

Maths - Geometry (properties of shapes)

Year	Key Concepts (Statutory Requirements)
Year 1	<ul style="list-style-type: none">• recognise and name common 2-D and 3-D shapes, including:<ul style="list-style-type: none">- 2-D shapes [for example, rectangles (including squares), circles and triangles]- 3-D shapes [for example, cuboids (including cubes), pyramids and spheres].
Year 2	<ul style="list-style-type: none">• identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line• identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces• 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 and 3-D shapes and everyday objects.
Year 3	<ul style="list-style-type: none">• draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them• 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.
Year 4	<ul style="list-style-type: none">• compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes• identify acute and obtuse angles and compare and order angles up to two right 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.

Year 5

- identify 3-D shapes, including cubes and other cuboids, from 2-D representations
- know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles
- draw given angles, and measure them in degrees (o)
- identify:
 - angles at a point and one whole turn (total 360o)
 - angles at a point on a straight line and a half turn (total 180o)
 - other multiples of 90o
- use the properties of rectangles to deduce related facts and find missing lengths and angles
- distinguish between regular and irregular polygons based on reasoning about equal sides and angles.

Year 6

- draw 2-D shapes using given dimensions and angles
- recognise, describe and build simple 3-D shapes, including making nets
- compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons
- illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius
- recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.