

**Year 8 Mathematics**

Level	Shape 1 - Knowledge, Skills, Understanding
Higher	<p><b><u>Construction</u></b>                      Use a ruler and a compass to construct triangles using SSS                      Use straight edge and compasses to construct a triangle, given right angle, hypotenuse and side (RHS)                      Construct a regular hexagon inside a circle</p>
	<p><b><u>Polygons</u></b>                      Calculate the sum of the interior angles of an n-sided polygon                      Calculate the interior and exterior angles of regular polygons                      Find the size of each interior angle or the size of each exterior angle or the number of sides of a regular polygon</p>
	<p><b><u>Bearings</u></b>                      Use accurate drawing to solve bearings problems                      Identify the location of point C when given the bearings from point A and point B</p>
	<p><b><u>Parallel lines</u></b>                      Solve harder problems using properties of parallel and intersecting lines</p>
	<p><b><u>Circles</u></b>                      Draw plans and elevations from 3D shapes and vice versa</p>
Intermediate	<p><b><u>Construction</u></b>                      Use ruler and protractor to construct triangles using SAS and ASA                      Use <math>\angle ABC</math> notation for describing angles                      Construct an equilateral triangle</p>
	<p><b><u>Angles</u></b>                      Solve harder problems using properties of angles, of triangles and other polygons</p>
	<p><b><u>Bearings</u></b>                      Mark on a diagram the position of point B given its bearing from the point A                      Given the bearing of point A from point B, work out the bearing of B from A</p>
	<p><b><u>Polygons</u></b>                      Know the sum of the exterior angles of any polygon is <math>360^\circ</math>                      Use the sum of angles in a triangle to deduce and use the angle sum in any polygon                      Use the angle sum of a polygon to identify an unknown angle</p>

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	<p><b><u>Parallel lines</u></b> Identify alternate and corresponding angles on parallel lines and their values. Identify co-interior angles and their values</p>
	<p><b><u>Circles</u></b> Begin to use plans and elevations of simple shapes</p>
<b>Foundation</b>	<p><b><u>Construction</u></b> Use a protractor to draw and measure angles to the nearest degree Construct diagrams of everyday 2-D situations involving rectangles, triangles, perpendicular and parallel lines Use ruler and protractor to construct right angle triangles Use AB notation for describing lengths</p>
	<p><b><u>Angles</u></b> Know the sum of angles on a straight line Tessellate combinations of polygons and explain why some shapes tessellate and why other shapes do not Know and calculate the sum of angles round a point Distinguish between acute, obtuse and reflex angles Identify perpendicular lines Recognise and use vertically opposite angles Derive and use the sum of angles in a triangle and a quadrilateral Use sum of angles in a triangle to find missing angle values</p>
	<p><b><u>Polygons</u></b> Derive and use the fact that the exterior angle of a triangle is equal to the sum of the two opposite interior angles Identify interior and exterior angles in a shape Use the sum of the interior angle and the exterior angle is <math>180^\circ</math></p>
	<p><b><u>Bearings</u></b> Understand and use the language associated with bearings Use a bearing to specify direction Give a bearing between the points on a map or scaled plan</p>
	<p><b><u>Parallel lines</u></b> Identify and draw parallel lines Mark parallel lines on a diagram</p>