
1. planetary nebulae	a shell of gas expanding outwards from a star in the later stages of its evolution, between the red giant and white dwarf stages
2. positron	a positive electron; an antiparticle
3. proton-proton chain	a series of nuclear fusion reactions by which stars generate energy; the overall effect is to convert 4 hydrogen nuclei into 1 helium nucleus
4. pulsar	another name for a neutron star
5. quark	the fundamental building blocks of matter
6. radioactivity	the spontaneous breakdown of an atom by the emission of alpha and/or beta and gamma rays
7. red giant	a star in its larger stages of evolution after it has moved from the main sequence and expanded to a size hundreds of times larger
8. red shift	the shift of the spectral lines from a receding light source, towards the red end of the spectrum
9. spectroscope	an optical device used to disperse light from a source into its spectrum
10. star	a vast mass of gas hot enough to initiate fusion reactions
11. stellar equilibrium	the balance between the forces of gravity causing a star to collapse, and the outward forces due to the energy released in nuclear reactions
12. stellar evolution	the different stages in a star from its birth to its death
13. sunspots	cooler areas on the Sun's surface; also areas of weaker magnetic fields
14. supernova	the end result of a massive star, which explodes and increases in brightness by 1 billion times or more; in the explosion the heavier elements are formed
15. ultraviolet	electromagnetic waves with wavelengths shorter than violet light
16. universe	everything that exists
17. white dwarf	a star at the end of its evolution; its mass similar to the sun with diameter the size of the earth; no nuclear processes are continuing, and it eventually ends up as a cold black dwarf
18. x-ray	high frequency electromagnetic waves of high penetration
