up and down in hundredths; recognise that hundredths arise when dividing an object by a hundred and dividing by tenTo solve problems involving increasingly harder fractions to calculate quantities and fractions divide quantities, including non-unit fractions where the answer is a whole numberTo recognise and show, using diagrams, families of common equivalent fractionsTo add and subtract fractions with the same denominator.	

Area and perimeter of rectilinear shapes and capacity	-To convert between different units of measure (for example, kilometre to metre; hour to minute)To measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metresTo solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to daysTo estimate, compare and calculate different measures, including money in pounds and pence.
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Year 4 Summer 2		
Topic	Maths Objective	
Mental calculations	-To estimate and use inverse operations to check answers to a calculationTo solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and whyTo recall multiplication and division facts for multiplication tables up to 12x12To recognise and use factor pairs and commutativity in mental calculationsTo solve problems involving multiplying and adding, including using the distributive law and harder multiplication problems such as which n objects are connected to m objects.	
Measures	-To convert between different units of measure (for example, kilometre to metre; hour to minute)To measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metresTo solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to daysTo estimate, compare and calculate different measures, including money in pounds and penceTo find the area of rectilinear shapes by counting.	
Written addition and subtraction	 -To add and subtract numbers with up to four digits using the efficient written methods of columnar addition and subtraction where appropriate. -To estimate and use inverse operations to check answers in calculations. -To solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why. 	
Mental and written multiplication and division	-To recall multiplication facts for multiplication tables up to 12x12. -To 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. -To multiply two-digit and three-digit numbers by a one-digit number using formal written layout. -To solve problems involving multiplying and adding, including using the distributive law and harder multiplication problems such as which n objects are connected to m objects.	
2D shape, angles and coordinates	-To compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizesTo identify acute and obtuse angles and compare and order angles up to two right angles by sizeTo identify lines of symmetry in 2D shapes presented in different orientationsTo describe positions on a 2D grid as coordinates in the first quadrantTo describe movements between positions as translations of a given unit to the left/right and up/downTo plot specified points and draw sides to complete a given polygon.	
Statistics	-To interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphsTo solve comparison, sum and difference problems using information presented in charts, pictograms, tables and simple line graphs.	

Maths Medium Term Plan