

Definitions and Concepts for Edexcel Physics A Level

Topic 12: Gravitational Fields

Equipotential: A plane of points with equal gravitational potential. The work done travelling on an equipotential is zero.

Geostationary Orbit: An orbit with a time period of one day and stay over one point on the earth's surface. They are directly above the equator and travel in the same direction as the earth's rotation.

Gravitational Field: A region of space where objects with mass experience an attractive force due to gravity.

Gravitational Field Strength: The gravitational force on an object divided by its mass, it is the acceleration due to the gravitational field.

Gravitational Potential: Defined at a point. The amount of work done in moving a unit mass from an infinite distance to that point.

Low Orbit: An orbit with a height between 160 km and 2000 km.

Newton's Law of Gravitation: Force of gravity is proportional to the product of the masses involved and inversely proportional to the square of the separation of the masses.

Synchronous Orbits: A orbit with a time period of one day so will return to the same point in the sky each day.

