

# Measurement

| COMPARING AND ESTIMATING  |   |   |   |  |  |
|---|---|---|---|--|--|
| Year 1  | Year 2  | Year 3  | Year 4  | Year 5   | Year 6   |
| <p>compare, describe and solve practical problems for:</p> <ul style="list-style-type: none"> <li>* lengths and heights [e.g. long/short, longer/shorter, tall/short, double/half]</li> <li>* mass/weight [e.g. heavy/light, heavier than, lighter than]</li> <li>* capacity and volume [e.g. full/empty, more than, less than, half, half full, quarter]</li> <li>* time [e.g. quicker, slower, earlier, later]</li> </ul> | <p>compare and order lengths, mass, volume/capacity and record the results using &gt;, &lt; and =</p> |   | <p>estimate, compare and calculate different measures, including money in pounds and pence (also included in Measuring)</p> | <p>calculate and compare the area of squares and rectangles including using standard units, square centimetres (cm<sup>2</sup>) and square metres (m<sup>2</sup>) and estimate the area of irregular shapes (also included in measuring)</p> | <p>calculate, estimate and compare volume of cubes and cuboids using standard units, including centimetre cubed (cm<sup>3</sup>) and cubic metres (m<sup>3</sup>), and extending to other units such as mm<sup>3</sup> and km<sup>3</sup>.</p> |
| <p>sequence events in chronological order using language [e.g. before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening]</p>   | <p>compare and sequence intervals of time</p>   | <p>compare durations of events, for example to calculate the time taken by particular events or tasks</p>   |   |  |  |
|   |   | <p>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)</p> |   |  |  |

# Measurement

| MEASURING and CALCULATING   |  |   |  |  |   |
|---|--|---|--|--|---|
| Year 1  | Year 2   | Year 3  | Year 4   | Year 5   | Year 6  |
| measure and begin to record the following:<br>* <b>lengths and heights</b><br>* <b>mass/weight</b><br>* <b>capacity and volume</b><br>* <b>time</b> (hours, minutes, seconds) | choose and use appropriate standard units to estimate and measure <b>length/height</b> in any direction (m/cm); <b>mass</b> (kg/g); <b>temperature</b> (°C); <b>capacity</b> (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels | measure, compare, add and subtract: <b>lengths</b> (m/cm/mm); <b>mass</b> (kg/g); <b>volume/capacity</b> (l/ml) | estimate, compare and calculate <b>different measures</b> , including <b>money in pounds and pence</b> (appears also in Comparing) | use all four operations to solve problems involving measure (e.g. <b>length, mass, volume, money</b> ) using decimal notation including scaling. | solve problems involving the calculation and conversion of <b>units of measure</b> , using decimal notation up to three decimal places where appropriate (appears also in Converting) |
|   |  | measure the <b>perimeter</b> of simple 2-D shapes   | measure and calculate the <b>perimeter</b> of a rectilinear figure (including squares) in centimetres and metres                   | measure and calculate the <b>perimeter</b> of composite rectilinear shapes in centimetres and metres   | recognise that shapes with the same areas can have different <b>perimeters</b> and vice versa   |

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|---|---|---|---|---|---|
| Year 1  | Year 2  | Year 3  | Year 4  | Year 5  | Year 6  |
| recognise and know the value of different denominations of <b>coins and notes</b> | recognise and use symbols for pounds ( <b>£</b> ) and pence ( <b>p</b> ); combine amounts to make a particular value                      | add and subtract amounts of <b>money</b> to give change, using both £ and p in practical contexts |   |   |   |
|   | find different combinations of coins that equal the same amounts of money   |   |   |   |   |
|   | <b>solve simple problems</b> in a practical context involving addition and subtraction of money of the same unit, including giving change |   |   |   |   |
|   |   |   | find the area of rectilinear shapes by counting squares | calculate and compare the area of squares and rectangles including using standard units, square centimetres ( $\text{cm}^2$ ) and square metres ( $\text{m}^2$ ) and estimate the area of irregular shapes<br><br><i>recognise and use square numbers and cube numbers, and the notation for squared (<math>^2</math>) and cubed (<math>^3</math>)</i><br>(copied from Multiplication and Division) | calculate the area of parallelograms and triangles<br><br>calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres ( $\text{cm}^3$ ) and cubic metres ( $\text{m}^3$ ), and extending to other units [e.g. $\text{mm}^3$ and $\text{km}^3$ ].<br><br>recognise when it is possible to use formulae for area and volume of shapes |

# Measurement

| TELLING THE TIME   |   |   |   |   |        |
|--|---|---|---|---|--------|
| Year 1   | Year 2  | Year 3  | Year 4  | Year 5  | Year 6 |
| 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<br>(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<br>(appears also in Comparing and Estimating) |   |   |        |
|  |   |   | solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days<br>(appears also in Converting) | solve problems involving converting between units of time |        |

# Measurement

| CONVERTING |   |   |   |  |   |
|------------|---|---|---|--|---|
| Year 1     | Year 2  | Year 3  | Year 4  | Year 5   | Year 6  |
|            | know the number of minutes in an hour and the number of hours in a day.<br>(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 time between analogue and digital 12 and 24-hour clocks<br>(appears also in Converting)                                     | solve problems involving converting between units of time  | solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate<br>(appears also in Measuring and Calculating)                                     |
|            |   |   | solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days<br>(appears also in Telling the Time) | understand and use equivalences between metric units and common imperial units such as inches, pounds and pints  | convert between miles and kilometres  |