

CIRCULAR MOTION



centripetal force

It is the force which acts towards the centre and keeps a body moving in a circular path.

$$F = \frac{mv^2}{r}$$

The force needed to make something follow a circular path depends on a number of factors:

- The mass of the object
- The speed of the object
- The radius of the circle

Uses of Circular motion

→ Car rounding a bend: when a car rounds a bend, a frictional force is exerted inwards by the road on the car's tyres, so providing the centripetal force needed to keep it in its curved path

→ Satellites: Using gravity as their centripetal force, satellites are able to orbit around a celestial body.