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**Knowledge Rich Curriculum Plan**

Year 10 Higher – Geometry 4



| **Lesson/Learning Sequence**  | **Intended Knowledge:***Students will know that…* | **Tiered Vocabulary**  | **Prior Knowledge:***In order to know this students, need to already know that…* | **Assessment**  |
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| **To learn how to apply the circle theorems** | * Students will know that the angle at the centre of a circle is double the angle at the circumference
 | **Theorem –** a statement that has been proved, or can be proved**Circumference –** the perimeter of a circle | * Students need to be able to label parts of a circle, e.g. radius, diameter, etc.
* Students will need to know how to find missing angles in isosceles triangles
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| **To learn how to apply the circle theorems** | * Students will know that the angle in a semi-circle is 90 degrees
 |  | * Students will need to know how to find missing angles in isosceles triangles
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| **To learn how to apply the circle theorems**  | * Students will know that angles in the same segment are equal
 | **Segment –** a region bounded by a chord and a corresponding arc lying between the chord's endpoints | * Students need to know the angle sums of triangles and quadrilaterals.
* Students need to be able to label parts of a circle, e.g. radius, diameter, etc.
* Students need to know angle facts such as angles on a line, angels in parallel lines, etc.
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| **To learn how to apply circle theorems** | * Students will know that the opposite angles of a cyclic quadrilateral add to 180°
 | **Cyclic Quadrilateral –** a quadrilateral whose vertices all lie on a single circle | * Students need to know the angle sums of triangles and quadrilaterals.
* Students need to be able to find missing angles within isosceles triangles.
* Students need to be able to label parts of a circle, e.g. radius, diameter, etc.
* Students need to know angle facts such as angles on a line, angels in parallel lines, etc.
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| **To learn how to apply circle theorems** | * Students will know that two tangents from the same point to a circle are equal in length
* Students will know that the radius of a circle meets the tangent at 90 degrees
* Students will know that angles in alternate segments are equal
 | **Alternate** – The opposite in position. |  |  |