

geocentric

system is one which has the centre of the earth as its reference point; the model of the solar system which has the earth at the centre

giant stars

large, highly luminous stars which are brighter than main sequence stars of the same colour; giants represent a late phase in stellar evolution

heliocentric model

one which has the sun as the centre for measurements

hertzsprung-russle diagram

a diagram which displays the brightness of stars versus either their colour, spectral class or surface temperature

hubble constant

the constant that relates the speed of recession of the galaxies to the age of the universe

infrared

long-wave radiation emitted by hot objects with wavelengths greater than 700nm and less than 1mm

inverse square law

a relationship in which one quantity is directly proportional to the inverse of another quantity squared

ionosphere

a spherical shell of ionised gas surrounding the earth; it can be used to reflect short-wave radio waves

Kepler's laws

three laws relating the motion of the planets

light-year

the distance that light travels in one year

line spectrum

the spectrum of an element consisting of lines in certain frequencies (colours) only (each line being an image of the slit of the spectroscope)

luminosity

a measure of the actual brightness of an astronomical object

main sequence

a region on the H-R diagram containing the majority of stars; it is in this region that stars spend the main part of their lives converting hydrogen into helium

matter

everything that exists that has mass and takes up space

microwaves

electromagnetic waves with wavelengths ranging from 1 mm to 0.1 m

neutron star

a star at the end of its evolution; its mass similar to the sun with diameter 20km

Newtons law of universal gravitation

the force of attraction between two masses is proportional to the product of the masses and inversely proportional to the square of the distance between their centres

nucleosynthesis

the production of the elements by nuclear reactions

nucleus

the dense positive core of the atom containing almost all the mass of the atom; made up protons and neutrons

parallax

the apparent movement of an object against a background, when viewed from different positions