



Power Maths Knowledge & Skills Progression

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: * 2-D shapes [e.g. rectangles (including squares), circles and triangles] * 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

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|--|--|---|--|---|--|
| | | 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 |
| | | | | | recognise, describe and build simple 3-D shapes, including making nets (appears also in Identifying Shapes and Their Properties) |

COMPARING AND CLASSIFYING



Power Maths Knowledge & Skills Progression

Geometry: Properties of Shapes



| 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 distinguish between regular and irregular polygons based on reasoning about equal sides and angles | compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons |
| 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°) * angles at a point on a straight line and $\frac{1}{2}$ a turn (total 180°) * other multiples of 90° | 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 | | | |