Geometric reasoning 2.14	Length of unit: **2 weeks**	Week beg:	Year: 2	Teacher:

Success criteria	**Prior Learning:**	**Resources**
Pupils can use their understanding of fractions to talk about shapes and movement (turns) and solve related problems.	Check that children can already • recognise, find and name a half as one of two equal parts of an object, shape or quantity • recognise, find and name a quarter as one of four equal parts of an object, shape or quantity • recognise and name common 2-D and 3-D shapes, including: • 2-D shapes [for example, rectangles (including squares), circles and triangles] • 3-D shapes [for example, cuboids (including cubes), pyramids and spheres] • describe position, direction and movement, including whole, half, quarter and three-quarter turns	Maths vocabulary book Using and Applying in every maths lesson Assessment through guided maths Think Maths! Pitch and Expectations Y2 Models and Images Overcoming Barriers to learning Level 1 to 2/Level 2 to 3 Securing Level 1/Level 2/Level 3

Guidance

Pupils use the concept and language of angles to describe 'turn' by applying rotations, including in practical contexts (for example, pupils themselves moving in turns, giving instructions to other pupils to do so and programming robots using instructions given in right angles).

Pupils handle and name a wide variety of common 2D and 3D shapes including; quadrilaterals and polygons, cuboids, prisms and cones, and identify the properties of each shape (for example, number of sides, number of faces).

Pupils identify, compare and sort shapes on the basis of their properties and use vocabulary precisely, such as sides, edges, vertices and faces.

Pupils should work with patterns of shapes including those in different orientations.

Learning objectives	**Pupil outcomes:**
Pupils should be taught to: Geometry: properties of shape • identify and describe the properties of 2D shapes, including the number of sides and line symmetry in a vertical line • identify and describe the properties of 3D shapes, including the number of edges, vertices and faces • identify 2D shapes on the surface of 3D shapes • compare and sort common 2D and 3D shapes and everyday objects Geometry: position and direction • order and arrange combinations of mathematical objects in patterns and sequences • 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)	I can explain how to programme a programmable toy to draw a rectangle on paper and then go back the way it came.