

# Measure, Time and Statistics

## Year 1

- Describe position, direction and movement, including whole, half, quarter and three-quarter turns.
- Compare, describe and solve practical problems for lengths and heights e.g. long/short, longer/shorter, tall/short, double/half.
- Compare, describe and solve practical problems for mass/weight e.g. heavy/light, heavier than, lighter than.
- Compare, describe and solve practical problems for capacity and volume e.g. full/empty, more than, less than, half, half full, quarter.
- Measure and begin to record mass/weight.
- Measure and begin to record capacity and volume.
- Measure and begin to record length/height

## Year 2

- Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature ( $^{\circ}\text{C}$ ); capacity (litres/ml) 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  $=$ .

## Year 3

- Tell the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks.
- Write the time using an analogue clock, including using Roman numerals from I 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., morning, 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 e.g. to calculate the time taken by particular events or tasks.
- Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml).
- Measure the perimeter of simple 2-D shapes.
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#### Year 4

- Estimate, compare and calculate different measures, including money in pounds and pence.
- 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.

#### Year 5

- Convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre).
- Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints.
- 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 ( $\text{cm}^2$ ) and square metres ( $\text{m}^2$ ) and estimate the area of irregular shapes.
- Estimate volume e.g. using  $1 \text{ cm}^3$  blocks to build cuboids (including cubes) and capacity e.g. using water.  
Solve problems involving converting between units of time.

#### Year 6

- 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
- Recognise that shapes with the same areas can have different perimeters and vice versa
  - Recognise when it is possible to use formula for area and volume of shapes
    - Calculate the area of parallelograms and triangles
- Calculate estimate and compare volumes of cubes and cuboids using standard units, including cubic centimetres ( $\text{cm}^3$ ) and cubic meters ( $\text{m}^3$ ) and extending to other units e.g.  $\text{mm}^3$  and  $\text{km}^3$ 
  - Interpret and construct pie charts and line graphs and use these to solve problems
    - Calculate and interpret the mean as an average