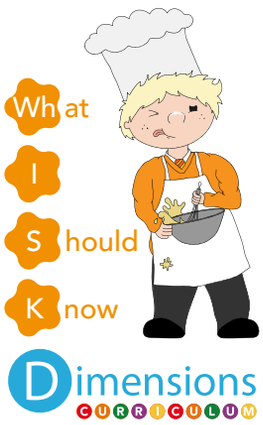
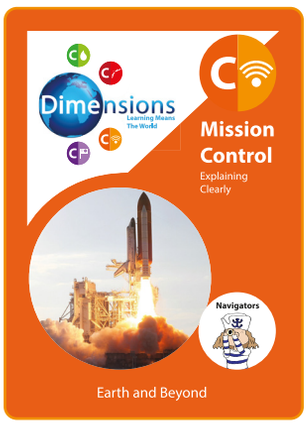
Navigators - Mission Control





Overview

"Mission Control" is a thematic unit based around the subjects of Earth and beyond, with a key focus on science and history. We will learn about the Earth, Sun and Moon and their relationship to each other, before finding out more about space exploration and communication.

Famous Astronomers and Astronauts

Famous Astronauts

Neil Armstrong was the first man to set foot on the moon in 1969.
Tim Peake was famous for spending 186 days on the International Space Station in 2016, carrying out experiments in space.
Brian Binnie completed the first manned private spaceflight in 2004.

Famous Astronomers

Johannes Kepler was a German astronomer who discovered "elliptical" orbits of the Sun.
Edwin Hubble discovered that other galaxies existed in 1925. The famous Hubble telescope was named after him.
Edmund Halley was an English astronomer, famous for his work on comets. The most famous of these is Halley's comet, which was named after him.

The Solar System

The Earth is the only planet that we know of that contains life. It is the third planet from the sun. The planets in our solar system, starting nearest the sun and working outward, are Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune (and then the possible Planet Nine!)
The largest planet is Jupiter and the smallest planet is Mercury.

The Moon travels around the Earth in a circle called an orbit. It is the Earth's only natural satellite. The Sun is the largest body in our solar system. It has a surface temperature of 10,000 degrees fahrenheit. Its light takes 8 minutes to reach Earth. Day and night occur because the Earth spins (or rotates) on an imaginary line called its axis so different parts of the planet are facing towards the Sun or away from it at any given time. It takes 24 hours for the Earth to fully rotate and we call this a day.

Satellite Communication

Satellites are man-made objects put into space to provide a range of comunication services such as television, navigation in cars and weather predictions. The first ever communications satellite was called Echo 1 and was launched in 1960. There are over 2000 satellites currently orbiting the Earth.

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Vocabulary

Astronomer	a scientist who studies the stars
Axis	an imaginary line around which a body rotates
Constellations	a group of stars that make an imaginary shape in the night sky
Cycles	a complete round or series
Device	a piece of equipment or a mechanism designed to serve a special purpose
Exploration	to travel for the purpose of discovery
Galaxy	a group of stars, clouds of gas, and dust particles that move together through the universe
Orbit	the curved path in which a planet, satellite or spacecraft moves in a circle around another body
Planet	a large object such as Jupiter or Earth that orbits a star
Satellite	an artificial body placed in orbit round the earth, moon or another planet in order to collect information or for communication
Solar System	the collection of planets and their moons in orbit round the Sun, together with smaller bodies in the form of asteroids, meteoroids, and comets

Concept Flow

- To know that the Sun, Earth and Moon are approximately spherical bodies
- To know about and explain the movement of the Earth relative to the Sun in the solar system
- To use the idea of the Earth's rotation to explain day and night and the apparent movement of the Sun across the sky
- To know about and explain the movement of the Moon relative to the Earth
- To learn about space exploration and discovery
- To develop knowledge and understanding of famous astronomers, as well as significant worldwide astronauts
- To learn about the development and role of satellite communication

My Notes / Questions