



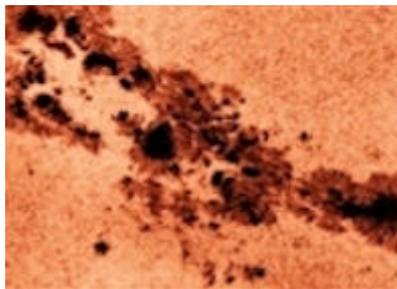
The Sun is personified in many mythologies. The Greeks called it Helios. The Sun's name comes from the Romans who called it Sol.



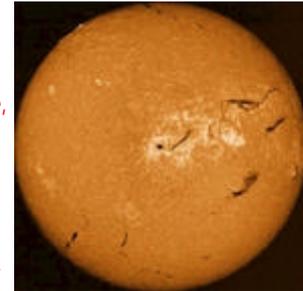
This is the symbol for the Sun:

All nine of our planets orbit the Sun. Depending on the distance, some planets circle the Sun faster than others. We live in a *heliocentric* system. This means that our solar system is centred around the Sun.

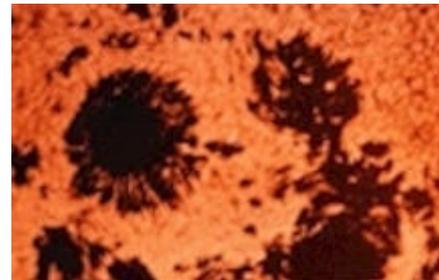
The Sun's surface, called the *photosphere*,



is at a temperature of about 5800 K. There are some regions that are much "cooler." These *cool* regions are called "sunspots." Sunspots are only about 3800 K in temperature - this is why they look darker than the rest of the Sun.



Sunspots can be as large as 50,000 km across! Scientists are still trying to explain what causes sunspots.



Here is a picture of a *solar eclipse*. What happens during a solar eclipse? The Moon passes directly between the Earth and Sun. When this happens, light from the Sun is blocked off for a short time. A solar eclipse can cause complete darkness - during the daytime!

During an evening, check outside for a full moon. If you see a full moon, take a quarter and go outside. Hold your quarter up (between your thumb and finger) towards the moon and close one eye. By moving your arm to and from your nose, try to "cover up" the moon with your quarter. Even though the quarter is much smaller than the moon, you can succeed in covering it up! This is similar to how the Moon covers up the Sun. The Moon is much smaller than the Sun, but the Moon can cover up the Sun given at the right distance and angle.

- The Sun is a star - it is *not* a planet. Our Sun is just like the stars we see in the night sky. The Sun is also the only star we see during the daytime.
- The Sun is so big that you could fit more than 1 million earths inside of it! It measures more than a million kilometres across.
- The Sun's centre is about 15 million degrees Celsius. The Sun is so hot that planets millions of kilometres away can feel its heat... That's *\*mighty hot\**!
- The Sun is about 75% hydrogen and 25% helium. This changes slowly over time as the Sun converts hydrogen to helium in its core (centre).
- The Sun's energy is produced by nuclear fusion reactions. It generates 386 billion billion megawatts of energy!