



### Key Concepts/Features

For **millennia**, astronomers (people who study the stars and space) have been fascinated with what lies beyond the Earth's atmosphere. When the Ancient Greeks first studied the stars, planets and the Moon to determine position, they had no idea that thousands of years later, humans and animals would be able to travel to explore these places. Technological advances have allowed for previously unfathomable exploration. Where might we be able to visit in the future? Will any of us make it into space?

### Key Vocabulary

<b>artificial satellite</b>	Something man-made, which has intentionally been put into orbit, such as the International Space Station.
<b>astronaut</b>	Also known as a Cosmonaut in Russia, an astronaut is a person trained to command, pilot, or serve as a crew member of a spacecraft.
<b>celestial</b>	An object that can be observed by astrologists in outer space.
<b>dwarf planet</b>	A celestial object which isn't a satellite, but doesn't have enough gravity to be called a planet, such as Pluto.
<b>interstellar</b>	Inter- means between and stella- means stars. Travelling between stars.
<b>lunar</b>	'Luna' is Latin for moon, so lunar means relating to the moon.
<b>millennia</b>	A period of a thousand years
<b>NASA</b>	'The National Aeronautics and Space Administration' is responsible for space exploration and research in the USA, which is found in Kennedy Space Centre, Florida
<b>natural satellite</b>	Something natural, which orbits a planet, such as the Moon.
<b>solar</b>	'Sol' is Latin for sun, so solar means relating to a sun.

### Key People

**Neil Armstrong**  
(1930-2012)

An American **astronaut**, who was the first man to walk on the moon in 1969.



**Tim Peake**  
(1972-present)

A British **astronaut** who was an International Space Station crew member.



**Mae Jemison**  
(1956-present)

The first black woman to go to space as a **NASA astronaut**.



### Timeline

<b>1942</b>	The first rocket, created by German Wernher Von Braun, reached 100km above the Earth's surface.
<b>1947</b>	First animals (fruit flies) sent into space.
<b>1957</b>	Russia launches the first <b>artificial satellite</b> into space named Sputnik I. 'Sputnik' means satellite in Russian. In the same year, Laika becomes the first dog in space.
<b>1959</b>	First (unmanned) spacecraft reaches the moon and crash lands.
<b>12<sup>th</sup> April 1961</b>	First man in space. Russian Yuri Gagarin completed one orbit of the Earth and came back via parachute.
<b>1963</b>	First woman in space is Valentina Tereshkova from Russia. President John F. Kennedy promised the world that a human would walk on the moon by 1970.
<b>1967</b>	The first attempt to put a man on the moon on the Apollo I led to tragedy after a disastrous fire.
<b>20<sup>th</sup> July 1969</b>	The iconic Apollo 11 mission. Neil Armstrong and Buzz Aldrin took 'one small step' to become first men on the moon. The first words said on the moon were "the Eagle has landed".
<b>1977</b>	Voyager probes launch to photograph distant planets: Jupiter, Saturn, Uranus and Neptune.
<b>2009</b>	Kepler telescope launches into space to take photos of distant solar systems.

### Key Locations

#### Mars (The Red Planet)

Mars is the fourth planet from the sun. In 1973, an unmanned space probe landed on, and explored, our neighbour planet. Astronauts aim to land a human on Mars by the year 2030.



#### The International Space Station (ISS)

This artificial satellite has had a permanent crew since the year 2000. In 2001, the first space tourists visited.



#### The Kennedy Space Centre, Florida.

NASA have launched the majority of their rockets from here.

