



Trailblazers Cycle A: Autumn Term 1 - Earth and Space (Year 5)

Overview, Vocabulary and Sticky Knowledge



What do I already know about Earth and Space?

In Big Explorers, I learned...

- The length of a day changes depending on the time of year.

In Philosophers, I learned...

- A force is a push or pull.
- A magnet has a north and a south pole.
- A shadow is made when an opaque object blocks the light.

In Trailblazers, I learned...

- Gravity is a force that pulls things towards the centre of the Earth.

Challenging
vocabulary.

Nebular,
blackhole,
celestial,
equinox, binary
star,

Words to learn.

Heliocentric, geocentric, astronomy,
Big Bang Theory, gravitational force,
orbit, hemisphere, dwarf planet, gas
giant, lunar, solar, eclipse, asteroid,
meteor, waning, waxing, gibbon

Words I should
know.

Solar system, moon, Earth, sun, planets,
gravity, satellite, astronaut, spacecraft, Mars,
space shuttle, International Space Station,
Milky Way

Key facts I will learn...

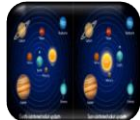
- 1) The Earth spins on its axis and completes rotation every 24 hours.
- 2) Our solar system is made up of 8 planets.
- 3) The shadow of the Earth creates the moon's phases.



Lesson Sequence



1. Explore the solar system and its planets.



2. Understand the heliocentric model of the solar system.



3. Explain Earth's movement in space.



4. Explain the Earth's rotation and night and day.



5. Explain the movement of the Moon.



6. Design a planet using knowledge gained.

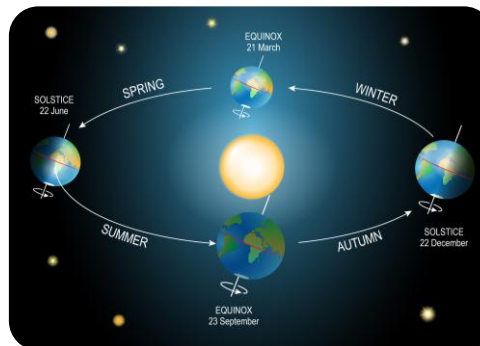
The Solar System



Mercury
Venus
Earth
Mars
Jupiter
Saturn
Uranus
Neptune

Copernicus developed the heliocentric theory that the sun was at the centre of the solar system. The planets orbit the sun in a circular pattern. Each planet has its own characteristics and features. The four inner planets are the rocky terrestrial planets. The four outer planets are the gas giants.

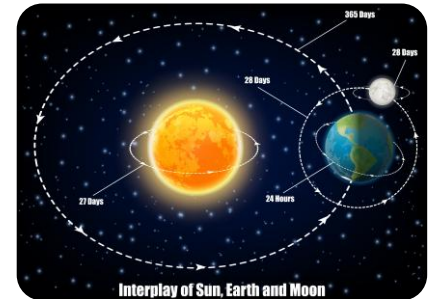
Moon Phases



The moon orbits Earth in an oval pattern whilst spinning on its axis. The sun illuminates the Moon. The shadow of the Earth creates the moon's phases.

Earth's movement

The Earth spins on its axis and completes a full rotation every 24 hours. The Earth is constantly rotating and orbiting the Sun - which takes 365 days. As the Earth rotates, it faces towards and away from the Sun. This creates the day and night cycle.



The Sun

The Sun is a burning ball of gas which appears to move across the sky during the day. However, this movement is actually due to the Earth's orbit around the sun.