| Area of Coverage | Completed | Area of Coverage | Completed |
| :---: | :---: | :---: | :---: |
| Number and Place Value |  | Measurement |  |
| Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number |  | Compare, describe and solve practical problems for: lengths and height, mass/weight, capacity and volume, time |  |
| Given a number, identify one more and one less |  | Measure and begin to record the following: lengths and height, mass/weight, capacity and volume, time |  |
| Count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens |  | Recognise and know the value of different denominations of coins and notes |  |
| 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 |  | Sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening] |  |
| Read and write numbers from 1 to 20 in numerals and words. |  | Recognise and use language relating to dates, including days of the week, weeks, months and years |  |
| Addition and Subtraction |  | Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times. |  |
| Read, write and interpret mathematical statements involving addition $(+)$, subtraction $(-)$ and equals ( $=$ ) signs |  | Properties of Shapes |  |
| Represent and use number bonds and related subtraction facts within 20 |  | 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]. |  |
| Add and subtract one-digit and two-digit numbers to 20, including zero |  | Position and Direction |  |
| Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7=-9$. |  | Describe position, direction and movement, including whole, half, quarter and three quarter turns. |  |
| 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. |  |  |  |
| Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity. |  |  |  |


| Area of Coverage | Completed | Area of Coverage | Completed |
| :---: | :---: | :---: | :---: |
| Number and Place Value |  | Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication ( $\times$ ), division ( $\div$ ) and equals ( $=$ ) signs |  |
| Count in steps of 2, 3, and 5 from 0 , and in tens from any number, forward and backward |  | Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot |  |
| Recognise the place value of each digit in a two-digit number (tens, ones) |  | Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts. |  |
| Identify, represent and estimate numbers using different representations, including the number line |  | Fractions |  |
| Compare and order numbers from 0 up to 100; use <, > and = signs |  | Recognise, find, name and write fractions $1 / 3,1 / 4,2 / 4$ and $3 / 4$ of a length, shape, set of objects or quantity |  |
| Read and write numbers to at least 100 in numerals and in words |  | write simple fractions for example, $1 / 2$ of $6=3$ and recognise the equivalence of $2 / 4$ and $1 / 2$ |  |
| Use place value and number facts to solve problems. |  | Measurement |  |
| Addition and Subtraction |  | Choose and use appropriate standard units to estimate and measure length/height in any direction ( $\mathrm{m} / \mathrm{cm}$ ); mass (kg/g); temperature ( ${ }^{\circ} \mathrm{C}$ ); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels |  |
| solve problems with addition and subtraction: using concrete objects and pictorial representations, including those involving numbers, quantities and measures applying their increasing knowledge of mental and written methods |  | Compare and order lengths, mass, volume/capacity and record the results using >, < and = |  |
| recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 |  | Recognise and use symbols for pounds ( $£$ ) and pence (p); combine amounts to make a particular value |  |
| 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 onedigit numbers |  | Find different combinations of coins that equal the same amounts of money |  |
| show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot |  | Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change |  |
| Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems. |  | compare and sequence intervals of time |  |
| Multiplication and Division |  | 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 |  |
| Recall and use multiplication and division facts for the 2,5 and 10 multiplication tables, including recognising odd and even numbers |  | Know the number of minutes in an hour and the number of hours in a day. |  |


| Properties of Shapes |  | Statistics |
| :--- | :--- | :--- |
| Identify and describe the properties of 2-D shapes, including the number <br> of sides and line symmetry in a vertical line |  | Interpret and construct simple pictograms, tally charts, block diagrams and <br> simple tables |
| Identify and describe the properties of 3-D shapes, including the number <br> of edges, vertices and faces |  | Ask and answer simple questions by counting the number of objects in <br> each category and sorting the categories by quantity |
| Identify 2-D shapes on the surface of 3-D shapes, [for example, a circle <br> on a cylinder and a triangle on a pyramid] |  | Ask and answer questions about totalling and comparing categorical data. |
| Compare and sort common 2-D and 3-D shapes and everyday objects. |  | Interpret and construct simple pictograms, tally charts, block diagrams and <br> simple |
| Position and Direction |  |  |
| Order and arrange combinations of mathematical objects in patterns and <br> sequences |  |  |
| Use mathematical vocabulary to describe position, direction and <br> movement, including movement in a straight line and distinguishing <br> between rotation as a turn and in terms of right angles for quarter, half <br> and three-quarter turns (clockwise and anticlockwise). |  |  |


| Area of Coverage | Completed | Area of Coverage | Completed |
| :---: | :---: | :---: | :---: |
| Number and Place Value |  | Fractions |  |
| Count from 0 in multiples of 4, 8,50 and 100; find 10 or 100 more or less than a given number |  | Count up and down in tenths; recognise that tenths arise from dividing an object into10 equal parts and in dividing one-digit numbers or quantities by 10 |  |
| Recognise the place value of each digit in a three-digit number (hundreds, tens, ones) |  | Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators |  |
| Compare and order numbers up to 1000 |  | Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators |  |
| Identify, represent and estimate numbers using different representations |  | Recognise and show, using diagrams, equivalent fractions with small denominators |  |
| Read and write numbers up to 1000 in numerals and in words |  | Add and subtract fractions with the same denominator within one whole |  |
| Solve number problems and practical problems involving these ideas. |  | Compare and order unit fractions, and fractions with the same denominators |  |
| Addition and Subtraction |  | Solve problems that involve all of the above. |  |
| Add and subtract numbers mentally, including: a three-digit number and ones, a three-digit number and tens, a three-digit number and hundreds |  | Measurement |  |
| Add and subtract numbers with up to three digits, using formal written methods of column addition and subtraction |  | Measure, compare, add and subtract: lengths ( $\mathrm{m} / \mathrm{cm} / \mathrm{mm}$ ); mass ( $\mathrm{kg} / \mathrm{g}$ ); volume/capacity (l/ml) |  |
| Estimate the answer to a calculation and use inverse operations to check answers |  | Measure the perimeter of simple 2-D shapes |  |
| Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction. |  | Add and subtract amounts of money to give change, using both $£$ and $p$ in practical contexts |  |
| Multiplication and Division |  | Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24 -hour clocks |  |
| Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables |  | 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 |  |
| Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for twodigit numbers times one-digit numbers, using mental and progressing to formal written methods |  | Know the number of seconds in a minute and the number of days in each month, year and leap year |  |
| 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. |  | Compare durations of events [for example to calculate the time taken by particular events or tasks]. |  |


| Properties of Shapes |  |  |  |
| :--- | :--- | :--- | :--- |
| Draw 2-D shapes and make 3-D shapes using modelling materials; <br> recognise 3-D shapes in different orientations and describe them |  |  |  |
| Recognise angles as a property of shape or a description of a turn |  |  |  |
| Identify right angles, recognise that two right angles make a half-turn, <br> three make three quarters of a turn and four a complete turn; identify <br> whether angles are greater |  |  |  |
| Identify horizontal and vertical lines and pairs of perpendicular and <br> parallel lines |  |  |  |
| Statistics |  |  |  |
| Interpret and present data using bar charts, pictograms and tables |  |  |  |
| Solve one-step and two-step questions [for example, 'How many more?' <br> and 'How many fewer?'] using information presented in scaled bar <br> charts and pictograms and |  |  |  |
|  |  |  |  |


| Area of Coverage | Completed | Area of Coverage | Completed |
| :---: | :---: | :---: | :---: |
| Number and Place Value |  | Multiply two-digit and three-digit numbers by a one-digit number using formal written layout |  |
| Count in multiples of 6, 7, 9, 25 and 1000 |  | solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects. |  |
| Find 1000 more or less than a given number |  | Fractions |  |
| Count backwards through zero to include negative numbers |  | Recognise and show, using diagrams, families of common equivalent fractions |  |
| Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones) |  | Count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten. |  |
| Order and compare numbers beyond 1000 |  | Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole |  |
| Identify, represent and estimate numbers using different representations |  | Add and subtract fractions with the same denominator |  |
| Round any number to the nearest 10, 100 or 1000 |  | Recognise and write decimal equivalents of any number of tenths or hundredths |  |
| Solve number and practical problems that involve all of the above and with increasingly large positive numbers |  | recognise and write decimal equivalents to $1 / 4,1 / 2,3 / 4$ |  |
| 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. |  | 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 |  |
| Addition and Subtraction |  | Round decimals with one decimal place to the nearest whole number |  |
| Add and subtract numbers with up to 4 digits using the formal written methods of column addition and subtraction where appropriate |  | Compare numbers with the same number of decimal places up to two decimal places |  |
| Estimate and use inverse operations to check answers to a calculation |  | Solve simple measure and money problems involving fractions and decimals to two decimal places. |  |
| Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why. |  | Measurement |  |
| Multiplication and Division |  | Convert between different units of measure [for example, kilometre to metre; hour to minute] |  |
| Recall multiplication and division facts for multiplication tables up to $12 \times$ 12 |  | Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres |  |
| 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 |  | Find the area of rectilinear shapes by counting squares |  |


| Estimate, compare and calculate different measures, including money in <br> pounds and pence |  | Statistics |
| :--- | :--- | :--- |
| Properties of Shapes |  | Interpret and present discrete and continuous data using appropriate <br> graphical methods, including bar charts and time graphs. |
| Compare and classify geometric shapes, including quadrilaterals and <br> triangles, based on their properties and sizes |  | Solve comparison, sum and difference problems using information <br> presented in bar charts, pictograms, tables and other graphs |
| Identify acute and obtuse angles and compare and order angles up to <br> two right angles by size |  |  |
| Identify lines of symmetry in 2-D shapes presented in different <br> orientations |  |  |
| Complete a simple symmetric figure with respect to a specific line of <br> symmetry. |  |  |
| 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 <br> the left/right and up/down |  |  |
| Plot specified points and draw sides to complete a given polygon. |  |  |
|  |  |  |


| Area of Coverage | Completed | Area of Coverage | Completed |
| :---: | :---: | :---: | :---: |
| Number and Place Value |  | Multiply and divide numbers mentally drawing upon known facts |  |
| Read, write, order and compare numbers to at least 1000000 and determine the value of each digit |  | Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context |  |
| Count forwards or backwards in steps of powers of 10 for any given number up to1 000000 |  | Multiply and divide whole numbers and those involving decimals by 10 , 100 and 1000 |  |
| Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero |  | Fractions, Decimals and Percentages |  |
| Round any number up to 1000000 to the nearest $10,100,1000,10000$ and 100000 |  | Compare and order fractions whose denominators are all multiples of the same number |  |
| Solve number problems and practical problems that involve all of the above |  | Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths |  |
| Read Roman numerals to $1000(\mathrm{M})$ and recognise years written in Roman numerals. |  | Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements $>1$ as a mixed number |  |
| Addition and Subtraction |  | Add and subtract fractions with the same denominator and denominators that are multiples of the same number |  |
| Add and subtract whole numbers with more than 4 digits, including using formal written methods (column addition and subtraction) |  | Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams |  |
| Add and subtract numbers mentally with increasingly large numbers |  | Read and write decimal numbers as fractions |  |
| Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy |  | Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents |  |
| Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. |  | Round decimals with two decimal places to the nearest whole number and to one decimal place |  |
| Multiplication and Division |  | Read, write, order and compare numbers with up to three decimal places |  |
| Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers |  | Solve problems involving number up to three decimal places |  |
| Know and use the vocabulary of prime numbers, prime factors and composite (nonprime) numbers |  | Recognise the per cent symbol (\%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal |  |
| Establish whether a number up to 100 is prime and recall prime numbers up to 19 |  | Solve problems which require knowing percentage and decimal equivalents of $1 / 2,1 / 4,1 / 5,2 / 5,4 / 5$ and those fractions with a denominator of a multiple of 10 or 25 . |  |
| Multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers |  |  |  |


| Measurement |  | Draw given angles, and measure them in degrees (o) |
| :--- | :--- | :--- |
| Convert between different units of metric measure (for example, <br> kilometre and metre; centimetre and metre; centimetre and millimetre; <br> gram and kilogram; litre and millilite) |  | Identify: angles at a point and one whole turn (total 360o) angles at a point <br> on a straight line and $1 / 2$ a turn (total 180o) |
| Understand and use approximate equivalences between metric units <br> and common imperial units such as inches, pounds and pints |  | Use the properties of rectangles to deduce related facts and find missing <br> lengths and angles |
| Measure and calculate the perimeter of composite rectilinear shapes in <br> centimetres and metres |  | Distinguish between regular and irregular polygons based on reasoning <br> about equal sides and angles. |
| Calculate and compare the area of rectangles (including squares), and <br> including using standard units, square centimetres (cm2) and square <br> metres (m2) and estimate the area of irregular shapes |  | Position and Direction |
| Estimate volume [for example, using 1 cm3 blocks to build cuboids <br> (including cubes) and capacity [for example, using water] |  | Identify, describe and represent the position of a shape following a <br> reflection or translation, using the appropriate language, and know that <br> the shape has not changed. |
| Solve problems involving converting between units of time | Statistics |  |
| Use all four operations to solve problems involving measure [for <br> example, length, mass, volume, money] using decimal notation, <br> including scaling. | Solve comparison, sum and difference problems using information <br> presented in a line graph |  |
| Properties of Shapes | Complete, read and interpret information in tables, including timetables |  |
| Identify 3-D shapes, including cubes and other cuboids, from 2-D <br> representations |  | Know angles are measured in degrees: estimate and compare acute, <br> obtuse and reflex angles |


| Area of Coverage | Completed | Area of Coverage | Completed |
| :---: | :---: | :---: | :---: |
| Number and Place Value |  | Multiply simple pairs of proper fractions, writing the answer in its simplest form |  |
| Read, write, order and compare numbers up to 10000000 and determine the value of each digit |  | Divide proper fractions by whole numbers |  |
| Round any whole number to a required degree of accuracy |  | Associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, 3/8] |  |
| Use negative numbers in context, and calculate intervals across zero |  | Identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places |  |
| Solve number and practical problems that involve all of the above. |  |  |  |
| Addition, Subtraction, Multiplication and Division |  | Ratio and Proportion |  |
| Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication |  | Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts |  |
| Divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context |  | Solve problems involving the calculation of percentages [for example, of measures, and such as $15 \%$ of 360 ] and the use of percentages for comparison |  |
| Divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context |  | Solve problems involving similar shapes where the scale factor is known or can be found |  |
| Perform mental calculations, including with mixed operations and large numbers |  | Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples. |  |
| Identify common factors, common multiples and prime numbers |  | Algebra |  |
| Use their knowledge of the order of operations to carry out calculations involving the four operations |  | Use simple formulae |  |
| Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why |  | Generate and describe linear number sequences |  |
| Fractions, Decimals and Percentages |  | Express missing number problems algebraically |  |
| Use common factors to simplify fractions; use common multiples to express fractions in the same denomination |  | Find pairs of numbers that satisfy an equation with two unknowns |  |
| Compare and order fractions, including fractions > 1 |  |  |  |
| Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions |  |  |  |


| Measurement |  | Compare and classify geometric shapes based on their properties and sizes <br> and find |  |
| :--- | :--- | :--- | :--- |
| Solve problems involving the calculation and conversion of units of <br> measure, using decimal notation up to three decimal places where <br> appropriate |  | Unknown angles in any triangles, quadrilaterals, and regular polygons |  |
| Use, read, write and convert between standard units, converting <br> measurements of length, mass, volume and time from a smaller unit of <br> measure to a larger unit, and vice versa, using decimal notation to up to <br> three decimal places |  | Illustrate and name parts of circles, including radius, diameter and <br> circumference and know that the diameter is twice the radius |  |
| Convert between miles and kilometres |  | Recognise angles where they meet at a point, are on a straight line, or are <br> vertically opposite, and find missing angles. |  |
| Recognise that shapes with the same areas can have different <br> perimeters and vice versa | Position and Direction |  |  |
| Recognise when it is possible to use formulae for area and volume of <br> shapes |  | Describe positions on the full coordinate grid (all four quadrants) |  |
| Calculate the area of parallelograms and triangles | Draw and translate simple shapes on the coordinate plane, and reflect <br> them in the |  |  |
| Calculate, estimate and compare volume of cubes and cuboids using <br> standard units, including cubic centimetres (cm3) and cubic metres (m3), <br> and extending to other units[for example, mm3 and km3]. |  | Statistics |  |
| Properties of Shapes | Interpret and construct pie charts and line graphs and use these to solve <br> problems | Calculate and interpret the mean as an average. <br> Draw 2-D shapes using given dimensions and angles |  |
| Recognise, describe and build simple 3-D shapes, including making nets |  |  |  |

