


Subject	Year	Month	
Mathematics	11	October	
<b>Topic:</b>			
<b>Circle theorems</b>			4 lessons
Content (Intent)			
<b>Prior Learning</b> Year 10 Constructions May Year 10 Circle calculations March		<b>Future Learning</b> <b>Year 12</b> Pure Chapter 6 Circles	
<b>Objectives</b> <ul style="list-style-type: none"> <li>Recall the definition of a circle and identify (name) and draw parts of a circle, including sector, tangent, chord, segment;</li> <li>Prove and use the facts that: <ul style="list-style-type: none"> <li>the angle subtended by an arc at the centre of a circle is twice the angle subtended at any point on the circumference;</li> <li>the angle in a semicircle is a right angle;</li> <li>the perpendicular from the centre of a circle to a chord bisects the chord;</li> <li>angles in the same segment are equal;</li> <li>alternate segment theorem;</li> <li>opposite angles of a cyclic quadrilateral sum to <math>180^\circ</math>;</li> </ul> </li> <li>Understand and use the fact that the tangent at any point on a circle is perpendicular to the radius at that point;</li> <li>Find and give reasons for missing angles on diagrams using: <ul style="list-style-type: none"> <li>circle theorems;</li> <li>isosceles triangles (radius properties) in circles;</li> <li>the fact that the angle between a tangent and radius is <math>90^\circ</math>;</li> <li>the fact that tangents from an external point are equal in length.</li> </ul> </li> </ul>			
<b>Pedagogical notes (implementation)</b>		<b>How will understanding be assessed &amp; recorded (Impact)</b>	
Reasoning needs to be carefully constructed and correct notation should be used throughout. Students should label any diagrams clearly, as this will assist them; particular emphasis should be made on labelling any radii in the first instance.		<b>End of half term no</b>	
		End of Year Mocks in November yr11	
		<b>How can parents help at home?</b>	
		<b>MathsWatch clips (Qualification GCSE)</b> 116, 149, 183	
<b>Further reading/discussion</b>			
<b>Reading / Enrichment</b>	<b>Literacy</b>	<b>Numeracy Links</b>	<b>Careers Links</b> Photography Ship navigation Aeroplane design Architect Astronomer