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# **Mission Moon:**

It has been 50 years since the first person walked on the Moon!

Go on your own Moon mission around the exhibition using this trail.





# **A Constant Companion**

The amount of Moon we see depends where the Moon is in its orbit around Earth. The pattern repeats every 29 1/2 days. The Moon is waxing when we can see more of it each night and is waning when we see less.

Take a look at the Moon calendar on the wall. Can you spot what tonight's Moon will look like?

Draw a Moon to match and remember to look for the real thing tonight!





Everyone looking at the Moon sees the same side of the Moon. The dark patches are called seas but they are actually made of ancient lava. People often see different shapes in the light and dark patches of the Moon.

Can you draw any shapes? Talk to someone else, do they see something different?

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## **Through the Lens**

Before the invention of telescopes about 400 years ago, we knew very little about what the Moon looked like because we could only see it with our eyes. Telescopes and cameras let us see that the Moon's surface has craters, mountains and seas.

Can you find an example of a photograph, painting, map and model of the Moon in this section?

Talk to the people you're visiting with — what do they think is best for understanding the Moon? Make a note of what everyone says.

Many artists are inspired by the Moon's silvery grey or blue light. Moonlight is actually sunlight reflected by the Moon.

Look at the paintings and photographs of moonlight.

Can you describe your favourite artwork to someone else?



In the 1830s, The New York Sun newspaper started rumours that the astronomer Sir John Herschel had seen fantastic creatures on the Moon through his telescope. Can you find two pictures that show creatures living on the Moon?

Draw or describe your own imaginary person who might live on the Moon.

# **Destination Moon**

The idea of going to the Moon inspired artists, scientists and engineers. They began to think of ways to travel to the Moon on imaginary and real missions.

Look around you for inspiration and design your own rocket to get you to the Moon. Remember, a rocket will need engines to overcome Earth's gravity and it will need space to carry astronauts!

Did you know?

On average, the Moon is 384,400 kilometres from Earth. That means we could fit 30 Earth-sized planets between Earth and the Moon. From the 1950s the Soviet Union and the United States raced to put a human in space and on the Moon as a way to prove they were more powerful.

#### This was called the Space Race!

Valentina Tereshova was the first woman in space. Her parachuting skills helped her get the job.

What qualities do you think are important for a job in space?

Can you discover which nation first put a satellite in orbit around Earth? What was the satellite called?

Act out the famous words that Neil Armstrong, the first person to walk on the Moon, said to millions of people watching from Earth on the 21st July 1969.

Do you know anyone who remembers seeing this moment on television? Can they tell you what they saw? Only 12 astronauts have walked on the Moon, but a team of over 400,000 people worked on the Apollo space programme.

What job might you have? Start in the middle box.





## For all Mankind

Now many space agencies from around the world and also different companies are planning to go to the Moon. Some are looking at mining there for valuable minerals.

People have started to think about living on the Moon. Take a look at the model for a future Moon base.

If you were creating a city on the Moon, what structures would you build to help you survive? Don't forget there's no air, gravity, food or water!

### Challenges



Radiation

Extreme temperatures





🚯 Distance from Earth

50 years ago, the Apollo missions brought back 383kg of moon rocks. Scientists are still studying even the smallest of the samples to discover the Moon's secrets.

Have a look around and see if you can find any moon rock. What do you notice about them?



This is a moon rock under a microscope.

### Did you know?

Moon rock has helped us learn that the Moon was formed 4.5 billion years ago when a large object hit Earth. This collision threw debris out into space, which eventually came together to make the Moon. Think about the environmental issues on Earth. Plastics in the oceans and global warming.

Why should we consider our effects on Earth before moving to the Moon?

### So, would you go to the Moon?

Who do you think should be responsible for looking after the Moon?