

**Math Curriculum – Key Skills**  
**Geometry: Properties of Shape**

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	
<b>Identifying Shapes and their Properties</b>						
<p>recognise 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><i>Recognise common 2D and 3D shapes presented in different orientations, and know that rectangles, triangles, cuboids and pyramids are not always similar to one another.</i></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><i>Identify regular polygons, including equilateral triangles and squares, as those in which the side-lengths are equal and the angles are equal. Find the perimeter of regular and irregular polygons.</i></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><i>Identify line symmetry in 2D shapes presented in different orientations. Reflect shapes in a line of symmetry and complete a symmetric figure or pattern with respect to a specified line of symmetry</i></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 the radius surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid]</p> <p><i>Use precise language to describe the properties of 2D and 3D shapes, and compare shapes by reasoning about similarities and differences in properties.</i></p>					
<b>Drawing and Constructing</b>						
<p><i>Compose 2D and 3D shapes from smaller shapes to match an example, including manipulating shapes to place them in particular orientations.</i></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><i>Draw polygons by joining marked points, and identify parallel and perpendicular sides.</i></p>	<p>complete a simple symmetric figure with respect to a specific line of symmetry</p> <p><i>Draw polygons, specified by coordinates in the first quadrant, and translate within the first quadrant.</i></p>	<p>draw given angles, and measure them in degrees ( ° )</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> <p><i>Draw, compose, and decompose shapes according to given properties, including dimensions, angles and area, and solve related problems.</i></p>	
<b>Comparing and Classifying</b>						
	<p>compare and sort common 2-D and 3-D shapes and everyday objects</p> <p><i>Use precise language to describe the properties of 2D and 3D shapes, and compare shapes by reasoning about similarities and differences in properties.</i></p>		<p>compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes</p>	<p>use the properties of rectangles to deduce related facts and find missing lengths and angles</p> <p><i>Compare areas and calculate the area of rectangles (including squares) using standard units.</i></p> <p>distinguish between regular and irregular polygons based on reasoning about equal sides and angles</p>	<p>compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons</p>	
<b>Angles</b>						
		<p>recognise angles as a property of shape or a description of a turn</p> <p><i>Recognise right angles as a property of shape or a description of a turn, and identify right angles in 2D shapes presented in different orientations.</i></p>		<p>know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles</p> <p><i>Compare angles, estimate and measure angles in degrees (°) and draw angles of a given size.</i></p>		
		<p>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</p>	<p>identify acute and obtuse angles and compare and order angles up to two right angles by size</p>	<p>identify:</p> <ul style="list-style-type: none"> <li>* angles at a point and one whole turn (total 360°)</li> <li>* angles at a point on a straight line and ½ a turn (total 180°)</li> <li>* other multiples of 90°</li> </ul>	<p>recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles</p>	
		<p>identify horizontal and vertical lines and pairs of perpendicular and parallel lines</p>				