

Geometry: Properties of Shapes

IDENTIFYING SHAPES AND THEIR PROPERTIES						
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>recognise and name 2d shapes</p> <p>* circles, triangles and 4 sided shapes</p> <p>name some properties</p> <p>* curved sides, straight sides corners</p>	<p>recognise and name common 2-D and 3-D shapes, including:</p> <p>* 2-D shapes [e.g. rectangles (including squares), circles and triangles]</p> <p>* 3-D shapes [e.g. cuboids (including cubes), pyramids and spheres].</p>	<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>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>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>				
DRAWING AND CONSTRUCTING						
<p>explore properties of 3d shape through building, printing and junk modelling</p>			<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 ($^{\circ}$)</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>

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COMPARING AND CLASSIFYING						
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<ul style="list-style-type: none"> • Select, rotate and manipulate shapes to develop spatial reasoning skills. • Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can. 		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	
<p>There are no early learning goals that directly relate to shape, space and measure objectives. However, children will have experienced rich opportunities to develop their spatial reasoning skills in shape, space and measure.</p>						
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	identify acute and obtuse angles and compare and order angles up to two right angles by size	identify: <ul style="list-style-type: none"> * angles at a point and one whole turn (total 360°) * angles at a point on a straight line and $\frac{1}{2}$ a turn 	recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles

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			whether angles are greater than or less than a right angle		(total 180°) * other multiples of 90°	
			identify horizontal and vertical lines and pairs of perpendicular and parallel lines			
	Language					
	2D and 3D Cuboid, cubes, pyramid sphere solid shapes Circle square triangle rectangle , big small	Properties sides, points vertices symmetry Line of symmetry	Clockwise anti clockwise Point angle turn Right angle 90degrees Acute obtuse horizontal, vertical, perpendicular parallel net prism apex	quadrilateral Acute angle Obtuse angles Equilateral triangle isosceles, scalene Parallelogram Rhombus, trapezium symmetrical	Reflex angle Protractor Degrees Regular and irregular polygons	Vertically opposite angles net