Mathematics Programme of Study - Measurement

|  | Length, Weight, Volume, Temperature | Time | Money | Area, Perimeter |
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| Year 1 | compare, describe and solve practical problems for: <br> - lengths and heights <br> - mass or weight <br> - capacity/volume <br> measure and begin to record the following: <br> - lengths and heights mass/weight <br> - capacity and volume | compare, describe and solve practical problems for time (quicker, slower, earlier, later) <br> measure and begin to record time (hours, minutes, seconds) <br> sequence events in chronological order <br> recognise and use language relating to dates, including days of the week, weeks, months and years <br> tell the time to the hour and half past the hour and draw the hands on a clock face to show these times. | recognise and know the value of different denominations of coins and notes |  |
| Year 2 | choose and use appropriate standard units to estimate and measure length/height in any direction ( $\mathrm{m} / \mathrm{cm}$ ); mass (kg/g); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales and measuring vessels compare and order lengths, mass, volume/capacity and record the results using $>$, < and = | compare and sequence intervals of time <br> 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. | 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, |  |


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|  | choose and use appropriate standard units to estimate and measure temperature ( ${ }^{\circ}$ ) to the nearest appropriate unit, using thermometers |  | including giving change |  |
| Year 3 | measure, compare, add and subtract: lengths ( $\mathrm{m} / \mathrm{cm} / \mathrm{mm}$ ); mass ( $\mathrm{kg} / \mathrm{g}$ ); volume/capacity ( $\mathrm{l} / \mathrm{ml}$ ) | tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12 -hour and 24 -hour clocks <br> 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 <br> know the number of seconds in a minute and the number of days in each month, year and leap year <br> compare durations of events | add and subtract amounts of money to give change, using both $£$ and $p$ in practical contexts | measure the perimeter of simple 2-D shapes |
| Year 4 | Convert between different units of measure (e.g. kilometre to metre; hour to minute) | read, write and convert time between analogue and digital 12 and 24 -hour clocks | estimate, compare and calculate different measures, including money in pounds and pence | measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres |


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|  |  | solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days. |  | find the area of rectilinear shapes by counting squares |
| Year 5 | convert between different units of metric measure (e.g. <br> kilometre and metre; <br> centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre) <br> understand and use equivalences between metric units and common imperial units such as inches, pounds and pints <br> estimate volume (e.g. using 1 cm3 blocks to build cubes and cuboids) and capacity (e.g. using water) <br> solve problems involving converting between units of time <br> use all four operations to solve problems involving measure (e.g. length, mass, volume) using decimal notation including scaling |  | use all four operations to solve problems involving money using decimal notation | measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres <br> calculate and compare the area of squares and rectangles including using standard units, square centimetres (cm2) and square metres (m2) and estimate the area of irregular shapes |


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| Year 6 | solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate <br> use, read, write and convert between standard units, converting measurements of length, mass and volume from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to three decimal places <br> convert between miles and kilometres <br> recognise when it is possible to use formulae for area and volume of shapes <br> calculate, estimate and compare volume of cubes and cuboids using standard units, including centimetre cubed (cm3) and cubic metres (m3), and extending to other units | use, read, write and convert between standard units, converting measurements time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to three decimal places |  | recognise that shapes with the same areas can have different perimeters and vice versa <br> calculate the area of parallelograms and triangles |

