

Earth and Beyond

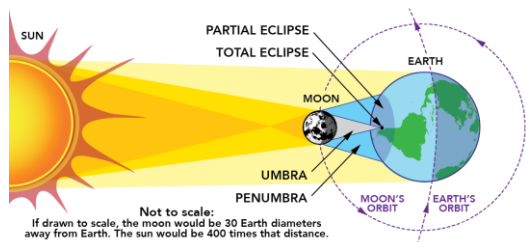
How ideas have changed

- ☞ People once believed the Earth was flat, and the Sun travelled around it. This is called the Geocentric Model.
- ☞ We now know that the Earth and planets orbit the Sun. This is known as the Heliocentric model.

Map of Moon landing sites



How an eclipse happens



Our Solar System

- ☞ At the centre of our solar system is the **Sun**.
- ☞ There are **eight** planets in our solar system.
- ☞ The **Earth** is the third planet from the Sun.
- ☞ **The Moon** is the Earth's natural satellite.
- ☞ **The planets in order:** Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune
- ☞ The **Asteroid Belt** lies between Mars and Jupiter.
- ☞ **The Oort Cloud** lies beyond Neptune
- ☞ **Pluto** is no longer classed as a planet. It is a **Dwarf Planet**.

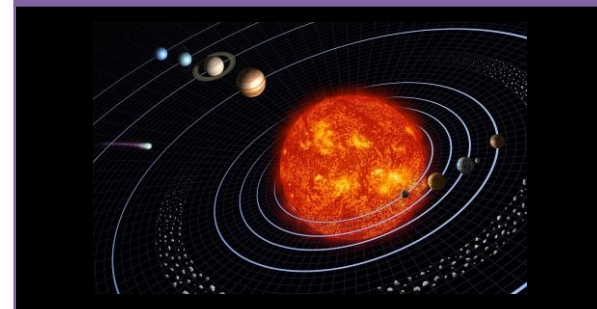
Key Vocabulary

Orbit	A circular or elliptical path followed by a planet or moon around a star or planet.
Rotation	A spinning motion around an axis.
Planet	A celestial body moving in an elliptical orbit round a star.
Moon	A natural satellite of a planet.
Star	A fixed luminous point in the night sky which is a large, remote incandescent body like the sun.
Dwarf Planet	A celestial body that does not fulfil the three criteria to be a planet.

Phases of the Moon



Diagram of the Solar System (not to scale)



The Earth from space



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Space Travel Timeline

1944	German V2 rocket crosses the Karman Line .
1947	The USA launches fruit flies into space.
1951	The USSR launches the first dogs into space.
1957	The USSR launches the first artificial satellite, Sputnik , into space.
1957	The USSR launches the first dog into orbit (Laika).
1959	The USSR lands a probe, Luna 2 , onto the moon.
1961	The USA launches a chimpanzee (Ham) into space
1961	Yuri Gagarin is the first human in space.
1963	Valentina Tereshkova is the first woman in space.
1969	Neil Armstrong is the first human to set foot on the Moon.

Yuri Gagarin



Neil Armstrong



Vocabulary

NASA	National Aeronautics and Space Administration.
Astronaut	Someone who goes into space.
Apollo 11	The first mission to successfully land on the Moon.
Satellite	A natural or artificial body that orbits a planet or star.
Karman Line	The boundary between the Earth's atmosphere and space

Neil Armstrong Timeline

1930	Neil Armstrong is born.
1946	Armstrong gains his pilot's license.
1947	Armstrong joins the US Navy, and studies aeronautical engineering at college.
1949	Neil Armstrong goes to fight in the Korean War.
1952	Armstrong joins NASA
1956	Neil marries Janet Shearon
1962	Armstrong joins the astronaut programme.
1966	Armstrong goes into space to dock with the Gemini Agena module.
1969	Armstrong land the Apollo 11 lander on the Moon, and is the first person to set foot on the Moon.
1971	Armstrong leaves NASA
2012	Neil Armstrong dies at the age of 82