

# Geometry: Properties of Shapes

| IDENTIFYING SHAPES AND THEIR PROPERTIES   |  |   |  |  |   |
|---|--|---|--|--|---|
| Year 1  | Year 2   | Year 3  | Year 4   | Year 5   | Year 6  |
| recognise and name common 2-D and 3-D shapes, including:<br>* 2-D shapes [e.g. rectangles (including squares), circles and triangles]<br>* 3-D shapes [e.g. 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 |   | 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 (appears also in Drawing and Constructing)   |
|   | 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   |
|   | 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  |  |   |  |  |   |
|   |  | 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<br><br>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 |   |  |  |  |  |
|---------------------------|---|--|--|--|--|
| Year 1                    | Year 2  | Year 3   | Year 4   | Year 5   | Year 6   |
|                           | 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: <ul style="list-style-type: none"> <li>* angles at a point and one whole turn (total <math>360^\circ</math>)</li> <li>* angles at a point on a straight line and <math>\frac{1}{2}</math> a turn (total <math>180^\circ</math>)</li> <li>* other multiples of <math>90^\circ</math></li> </ul> | 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   |  |  |  |