THE LANGUAGE OF MATHS

arc part of the circumference of a circle

area of a triangle to calculate the area of a right-angled triangle you can halve the area of the related rectangle – the area of a rectangle is the base × the height, so the area of the triangle will be half that size
Example if the base of the triangle is 6cm and its height is 10cm, then its area is
$(6 × 10) ÷ 2 = 30cm^2$

century a period of 100 years (sometimes used to refer to a score of 100 in cricket, or 100 soldiers in Ancient Rome)

diameter the diameter of a circle is the widest distance across the circle, passing through the centre – it is twice the length of the radius

factor a whole number that divides exactly into another whole number
Example 2 is a factor of 6 because 2 divides into 6 with no remainder

hexagon a two-dimensional (2–D) shape with six sides

mean average the mean of a set of numbers is found by adding the numbers together and dividing by the number of values in the set
Example the mean of 3, 4, 6 and 11 is (3 + 4 + 6 + 11) ÷ 4 = 24 ÷ 4 = 6

octagon a two-dimensional (2–D) shape with eight sides

pentagon a two-dimensional (2–D) shape with five sides

per cent this means 'out of a hundred' – the symbol for per cent is '%'
Example if there are one hundred people and 10 of them have colds, then 10% have colds and 90% do not

radius the radius of a circle is the distance from the centre to the edge – it is half the length of the diameter

ratio a way of comparing information
Example if there are 4 blue sweets and 3 red sweets, the ratio of blue sweets to red sweets is 4 to 3 and is written as 4:3

reflex angles are large angles that measure between 180° and 360°

scale sometimes things are drawn 'to scale'
Example You might draw a plan of a classroom by carefully measuring everything in it and then making them smaller on the plan. If a desk was 50cm wide in real life, you might draw it as 1cm on the plan. This would be a scale of 1cm to 50cm.

simplest form fractions can be simplified by writing them as equivalent fractions written using smaller numbers – when the fraction cannot be simplified further it is said to be in its simplest form
Example $\frac{20}{25}$ can be simplified by dividing the numerator and denominator by 5 to give $\frac{4}{5}$

symmetry when two halves of a shape or pattern match one another exactly then they 'have symmetry' or 'are symmetrical'

volume the amount of space that something occupies or takes up – it is often measured in cubic centimetres (cm^3) or cubic metres (m^3)