

The Sun.

1. The energy emitted by the sun is produced
 - a) in a very small region at the centre of the sun
 - b) uniformly throughout the sun
 - c) throughout the sun, but more efficiently in the centre
 - d) due to heat produced by compressing the core

2. The temperature in and around the sun
 - a) drops continuously as you move outwards
 - b) rises continuously as you move outwards
 - c) drops as you move from the centre to the photosphere and then rises above the photosphere
 - d) drops as you move from the centre to the corona and then rises above the corona

3. Limb darkening refers to the darker appearance of the edges of the solar disk. This is because
 - a) the edge of the sun is cooler
 - b) fewer photons reach the Earth from the edge of the sun
 - c) the edges of the sun are slightly Doppler shifted due to rotation
 - d) the effect of the magnetic field is more intense as we look at the edge

4. Which of the following does NOT track the 11 year solar cycle
 - a) number of sunspots
 - b) rate of solar flares
 - c) incidence of strong aurora seen on Earth
 - d) width of spectral lines (e.g. hydrogen Balmer absorption)