#### Primary Progression - Place Value



|                           | Year 1   | Year 2   | Year 3   | Year 4  | Year 5   | Year 6  |
|---------------------------|--|--|--|---|--|---|
| Place Value:<br>Counting  | count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number     Count numbers to 100 in numerals; count in multiples of twos, fives and tens      Autumn 1     Autumn 4     Spring 2     Summer 4 | count in steps of 2, 3,<br>and 5 from 0, and in<br>tens from any<br>number, forward and<br>backward  Autumn 1  | - count from 0 in<br>multiples of 4, 8, 50<br>and 100; find 10 or<br>100 more or less<br>than a given number  Autumn 1 Autumn 3                              | count in multiples of<br>6, 7, 9, 25 and 1000     count backwards<br>through zero to<br>include negative<br>numbers  Autumn 1 Autumn 4  | - count forwards or<br>backwards in steps of<br>powers of 10 for any<br>given number up to 1<br>000 000 - count forwards and<br>backwards with<br>positive and negative<br>whole numbers,<br>including through<br>zero  Autumn 1 |   |
| Place Value:<br>Represent | identify and represent<br>numbers using<br>objects and pictorial<br>representations     read and write<br>numbers to 100 in<br>numerals     read and write<br>numbers from 1 to 20<br>in numerals and<br>words.                        | read and write<br>numbers to at least<br>100 in numerals and<br>in words     identify, represent<br>and estimate<br>numbers using<br>different<br>representations,<br>including the number<br>line | identify, represent<br>and estimate<br>numbers using<br>different<br>representations     read and write<br>numbers up to 1000<br>in numerals and in<br>words | identify, represent<br>and estimate<br>numbers using<br>different<br>representations     read Roman<br>numerals to 100 (I to<br>C) and know that over<br>time, the numeral<br>system changed to<br>include the concept of<br>zero and place value | - read, write, (order and compare) numbers to at least 1 000 000 and determine the value of each digit - read Roman numerals to 1000 (M) and recognise years written in Roman numerals.  | read, write, (order and<br>compare) numbers<br>up to 10 000 000<br>and determine the<br>value of each digit |
|                           | Autumn 1<br>Autumn 4<br>Spring 2<br>Summer 4   | Autumn 1   | Autumn 1   | Autumn 1  | Autumn 1   | Autumn 1  |

#### Primary Progression - Addition & Subtraction



| Year   | 1 Year 2  | Year 3   | Year 4   | Year 5  | Year 6 |
|--|---|--|--|---|--------|
| Addition & Subtraction: Recall, Represent, Use addition: Compared to the state of t | addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 gps and use done in any order raction addition and subtraction and subtraction facts up to 100 show that addition of two numbers can be done in any order (commutative) and | estimate the answer<br>to a calculation and<br>use inverse<br>operations to check<br>answers | estimate and use<br>inverse operations to<br>check answers to a<br>calculation | use rounding to check<br>answers to<br>calculations and<br>determine, in the<br>context of a problem,<br>levels of accuracy |        |
| Autumi<br>Spring   |   | Autumn 2   | Autumn 2   | Autumn 2  |        |

# Primary Progression - Addition & Subtraction



| Year 1   | Year 2   | Year 3  | Year 4  | Year 5  | Year 6  |
|--|--|---|---|---|---|
| - add and subtract one-digit and two-digit numbers to 20, including zero  Calculations  Calculations | add and subtract numbers using concrete objects, pictorial representations, and imentally, including:     a two-digit number and ones     a two-digit number and tens     two two-digit numbers     adding three one-digit numbers | add and subtract numbers mentally, including;     a three-digit number and ones     a three-digit number and tens     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 | add and subtract<br>numbers with up to 4<br>digits using the<br>formal written<br>methods of columnar<br>addition and<br>subtraction where<br>appropriate | add and subtract<br>whole numbers with<br>more than 4 digits,<br>including using formal<br>written methods<br>(columnar addition<br>and subtraction)     add and subtract<br>numbers mentally<br>with increasingly large<br>numbers | perform mental<br>calculations, including<br>with mixed operations<br>and large numbers     use their knowledge<br>of the order of<br>operations to carry<br>out calculations<br>involving the four<br>operations |
| Autumn 2<br>Spring 1   | Autumn 2   | Autumn 2  | Autumn 2  | Autumn 2  | Autumn 2  |

### Primary Progression - Addition & Subtraction



|   | Year 1   | Year 2   | Year 3  | Year 4   | Year 5  | Year 6   |
|---|--|--|---|--|---|--|
| Addition & Subtraction:<br>Solve Problems | solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = 9 | 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 | solve problems,<br>including missing<br>number problems,<br>using number facts,<br>place value, and more<br>complex addition and<br>subtraction | solve addition and<br>subtraction two-step<br>problems in contexts,<br>deciding which<br>operations and<br>methods to use and<br>why | solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why     solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign | solve addition and<br>subtraction multi-step<br>problems in contexts,<br>deciding which<br>operations and<br>methods to use and<br>why |
|   | Autumn 2<br>Spring 1   | Autumn 2   | Autumn 2  | Autumn 2   | Autumn 2  | Autumn 2   |

# Primary Progression - Multiplication & Division



| Year 1   | Year 2   | Year 3  | Year 4  | Year 5  | Year 6   |
|--|--|---|---|---|--|
| Multiplication & Division:<br>Recall, Represent, Use | recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers     show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot | recall and use<br>multiplication and<br>division facts for the<br>3, 4 and 8<br>multiplication tables | 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 | - identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers - know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers - establish whether a number up to 100 is prime and recall prime numbers up to 19 - recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3) | identify common factors, common multiples and prime numbers     use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy. |
|  | Autumn 4<br>Spring 1   | Autumn 3  | Autumn 4<br>Spring 1  | Autumn 4  | Autumn 2   |

# Primary Progression - Multiplication & Division



|  | Year 1 | Year 2  | Year 3   | Year 4   | Year 5  | Year 6  |
|--|--------|---|--|--|---|---|
| Multiplication & Division:<br>Calculations |        | calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (c), division (-) and equals (-) signs | write and calculate<br>mathematical<br>statements for<br>multiplication and<br>division using the<br>multiplication tables<br>that they know,<br>including for two digit<br>numbers times one-<br>digit numbers, using<br>mental and<br>progressing to formal<br>written methods | multiply two-digit and<br>three-digit numbers<br>by a one-digit number<br>using formal written<br>layout | 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 mentally drawing upon known facts     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     multiply and divide whole numbers and those involving decimals by 10, 100 and 1000  Autumn 4 | - multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication  - 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  - 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  - perform mental calculations, including with mixed operations and large numbers and large numbers and large numbers. |
|  |        | Autumn 4<br>Spring 1  | Autumn 3<br>:Spring 1  | Spring 1   | Spring 1<br>Summer 1  | Autumn 2  |

# Primary Progression - Multiplication & Division



|   | Year 1  | Year 2  | Year 3   | Year 4   | Year 5   | Year 6   |
|---|---|---|--|--|--|--|
| Multiplication & Division:<br>Solve Problems      | <ul> <li>solve one-step<br/>problems involving<br/>multiplication and<br/>obvision, by<br/>calculating the<br/>answer using<br/>concrete objects,<br/>pictorial<br/>representations and<br/>arrays with the<br/>support of the<br/>teacher</li> </ul> | solve problems<br>involving<br>multiplication and<br>obvision, using<br>materials, arrays,<br>repeated addition,<br>mental methods, and<br>multiplication and<br>obvision facts,<br>including problems in<br>contexts | solve problems,<br>including missing<br>number problems,<br>involving<br>multiplication and<br>division, including<br>positive integer<br>scaling problems and<br>correspondence<br>problems in which in<br>objects are connected<br>to miobjects. | 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 nobjects are connected to miobjects. | solve problems<br>invoking<br>multiplication and<br>division including<br>using their knowledge<br>of factors and<br>multiples, squares<br>and cubes     solve problems<br>invoking<br>multiplication and<br>division, including<br>scaling by simple<br>fractions and<br>problems involving<br>simple rates | solve problems<br>involving addition,<br>subtraction,<br>multiplication and<br>division  |
| _   | :Summer 1   | Autumn 4<br>Spring 1  | :Spring 1  | Spring 1   | Autumn 4<br>Spring 1   | Autumn 2   |
| Multiplication & Division:<br>Combined Operations |   |   |  |  | <ul> <li>solve problems<br/>involving addition,<br/>subtraction,<br/>multiplication and<br/>division and a<br/>combination of these,<br/>including<br/>understanding the<br/>meaning of the<br/>equals sign</li> </ul>   | <ul> <li>use their knowledge<br/>of the order of<br/>operations to carry<br/>out calculations<br/>involving the four<br/>operations</li> </ul> |
| N O   |   |   |  |  | Spring 1   | Autumn 2   |

# Primary Progression - Fractions, Decimals, Percentages



| Year 1  | Year 2   | Year 3   | Year 4  | Year 5   | Year 6   |
|---|--|--|---|--|--|
| Practions:  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  shape or quantity | <ul> <li>recognise, find, name<br/>and write fractions         <sup>1</sup>/<sub>3</sub> · <sup>1</sup>/<sub>4</sub> · <sup>2</sup>/<sub>4</sub> and <sup>2</sup>/<sub>4</sub> of a<br/>length, shape, set of<br/>objects or quantity</li> </ul> | 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     recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators with small denominators | count up and down in<br>hundredths; recognise<br>that hundredths arise<br>when dividing an<br>object by one<br>hundred and dividing<br>tenths by ten. | identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths     recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number, $\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = 1 \frac{1}{5}$ Spring 2 |  |
| Summer 2  | Spring 4   | Spring 5   | Spring 3  |  | _  |
| Fractions:<br>Compare   | Recognise the equivalence of <sup>2</sup> / <sub>4</sub> and <sup>1</sup> / <sub>2</sub>   | recognise and show, using diagrams, equivalent fractions with small denominators     compare and order unit fractions, and fractions with the same denominators  | <ul> <li>recognise and show,<br/>using diagrams,<br/>flamilies of common<br/>equivalent fractions</li> </ul>  | <ul> <li>compare and order<br/>fractions whose<br/>denominators are all<br/>multiples of the same<br/>number</li> </ul>  | use common factors<br>to simplify fractions;<br>use common<br>multiples to express<br>fractions in the same<br>denomination     compare and order<br>fractions, including<br>fractions > 1 |
|   | Spring 4   | :Summer 1  | Spring 3  | Spring 2   | Autumn 3   |

#### Primary Progression - Fractions, Decimals, Percentages



|                              | Year 1 | Year 2   | Year 3  | Year 4  | Year 5  | Year 6  |
|------------------------------|--------|--|---|---|---|---|
| Fractions:<br>Calculations   |        | <ul> <li>write simple fractions for example, <sup>1</sup>/<sub>2</sub> of 6 = 3</li> </ul> | - add and subtract fractions with the same denominator within one whole [for example, $\frac{s}{7} + \frac{1}{7} = \frac{6}{9}$ ] | add and subtract<br>fractions with the<br>same denominator  | add and subtract<br>fractions with the<br>same denominator<br>and denominators<br>that are multiples of<br>the same number     multiply proper<br>fractions and mixed<br>numbers by whole<br>numbers, supported<br>by materials and<br>diagrams | add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions multiply simple pairs of proper fractions, writing the answer in its simplest form [for example \(\frac{1}{2}\) \times \(\frac{1}{2}\) \( |
|                              |        | Spring 4   | :Summer 1   | Spring 3  | Spring 3  | Autumn 3  |
| Fractions:<br>Solve Problems |        |  | solve problems that<br>involve all of the<br>above  Spring 5 Summer 1   | solve problems<br>involving increasingly<br>harder fractions to<br>calculate quantities,<br>and fractions to divide<br>quantities, including<br>non-unit fractions<br>where the answer is a<br>whole number  Spring 3 |   |   |

# Primary Progression - Fractions, Decimals, Percentages



|                                  | Year 1 | Year 2 | Year 3 | Year 4   | Year 5   | Year 6   |
|----------------------------------|--------|--------|--------|--|--|--|
| Decimals:<br>Recognise and Write |        |        |        | recognise and write decimal equivalents of any number of tenths or hundredths     recognise and write decimal equivalents to \( \frac{1}{4} \cdot \frac{1}{2} \cdot \frac{3}{4} \)      Spring 4  Summer 1 | read and write<br>decimal numbers as<br>fractions [for<br>example, 0.71 = 100]     recognise and use<br>thousandths and<br>relate them to tenths,<br>hundredths and<br>decimal equivalents      Spring 3 | identify the value of<br>each digit in numbers<br>given to three decimal<br>places  Spring 1 |
| Decimals:<br>Compare             |        |        |        | round decimals with<br>one decimal place to<br>the nearest whole<br>number     compare numbers<br>with the same<br>number of decimal<br>places up to two<br>idecimal places  Summer 1                      | round decimals with<br>two decimal places to<br>the nearest whole<br>number and to one<br>decimal place     read, write, order and<br>compare numbers<br>with up to three<br>decimal places  Spring 3    |  |

### Primary Progression - Fractions, Decimals, Percentages



|                                      | Year 1 | Year 2 | Year 3 | Year 4   | Year 5  | Year 6  |
|--------------------------------------|--------|--------|--------|--|---|---|
| Decimals:<br>Calculations & Problems |        |        |        | find the effect of<br>dividing a one- or<br>two-digit number by<br>10 and 100,<br>identifying the value<br>of the digits in the<br>answer as ones,<br>tenths and<br>hundredths | solve problems<br>involving number up<br>to three decimal<br>places | multiply and divide<br>numbers by 10, 100<br>and 1000 giving<br>answers up to three<br>decimal places     multiply one digit<br>numbers with up to<br>two decimal places<br>by whole numbers     use written division<br>methods in cases<br>where the answer has<br>up to two decimal<br>places     solve problems which<br>require answers to be<br>rounded to specified<br>degrees of accuracy |
|                                      |        |        |        | Spring 4   | Summer 1  | :Spring 1   |

### Primary Progression - Fractions, Decimals, Percentages



|                                     | Year 1 | Year 2 | Year 3 | Year 4   | Year 5   | Year 6   |
|-------------------------------------|--------|--------|--------|--|--|--|
| Fractions, Decimals and Percentages |        |        |        | solve simple measure<br>and money problems<br>involving facts<br>and decimals to two<br>decimal places | - 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  - solve problems which require knowing percentage and decimal equivalents of \( \frac{1}{2} \cdot | <ul> <li>associate a fraction with division and calculate decimal fraction equivalents (for example, 0.375) for a simple fraction (for example, <sup>3</sup>/<sub>2</sub>)</li> <li>recall and use equivalences between simple fractions, decimals and percentages, including in different contexts</li> </ul> |
| Fracti                              |        |        |        | Spring 3<br>Spring 4<br>Summer 1   | Spring 3   | Spring 1<br>Spring 2   |

#### Primary Progression - Ratio and Proportion



|                      | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6   |
|----------------------|--------|--------|--------|--------|--------|--|
| Ratio and Proportion |        |        |        |        |        | 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 of solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.  Spring 6 |

### Primary Progression - Algebra



|         | Year 1   | Year 2  | Year 3  | Year 4 | Year 5 | Year 6   |
|---------|--|---|---|--------|--------|--|
| Algebra | solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = □ + 9 | recognise and use the<br>inverse relationship<br>between addition and<br>subtraction and use<br>this to check<br>calculations and solve<br>missing number<br>problems | solve problems,<br>including missing<br>number problems |        |        | use simple formulae     generate and describe linear number sequences     express missing number problems algebraically     find pairs of numbers that satisfy an equation with two unknowns enumerate possibilities of combinations of two variables.  Spring 3 |

Note – although algebraic notation is not introduced until Y6, algebraic thinking starts much earlier as exemplified by the 'missing number' objectives from Y1/2/3

#### Primary Progression - Measurement



|  | Year 1  | Year 2  | Year 3  | Year 4   | Year 5   | Year 6  |
|--|---|---|---|--|--|---|
| Measurement: Using Measures  v v v v v v v v v v v v v v v v v v v | impare, describe id solve practical oblems for: ngrish and heights or example, ngrishort, ngg/short, ngg/short, ll/short, uble/half] asss/weight (for ample, heavy/light, savier than, lighter and) pacity and volume or example, (ll/empty, more an, less than, half, alf full, quarter] nne [for example, uicker, slower, urler, later] easure and begin to cord the following ngths and heights asss/weight pacity and volume ne (hours, minutes, conds) | choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (**C; capacity (litres/mi) 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 = | measure, compare,<br>add and subtract:<br>langths (m/cm/mm);<br>mass (kg/g);<br>volume/capacity<br>(l/ml) | Convert between different units of measure [for example, kilometre to imetre; hour to minute]     estimate, compare and calculate different measures | convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and milliture)     understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints     use all four operations to solve problems involving measure (for example, 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     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.     convert between miles and kilometres. |
|  | Spring 3<br>Spring 4<br>Summer 6  | Spring 5<br>Summer 4  | Spring 4<br>:Summer 4   | Autumn 3<br>Spring 2<br>Summer 3   | Summer 1<br>Summer 4<br>Summer 5   | Spring 4  |

### Primary Progression - Measurement



| Year 1   | Year 2  | Year 3   | Year 4  | Year 5   | Year 6 |
|--|---|--|---|--|--------|
| • recognise and know the value of different denominations of coins and notes  • 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 find different combinations of coins that equal the same amounts of money solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change | add and subtract<br>amounts of money to<br>give change, using<br>both \$2 and p in<br>practical contexts | estimate, compare<br>and calculate<br>different measures,<br>including money in<br>pounds and pence | use all four<br>operations to solve<br>problems involving<br>measure (for<br>example, money) |        |
| Summer 5   | Autumn 3  | Spring 2   | Summer 2  | Summer 1   |        |

#### Primary Progression - Measurement



|                      | Year 1   | Year 2  | Year 3   | Year 4  | Year 5  | Year 6   |
|----------------------|--|---|--|---|---|--|
| Measurement:<br>Time | sequence events in chronological order using language (for example, before and after, next, first, today, yesterday, tomarrow, imporning, afternoon and evening)     recognise and use language relating to dates, including days of the week, weeks, months and years     tell the time to the hour and half past the hour and draw the hands on a clock face to show these times | compare and sequence intervals of time     tell and write the time to five minutes, including quarter past/for the hour and 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 | tell and write the time from an analogue clock including using Roman numerals from 1 to XII, and 12-hour and 24-hour clocks     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., moming, 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] | 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 | solve problems<br>involving converting<br>between units of time | use, read, write and<br>convert between<br>standard units,<br>converting<br>measurements of<br>time from a smaller<br>unit of measure to a<br>larger unit, and vice<br>versa |
|                      | Summer 6   | Summer 3  | :Summer 2  | Summer 3  | Summer 4  | Year 5 Summer 4  |

#### Primary Progression - Measurement



|   | Year 1 | Year 2 | Year 3   | Year 4  | Year 5   | Year 6   |
|---|--------|--------|--|---|--|--|
| Measurement:<br>Perimeter, Area, Volume |        |        | measure the<br>perimeter of simple<br>2-D shapes | measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres     find the area of rectilinear shapes by counting squares | measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres     calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm²) and square metres (m²) and estimate the area of irregular shapes     estimate volume [for example, using 1 cm² blocks to build cuboids (including cubes)] and capacity [for example, using water] | recognise that shapes with the same areas can have different perimeters and vice versa recognise when it is possible to use formulae for area and volume of shapes calculate the area of pransibility of the same of cubes and cubicide using standard units, including cubic centimetres (cm²) and cubic metres (rm²), and dubic metres (rm²).  and cubic metres (rm²) and cubic metres (rm²). The sample, mm² and km²] |
|   |        |        | Spring 4   | Autumn 3<br>Spring 2  | Autumn 5<br>Summer 5   | Spring 5   |

# Primary Progression - Geometry



|                         | Year 1   | Year 2   | Year 3  | Year 4  | Year 5  | Year 6  |
|-------------------------|--|--|---|---|---|---|
| Geometry:<br>2-D Shapes | recognise and name<br>common 2-D shapes<br>(for example,<br>rectangles (including<br>squares), circles and<br>triangles) | identify and describe the properties of 2 D shapes, including the number of sides and line symmetry in a vertical line     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 shapes and everyday objects | draw 2-D shapes   | compare and classify<br>geometric shapes,<br>including<br>quadrilaterals and<br>triangles, based on<br>their properties and<br>sizes     identify lines of<br>symmetry in 2-ID<br>shapes presented in<br>different orientations | distinguish between regular and irregular polygons based on reasoning about equal sides and angles.     use the properties of rectangles to deduce related facts and find missing lengths and angles. | draw 2-ID shapes using given dimensions and angles     compare and classify geometric shapes based on their properties and sizes illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius. |
|                         | Autumn 3   | Spring 3   | :Summer 3   | Summer 5  | Summer 2  | :Summer 1   |
| Geometry:<br>3-D Shapes | recognise and name<br>common 3-D shapes<br>(for example, cuboids<br>(including cubes),<br>pyramids and<br>spheres)       | recognise and name common 3-D shapes [for example, outoids (including cubes), pyramids and spheres].     compare and sort common 3-D shapes and everyday objects.  | <ul> <li>make 3-D shapes<br/>using modelling<br/>materials; recognise<br/>3-D shapes in<br/>different orientations<br/>and describe them</li> </ul> |   | identify 3-0 shapes,<br>including cubes and<br>other cuboids, from<br>2-0 representations   | recognise, describe<br>and build simple 3 D<br>shapes, including<br>making nets   |
|                         | Autumn 3   | Spring 3   | Summer 3  |   | Summer 2  | :Summer 1   |

### Primary Progression - Geometry



|                             | Year 1 | Year 2 | Year 3   | Year 4  | Year 5   | Year 6   |
|-----------------------------|--------|--------|--|---|--|--|
| Geometry:<br>Angles & Lines |        |        | 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, 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 | identify acute and obtuse angles and compare and order 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 | know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles draw given angles, and measure them in degrees identify:     angles at a point and one whole turn (total 360°)     angles at a point on a straight line and ½ a turn (total 180°)     other multiples of 90° | find unknown angles in any triangles, quadrilaterals, and regular polygons recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles  find unknown angles  triangles  find unknown angles  in any triangles  in any triangles  in any triangles  find unknown angles  in any triangles  in any triangles  in any triangles  find unknown angles  in any triangles  in any |
|                             |        |        | :Summer 3  | Summer 5  | Summer 2   | :Summer 1  |

#### Primary Progression - Geometry



|                                   | Year 1   | Year 2  | Year 3 | Year 4  | Year 5  | Year 6  |
|-----------------------------------|--|---|--------|---|---|---|
| Geometry:<br>Position & Direction | describe position,<br>direction and<br>movement, including<br>whole, half, quarter<br>and three-quarter<br>turns | order and arrange combinations of mathematics of plets 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 night angles for quarter, half and three quarter turns (clockwise and anticlockwise) |        | 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 | identify, describe and<br>represent the position<br>of a shape following a<br>reflection or<br>translation, using the<br>appropriate language,<br>and know that the<br>shape has not<br>changed | describe positions on<br>the full coordinate<br>grid (all four<br>quadrants)     draw and translate<br>simple shapes on the<br>coordinate plane, and<br>reflect them in the<br>axes |
|                                   | Summer 3   | Spring 3<br>Summer 1  |        | Summer 6  | Summer 3  | Autumn 4  |

#### Primary Progression - Statistics



|                                      | Year 1 | Year 2  | Year 3   | Year 4  | Year 5   | Year 6   |
|--------------------------------------|--------|---|--|---|--|--|
| Statistics:<br>Present and Interpret |        | interpret and<br>construct simple<br>pictograms, tally<br>charts, block<br>diagrams and simple<br>tables  Spring 2  | interpret and present<br>data using bar charts,<br>pictograms and<br>tables  Spring 3  | interpret and present<br>discrete and<br>continuous data using<br>appropriate graphical<br>methods, including<br>bar charts and time<br>graphs  Summer 4    | complete, read and<br>interpret information<br>in tables, including<br>timetables  Autumn 3                        | interpret and<br>construct pie charts<br>and line graphs and<br>use these to solve<br>problems  Summer 3 |
| Statistics:<br>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  Spring 2 | solve one-step and<br>two-step questions<br>[for example, 'How<br>many more?' and<br>'How many fewer?']<br>using information<br>presented in scalled<br>bar charts and<br>pictograms and<br>tables  Spring 3 | solve comparison,<br>sum and difference<br>problems using<br>information<br>presented in bar<br>charts, pictograms,<br>tables and other<br>graphs  Summer 4 | solve comparison,<br>sum and difference<br>problems using<br>information<br>presented in a line<br>graph  Autumn 3 | calculate and<br>interpret the mean as<br>an average     :Summer 3                                       |