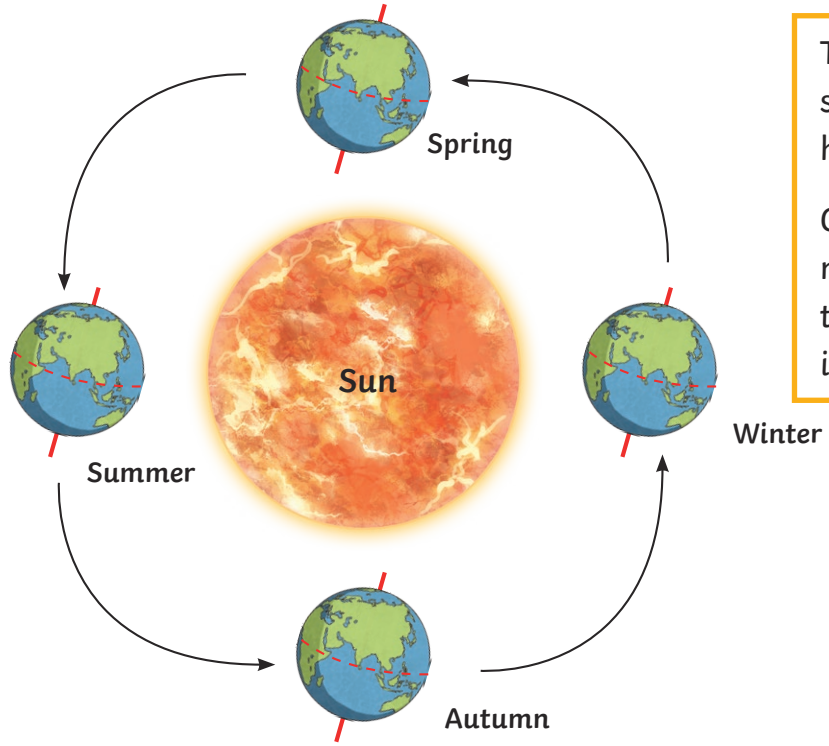
# Summer Solstice

The equator is an imaginary line around the middle of the Earth. Above the equator is the northern hemisphere. Below the equator is the southern hemisphere.

Can you imagine a pole going through Earth from the North Pole to the South Pole? This pole would be the Earth's axis. The Earth spins round on this axis. The axis makes the Earth lean or tilt over.

The Earth moves around the Sun. This takes around a year. At different times of the year, as it journeys around the Sun, some places on Earth are nearer to the Sun than others.

If you live in the northern hemisphere, Earth is tilted closer to the Sun in the summer, giving more light and heat. The northern hemisphere is further away from the sun in the winter and countries receive less light and heat.




This diagram shows the seasons in the northern hemisphere.

Can you see how the northern hemisphere is tilted towards the sun in summer?

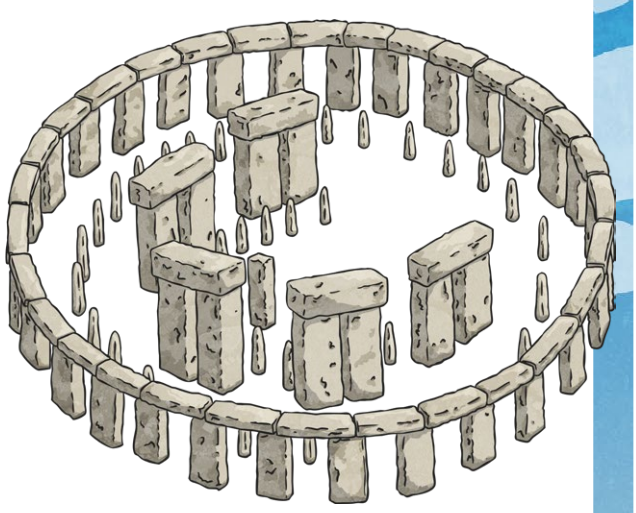
## What is the Summer Solstice?

The Summer Solstice happens when the North Pole is most tilted towards the sun. It marks the change when days in the northern hemisphere begin to grow shorter.

The Summer Solstice happens around 21st June. This is also known as midsummer and is the longest day and shortest night of the year in the northern hemisphere.

## Summer Solstice in the Far North

Around the Summer Solstice, countries in the Arctic Circle, like parts of Norway, Finland, Greenland and Alaska, have daylight all day long and this is all because of the tilt of the Earth's axis.



In the UK from mid-May to mid-July, the Shetland Islands and Orkney enjoy the simmer dim or summer twilight. This is when the sun only sets for a few hours so it never gets really dark.

## Solstice Celebrations

For thousands of years, there have been solstice celebrations around the world. The hours of daylight and the seasons were important to the people long ago. Today, festivals, bonfires and parades mark the Summer Solstice.

In England, many people gather at Stonehenge, which is believed to have been an important religious site 4000 years ago. At the Summer Solstice, some of the stones at Stonehenge are in line with the rising sun.

On the Orkney Islands, Summer Solstice is celebrated at the ancient standing stone circle of the Ring of Brodgar.

# Questions

1. Explain what the terms equator, northern hemisphere and southern hemisphere mean.

2. Explain what the Earth's axis is.

3. Why, during the Earth's orbit, are some places nearer to the Sun than others?

4. When does Summer happen in the northern hemisphere?

5. When does Winter happen in the northern hemisphere?

6. What is the Summer Solstice?

7. What happens to the hours of daylight in the northern hemisphere at the Summer Solstice?

8. Why do some countries of the northern hemisphere have 24-hour daylight around the Summer Solstice?

## Questions

9. Where would you go in the UK to enjoy the longest hours of daylight?

10. What evidence is there at Stonehenge that Summer Solstice was in some way significant for the people of ancient times?

# Answers

1. Explain what the terms equator, northern hemisphere and southern hemisphere mean.
   **The equator is an imaginary line around the middle of the Earth.**
   **Countries above the equator are in the northern hemisphere.**
   **Countries below the equator are in the southern hemisphere.**

2. Explain what the Earth's axis is.
   **The Earth's axis is an imaginary pole going from the North pole to the South pole. The axis is not vertical but tilted. The Earth spins round on this axis.**

3. Why, during the Earth's orbit, are some places nearer to the Sun than others?
   **The Earth appears to be tilted and as it orbits the Sun, some places are tilted towards the Sun and are therefore closer to the Sun than others. As the Earth continues on its path, these places then become further away from the Sun.**

4. When does Summer happen in the northern hemisphere?
   **Summer happens in the northern hemisphere when this part of Earth is tilted closer to the Sun, therefore receiving more light and heat.**

5. When does Winter happen in the northern hemisphere?
   **Winter happens when the northern hemisphere is furthest away from the Sun, therefore receiving less light and heat.**

6. What is the Summer Solstice?
   **The Summer Solstice happens when the North Pole is most tilted towards the sun. The Summer Solstice happens around 21st June.**

7. What happens to the hours of daylight in the northern hemisphere at the Summer Solstice?
   **Summer Solstice is the longest day and shortest night of the year in the northern hemisphere.**

8. Why do some countries of the northern hemisphere have 24-hour daylight around the Summer Solstice?
   **Some countries have 24-hour daylight because they are tilted closest to the sun and the sun never seems to set.**

9. Where would you go in the UK to enjoy the longest hours of daylight?
   **You would have to go to the Shetland and/or Orkney Islands to enjoy the longest hours of daylight.**

## Answers

10. What evidence is there at Stonehenge that Summer Solstice was in some way significant for the people of ancient times?
**At the Summer Solstice, some of the stones at Stonehenge are in line with the rising sun, which indicates a link of some significance between this ancient site and the solstice.**