



# Geometry: Properties of Shapes



IDENTIFYING SHAPES AND THEIR PROPERTIES						
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>Show an interest in shape and space by playing with shapes or making arrangements with objects.</p>	<p>Recognize, handle and name common 2-D and 3-D shapes, including:</p> <ul style="list-style-type: none"> <li>* 2-D shapes [e.g. rectangles (including squares), circles and triangles]</li> <li>* 3-D shapes [e.g. cuboids (including cubes), pyramids and spheres].</li> </ul>	<p>identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line</p>		<p>identify lines of symmetry in 2-D shapes presented in different orientations</p>	<p>identify 3-D shapes, including cubes and other cuboids, from 2-D representations</p>	<p>recognise, describe and build simple 3-D shapes, including making nets (appears also in Drawing and Constructing)</p>
<p>show an interest in shape by sustained construction activity or by talking about shapes or arrangements.</p>		<p>identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces</p>				<p>illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius</p>
<p>show an interest in shapes in the environment.</p> <p>Use shapes appropriately for tasks.</p> <p>Begin to talk about shapes in everyday objects, e.g. 'round' and 'tall'.</p> <p>Begin to use mathematical names for 'solid' 3D shapes and</p>		<p>identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid]</p>				



# Geometry: Properties of Shapes

<p>'flat' 2D shapes, and mathematical terms to describe shapes.</p> <p>Select a particular named shape.</p> <p>Explore characteristics of everyday objects and shapes and use mathematical language to describe them.</p>						
<b>DRAWING AND CONSTRUCTING</b>						
			<p>draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them</p>	<p>complete a simple symmetric figure with respect to a specific line of symmetry</p>	<p>draw given angles, and measure them in degrees (<math>^{\circ}</math>)</p>	<p>draw 2-D shapes using given dimensions and angles</p> <p>recognise, describe and build simple 3-D shapes, including making nets (appears also in Identifying Shapes and Their Properties)</p>



# Geometry: Properties of Shapes

COMPARING AND CLASSIFYING						
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Show awareness of similarities of shapes in the environment.		Identify, 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		know angles are measured in degrees: estimate and compare acute, obtuse and reflex 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 than or less than a right angle	identify acute and obtuse angles and compare and order angles up to two right angles by size	identify: * angles at a point and one whole turn (total $360^\circ$ ) * angles at a point on a straight line and $\frac{1}{2}$ a turn (total $180^\circ$ ) * other multiples of $90^\circ$	recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles
			identify horizontal and vertical lines and pairs of perpendicular and parallel lines			