

KQ1: How have ideas about our solar system changed with time?

Early civilisations used stone structures, such as Stonehenge, to track the movement of the sun across the sky and used this to measure time. Greek scientists and thinkers such as Aristotle and Ptolemy proposed different theories to explain the movement of the different bodies in the solar system. During the Renaissance, Galileo used the telescope to learn more about space. The work of Isaac Newton led to further discoveries and space exploration really took off during the Space Race of the 20th century.

Glossary:

civilisation: a human group or culture that lived at a certain time.

Renaissance: the period of history between the 14th and 17th centuries.

planet: a massive body of matter orbiting a star.

orbit: when one body of matter spins around another.

galaxy: a group of stars and solar systems held together by gravity.

Stargazers

Big Idea: What is in our Solar System?

KQ2: What is our Solar System made up of?

The Solar System is the collection of planets and their moons (together with smaller bodies, such as asteroids, meteoroids, and comets) which orbit around the Sun. The Sun is a star and contains large amounts of energy. Earth orbits around the Sun once every 365 days.

Many planets have smaller bodies orbiting around them called moons.

The four planets closest to the Sun are known as the rocky planets, whereas the four outermost planets are made up mainly of gas and are therefore known as the gaseous planets.

KQ3: Why do we have day / night and seasons?

As Earth orbits the Sun, it also spins on its axis. It takes Earth a day (24 hours) to complete a full spin. During the day, the Sun appears to move through the sky. However, this is due to the Earth rotating and not the Sun moving. As viewed from above the North Pole, Earth rotates anti-clockwise. As Earth rotates, different parts of it face the Sun, which brings what we call daytime. The part facing away is in shadow, which is night time.

The tilt of the Earth's axis is what gives us our seasons and changes the lengths of our days as the year progresses.

