

## Activity 22: Facts About The Sun

- 1 The SUN is just ONE of about 100 billion STARS in our GALAXY.
- 2 It has a DIAMETER of 1,390,000 km
- 3 Its CORE temperature is 15 million ° C.
- 4 Its SURFACE temperature is 5,500 °C. Cooler (3,800 °C) surface areas are called SUN SPOTS.
- 5 It is the LARGEST object in the SOLAR SYSTEM and makes up 99.8% of the total MASS of the Solar System.
- 6 It consists of 75% HYDROGEN and 25% HELIUM.
- 7 The ENERGY output of the Sun is about 386 billion megawatts and is produced by NUCLEAR FUSION, using Hydrogen as fuel.
- 8 Apart from HEAT and LIGHT, the Sun also emits a stream of CHARGED PARTICLES called the SOLAR WIND.  
The Solar Wind:-
  - a Causes Radio INTERFERENCE at certain times
  - b Produces the AURORA BOREALIS or "The NORTHERN LIGHTS"
  - c Causes the characteristic TAILS of COMETS.
  - d Alters the TRAJECTORY of SPACECRAFT
- 9 The Sun is about 4.5 BILLION YEARS old. It will probably continue to exist in its present FORM for about another 5 BILLION YEARS before RUNNING out of HYDROGEN.
- 10 There are NINE planets orbiting the SUN (Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune and Pluto)

### Questions On The Sun

- 1 Why do Sun Spots appear to be DARK in colour?

---

---

- 2 The average POWER PRODUCTION of all the Power Stations in the USA is about 320,000 megawatts. How many MORE times POWER does the Sun GENERATE than this?

---

---

- 3 How LONG does LIGHT take to travel from the Sun to the Earth? (the Earth is 150 million km from the Sun and light travels at 300,000 km per second).

---

---

- 4 Why must the SOLAR WIND be taken into account when planning SPACE MISSIONS?

---

---

- 5 Is the Sun a SOLID body like the Earth? Explain your answer.

---

---