****

**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** |
| --- | --- | --- | --- | --- | --- |
| **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 | |  |
| **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 | |  |
| **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. | |  |
| **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. | |  |
| **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. |  | |  |