Geometric Reasoning 4.14	Length of unit: **2 weeks**	Week beg:	Year:4	Teacher:

Success criteria	**Prior Learning:**	**Resources**
Pupils can explain how to find the perimeter and area of a shape and how to complete a symmetrical shape with a given line of symmetry, using this knowledge and understanding to solve problems.	Check that children can already • draw 2-D shapes and make 3-D shapes using modelling materials; recognize 3-D shapes in different orientations; and describe them • recognise that angles are a property of shape or a description of a turn • 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 horizontal and vertical lines and pairs of perpendicular and parallel lines • measure the perimeter of simple 2-D shapes	Maths vocabulary book Using and Applying in every maths lesson Assessment through guided maths Think Maths! Pitch and Expectations Y4 and Y5 Mind the Gap (L3 to L4) Overcoming Barriers to Learning – L3 to 4 and L4 to 5 (available online) Securing Level 3 and Securing Level 4 documents

Guidance

Pupils draw symmetric patterns using a variety of media to become familiar with different orientations of lines of symmetry; and recognise line symmetry in a variety of diagrams including where the line of symmetry does not dissect the original shape.

Perimeter can be expressed algebraically as 2 (a + b) where a and b are the dimensions in the same unit.

They relate area to arrays and multiplication.

See guidance in 4.4.

Learning objectives	**Pupil outcomes:**
Pupils should be taught to: Geometry: properties of shape ● compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes ● identify acute and obtuse angles and compare and order angles up to two right angles by size ● identify lines of symmetry in 2-D shapes presented in different orientations. ● complete a simple symmetric figure with respect to a specific line of symmetry. Measurement ● measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres ● find the area of rectilinear shapes by counting squares	I can explain and represent how 12 square paving slabs can be used to make patios with different perimeters. I can find which vegetable patch with a perimeter of 16m has the biggest are and explain why it has the biggest area. I can complete a pixilated picture of a house with one line of symmetry.