



Longfield Learning Journey



Key Stage 4 HIGHER	Unit of work: Circles and Constructions	
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Key Words:	Prerequisites Green core – Blue extend	R	A	G
Centre, radius, chord, diameter, circumference, arc, tangent, sector, segment, circle theorem, perpendicular, bisector.	Use angle facts at a point and on a line.			
	Use interior angle facts for triangles and quadrilaterals.			
	Calculate the area of triangles, rectangles and composite shapes.			

	Content: Circles and Constructions - Unit 11	R	A	G
G9	Identify and apply circle definitions and properties, including; centre, radius, chord, diameter, circumference and arc.			
G17	Know the formulae: circumference of a circle = $2\pi r$, area of a circle = πr^2 ;			
G17	Calculate the area and perimeter of circles.			
G17	Calculate the area and perimeter of composite shapes involving circles.			
G9	Identify and apply circle definitions and properties, including: tangent, arc, sector and segment.			
G18	Calculate arc lengths of sectors of circles			
G18	Calculate areas of sectors of circles.			
G18	Calculate missing angles from sectors of circles.			
G10	Apply the standard circle theorems concerning angles, radii, tangents and chords, and use them to prove related results.			
G10	Prove the standard circle theorems concerning angles, radii, tangents and chords, and use them to prove related results.			
G2	Construct a perpendicular bisector of a line segment.			
G2	Use constructions to solve loci problems.			
G2	Know that the perpendicular distance from a point to a line is the shortest distance.			

K <i>What you know</i>	W <i>What you want to know</i>	L <i>What have you learned</i>