

accretion	the process of dust grain colliding and coalescing; used to help explain the formation of the sun and planets
alpha particle	a nucleus of helium-4 emitted from a nucleus of an atom undergoing radioactive decay
astronomical units	the average distance from the earth to the sun; equal to 1.5×10^{11}
atmosphere	the layer of gas surrounding a planet
atom	the smallest part of an element that has all the properties of the element

beta particle

an electron emitted from a radioactive nucleus

big bang

an explosion which is postulated to have begun the expansion of the universe approximately 15 billion years ago

black body

an idealised body which absorbs all radiation that falls on it according to Planck's law

black body radiation

radiation emitted by a black body that obeys Planck's law

black hole

a star which has collapsed under its own gravitation, to such an extent that its gravitational field is so intense that even light cannot escape from its surface

brightness

the intensity of light or other radiation emitted or received from a celestial body

carbon cycle

a chain of nuclear fusion reactions by which energy may be generated in stars

cluster

a group of stars or galaxies whose members are sufficiently close to each other to be physically associated

continuous spectrum

a spectrum that shows a complete spread of colours from red to violet

cosmology

the study of the organisation, structure and evolution of the universe

degenerate matter

matter in a highly dense form that can exert a pressure, as a result of certain quantum-mechanical effects; this pressure stabilises a white dwarf against the gravitational force

Doppler effect

the apparent change in frequency (or wavelength) when there is relative motion between the source of waves and an observer; in astronomy, a star receding from us would experience a red shift in its spectrum; the Doppler effect can be used to determine distances to galaxies and the presence of spectroscopic binaries

fusion

the process by which light nuclei join together to produce a heavier nucleus

galaxy

a group of stars, dust and gas bound together gravitationally; galaxies typically have billions of stars

gamma

a high-energy photon emitted from a radioactive nucleus