My mathematical journey

| What do I need to remember from before?	What will I learn about in this unit?	Where does this lead?
Angle facts (GM2) Area and perimeter (GM3) Rearranging formulae (A5)	Naming the parts of a circle Finding the area and perimeter of circles and sectors of circles Finding angles in circles using circle theorems	Surface area and volume (GM8) Advanced length and area (GM9)

Key words and symbols: what I need to say and write accurately

The circumference is the perimeter of a circle.

We use C for 'circumference'.

We use d for 'diameter' and r for 'radius'.

tangent, segment, chord, radius, arc, sector, diameter, centre
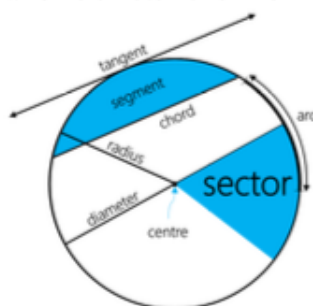
Semicircle
A half circle

Quadrant
A quarter circle

Concentric circles share the same centre

Fingertip facts: what I need to learn by heart

$\pi \approx 3.14$	Circle formulae Circumference: $C = \pi d$ or $C = 2\pi r$ Area: $A = \pi r^2$	Sector formulae We use l for 'arc length'. Arc length: $l = \frac{\theta}{360}\pi d$ Sector area: $A = \frac{\theta}{360}\pi r^2$

Circle theorems

tangent, radius	A radius and a tangent are perpendicular.	The angle at the centre is twice the angle at the circumference (subtended by the same arc). (x, $2x$)
	The angle in a semicircle is 90°.	Angles at the circumference subtended by the same arc are equal. (Angles in the same segment are equal). (x, x, y, y)
$a + b = 180°$	Opposite angles in a cyclic quadrilateral are sum to 180°.	The Alternate Segment Theorem.