Progression in Geometry: Properties of Shapes

	Identifying Shapes and their Properties
R	• Develop an awareness of relationships between shapes (e.g.) spot shapes within shapes • Describe properties of shapes. • Show an awareness of properties of shapes (e.g.) Using cylinders for wheels as they can roll. • Shape awareness: developing shape awareness through construction.
Y1	• recognise and name common 2-D and 3-Dshapes, including: * 2-D shapes [e.g. rectangles (includingsquares), circles andtriangles] * 3-D shapes [e.g. cuboids (including cubes), pyramids andspheres].
Y2	• identify and describe the properties of 2-D shapes, including the number of sides and line symmetry ina vertical line • identify and describe theproperties of 3-D shapes,including the number of edges, vertices and faces • identify 2-D shapes on thesurface of 3-D shapes, [forexample, a circle on a cylinder and a triangle on a pyramid]
Y3	• identify and describe the properties of 2-D shapes, including the number of sides and line symmetry ina vertical line (Consolidation from Year 2) • identify and describe theproperties of 3-D shapes,including the number of edges, vertices and faces(Consolidation from Year2) • identify 2-D shapes on thesurface of 3-D shapes, [forexample, a circle on a cylinder and a triangle on a pyramid] (Consolidation from Year 2)
Y4	• identify lines of symmetry(vertical, horizontal, diagonal) in 2-D shapes presented in different orientations
Y5	• identify 3-D shapes, including cubes and othercuboids, from 2-D representations
Y6	• recognise, describe and build simple 3-D shapes,including making nets – draw and make (appears also in Drawing and constructing) • illustrate and name parts of circles, including radius,diameter and circumference and know that the diameter is twice the radius

Progression in Geometry: Properties of Shapes

	Drawing and Construction	Comparing and Classifying
R		• Identify similarities between shapes.
Y1		
Y2		• compare and sort common 2-D and 3-Dshapes and everyday objects
Y3	• draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations anddescribe them (Nets made only)	
Y4	• complete a simple symmetric figure with respect to a specific line of symmetry	• compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes
Y5	• draw given angles, and measure them in degrees (^{o})	• 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 equalsides and angles
Y6	• draw 2-D shapes usinggiven dimensions and angles • recognise, describe and build simple 3-D shapes,including making nets – draw and make (appears also in Identifying Shapes and Their Properties)	• compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regularpolygons

Progression in Geometry: Properties of Shapes

Angles	
R	
Y1	
Y2	
Y3	• recognise angles as a property of shape or adescription of a turn • identify right angles, recognise that two right angles make a half-turn, three make three quartersof a turn and four a complete turn; identify whether angles are greater than or less than aright angle • identify horizontal and vertical lines and pairs of perpendicular and parallellines
Y4	• recognise angles as a property of shape or a description of a turn (Consolidation from Year 3) • identify acute and obtuseangles and compare and order angles up to two right angles by size
Y5	• know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles • Identify: * angles at a point andone whole turn (total 360^{o}) * angles at a point on astraight line and ½ a turn (total 180) * other multiples of 90^{o}
Y6	• recognise angles where they meet at a point, areon a straight line, or are vertically opposite, and find missing angles