



Progression in Mathematics: Geometry

Concept	Nursery and EYFS	Year 1 and Year 2	Year 3 and Year 4	Year 5 and Year 6
2-D Shapes	<p>beginning to use mathematical names for flat 2-D shapes and mathematical terms to describe them</p> <p>selects a particular named shape</p> <p>use familiar objects and common shapes to create patterns and build models</p> <p>recognise, create and describe patterns</p> <p>explore the characteristics of everyday objects and shapes</p> <p>use mathematical language to describe them</p>	<p>compare and sort common 2-D shapes and everyday objects</p> <p>identify and describe the properties of 2D shapes number of sides lines of symmetry triangle on a pyramid</p> <p>recognise and name common 2-D /3D shapes squares/rectangles circles/triangles circle on a cylinder</p>	<p>draw 2-D shapes</p> <p>compare and classify geometric shapes quadrilaterals/ triangles based on their properties and sizes</p> <p>identify lines of symmetry in 2-D shapes presented in different orientations</p>	<p>distinguish between regular and irregular polygons based on reasoning about equal sides and angles</p> <p>use properties of rectangles to deduce related facts and find missing lengths and angles</p> <p>draw 2-D shapes given dimensions and angles</p> <p>compare and classify geometric shapes based on their properties and sizes</p> <p>illustrate and name parts of a circle radius diameter circumference know that the diameter is 2x radius</p>
3-D Shapes	<p>beginning to use mathematical names for flat 3-D shapes and mathematical terms to describe them</p> <p>selects a particular named shape</p> <p>uses familiar objects and common shapes to create patterns and build models recognise, create and describe patterns</p> <p>explore the characteristics of everyday objects and shapes</p> <p>use mathematical language to describe different shapes</p>	<p>recognise and name common 3-D shapes cubes/cuboids pyramids/spheres</p> <p>recognise and name common 3-D shapes cubes/cuboids pyramids/spheres</p> <p>compare and sort common 3-D shapes and everyday objects</p>	<p>make 3D shapes using modelling materials</p> <p>recognise 3-D shapes in different orientations and describe them</p>	<p>identify 3-D shapes, including cubes and other cuboids, from 2-D representations</p> <p>recognise, describe and build simple 3D shapes, including making nets</p>
Angles and Lines			<p>recognise angles as a property of shape or a description of a turn</p> <p>identify right angles Recognise that 2 right angles make a half-turn, three make three quarters of a turn and four make a complete turn</p>	<p>know angles are measured in degrees</p> <p>estimate and compare acute, obtuse and reflex angles draw given angles and measure them in degrees</p> <p>identify</p>

			<p>Identify whether angles are greater than or less than a right angle</p> <p>identify horizontal and vertical lines and pairs of perpendicular and parallel lines identify acute and obtuse angles compare and order angles up to two right angles by size</p> <p>identify lines of symmetry in 2-D shapes presented in different orientations</p> <p>complete a simple symmetric figure with respect to a specific line of symmetry</p>	<p>angles at a point and one whole turn angles at a point on a straight line and $\frac{1}{2}$ a turn other multiples of 90 degrees find unknown angles in any triangles, quadrilaterals and regular polygons</p> <p>recognise angles where they meet at a point are on a straight line, or are vertically opposite, and find missing angles</p>
<p>Position and Direction</p>	<p>describe their relative position</p> <p>behind next to</p> <p>describe their relative position</p> <p>behind next to in front of under</p>	<p>describe position, direction and movement, including whole, half, quarter and three-quarter turns</p> <p>order and arrange combinations of mathematical objects in patterns and sequences</p> <p>use mathematical vocabulary to describe position, direction and movement</p> <p>movement in a straight line distinguishing between rotation as a turn and in terms of right angles quarter turns/half/ 3 quarter turns- clockwise and anticlockwise</p>	<p>describe positions on a 2-D grid as coordinates in the first quadrant</p> <p>describe movements between positions as translations of a given unit to the left/right/up/down</p> <p>plot specified points and draw sides to complete a given polygon</p>	<p>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</p> <p>describe positions on the full coordinate grid (all four quadrants)</p> <p>draw and translate simple shapes on the coordinate plane, and reflect them in the axes</p>