Autumn Term 1

	Year 1	Year 2	Year 3	Year 4
Number Sense	**Number, place value and rounding** ● count to and across 100, forwards and backwards, beginning with 0 or 1 ● count, read and write numbers to 100 in numerals ● given a number, identify one more and one less ● identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least **Measurement** ● compare, describe and solve practical problems for: - lengths and heights [for example, long / short, longer / shorter, tall / short, double / half] - mass or weight [for example, heavy / light, heavier than, lighter than] - capacity / volume [for example, full / empty, more than, less than, half, half full, quarter] ● recognise and use language relating to dates, including days of the week, weeks, months and years.	**Number, place value and rounding** ● count in steps of 2 and 5 from 0 and in tens from any number, forward and backward ● recognise the place value of each digit in a two-digit number (tens, ones) ● identify, represent and estimate numbers using different representations, including the number line ● compare and order numbers from 0 up to 100 ● read and write numbers to at least 100 in numerals ● use place value and number facts to solve problems **Measurement** ● compare and order lengths, mass, volume / capacity ● compare and sequence intervals of time **Statistics** ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity	**Number and place value** ● count from 0 in multiples of 100; find 10 or 100 more or less than a given number ● recognise the place value of each digit in a three-digit number (hundreds, tens, ones) ● compare and order numbers up to 1000 ● identify, represent and estimate numbers using different representations ● read and write numbers up to 1000 in numerals and in words ● solve number problems and practical problems involving these ideas	**Number and place value** ● count in multiples of 1000 ● find 1000 more or less than a given number ● recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones) ● order and compare numbers beyond 1000 ● identify, represent and estimate numbers using different representations ● round any number to the nearest 10, 100 or 1000 ● solve number and practical problems that involve all of the above and with increasingly large positive numbers.
Additive Reasoning	**Number and place value** ● *given a number, identify one more and one less* **Addition and subtraction** • represent and use number bonds and related subtraction facts within 20 • solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as such as 7 = □ –9	**Number and place value** ● *count in tens from any number, forward and backward* ● *recognise the place value of each digit in a two-digit number (tens, ones)* ● *use place value and number facts to solve problems*	**Addition and subtraction** ● add and subtract numbers mentally, including: – a three-digit number and ones – a three-digit number and tens – a three-digit number and hundreds ● add and subtract numbers with up to three digits ● estimate the answer to a calculation and use inverse operations to check answers ● solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction	**Addition and subtraction** ● add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate ● estimate and use inverse operations to check answers to a calculation ● solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why

	Measurement • sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening] • *recognise and use language relating to dates, including days of the week, weeks, months and years.*	**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 methods ● recall and use addition and subtraction facts to 20 fluently ● 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 **Measurement** • solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change • ask and answer questions about totaling and comparing categorical data	**Measurement** ● measure, compare, add and subtract: lengths (m / cm /mm); mass (kg / g); volume / capacity (l / ml) ● add and subtract amounts of money to give change, using both £ and p in practical contexts **Statistics** ● interpret and present data using bar charts, pictograms and tables ● solve one-step and two-step questions [for example, 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables.	**Measurement** ● estimate, compare and calculate different measures, including money in pounds and pence **Statistics** ● interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs ● solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs

Autumn Term 2

	Year 1	Year 2	Year 3	Year 4
Geometric Reasoning (Y1/2) **Multiplicative Reasoning (Y3/4)**	**Geometry: properties of shapes** ● recognise and name common 2-D and 3-D shapes, including: - 2-D shapes [for example, rectangles (including squares), circles and triangles] - 3-D shapes [for example, cuboids (including cubes), pyramids and spheres] **Geometry: position and direction** ● describe position, direction and movement.	**Geometry: properties of shapes** ● 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 **Geometry: position and direction** ● order and arrange combinations of mathematical objects in patterns and sequences	**Number and place value** ● *count from 0 in multiples of 4, 8, 50 and 100* **Multiplication and division** ● recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables ● write and calculate mathematical statements for multiplication and division using the multiplication tables that they know ● solve problems, including missing number problems, involving multiplication and division including positive integer scaling problems and correspondence problems in which *n* objects are connected to *m* objects.	**Number and place value** ● *count in multiples of* 6, 7, 9, 25 *and 1000* **Multiplication and divisions** ● recall multiplication and division facts for multiplication tables up to 12 × 12 ● 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 ● recognise and use factor pairs and commutativity in mental calculations ● solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling and harder correspondence problems such as *n* objects are connected to *m* objects.
Number Sense (Y1/2) **Geometric Reasoning (Y3/4)**	**Number and place value** • *count to and across 100, forwards and backwards, beginning with 0 or 1,* or from any given number • *count, read and write numbers to 100 in numerals* • *given a number, identify one more and one less* • *identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least* **Measurement** • *compare, describe and solve practical problems for:* *- lengths and heights [for example, long/short, longer/ shorter, tall/short, double/half]* *- mass or weight [for example, heavy/light, heavier than, lighter than]*	**Number and place value** ● *count in steps of 2 and 5 from 0 and in tens from any number, forward and backward* ● *recognise the place value of each digit in a two-digit number (tens, ones)* ● *identify, represent and estimate numbers using different representations, including the number line* ● *compare and order numbers from 0 up to 100;* use <, > and = signs ● *read and write numbers to at least 100 in numerals* ● *use place value and number facts to solve problems*	**Geometry: properties of shapes** ● draw 2-D shapes, and make 3-D shapes using modeling materials; 3-D shapes in different orientations and describe them **Geometry: position and direction** ● recognise that angles are a property of shape or adescription of a turn ● 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	**Geometry: properties of shape** ● compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes ● identify acute and obtuse angles and compare and order angles up to two right angles by size ● identify lines of symmetry in 2-D shapes presented in different orientations.

	- capacity/volume [for example, full/empty, more than, less than, half, half full, quarter]- time [for example, quicker, slower, earlier, later] recognise and use language relating to dates, including days of the week, weeks, months and years	**Measurement** ● *compare and order lengths, mass, volume / capacity* and record the results using >, < and = ● *compare and sequence intervals of time* **Statistics** ● *ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity*		
Additive Reasoning (Y1/2) **Number Sense (Y3/4)**	**Number and place value** • *count to and across 100, forwards and backwards,* • *beginning with 0 or 1, or from any given number* • *given a number, identify one more and one less* **Addition and subtraction** • *represent and use number bonds and related subtraction facts within 20* *solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as7 =□ –9.*	**Number and place value** ● *count in tens from any number, forward and backward* ● *recognise the place value of each digit in a two-digit number (tens, ones)* ● *use place value and number facts to solve problems* **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 methods* ● *recall and use addition and subtraction facts to 20 fluently,* and derive and use related facts up to 100 ● *add and subtract numbers using concrete objects, pictorial representations, and mentally, including:* – *a two-digit number and ones* – *a two-digit number and tens* – *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	**Number and place value** ● *count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number* ● *recognise the place value of each digit in a three-digit number (hundreds, tens, ones)* ● *compare and order numbers up to 1000* ● *identify, represent and estimate numbers using different representations* ● *read and write numbers up to 1000 in numerals and in words* ● *solve number problems and practical problems involving these ideas* **Measurement** ● tell and write the time from an analogue clock, including using Roman numerals from I to XII and 12-hour and 24-hour clocks ● *measure, compare, add and subtract: lengths (m / cm /mm); mass (kg / g); volume / capacity (l / ml)* **Fractions** ● 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.	**Number and place value** ● *count in multiples of 1000* ● *find 1000 more or less than a given number* ● count backwards through zero to include negative numbers ● *recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)* ● *order and compare numbers beyond 1000* ● *identify, represent and estimate numbers using different representations* ● *round any number to the nearest 10, 100 or 1000* ● *solve number and practical problems that involve all of the above and with increasingly large positive numbers* ● read Roman numerals to 100 (I to C) and know that, over time, the numeral system changed to include the concept of zero and place value.

		• recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems **Measurement** • recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value • find different combinations of coins to 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* **Statistics** • *ask and answer questions about totaling and comparing categorical data.*		

Term Spring 1

	Year 1	Year 2	Year 3	Year 4
Number Sense (Y1/2) **Additive Reasoning (Year 3/4)**	**Number and place value** ● *count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number* ● *count, read and write numbers to 100 in numerals;* count in multiples of twos and tens ● *given a number, identify one more and one less* ● *identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least* **Measurement** ● recognise and know the value of different denominations of coins and notes.	**Number and place value** ● *count in steps of 2, 3 and 5 from 0 and in tens from any number, forward and backward* **Multiplication and division** ● recognise odd and even numbers **Statistics** ● 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.	**Addition and subtraction** ● *add and subtract numbers mentally, including:* – *a three-digit number and ones* – *a three-digit number and tens* – *a three-digit number and hundreds* ● *add and subtract numbers with up to three digits* ● *estimate the answer to a calculation and use inverse operations to check answers* ● *solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction* **Measurement** ● *measure, compare, add and subtract: lengths (m / cm / mm); mass (kg / g); volume / capacity (l / ml)* ● *add and subtract amounts of money to give change, using both £ and p in practical contexts* **Statistics** ● *interpret and present data using bar charts, pictograms and tables* ● *solve one-step and two-step questions [for example, 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables.*	**Addition and subtraction** ● *add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate* ● *estimate and use inverse operations to check answers to a calculation* ● *solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why* **Measurement** ● *estimate, compare and calculate different measures, including money in pounds and pence* **Statistics** ● *interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs* *solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.*

Number Sense (Y1/2) **Multiplicative Reasoning (Y3/4)**	**Number and place value** ● *count, read and write numbers to 100 in numerals; count in multiples of twos and tens* **Multiplication and division** ● solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher **Measurement** ● *recognise and know the value of different denominations of coins and notes.*	**Number and place value** ● *count in steps of 2, 3 and 5 from 0 and in tens from any number, forward and backward* **Multiplication and division** ● 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 **Measurement** ● *recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value* ● *find different combinations of coins to equal the same amounts of money* ● tell and write the time to five minutes ● know the number of minutes in an hour and the number of hours in a day. ●	**Number and place value** ● *identify, represent and estimate numbers using different representations* **Fractions** ● *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* ● recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators ● add and subtract fractions with the same denominator within one whole [for example, $^5/_7 + ^1/_7 = ^6/_7$] ● compare and order unit fractions and fractions with the same denominator ● solve problems that involve all of the above.	**Fractions (including decimals)** ● count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten ● recognise and show, using diagrams, families of common equivalent fractions ● add and subtract fractions with the same denominator ● recognise and write decimal equivalents of any number of tenths or hundredths ● recognise and write decimal equivalents to $^1/_4$, $^1/_2$, $^3/_4$ ● 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 ones, tenths and hundredths ● round decimals with one decimal place to the nearest whole number ● compare numbers with the same number of decimal places up to two decimal places **Measurement** convert between different units of measure [for example, kilometre to metre].

Term Spring 2

	Year 1	Year 2	Year 3	Year 4
Number Sense (Y1/2) **Multiplicative Reasoning (Year 3/4)**	**Number and place value** ● *count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number* ● *count, read and write numbers to 100 in numerals; count in multiples of twos and tens* ● *given a number, identify one more and one less* ● *identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least* **Measurement** ● measure and begin to record the following: – lengths and heights – mass/weight – capacity and volume ● *recognise and know the value of different denominations of coins and notes.*	**Number and place value** ● *count in steps of 2, 3 and 5 from 0 and in tens from any number, forward and backward* ● *recognise the place value of each digit in a two-digit number (tens, ones)* ● *identify, represent and estimate numbers using different representations, including the number line* ● *compare and order numbers from 0 up to 100; use <, > and = signs* ● *read and write numbers to at least 100 in numerals* ● *use place value and number facts to solve problems* **Measurement** ● 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 =* ● *compare and sequence intervals of time.*	**Number and place value** ● *count from 0 in multiples of 4, 8, 50 and 100* **Multiplication and division** ● *recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables* ● *write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers* ● *solve problems, including missing number problems, involving multiplication and division including positive integer scaling problems and correspondence problems in which n objects are connected to m objects* **Fractions** ● *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* ● recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators ● solve problems that involve all of the above.	**Number and place value** ● *count in multiples of 6, 7, 9, 25 and 1000* **Multiplication and division** ● *recall multiplication and division facts for multiplication tables up to 12 × 12* ● *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* ● *recognise and use factor pairs and commutativity in mental calculations* ● *solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling and harder correspondence problems such as n objects are connected to m objects* **Fractions (including decimals)** ● solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number

				Measurement ● solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.
Additive Reasoning **Geometric Reasoning**	**Number and place value** ● *count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number* ● *given a number, identify one more and one less* **Addition and subtraction** ● read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs ● *represent and use number bonds and related subtraction facts within 20* ● add and subtract one-digit and two-digit numbers to 20, including zero ● *solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = ☐ –9* **Measurement** ● *sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening]* ● *recognise and use language relating to dates, including days of the week, weeks, months and years.*	**Number and place value** ● *count in tens from any number, forward and backward* ● *recognise the place value of each digit in a two-digit number (tens, ones)* ● *use place value and number facts to solve problems* **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 methods* ● *recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100* ● *add and subtract numbers using concrete objects, pictorial representations, and mentally, including:* – *a two-digit number and ones* – *a two-digit number and tens* – *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*	**Geometry: properties of shapes** ● *draw 2-D shapes, and make 3-D shapes using modeling materials; recognise 3-D shapes in different orientations and describe them* ● *recognise that angles are a property of shape or a description of a turn* ● *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* ● identify horizontal and vertical lines and pairs of perpendicular and parallel lines.	**Geometry: properties of shapes** ● *compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes* **Geometry: position and direction** ● describe positions on a 2-D grid as coordinates in the first quadrant ● describe movements between positions as translations of a given unit to the left / right and up / down ● plot specified points and draw sides to complete a given polygon.

		check calculations and solve missing number problems **Measurement** ● *recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value* ● *find different combinations of coins to 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* **Statistics** ● *ask and answer questions about totalling and comparing categorical data.*		
Geometric Reasoning **Number Sense**	**Geometry: properties of shapes** ● *recognise and name common 2-D and 3-D shapes, including:* – *2-D shapes [for example, rectangles (including squares), circles and triangles]* – *3-D shapes [for example, cuboids (including cubes), pyramids and spheres]* **Geometry: position and direction** ● *describe position, direction and movement.*	**Geometry: properties of shape** ● *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* **Geometry: position and direction** ● *order and arrange combinations of mathematical objects in patterns and sequences* ● *use mathematical vocabulary to describe position, direction and movement.*	**Number and place value** ● *count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number* ● *recognise the place value of each digit in a three-digit number (hundreds, tens, ones)* ● *compare and order numbers up to 1000* ● *identify, represent and estimate numbers using different representations* ● *read and write numbers up to 1000 in numerals and in words* ● *solve number problems and practical problems involving these ideas* **Measurement** ● *tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks*	**Number and place value** ● *count in multiples of 1000* ● *find 1000 more or less than a given number* ● *count backwards through zero to include negative numbers* ● *recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)* ● *order and compare numbers beyond 1000* ● *identify, represent and estimate numbers using different representations* ● *round any number to the nearest 10, 100 or 1000* ● *solve number and practical problems that involve all of the above and with increasingly large positive numbers* **Measurement** ● *convert between different units of measure [for example, hour to minute]*

			• estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, a.m. / p.m., morning, afternoon, noon and midnight • know the number of seconds in a minute and the number of days in each month, year and leap year • compare durations of events, [for example, to calculate the time taken by particular events or tasks] **Statistics** • *interpret and present data using bar charts, pictograms and tables.*	• read, write and convert time between analogue and digital 12- and 24-hour clocks • *solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days* **Statistics** • *solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.*

Term Summer 1

	Year 1	Year 2	Year 3	Year 4
Number Sense (Y1/2) **Additive Reasoning (Year 3/4)**	**Number and place value** ● *count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number* ● *count, read and write numbers to 100 in numerals, count in multiples of twos, fives and tens* ● *given a number, identify one more and one less* ● *identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least* ● read and write numbers from 1 to 20 in numerals and words **Measurement** ● *measure and begin to record the following:* – *lengths and heights* – *mass/weight* – *capacity and volume* – time (hours, minutes, seconds) ● *recognise and know the value of different denominations of coins and notes*	**Number and place value** ● *count in steps of 2, 3 and 5 from 0 and in tens from any number, forward and backward* ● *recognise the place value of each digit in a two-digit number (tens, ones)* ● *identify, represent and estimate numbers using different representations, including the number line* ● *compare and order numbers from 0 up to 100; use <, > and = signs* ● *read and write numbers to at least 100 in numerals* and in words ● *use place value and number facts to solve problems* **Measurement** ● *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 =* ● *compare and sequence intervals of time* **Statistics**	**Addition and subtraction** ● *add and subtract numbers mentally, including:* – *a three-digit number and ones* – *a three-digit number and tens* – *a three-digit number and hundreds* ● *add and subtract numbers with up to three digits*, using formal written methods of columnar addition and subtraction ● *estimate the answer to a calculation and use inverse operations to check answers* ● *solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction* **Measurement** ● *measure, compare, add and subtract: lengths (m / cm / mm); mass (kg / g); volume / capacity (l / ml)* ● *add and subtract amounts of money to give change, using both £ and p in practical contexts* ● *record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, a.m. / p.m., morning, afternoon, noon and midnight* ● *know the number of seconds in a minute and the number of days in each month, year and leap year* ● *compare durations of events, [for example, to calculate the time taken by particular events or tasks]* **Statistics**	**Addition and subtraction** ● *add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate* ● *estimate and use inverse operations to check answers to a calculation* ● *solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why* **Statistics** ● *interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs* ● *solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs* **Fractions (including decimals)** ● <u>solve simple measure and money problems involving fractions and decimals to two decimal places</u>

		• *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.*	• *interpret and present data using bar charts, pictograms and tables* • *solve one-step and two-step questions [for example, 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables.*	**Measurement** • *estimate, compare and calculate different measures, including money in pounds and pence*
Additive reasoning (Y1/2) **Number Sense (Y3/4)**	**Number and place value** • *count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number* • *given a number, identify one more and one less* **Addition and subtraction** • *read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs* • *represent and use number bonds and related subtraction facts within 20* • *add and subtract one-digit and two-digit numbers to 20, including zero* • *solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = ☐ –9*	**Number and place value** • *count in tens from any number, forward and backward* • *recognise the place value of each digit in a two-digit number (tens, ones)* • *use place value and number facts to solve problems* **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 methods and written methods* • *recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100* • *add and subtract numbers using concrete objects, pictorial representations, and mentally, including:* – *a two-digit number and ones* – *a two-digit number and tens* – *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*	**Number and place value** • *identify, represent and estimate numbers using different representations* **Fractions** • *count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and dividing one-digit numbers or quantities by 10* • *recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators* • recognise and show, using diagrams, equivalent fractions with small denominators • *add and subtract fractions with the same denominator within one whole [for example, $^5/_7 + ^1/_7 = ^6/_7$]* • *compare and order unit fractions and fractions with the same denominator.* • *solve problems that involve all of the above.*	**Fractions (including decimals)** • *count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten* • *recognise and show, using diagrams, families of common equivalent fractions* • *add and subtract fractions with the same denominator* • *recognise and write decimal equivalents of any number of tenths or hundredths* • *recognise and write decimal equivalents to $^1/_4$, $^1/_2$, $^3/_4$.* • *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 ones, tenths and hundredths* • *round decimals with one decimal place to the nearest whole number* • *compare numbers with the same number of decimal places up to two decimal places* **Measurement** • *convert between different units of measure [for example, kilometre to metre).*

		check calculations and solve missing number problems **Statistics** ● *ask and answer questions about totaling and compare categorical data*		

Term Summer 2

	Year 1	Year 2	Year 3	Year 4
Multiplicative Reasoning	**Number and place value** ● *count, read and write numbers to 100 in numerals, count in multiples of twos, fives and tens* **Multiplication and division** ● *solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher* **Fractions** ● recognise, find and name a half as one of two equal parts of an object, shape or quantity ● recognise, find and name a quarter as one of four equal parts of an object, shape or quantity **Measurement** ● *recognise and know the value of different denominations of coins and notes* ● tell the time to the hour and half past the hour and draw the hands on a clock face to show these times.	**Number and place value** ● *count in steps of 2, 3 and 5 from 0 and in tens from any number, forward and backward* **Multiplication and division** ● *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* **Fractions** ● 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 $^{1}/_{2}$. **Measurement** ● *tell and write the time to five minutes,* including quarter past / to the hour and	**Number and place value** ● *count from 0 in multiples of 4, 8, 50 and 100* **Multiplication and division** ● *recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables* ● *write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers,* using mental and progressing to formal written methods ● *solve problems, including missing number problems, involving multiplication and division; solve positive integer scaling problems and correspondence problems in which* n *objects are connected to* m *objects.* **Fractions** ● *count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividin one-digit numbers or quantities by 10* ● *recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators* ● *solve problems that involve all of the above.* **Measurement** ● *know the number of seconds in a minute and the number of days in each month, year and leap year.*	**Number and place value** ● *count in multiples of 6, 7, 9, 25 and 1000* **Multiplication and division** ● *recall multiplication and division facts for multiplication tables up to 12 × 12* ● *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* ● *recognise and use factor pairs and commutativity in mental calculations* ● multiply two-digit and three-digit numbers by a one-digit number using formal written layout ● *solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling and harder correspondence problems such as* n *objects are connected to* m *objects.* **Fractions (including decimals)** ● *solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number* **Measurement** *solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days*

		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.*		
Geometric Reasoning	**Fractions** ● *recognise, find and name a half as one of two equal parts of an object, shape or quantity* ● *recognise, find and name a quarter as one of four equal parts of an object, shape or quantity* **Geometry: properties of shapes** ● *recognise and name common 2-D and 3-D shapes, including:* – *2-D shapes [for example, rectangles (including squares), circles and triangles]* – *3-D shapes [for example, cuboids (including cubes), pyramids and spheres]* **Geometry: position and direction** • describe position, direction and movement, *<u>including whole, half, quarter and three-quarter turns</u>*	**Geometry: properties of shape** ● *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* **Geometry: position and direction** ● *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) **Fractions** ● *recognise, find, name and write fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$ and $\frac{3}{4}$ of a length, shape, set of objects or quantity write simple fractions for example, $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$.*	**Geometry: properties of shape** ● *recognise that angles are a property of shape or a description of a turn* ● *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* ● *identify horizontal and vertical lines and pairs of perpendicular and parallel lines* ● measure the perimeter of simple 2-D shapes.	**Geometry: properties of shapes** ● *compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes* ● *identify acute and obtuse angles and compare and order angles up to two right angles by size* ● *identify lines of symmetry in 2-D shapes presented in different orientations* ● complete a simple symmetric figure with respect to a specific line of symmetry **Measurement** ● measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres find the area of rectilinear shapes by counting squares