MATHS TREES OF KNOWLEDGE AND SKILLS PROGRESSION
KS1 - GEOMETRY (SHAPE, POSITION AND DIRECTION)-

	Year 1			Year 2		
	Autumn Term	Spring Term	Summer Term	Autumn Term	Spring Term	Summer Term
Knowledge	• Know the names of 2D shapes: circle, triangle, square, rectangle, hexagon • Know the properties of 2D shapes: flat, curved, straight, round, sides, vertices • Know the names of 3D shapes: cylinder, cube, cuboid, pyramid, sphere, cone • Know the properties of 3D shapes: edges, faces, vertices, curved faces/edges • Know the difference between 2D (flat shapes) and 3D (solid shapes)	• Re-visit knowledge of the names of 2D shapes and their properties (see Autumn term) • Know the difference between a square and a rectangle • Re-visit knowledge of the names of 3D shapes and their properties (see Autumn term) • Know what 'a line of symmetry' is	• Know language related to position: over, under, underneath, above, below, top, bottom, side on, in, outside, inside, around, in front, behind, front, back, before, after beside, next to, opposite, part, between, middle, edge, centre • Know what is meant by 'a quarter turn', 'half turn'	• Revisit knowledge of the names and properties of 2D shapes through Flashback 4s • Revisit knowledge of the names and properties of 3D shapes through Flashback 4s	• Re-visit and build on knowledge of the names of 2D shapes: circle, triangle, square, rectangle, hexagon, pentagon, octagon • Re-visit and build on knowledge of the properties of 2D shapes: flat, curved, straight, round, sides, vertices, vertical, symmetrical • Re-visit and build on knowledge of the names of 3D shapes: cylinder, cube, cuboid, pyramid, sphere, cone • Re-visit and build on knowledge of the properties of 3D shapes: edges, faces, vertices, • Know that an edge is where 2 faces meet or where a face and a curved surface meet • Revisit knowledge of the difference between 2D (flat shapes) and 3D (solid shapes)	• Revisit knowledge of the names and properties of 2D shapes through Flashback 4s • Revisit knowledge of the names and properties of 3D shapes through Flashback 4s

					• Know what is meant by the words 'apex' and 'vertex' • Know that some shapes are symmetrical and some are not • Know that most shapes with flat faces will stack • Know that some shapes with flat faces will not stack (square based pyramid, cone) • Know that cube is a special kind of cuboid where all faces are squares	

Skills	• Recognise 2D and 3D shapes • Count sides on 2D shapes • Count vertices on 2D shapes • Draw 2D shapes • Identify lines of symmetry • Sort 2D shapes • Make patterns with 2D shapes • Count faces on 3D shapes • Count edges on 3D shapes • Count vertices on 3D shapes • Sort 3D shapes • Make patterns with 2D shapes • Make patterns with 3D shapes • Explore and discuss shapes of real objects • Explore shapes outdoors and shapes in nature	• Recognise, name and sort 2D shapes • Label 2D shapes • Recognise, name and sort 3D shapes • Label 3D shapes • Make patterns with 2D shapes • Make patterns with 3D shapes	• Use mathematical vocabulary to describe position • Use mathematical vocabulary to describe direction • Use mathematical vocabulary to describe movement, including movement in a straight line • Identify and distinguish between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise).	• Name and label 2D shapes • Name and label 3D shapes	• Recognise and sort 2-D shapes including circle, square, triangle, rectangle, pentagon, hexagon and octagon using a range of different orientations • Sort 2D shapes in more than one way • Count sides on 2D shapes • Count vertices on 2D shapes • Draw 2D shapes accurately using dotted/squared paper and a ruler • Create 2D shapes accurately on geo-boards • Identify and draw vertical lines of symmetry • Make patterns with 2D shapes • Count faces on 3D shapes • Count edges on 3D shapes • Count vertices on 3D shapes • Sort 3D shapes in more than one way • Make patterns with 3D shapes and describe	• Name and label 2D shapes • Name and label 3D shapes • Describe properties of 2D and 3D shapes, using vocabulary taught in Spring term

					the patterns they have created • Identify and visualise 3-D shapes from a 2-D representation	