

Jacques Cousteau

Thanks to Jacques Cousteau and Emile Gagnan's invention of the aqualung (a piece of diving equipment that helps divers breathe underwater) in 1943, the French explorer and inventor was able to research plant and animal species in the ocean. He made films and TV series about his work to teach people more about ocean life and to make them aware of environmental problems.

Divers can stay underwater for long periods with the proper equipment.



Fabien Cousteau, Jacques Cousteau's grandson, is passionate about the protection of sharks.

Keeping it in the family

Jacques Cousteau's children and grandchildren have carried on his love of the ocean – his grandson was diving from the age of four. Many members of the Cousteau family work together to help people understand how they can act responsibly and protect the oceans for future generations.

Robert Ballard

In 1985, the American underwater explorer Robert Ballard discovered the wreck of *Titanic*, which had hit an iceberg and sunk in 1912. Using a submersible (a type of submarine), he got the first photos of the famous ship where it lay over 3.5 km (2.25 miles) below the surface of the ocean.



Over 1,500 people died when *Titanic* sank on her maiden voyage from the UK to America.

The JASON project

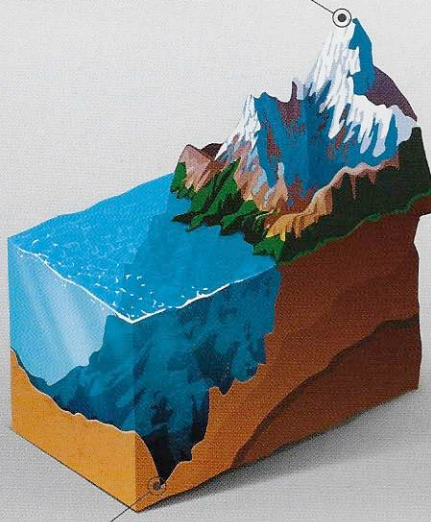
Robert Ballard wanted to help others to experience underwater exploration and so he set up the JASON project. His special underwater vehicle (called *Jason* after the Greek hero) explores under the sea and sends back live pictures and videos for people to watch around the world.

In 2012, James Cameron dived down to the Mariana Trench, the very deepest part of the ocean, which is nearly 11 km (6.5 miles) deep. While down there in his submersible, the *Deepsea Challenger*, he tweeted 'Can't wait to share what I'm seeing w/ you.'

Highest and deepest points on Earth

Mount Everest
8484 m
above sea level

Location
Himalayas, China and Nepal



Mariana Trench
10 911 m
below sea level

Location
western Pacific Ocean

Robert Peary

In the race to be the first person to reach the North Pole, the American Robert Peary never gave up. In April 1909, on his eighth attempt, he at last achieved his dream, together with his travelling companion, Matthew Henson. In fact, nobody else travelled to the North Pole on foot for another 60 years!

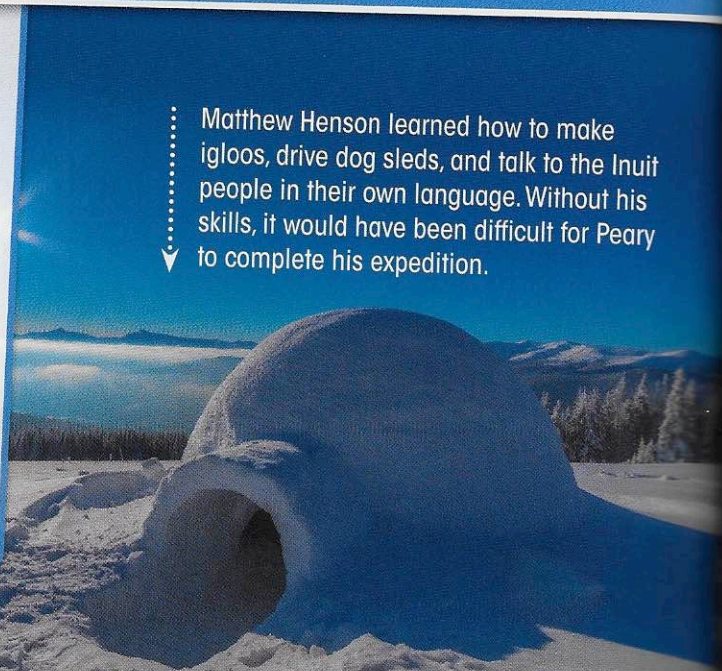
Robert Peary suffered from frostbite because of the bitter cold in the Arctic regions and had to have eight toes amputated.



Matthew Henson

Matthew Henson was the first African-American Arctic explorer. He met Robert Peary in 1888 and was hired because of his excellent skills in Arctic exploration. After the pair reached the North Pole, Henson led the expedition back home.

Matthew Henson learned how to make igloos, drive dog sleds, and talk to the Inuit people in their own language. Without his skills, it would have been difficult for Peary to complete his expedition.



Fridtjof Nansen

The Norwegian explorer and scientist Fridtjof Nansen is celebrated as a hero, not only for his daring Arctic adventures, but also for his work in helping others. In 1922, Nansen was awarded the Nobel Peace Prize for the work that he did to help prisoners of war and refugees to return home.

North Pole attempt

Fridtjof Nansen made his name as the first person to ski across the ice cap in Greenland. He always had a passion for the Arctic region and in 1893 decided to follow the Arctic currents in his ship *Fram*. The ship and crew spent three years floating with the ice. During that time Nansen left the ship and attempted to walk to the North Pole and, although he came close to reaching it, unfortunately he was not successful.



The polar ship *Fram* was built to be sturdy and withstand the pressure of the ice crushing it.



▲ In the Arctic region, there is at least one day a year when it is light all day and one day when it is completely dark. This is because of the way the Earth tilts. It is common to see the Aurora Borealis in this part of the world.

Roald Amundsen

The Norwegian explorer, Roald Amundsen, wanted to be the first person to reach the South Pole. His team set off in October 1911 and 99 days later, in December 1911, the Norwegians planted their flag at the South Pole. They beat the British team by 33 days!

Travelling across ice

Roald Amundsen and his team of explorers used husky dogs to help them travel across the ice more quickly. They also wrapped up in husky fur to keep warm, and when they ran out of food, they ate the dogs. While travelling to the South Pole, the Norwegians ate 22 of their dogs.

Amundsen also liked to explore by air, flying over the North Pole in the 1920s. In 1928 he disappeared when his plane crashed over the Arctic Ocean.

Sled dogs need to be strong, fast and have a lot of energy. They can reach speeds of around 30 kmph (19 mph).



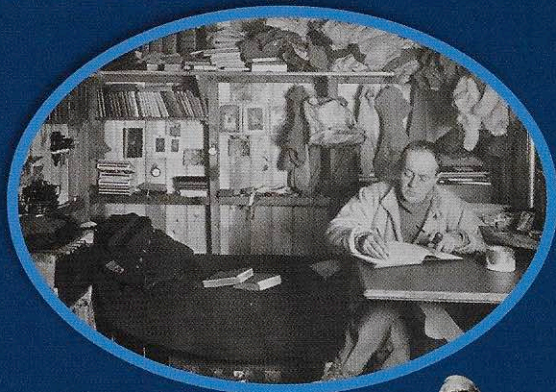
Robert Scott

Robert Scott led a British team of explorers in the race to the South Pole. In 1911, after months of preparation, they set out and arrived in January 1912, 81 days later. To their huge disappointment, they found that the Norwegian team had reached the South Pole first!

Scott's diary

Robert Scott kept a diary of the expedition, writing about the difficulties the team faced on the way back. The team were hit by snowstorms and extremely low temperatures. One by one the men died until Scott and two others were left, trapped in their tents by a blizzard. Scott's last entry in his diary reads 'It seems a pity, but I do not think I can write more.' Their frozen bodies were found in their tents later that year.

Captain Scott's diary gave people detailed information about his expedition to the South Pole.



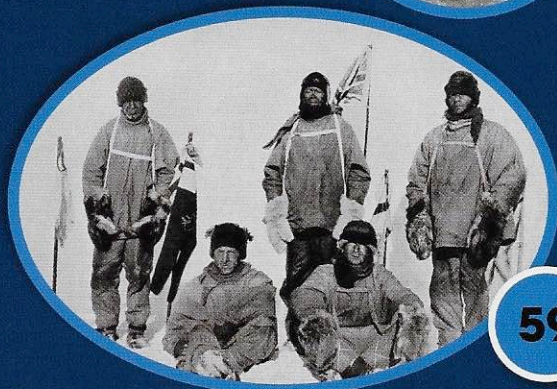
Captain Oates

One of Scott's team, Captain Oates, showed great bravery during the expedition. The severe cold meant that he suffered from frostbite in his legs and feet so he couldn't walk very well. Knowing rations were low and his time was short, Oates told the team 'I'm going for a short walk, I may be some time.' He never returned.

Robert Scott's courage and that of his men made them heroes and there are a number of statues to him.



Captain Scott and his team of explorers reach the South Pole.



Sir Ranulph Fiennes

In 1984, the English explorer Sir Ranulph Fiennes was called 'the world's greatest living explorer' by *The Guinness Book of Records*. Now he has led over 30 expeditions to explore many different parts of the world. In addition, he has raised millions of pounds for charity by completing various challenges, including seven marathons in seven days on seven continents in 2003.

An inspiring man

In 2015, Sir Ranulph became the oldest British person to take part in the 250 km (156 mile) 'Marathon des Sables' (known as 'the toughest footrace on earth') in the heat of the Sahara Desert. He has written many books about his experiences and continues to inspire many with his achievements.



Runners racing through the heat of the Sahara Desert in Morocco.



From pole to pole

Sir Ranulph Fiennes and Charles Burton were the first people to travel around the world on foot from pole to pole, covering around 83 685 km (52 000 miles). It took them three years in total. Luckily they had Ranulph Fiennes' dog, Bothie, with them to keep them company!

▲ One of Sir Ranulph's challenges was to climb Mount Everest, aged 65.

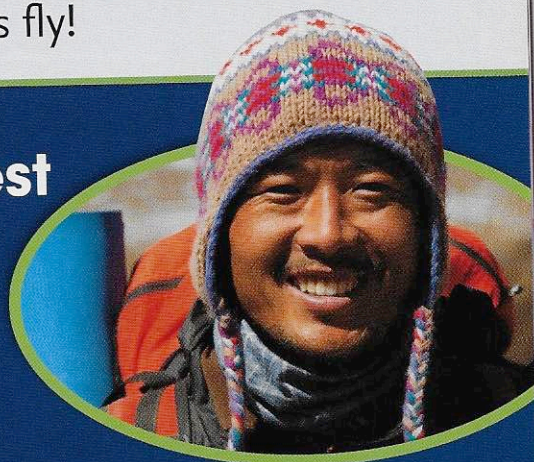
Edmund Hillary and Tenzing Norgay

As the highest mountain in the world, Mount Everest has always been a target for climbers. In 1953, the New Zealand explorer Edmund Hillary and the Sherpa, Tenzing Norgay, were the first people to reach the summit, which is 8.5 km (5.5 miles) high. This is the height at which some planes fly!

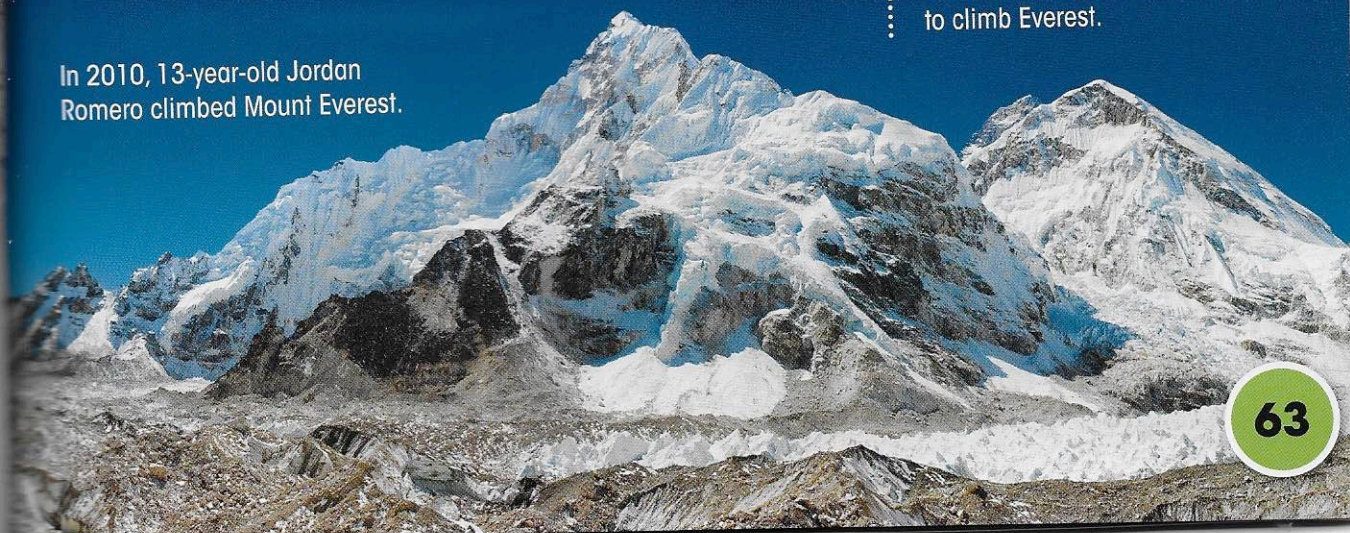
The dangers of Mount Everest

There are a lot of dangers that need to be taken into account when climbing mountains as high as those in the Himalayas. Apart from the danger of avalanche, you can get snow blindness from the dazzling snow, frostbite from the extreme cold, and altitude sickness from the lack of oxygen at that height. Over 200 people have died trying to climb Mount Everest. Many of their bodies are still there.

In 2010, 13-year-old Jordan Romero climbed Mount Everest.



↑ Sherpas are local guides who know about the terrain, the weather, and the dangers of the climb. Without them it would be nearly impossible to climb Everest.



Yuri Gagarin

The 'space race' was the name given to the contest to put the first person into orbit around the world. It was contested mainly between USA and Russia. Russian astronaut, Colonel Yuri Gagarin, made history as the first person in space. His spacecraft flew all the way around the Earth in 1961. The flight lasted 108 minutes and travelled at a speed of over 24 000 kmph (15 000 mph). Sadly, while training for his second trip into space, Gagarin died in a plane crash.

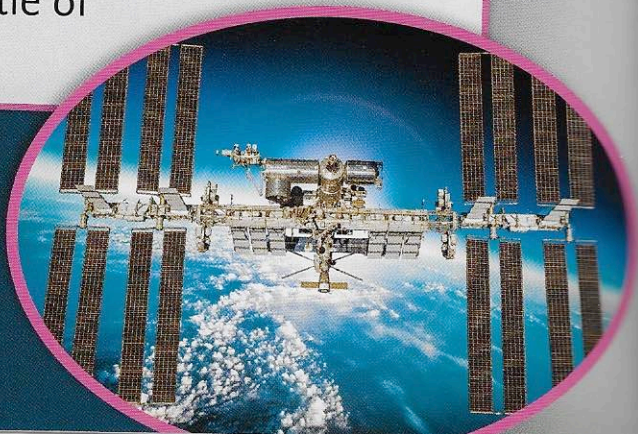
Before people went into space, animals, including fruit flies, dogs, and monkeys, were sent up in spaceships so that scientists could see the effects of space travel. Sadly, many did not survive the journey.



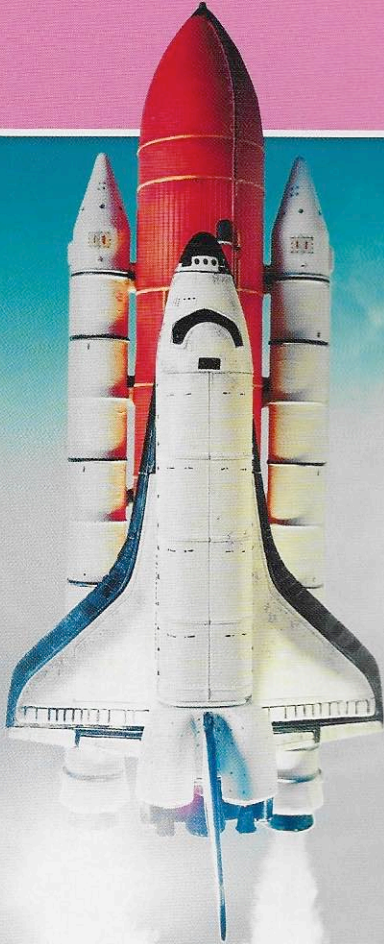
Valentina Tereshkova

Another Russian astronaut, Colonel Valentina Tereshkova, became the first woman to go into space. After 18 months of training, she spent three days in space, orbiting the Earth 48 times, and earning the title of 'Hero of the Soviet Union'.

The International Space Station (ISS) was launched in 1998 and allows all space agencies to work together to carry out research in space. Six astronauts, often from different countries, can live there at one time.



Neil Armstrong and Buzz Aldrin



On 20th July, 1969, American astronaut Neil Armstrong became the first man to step on the Moon, followed closely by Buzz Aldrin. A third member of the team, Michael Collins, kept the Lunar Module *Eagle* orbiting while the astronauts spent two hours on the Moon. Neil Armstrong even managed to take the first moon selfie!

'The *Eagle* has landed'

Over 600 million people across the world watched the Apollo 11 mission on television, when Neil Armstrong and Buzz Aldrin planted the American flag on the surface of the Moon. Unfortunately, as they left the Moon in the Lunar Module, the flag was blasted away by the force of the engines!

▲ Space shuttles like this one made over 100 flights into space.

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'That's one small step for man, one giant leap for mankind' – Neil Armstrong's famous first words on the Moon.

