Number and Place Value *Red text denotes where a strand starts specific to year groups

| Counting |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| Count to and across 100, forwards and backwards, beginning with 0 or 1 , or from any given number. |  |  | Count backwards through 0 to include negative numbers. | Interpret negative numbers in context, count forwards and backwards with positive numbers, including through 0 . | Use negative numbers in context, and calculate intervals across zero. |
| Count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens. | Count in steps of 2, 3 and 5 from 0 , and in tens from any number, forward or backward. | Count from 0 in multiples of $4,8,50$ and 100 . | Count in multiples of 6, 7, 9, 25 and 1,000. | Count forwards or backwards in steps of powers of 10 for any given number to 1,000,000. |  |
| Given a number; identify one more and one less. |  | Find 10 or 100 more or less than a given a number. | Find 1,000 more or less than a given number. |  |  |
| Comparing Numbers |  |  |  |  |  |
| Use the language of: equal to, more than, less than (fewer), most, least. | Compare and order numbers from 0 up to 100; use <, > and = signs. | Compare and order numbers up to 1,000 . | Order and compare numbers beyond 1,000. | Read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit (appears also in Reading and Writing Numbers). | Read, write, order and compare numbers to $10,000,000$ and determine the value of each digit (appears also in Reading and Writing Numbers). |
|  |  |  | Compare numbers with the same number of decimal places up to two decimal places (copied from Fractions) |  |  |
| Identifying, Representing and Estimating Numbers |  |  |  |  |  |
|  | Identify and represent numbers using objects and pictorial representations including the number line. | Identify, represent and estimate numbers using different representations, including the number line. | Identify, represent and estimate numbers using different representations | Identify, represent and estimate numbers using different representations. |  |
| Reading and Writing Numbers (including Roman Numerals) |  |  |  |  |  |
| Read and write numbers from 1 to 20 in numerals and words. | Read and write numbers to at least 100 in numerals and words. | Read and write numbers up to 1,000 in numerals and in words. | 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. | Read, write, order and compare numbers to at least 1,000000 and determine the place value of each digit (appears also in Comparing Numbers.) | Read, write, order and compare numbers to 10, 000000 and determine the value of each digit (appears also in Understanding Place Value.) |
|  |  | Tell and write the time from an analogue clock, including using Roman |  | Read Roman numerals to $1,000(\mathrm{M})$ and recognise |  |



## Adding and Subtracting

## Counting

| Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Represent and use number bonds and related subtraction facts within 20. | Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100. |  |  |  |  |
| Mental Calculation |  |  |  |  |  |
| Add and subtract one-digit and two-digit numbers to 20, including zero. | Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: * a two-digit number and ones <br> * a two-digit number and tens <br> * two two-digit numbers <br> * adding three one-digit numbers. | Add and subtract numbers mentally, including: <br> * a three-digit number and ones * a three-digit number and tens * a three-digit number and hundreds. |  | Add and subtract numbers mentally with increasingly large numbers. | Perform mental calculations, including with mixed operations and large numbers. |
| Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs (appears also in Written Methods). | Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot. |  |  |  | Use their knowledge of the order of operations to carry out calculations involving the four operations. |
| Written Methods |  |  |  |  |  |
| Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs (appears also in Mental <br> Calculation). |  | Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction. | Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate. | Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction). |  |
| Inverse Operations, Estimating and Checking Answers |  |  |  |  |  |
|  | Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems. | Estimate the answer to a calculation and use inverse operations to check answers. | Estimate and use inverse operations to check answers to a calculation. | Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy. | Use estimation to check answers to calculations and determine, in the context of a problem, levels of accuracy. |
| Problem Solving |  |  |  |  |  |


| Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7=\square-9$. | Solve problems with addition and subtraction: <br> * using concrete objects and pictorial representations, including those involving numbers, quantities and measures <br> * applying their increasing knowledge of mental and written methods <br> Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change (copied from Measurement). | Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction. | Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why. | Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. | Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. <br> Solve problems involving addition, subtraction, multiplication and division |
| :---: | :---: | :---: | :---: | :---: | :---: |

Multiplication and Division

| Multiplication and Division Facts |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| Count in multiples of twos, fives and tens (copied from Number and Place Value). | Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward or backward (Copied from Number and Place Value). | Count from 0 in multiples of $4,8,50$ and 100 (Copied from Number and Place Value). | Count in multiples of 6, 7, 9, 25 and 1000 <br> (Copied from Number and Place Value). | Count forwards or backwards in steps of powers of 10 for any given number up to $1000000$ <br> (Copied from Number and Place Value). |  |
|  | Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers. | Recall and use multiplication and division facts for the 3,4 and 8 multiplication tables. | Recall multiplication and division facts for multiplication tables up to $12 \times 12$. |  |  |
| Mental Calculation |  |  |  |  |  |
|  |  | 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 (appears also in Written Methods). | 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 | Multiply and divide numbers mentally drawing upon known facts. | Perform mental calculations, including with mixed operations and large numbers. |
|  | Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot. |  | Recognise and use factor pairs and commutativity in mental calculations (appears also in Properties of Numbers). | Multiply and divide whole numbers and those involving decimals by 10 , 100 and 1000. | Associate a fraction with division and calculate decimal fraction equivalents (e.g. 0.375) for a simple fraction (e.g. $3 / 8$ ). (Copied from Fractions). |
| Written Calculation |  |  |  |  |  |
|  | Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication | Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times | Multiply two-digit and three-digit numbers by a one-digit number using formal written layout. | Multiply numbers up to 4 digits by a one- or twodigit number using a formal written method, including long multiplication for two-digit numbers. | Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication. |



|  |  |  |  | numbers, and the notation for squared ( ${ }^{2}$ ) and cubed $\left.{ }^{3}\right)$. | and cuboids using standard units, including centimetre cubed ( $\mathrm{cm}^{3}$ ) and cubic metres $\left(\mathrm{m}^{3}\right)$, and extending to other units such as $\mathrm{mm}^{3}$ and $\mathrm{km}^{3}$. (Copied from Measures). |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Order of Operations |  |  |  |  |  |
|  |  |  |  |  | Use their knowledge of the order of operations to carry out calculations involving the four operations. |
| Inverse Operations, Estimating and Checking Answers |  |  |  |  |  |
|  |  | Estimate the answer to a calculation and use inverse operations to check answers. (Copied from Addition and Subtraction). | Estimate and use inverse operations to check answers to a calculation. (Copied from Addition and Subtraction). |  | Use estimation to check answers to calculations and determine, in the context of a problem, levels of accuracy. |
| Problem Solving |  |  |  |  |  |
| 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. | Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts. | 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. | 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. | Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes. | Solve problems involving addition, subtraction, multiplication and division. |
|  |  |  |  | Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign. |  |
|  |  |  |  | Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates. | Solve problems involving similar shapes where the scale factor is known or can be found. (Copied from Ratio and Proportion). |

Fractions (Including Decimals and Percentages)

| Counting in Fractional Steps |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
|  | Pupils should count in fractions up to 10, starting from any number and using the $1 / 2$ and $2 / 4$ equivalence on the number line (Non Statutory Guidance). | Count up and down in tenths. | Count up and down in hundredths. |  |  |
| Recognising Fractions |  |  |  |  |  |
| Recognise, find and name a half as one of two equal parts of an object, shape or quantity. | Recognise, find, name and write fractions $1 /{ }_{3},{ }^{1} / 4$, ${ }^{2} / 4$ and ${ }^{3} / 4$ of a length, shape, and a set of objects or quantity. | Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators. | Recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten. | Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents (appears also in Equivalence). |  |
| Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity. |  | 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. |  |  |  |
| Comparing Fractions |  |  |  |  |  |
|  |  | Compare and order unit fractions, and fractions with the same denominators. |  | Compare and order fractions whose denominators are all multiples of the same number. | Compare and order fractions, including fractions $>1$. |
| Comparing Decimals |  |  |  |  |  |
|  |  |  | Compare numbers with the same number of decimal places up to two decimal places. | Read, write, order and compare numbers with up to three decimal places. | Identify the value of each digit in numbers given to three decimal places. |
| Rounding Including Decimals |  |  |  |  |  |


|  |  | Round decimals with one decimal place to the nearest whole number. | Round decimals with two decimal places to the nearest whole number and to one decimal place. | Solve problems which require answers to be rounded to specified degrees of accuracy. |
| :---: | :---: | :---: | :---: | :---: |
| Equivalence (including Fractions, Decimals and Percentages) |  |  |  |  |
| Write simple fractions e.g. ${ }^{1} / 2$ of $6=3$ and recognise the equivalence of ${ }^{2} / 4$ and $1 / 2$. | Recognise and show, using diagrams, equivalent fractions with small denominators. | Recognise and show, using diagrams, families of common equivalent fractions. | Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths. | Use common factors to simplify fractions; use common multiples to express fractions in the same denomination. |
| Addition and Subtraction of Fractions |  |  |  |  |
|  | Add and subtract fractions with the same denominator within one whole (e.g. ${ }^{5} / 7+1 / 7=6 / 7$ ) | Add and subtract fractions with the same denominator. | Add and subtract fractions with the same denominator and multiples of the same number. <br> Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements $>1$ as a mixed number (e.g. ${ }^{2} / 5+4 / 5=6 / 5$ $=1 /{ }_{5} /$. | Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions. |
| Multiplication and Division of Fractions |  |  |  |  |
|  |  |  | Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams. | Multiply simple pairs of proper fractions, writing the answer in its simplest form (e.g. ${ }^{1} / 4 \times{ }_{4}^{1} / 2=1 / 8$ ). |
|  |  |  |  | Multiply one-digit numbers with up to two decimal places by whole numbers. |
|  |  |  |  | Divide proper fractions by whole numbers (e.g. 1/3 $\div$ $2=1 / 6)$. |
|  |  |  |  | Multiply one-digit numbers with up to two decimal places by whole numbers. |
|  |  | Find the effect of dividing a one- or two-digit number |  | Multiply and divide numbers by 10,100 and |


|  |  | by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths. |  | 1000 where the answers are up to three decimal places. |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Identify the value of each digit to three decimal places and multiply and divide numbers by 10, 100 and 1000 where the answers are up to three decimal places. |
|  | \| |  |  | Associate a fraction with division and calculate decimal fraction equivalents (e.g. 0.375) for a simple fraction (e.g. $3 / 8)$. |
|  |  |  |  | Use written division methods in cases where the answer has up to two decimal places. |
| Problem Solving |  |  |  |  |
|  | Solve problems that involve all of the above. | 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. | Solve problems involving numbers up to three decimal places. |  |
|  |  | Solve simple measure and money problems involving fractions and decimals to two decimal places. | Solve problems which require knowing percentage and decimal equivalents of $1 / 2,{ }^{1} / 4,{ }_{4} / 5$, $2 / 5,4 / 5$ and those with a denominator of a multiple of 10 or 25 . |  |

## Ratio and Proportion

| Statements only appear in Year 6 but should be connected to previous learning, particularly fractions and multiplication and division |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
|  |  |  |  |  | Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts. |
|  |  |  |  |  | Solve problems involving the calculation of percentages [for example, of measures, and such as $15 \%$ of 360 ] and the use of percentages for comparison. |
|  |  |  |  |  | Solve problems involving similar shapes where the scale factor is known or can be found. |
|  |  |  |  |  | Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples. |

Algebra

| Equations |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7=\square-9$ <br> (Copied from Addition and Subtraction). | Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems. (Copied from Addition and Subtraction). | Solve problems, including missing number <br> problems, using number facts, place value, and more complex addition and subtraction. (copied from Addition and Subtraction). <br> Solve problems, including missing number problems, involving multiplication and division, including integer scaling. <br> (Copied from <br> Multiplication and Division). |  | Use the properties of rectangles to deduce related facts and find missing lengths and angles. (Copied from Geometry: Properties of Shapes). | Express missing number problems algebraically. |
|  | Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100. (Copied from Addition and Subtraction). |  |  |  | Find pairs of numbers that satisfy number sentences involving two unknowns. |
| Represent and use number bonds and related subtraction facts within 20. (Copied from Addition and Subtraction). |  |  |  |  | Enumerate all possibilities of combinations of two variables. |
| Formulae |  |  |  |  |  |
|  |  |  | Perimeter can be |  | Use simple formulae. |
|  |  |  | expressed algebraically as 2( $a+b$ ) where $a$ and $b$ are the dimensions in the same unit. (Copied from NSG measurement). |  | Recognise when it is possible to use formulae for area and volume of shapes. (Copied from Measurement). |
| Sequences |  |  |  |  |  |
| Sequence events in chronological order using language such as: before and after, next, first, today, yesterday, | Compare and sequence intervals of time. (Copied from Measurement). |  |  |  | Generate and describe linear number sequences |


| tomorrow, morning, | Order and arrange |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| afternoon and evening. | combinations of <br> (Copied from <br> mathematical objects in <br> patterns. (Copied from <br> Geometry: position and <br> direction). |  |  |  |

## Measurement

| Comparing and Estimating |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| Compare, describe and solve practical problems for: <br> * lengths and heights [e.g. long/short, longer/shorter, tall/short, double/half] mass/weight [e.g. heavy/light, heavier than, lighter than] capacity and volume [e.g. full/empty, more than, less than, half, half full, quarter] time [e.g. quicker, slower, earlier, later]. | Compare and order lengths, mass, volume/capacity and record the results using >, < and = |  | Estimate, compare and calculate different measures, including money in pounds and pence (appears also in Measuring). | Calculate and compare the area of squares and rectangles including using standard units, square centimetres $\left(\mathrm{cm}^{2}\right)$ and square metres $\left(\mathrm{m}^{2}\right)$ and estimate the area of irregular shapes (appears also in Measuring). Estimate volume (e.g. using $1 \mathrm{~cm}^{3}$ blocks to build cubes and cuboids) and capacity (e.g. using water). | Calculate, estimate and compare volume of cubes and cuboids using standard units, including centimetre cubed ( $\mathrm{cm}^{3}$ ) and cubic metres ( $\mathrm{m}^{3}$ ), and extending to other units such as $\mathrm{mm}^{3}$ and $\mathrm{km}^{3}$. |
| Sequence events in chronological order using language [e.g. before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening]. | Compare and sequence intervals of time. | Compare durations of events, for example to calculate the time taken by particular events or tasks. |  |  |  |
|  |  | 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 a.m./p.m., morning, afternoon, noon and midnight (appears also in Telling the Time). |  |  |  |
|  |  | Measuring a | Calculating |  |  |


| Measure and begin to record the following: <br> * lengths and heights <br> * mass/weight <br> * capacity and volume <br> * time (hours, minutes, seconds). | 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 $/ \mathrm{ml}$ ) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels. | Measure, compare, add and subtract: lengths ( $\mathrm{m} / \mathrm{cm} / \mathrm{mm}$ ); mass ( $\mathrm{kg} / \mathrm{g}$ ); volume/capacity ( $\mathrm{l} / \mathrm{ml}$ ). | Estimate, compare and calculate different measures, including money in pounds and pence (appears also in Comparing). | Use all four operations to solve problems involving measure (e.g. length, mass, volume, money) using decimal notation including scaling. | Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate (appears also in Converting). |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Measure the perimeter of simple 2-D shapes. | Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres. | Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres. | Recognise that shapes with the same areas can have different perimeters and vice versa. |
| Measuring and Calculating |  |  |  |  |  |
| Recognise and know the value of different denominations of coins and notes. | Recognise and use symbols for pounds ( $£$ ) and pence (p); combine amounts to make a particular value. <br> Find different combinations of coins that equal the same amounts of money. <br> Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change. | Add and subtract amounts of money to give change, using both $£$ and $p$ in practical contexts. |  |  |  |
|  |  |  | Find the area of rectilinear shapes by counting squares. | Calculate and compare the area of squares and rectangles including using | Calculate the area of parallelograms and triangles. |
|  |  |  |  | standard units, square centimetres $\left(\mathrm{cm}^{2}\right)$ and square metres $\left(\mathrm{m}^{2}\right)$ and estimate the area of irregular shapes. <br> Recognise and use square numbers and cube numbers, and the notation | Calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres ( $\mathrm{cm}^{3}$ ) and cubic metres $\left(\mathrm{m}^{3}\right)$, and extending to other units [e.g. $\mathrm{mm}^{3}$ and $\mathrm{km}^{3}$ ]. |


|  |  |  |  | for squared ( ${ }^{2}$ ) and cubed $\left(^{3}\right)$. (Copied from Multiplication and Division). | Recognise when it is possible to use formulae for area and volume of shapes. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Telling the Time |  |  |  |  |  |
| Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times. | 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. | Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12 -hour and 24 -hour clocks. | Read, write and convert time between analogue and digital 12 and 24-hour clocks (appears also in Converting). |  |  |
| Recognise and use language relating to dates, including days of the week, weeks, months and years | Know the number of minutes in an hour and the number of hours in a day. <br> (appears also in Converting) | 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 a.m./p.m., morning, afternoon, noon and midnight (appears also in Comparing and Estimating). |  |  |  |
|  |  |  | Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days (appears also in Converting). | Solve problems involving converting between units of time. |  |
| Converting |  |  |  |  |  |
|  | Know the number of minutes in an hour and the number of hours in a day (appears also in Telling the Time). | Know the number of seconds in a minute and the number of days in each month, year and leap year. | Convert between different units of measure (e.g. kilometre to metre; hour to minute). | Convert between different units of metric measure (e.g. kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre). | Use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to three decimal places. |


|  |  |  | Read, write and convert <br> time between analogue <br> and digital 12 and 24-hour <br> clocks (appears also in <br> Converting). | Solve problems involving <br> converting between units <br> of time. |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  | Solve problems involving <br> the calculation and <br> conversion of units of <br> measure, using decimal <br> notation up to three <br> decimal places where <br> appropriate (appears also <br> in Measuring and <br> Calculating). |  |  |
|  |  |  | Colve problems involving <br> converting from hours to <br> minutes; minutes to <br> seconds; years to months; <br> weeks to days (appears <br> also in Telling the Time). | Understand and use <br> equivalences between <br> metric units and common <br> imperial units such as <br> inches, pounds and pints. |



|  |  | Recognise angles as a property of shape or a description of a turn. |  | Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles. |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 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 acute and obtuse angles and compare and order angles up to two right angles by size. | Identify: <br> * angles at a point and one whole turn (total $360^{\circ}$ ) <br> * angles at a point on a straight line and $1 / 2$ a turn (total $180^{\circ}$ ) <br> * other multiples of $90^{\circ}$. | Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles. |
|  |  | Identify horizontal and vertical lines and pairs of perpendicular and parallel lines. |  |  |  |

## Geometry: Position and Direction

| Position: Direction and Movement |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| Describe position, direction and movement, including half, quarter and three-quarter turns. | 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). |  | Describe positions on a 2-D grid as coordinates in the first quadrant. | Identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed. | Describe positions on the full coordinate grid (all four quadrants). |
|  |  |  | Describe movements between positions as translations of a given unit to the left/right and up/down. |  | Draw and translate simple shapes on the coordinate plane, and reflect them in the axes. |
|  |  |  | Plot specified points and draw sides to complete a given polygon. |  |  |
| Pattern |  |  |  |  |  |
|  | Order and arrange combinations of mathematical objects in patterns and sequences. |  |  |  |  |

Statistics

| Interpreting, Constructing and Presenting Data |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
|  | Interpret and construct simple pictograms, tally charts, block diagrams and simple tables. | Interpret and present data using bar charts, pictograms and tables. | Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs. | Complete, read and interpret information in tables, including timetables. | Interpret and construct pie charts and line graphs and use these to solve problems. |
|  | Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity. |  |  |  |  |
|  | Ask and answer questions about totalling and comparing categorical data. |  |  |  |  |
| Solving Problems |  |  |  |  |  |
|  |  | Solve one-step and twostep questions [e.g. 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables. | Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs. | Solve comparison, sum and difference problems using information presented in a line graph. | Calculate and interpret the mean as an average. |

