# Geometry – Properties of Shape – National Curriculum 2014

| Foundation Stage | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
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| They explore characteristics of everyday objects and shapes and use mathematical language to describe them. | Recognise and name common 2-D and 3-D shapes, including:<br><br>• 2-D shapes [for example, rectangles (including squares), circles and triangles]<br><br>• 3-D shapes [for example, cuboids (including cubes), pyramids and spheres]. | Identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line<br><br>Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces<br><br>Identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid]<br><br>Compare and sort common 2-D and 3-D shapes and everyday objects. | Draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them<br><br>Recognise angles as a property of shape or a description of a turn<br><br>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<br><br>Identify horizontal and vertical lines and pairs of perpendicular and parallel lines. | Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes<br><br>Identify acute and obtuse angles and compare and order angles up to two right angles by size<br><br>Complete a simple symmetric figure with respect to a specific line of symmetry. | Identify 3-D shapes, including cubes and other cuboids, from 2-D representations<br><br>Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles<br><br>Draw given angles, and measure them in degrees (º)<br><br>Identify:<br>• angles at a point and one whole turn (total 360º)<br>• angles at a point on a straight line and ½ a turn (total 180º)<br>• other multiples of 90º<br><br>Use the properties of rectangles to deduce related facts and find missing lengths and angles<br><br>Distinguish between regular and irregular polygons based on reasoning about equal sides and angles. | Recognise, describe and build simple 3-D shapes, including making nets<br><br>Draw 2-D shapes using given dimensions and angles<br><br>Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons<br><br>Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.<br><br>Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius |