



The Sun

As the central star in our sky, the sun is vital to life on earth. The value of the sun has always been known to mankind, and many cultures worshipped it as God. The regular return of the sun often invoked fear, and was the focal point of cult and magic rituals. Solar eclipses caused great fear. As it was in the ancient world, the sun has now also become the symbol of vitality in astrology.

The sun is mankind's natural clock, and keeping track of the seasons and determining celestial points (spring and autumnal equinoxes, summer and winter solstices) led to the development of calendars by different cultures independently of each other. This made it possible to forecast major seasonal events, e.g. flooding of the Nile, and thus determine the best time to plant crops. Pre-Christian places of worship such as Stonehenge were obviously built for such observation purposes.

Easy and safe solar observation

Eyepiece projection is a safe method of solar observation using a telescope or binoculars. The image of the sun is projected onto a screen positioned behind the telescope, eliminating the danger of looking directly at the sun. This method, already known to *Galileo*, is not only absolutely safe, but also permits easy drawing of the image of the sun and simultaneous observation by several people. However, it is important not to use any cemented eyepieces. Reflecting telescopes are ill-suited for eyepiece projection.



special

About the sun

Remaining duration of hydrogen fusion in the core:
approx. 4.5 – 5 billion years

Average diameter:
1,392,500 km

Mass:
 $1,9884 \cdot 10^{30}$ kg

Temperature (center):
 $14,8 \cdot 10^6$ °C

Temperature (photosphere):
approx. 6,100 °C

Temperature (corona):
approx. 1–2 million K

Rotation period at equator:
25 days, 9 hours, 7 minutes

Distance to the center of the galaxy:
approx. 210,000,000 light years