

Progression Document: Geometry

Year 1	[KEY] I can name common 2-D shapes such as rectangles, squares, circles and triangles.				[KEY] I can name some 3-D shapes such as cuboids and cubes, pyramids and spheres.				I can describe my position, direction and movement, including whole turns, half turns, quarter turns and three-quarter turns.								
Year 2	I can tell you which 2-D shapes appear as the faces on 3-D shapes, such as triangles on a pyramid.		I can describe the properties of some 3-D shapes, including the number of edges, faces and vertices they have.		[KEY] I can compare 2-D and 3-D shapes with everyday objects around me.		I can sort objects into categories and tell you how many objects are in each category and show which category has the most.		I can describe the properties of some 2-D shapes, including the number of sides they have and facts about their symmetry.		I can order combinations of mathematical objects in patterns and sequences.						
Year 3	I recognise and can describe 3-D shapes even when they have been turned about in different ways.		[KEY] I can tell whether an angle is greater than or less than a right angle		I know an angle is used to measure how far something turns. An angle is also the point in a 2-D shape.		I can measure the perimeter of a 2-D shape such as a square or triangle.		I know when a line is horizontal or vertical or when two lines are perpendicular or parallel		I draw 2-D shapes and make 3-D shapes using modelling materials.		[KEY] I know what a right angle is and I know that two right angles make a half-turn, three make three quarters of a turn and four right angles make a complete turn.				
Year 4	If I have been given one half of a symmetrical shape, I can complete the other half based on the position of the line of symmetry.		I can find the area of a rectangular shape by counting the number of squares the shape takes up.		I can measure and calculate the perimeter of a rectangle (including a square).		[KEY] I can find all the lines of symmetry in 2-D shapes.		[KEY] I can group 2-D shapes based on their properties (such as the number of sides) and sizes.		I can move (translate) a point on a grid by a given set of jumps either up/down or left/right.		[KEY] I can plot points using coordinates and join up the points to create a shape.	I can find the coordinates of a point on a grid.	I can find acute and obtuse angles and order a set of given angles by size.		
Year 5	I can identify 3-D shapes, including cubes and other cuboids, from 2-D drawings.		[KEY] I can calculate the area of rectangles in square centimetres (cm ²) and square metres (m ²) and estimate the area of irregular shapes.		[KEY] I can calculate the perimeter of multi-shape shapes in centimetres and metres.		[KEY] I can draw a given angle (such as 47°), and then measure them in degrees (°).		I know one whole turn - or a set of angles all around a point - measure a total of 360°.		I know that angles are measured in degrees and I can estimate and compare acute, obtuse and reflex angles.		I can find the missing lengths and angles of a rectangle.		I can identify multiples of 90° (right angles).	I know that a straight line - or angles that add up to a straight line - measure 180°.	[KEY] I know regular shapes have equal sides and angles and irregular shapes do not have equal sides and angles.
Year 6	I can solve similar shape problems.	I can calculate the area of parallelograms and triangles.	I know that even though shapes may have the same area, the perimeter may be different - or a shape with the same perimeter may have a different area.		[KEY] I can classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons.		I can work with angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.		I accurately draw 2-D shapes using given dimensions and angles.		[KEY] I can draw and translate shapes using coordinates or reflect a shape on the grid.		I can recognise, describe and build 3-D shapes, including making nets.		I can use the four quadrants in a coordinate grid.		I know the parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius.