## Progression of skills in Maths: Geometry



| Skills: | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
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| 2-D Shapes | recognise and name common 2-D shapes [for example, rectangles (including squares), circles and triangles] | identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line <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> compare and sort common 2-D shapes and everyday objects | draw 2-D shapes | compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes <br> identify lines of symmetry in 2-D shapes presented in different orientations | distinguish between regular and irregular polygons based on reasoning about equal sides and angles. <br> use the properties of rectangles to deduce related facts and find missing lengths and angles | draw 2-D shapes using given dimensions and angles <br> compare and classify geometric shapes based on their properties and sizes <br> illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius |
| 3-D Shapes | recognise and name common 3-D shapes [for example, cuboids (including cubes), pyramids and spheres] | recognise and name common 3-D shapes [for example, cuboids (including cubes), pyramids and spheres] <br> compare and sort common 3-D shapes and everyday objects | make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them |  | Identify 3-D shapes, including cubes and other cuboids, from 2-D representations | recognise, describe and build simple 3-D shapes, including making nets |
| Angles and Lines |  |  | recognise angles as a property of shape or a description of a turn identify right angles, recognise that two right angles make a | identify acute and obtuse angles and compare and order angles up to two right angles by size | know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles | find unknown angles in any triangles, quadrilaterals, and regular polygons recognise angles where they meet at 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> identify horizontal and vertical lines and pairs of perpendicular and parallel lines | identify lines of symmetry in 2-D shapes presented in different orientations <br> complete a simple symmetric figure with respect to a specific line of symmetry | draw given angles, and measure them in degrees <br> identify: <br> angles at a point and one whole turn (total $360^{\circ}$ ) <br> $>$ angles at a point on a straight line and 12 a turn (total $180^{\circ}$ ) other multiples of $90^{\circ}$ | point, are on a straight line, or are vertically opposite, and find missing angles |
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| Position and Direction | describe position, direction and movement, including whole, half, quarter and three-quarter turns | order and arrange combinations of mathematical objects in patterns and sequences <br> use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise) |  | describe positions on a 2-D grid as coordinates in the first quadrant <br> describe movements between positions as translations of a given unit to the left/right and up/down <br> plot specified points and draw sides to complete a given polygon | identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed | describe positions on the full coordinate grid (all four quadrants) <br> draw and translate simple shapes on the coordinate plane, and reflect them in the axes |

