

Unit 3 Physics - Section 3.2&3

What keeps a body in a circular path?	A force pushing it in towards the centre of the circular path. That force is called the centripetal force.
What keeps planets in orbit?	The gravitational force between the planet and the star it orbits forms the centripetal force.
What keeps satellites and moons in orbit around a planet?	The gravitational force between the satellite or moon and the planet it orbits forms the centripetal force.
Do all planets move in circular orbits?	No - they are elliptical - but in many cases they can be thought of a circular.
What do the Earth, Sun, Moon and all other bodies attract each other with?	A force called gravity.
What two factors affect the pull of gravity between two masses?	The mass of each of the bodies and the distance between them.
How does the mass of the body affect gravity?	The bigger the masses of the bodies the bigger the force of gravity between them.
How does the distance between two bodies affect gravity?	As the distance between two bodies increases the force of gravity between them decreases.
What shape is the orbit of a planet?	The orbit of any planet is an ellipse (slightly squashed circle), with the Sun at one focus.
What provides the centripetal force that allows planets and satellites to maintain their circular orbits?	The gravitational force
How is the period of orbit affected by the radius of the orbit?	The further away an orbiting body is the longer it takes to make a complete orbit.
How can a body stay in a steady orbit?	To stay in orbit at a particular distance, smaller bodies, including planets and satellites, must move at a particular speed around larger bodies.
What type of orbit does a communications satellite follow?	Communications satellites are usually put into a geostationary orbit above the equator.
What type of orbit does a monitoring satellite follow?	Monitoring satellites are usually put into a low polar orbit.