

<b>Geometric reasoning 4.9</b>		Length of unit: <b>2 weeks</b>	Week beg:	Year:4	Teacher:
<p>Success criteria</p> <p>Pupils can explain how to locate points on a grid in the first quadrant and use this knowledge and understanding to solve problems.</p>	<p><b>Prior Learning:</b></p> <p>Check that children can already</p> <ul style="list-style-type: none"> <li>• draw 2-D shapes and make 3-D shapes using modelling materials; recognize 3-D shapes in different orientations; and describe them</li> <li>• recognise that angles are a property of shape or a description of a turn</li> <li>• 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</li> <li>• identify horizontal and vertical lines and pairs of perpendicular and parallel lines measure the perimeter of simple 2-D shapes</li> </ul>			<p><b>Resources</b></p> <p>Maths vocabulary book</p> <p>Using and Applying in every maths lesson</p> <p>Assessment through guided maths</p> <p>Think Maths!</p> <p>Pitch and Expectations Y4 and Y5</p> <p>Mind the Gap (L3 to L4)</p> <p>Overcoming Barriers to Learning – L3 to 4 and L4 to 5 (available online)</p> <p>Securing Level 3 and Securing Level 4 documents</p>	
<p><b>Guidance</b></p> <p>Pupils continue to classify shapes using geometrical properties, extending to classifying different triangles (for example, isosceles, equilateral, scalene) and quadrilaterals (for example, parallelogram, rhombus, trapezium).</p> <p>Pupils compare and order angles in preparation for using a protractor and compare lengths and angles to decide if a polygon is regular or irregular.</p> <p>Pupils draw a pair of axes in one quadrant, with equal scales and integer labels. They read, write and use pairs of coordinates (for example, 2, 5), including using coordinate-plotting ICT tools.</p>					

## Learning objectives

### Pupils should be taught to:

Geometry: properties of shapes

- compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes

Geometry: position and direction

- describe positions on a 2-D grid as coordinates in the first quadrant
- describe movements between positions as translations of a given unit to the left / right and up / down
- plot specified points and draw sides to complete a given polygon.

### Pupil outcomes:

I can identify the coordinates (4, 2) and (4, 4) when marked on a grid, plot and identify two more points to form a square and explain what happens to the coordinates of the vertices of the square if it is translated two squares to the right and one square up.