



Mathematics Progression of Skills

Geometry – Properties of Shape

2 Years	3 / 4 Years	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
IDENTIFYING SHAPES AND THEIR PROPERTIES								
Complete inset puzzles.	Talk about and explore 2D and 3D shapes (e.g. circles, rectangles, cuboids) using informal and mathematical language (e.g. sides, corners, straight, flat, round).	Select, rotate and manipulate shapes to develop spatial reasoning.	Recognise and name common 2-D shapes, including: Rectangles (including squares), circles and triangles]	Identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line.		Identify lines of symmetry in 2-D shapes presented in different orientations.	Identify 3-D shapes, including cubes and other cuboids, from 2-D representations	Recognise, describe and build simple 3-D shapes, including making nets
Build with 3D block shapes.			Recognise and name common 3-D shapes, including: Cuboids (including cubes), pyramids and spheres	Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces				Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius
		Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can.		Identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid]				
DRAWING AND CONSTRUCTING								
	Select shapes appropriately, e.g. flat surface for building, a triangular prism for a roof, etc.				Draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them	Complete a simple symmetric figure with respect to a specific line of symmetry	Draw given angles, and measure them in degrees ($^{\circ}$)	Draw 2-D shapes using given dimensions and angles
								Recognise, describe and build simple 3-D shapes, including making nets (appears also in Identifying Shapes and their properties)



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COMPARING AND CLASSIFYING									
					Compare and sort common 2-D and 3-D shapes and everyday objects		Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes	Use the properties of rectangles to deduce related facts and find missing lengths and angles	Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons
								Distinguish between regular and irregular polygons based on reasoning about equal sides and angles	
ANGLES									
						Recognise angles as a property of shape or a description of a turn	Identify acute and obtuse angles and compare and order angles up to two right angles by size	Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles	Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles
						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 or less than right angle		identify: * angles at a point and one whole turn (total 360°) * angles at a point on a straight line and $\frac{1}{2}$ a turn (total 180°) * other multiples of 90°	
						identify horizontal and vertical lines and pairs of perpendicular and parallel lines			