



Year 5
The Space Age




AIM

To explore the important events in the history of space exploration.

SUCCESS CRITERIA

Describe	Identify	Describe
I can describe how ideas about space have changed over time.	I can identify the celestial bodies of the Solar System, including the Sun, Earth and Moon.	I can describe the key events of the Space Age.

Key Vocabulary			
celestial body	A celestial body is a natural object outside Earth's atmosphere, such as the planets , the Sun and the Moon.	satellite	A satellite is a natural or human-made object or body that orbits a larger object such as a planet or a star .
Earth	Earth is the third planet from the Sun and the only planet known to support life.	Solar System	The Solar System is the collection of eight planets , their moons and other celestial bodies that orbit the Sun .
moon	A moon is a natural satellite that orbits a planet . Earth's moon is called the Moon.	space	' Space ' is the term given to the area of the universe outside of Earth's atmosphere.
orbit	An orbit is a regular, repeating curved path that an object follows round another object.	spherical	A spherical object is sphere-shaped, like a ball.
planet	A planet is a large, spherical celestial body that orbits a star .	star	A star is a giant, glowing ball of hot, burning gas (mainly helium and hydrogen) held together by gravity.
Sun	The Sun is the name of the huge star at the centre of our Solar System that provides light and heat to the planets that orbit it.		

The Solar System

The **Solar System** is home to our own **planet**, **Earth**, as well as seven other **planets** and their **moons**.

At the centre of the **Solar System** is a **star**: the **Sun**. It sends heat and light out to the far reaches of **space** and its gravitational pull keeps the other **celestial bodies** in the **Solar System** in **orbit** round it.

Day and Night

Every 24 hours, **Earth** rotates on its axis, which is an imaginary line that passes through its centre. This rotation causes the **Sun** to appear to move across the sky and is what causes the cycle of day and night, as one side faces the **Sun** and the other side faces away from the **Sun**.

The side facing the **Sun** will be experiencing daytime, as it is lit and heated by sunlight.

The side facing away from the **Sun** will be experiencing nighttime, as it is in shadow.

Seasons

Each year, many places on **Earth** experience four seasons, each lasting for three months. These are spring, summer, autumn and winter.

The seasons are due to Earth's tilt as it **orbits** round the **Sun**. **Earth** is tilted at an angle of about 24° . This means that, at different times throughout the year, parts of **Earth** are either tilted towards or tilted away from the **Sun**, which changes temperatures and weather conditions.

Ancient Stargazers

Humans have been looking up in wonder at the stars for thousands of



Ancient Stargazers



The Lascaux cave paintings, in France, are about 17,000 years old. Many scientists believe our ancestors painted constellations of the stars.

You might be able to see the Taurus constellation, Orion's Belt and the Pleiades in this group of paintings.

Ancient Babylonians are thought to have believed that the universe was an oyster surrounded by water.

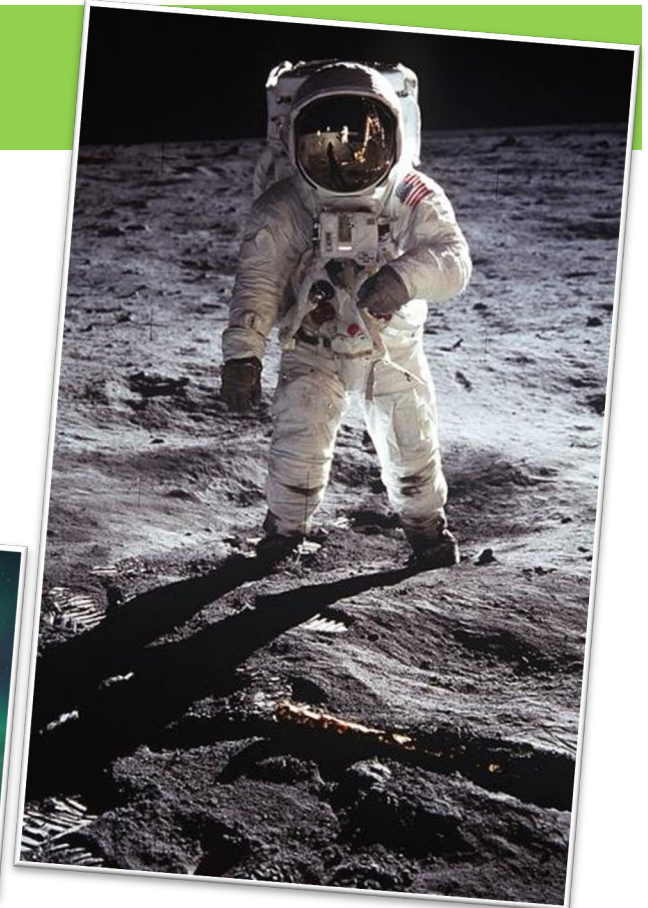
Ancient Egyptians believed Sun and Moon gods sailed along a river that flowed across the sky.



Ancient Stargazers

Over 2000 years ago, Ancient Greece made great advancements in humankind's understanding of space

What do you already know about space?
What would you like to find out?



Taking Flight

About 66 million years ago, it is thought that a gigantic asteroid hit Earth, causing the extinction of about 75% of species on our planet, including the dinosaurs.

The human species is about 300,000 years old.



66,000,000 years ago



300,000 years ago



Now

Taking Flight

It wasn't until about 5000–6000 years ago that early human civilisations began to form, such as ancient Egypt.



5000–6000 years ago



300,000 years ago

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5000–6000 years ago



100+ years ago



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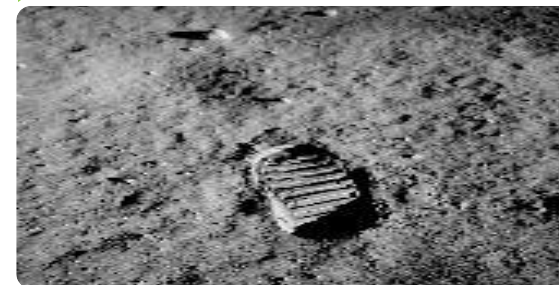
Only 66 years later, in 1969, humans left Earth and landed on the Moon.



5000–6000 years ago



100+ years ago



The Future of Space Exploration

Despite the giant leaps humankind has already taken exploring space, our best achievements may be yet to come.

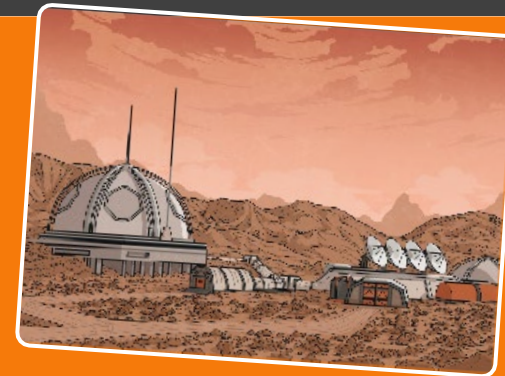
Space Tourism

Space exploration could become more available to members of the public than ever before.



Mission to Mars

Humans could set foot on another planet, landing on Mars and creating settlements on its surface.



Asteroid Mining

The millions of asteroids in the asteroid belt could be mined to source valuable metals such as cobalt, iron and platinum.



What do you think is next for space exploration?
What do you think humankind will achieve in the next 100 years?

STEM/Green Careers

Astronaut

Astronauts are experienced scientists and the select few who are able to travel into space aboard spacecraft.

Astronauts fill a number of roles aboard spacecraft but they are often trained in STEM subjects such as engineering, physics and medicine. Many astronauts also have extensive experience as pilots of jet aircraft



They must go through intense physical and mental training to be prepared for all the challenges that they will encounter, including the stresses they are put under at launch and adjusting to