MCT 4CI **Learning Goals Unit 6 – Circles**

- **determine arc length and sector area**
- **have a working knowledge of angle properties of circles**
- **be able to graph circles and state their properties**
- **determine the length and equation of a tangent to a circle**
- **solve linear-circular systems**

Knowledge & Skills	I have reviewed it	I have done questions	I think I've got this
Determine arc length using "part to whole"			
Determine sector area using "part to whole"			
Angle Properties Of Circles:			
(i) sector angle is twice the inscribed angle subtended by the same arc			
(ii) inscribed angles subtended by the same arc are equal			
(iii) in a cyclic quadrilateral with vertices on the circumference opposite angles are supplementary			
Equation Of A Circle			
State the equation of a circle given centre and radius			
Determine the equation of a circle given the centre and point that the circle passes through			
Determine the equation of the circle given the endpoints of the diameter			
Determine if a point is inside, outside, or on the circle			
Convert "standard form" of a circle into the "nice form" by completing the square (no decimals!)			
Given the equation of a circle:			
(i) state the centre			
(ii) state the radius			
(iii) state the diameter			
(iv) find the x-intecept(s) (if any)			
(v) find the y-intercept(s) (if any)			
(vi) graph the circle on a grid			
Tangent To A Circle			
Determine the length of a tangent from a point			
Determine the equation of the tangent			
Solving Linear-Circular Systems			
(i) Two solutions			
(ii) One solution			
(iii) No solutions			