Progression of Skills: Geometry: properties of shapes

Nursery	Reception	Y1	Y2	Y3	Y4	Y5	Y6
Geometry: properties of shapes	**Geometry: properties of shapes**	**Geometry: properties of shapes**	**Geometry: properties of shapes**	**Geometry: properties of shapes**	**Geometry: properties of shapes**	**Geometry: properties of shapes**	**Geometry: properties of shapes**
Pupils should be taught to:	**Pupils should be taught to:**	**Pupils should be taught to:**	**Pupils should be taught to:**	**Pupils should be taught to:**	**Pupils should be taught to:**	**Pupils should be taught to:**	**Pupils should be taught to:**
Show an interest in shape and space by playing with shapes or making arrangements with objects.	Begin to use mathematical names for 'solid' 3D shapes and 'flat' 2D shapes, and mathematical terms to describe shapes.	Recognise and name common 2-D and 3-D shapes, including:	Identify and describe the properties of 2-D shapes, including the number of sides and symmetry in a vertical line	Draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them	Compare and classify geometric shapes, including quadrilaterals and triangles, **b**ased on their properties and sizes	Identify 3-D shapes, including cubes and other cuboids, from 2-D representations	Draw 2-D shapes using given dimensions and angles
Show awareness of similarities of shapes in the environment.	Select a particular named shape.	-2-D shapes [for example, rectangles (including squares), circles and triangles]	Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces	Recognise angles as a property of shape or a description of a turn	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	Recognise, describe and build simple 3-D shapes, including making nets
Show interest in shape by sustained construction activity or by talking about shapes or arrangements.	Use familiar objects and common shapes to create and recreate patterns and build models.	-3-D shapes [for example, cuboids (including cubes), pyramids and spheres]	Identify 2-D shapes on the surface of 3-D shapes, [for example a circle on a cylinder and a triangle on a pyramid]	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 lines of symmetry in 2-D shapes presented in different orientations	Draw given angles, and measure them in degrees ($^\circ$)	Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons
Show interest in shapes in the environment.	ELG They explore characteristics of everyday objects and shapes and use mathematical language to describe them		Compare and sort common 2-D and 3-D shapes and everyday objects	Identify horizontal and vertical lines and pairs of perpendicular and parallel lines	Complete a simple symmetric figure with respect to a specific line of symmetry	Identify: -angles at a point and one whole turn (total 360°) -angles at a point on a straight line and ½ a turn (total 180°) -other multiples of 90°	Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius
Use shapes appropriately for tasks.						Use the properties of rectangles to deduce related facts and find missing lengths and angles	Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles
						Distinguish between regular and irregular polygons based on reasoning about equal sides and angles	