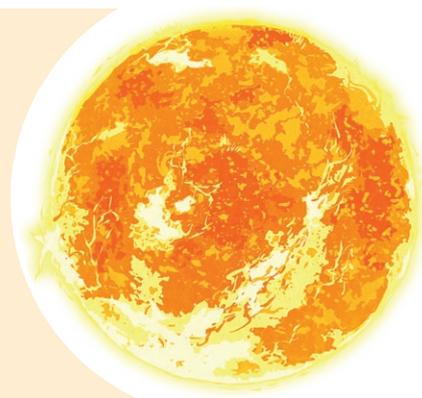


The Sun

The Solar System

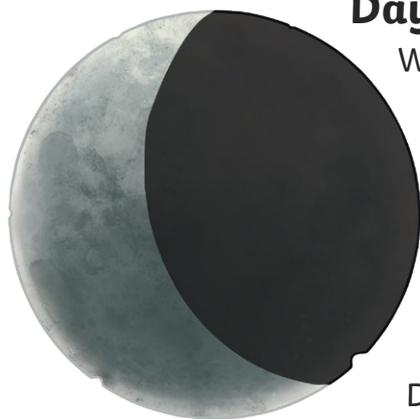
The sun is the biggest star in the solar system. It is estimated to be approximately 4.5 billion years old. The sun is located at the very centre of our solar system. The distance between planet Earth and the Sun is about 150 million kilometres! The sun is made from hydrogen and helium gases.



Leap Year

Earth is always moving around the Sun. This movement around the sun gives us our seasons. It takes $365 \frac{1}{4}$ days, or one year, for planet Earth to orbit the Sun. You can't have a $\frac{1}{4}$ of a day! So, every four years, we add the four quarters together to make 1 full day. This is called a leap year. There are 366 days in a leap year. The extra day is added to the month of February meaning that February has 29 days, instead of 28, in a leap year.

Day and Night

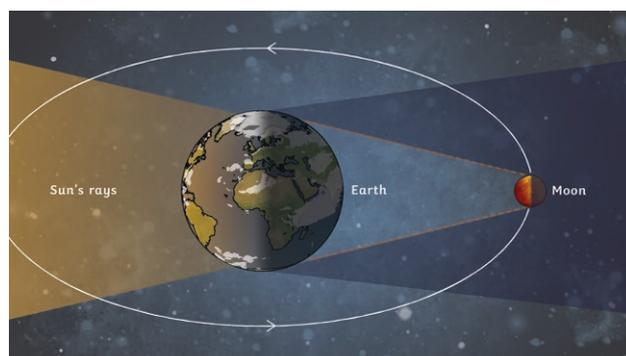


While Earth is moving around the Sun, it is also spinning on its own axis. It takes Earth 24 hours to complete one full spin. It is the spinning of earth that gives us day and night. During the summer we have longer days and shorter nights, but during the winter we have shorter days and longer nights. The shortest day of the year, in Ireland, is on 21st December. This is the day that has the least amount of daylight hours. This day is also known as the winter

solstice. The longest day of the year is on 21st June and this is known as the summer solstice.

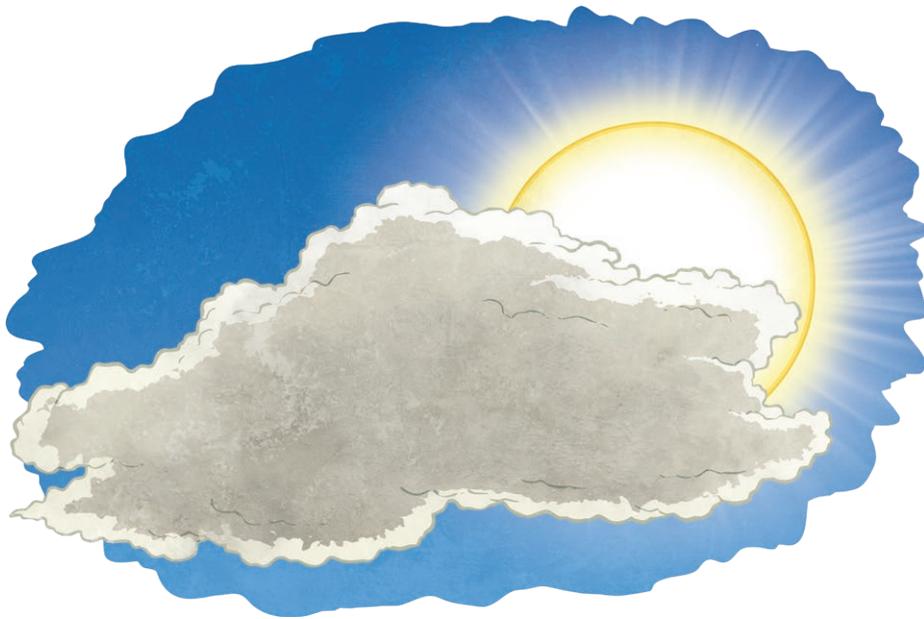
Eclipse

A lunar eclipse happens when the Earth passes between the Moon and the Sun. This causes the Earth's shadow to block the Sun's rays from reaching the Moon.



Dangers of the Sun

The Sun is very important for life on Earth. We need the sun for many reasons such as light, heat and food. People get vitamin D from the sun which is important for keeping our bones strong. Animals and plants also rely on the sun. Without the sun, we, simply, would not be able to survive. However, we must be careful because the sun can also be dangerous. Sunshine contains ultraviolet rays, also known as UV rays, which we cannot see. These ultraviolet rays can be very damaging for our skin and eyes. We can protect ourselves from these rays by wearing sunhats, sunglasses, sun cream with a high SPF and by avoiding sitting in the sun when it is at its hottest.



Questions

1. Where is the sun located?

2. What is the sun and what is it made from?

3. How old is the sun estimated to be?

4. How long does it take the Earth to orbit the Sun?

5. What is the summer solstice?

6. What month is changed during a leap year?

7. Explain the meaning of the term lunar eclipse.

8. Give examples of ways in which the Sun is important for planet Earth.

9. Why would humans not survive without the sun?

10. Describe some precautions we can take to protect ourselves from the dangers of the sun.

Answers

1. Where is the sun located?
The sun is located at the very centre of our solar system.
2. What is the sun and what is it made from?
The sun is a star and it is made from hydrogen and helium gases.
3. How old is the sun estimated to be?
The sun is estimated to be 4.5 billion years old.
4. How long does it take the Earth to orbit the Sun?
It takes the earth one year to orbit the Sun.
5. What is the summer solstice?
The summer solstice occurs on June 21st and it is the day with the most hours of daylight in a year.
6. What month is changed during a leap year?
February is changed during a leap year because it gets an extra day.
7. Explain the meaning of the term lunar eclipse.
A lunar eclipse happens when the Earth moves in between the Moon and the Sun.
8. Give examples of ways in which the Sun is important for planet Earth.
The Sun is important because it gives heat and light to planet Earth.
9. Why would humans not survive without the sun?
Humans wouldn't survive without the sun because we need it for light, heat and vitamin D.
10. Describe some precautions we can take to protect ourselves from the dangers of the sun.
We should never look directly at the sun and we should try not to sit in the sun when it is at its hottest. Sun cream, with a high SPF, is important for protecting our skin from the sun. Sunglasses can help to protect our eyes from the UV rays.