On 20<sup>th</sup> July 1969, an American astronaut, Neil Armstrong, became the first person to walk on the Moon. An estimated 600 million people watched on television as he and crewmate 'Buzz' Aldrin stepped on to its surface, placing their names firmly in the history books forever.

#### Did You Know...?

A modern smartphone is several thousand times more powerful than the computers used for Apollo 11!

## The Beginning

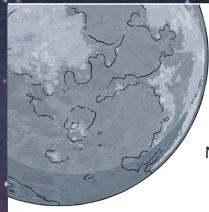
Neil Armstrong was born on 5<sup>th</sup> August 1930, in Ohio, USA. His passion for flying started at a young age. When Armstrong was aged two, his parents took him to Cleveland Air Race to see aircraft up close. Four years later, his father paid for them both to ride in a plane at a local airport. It was here where he later started flying lessons – paid for himself by working after school in a pharmacy! Throughout his childhood, Armstrong spent hours on his passion. As a result, at 16 years old he passed his pilot's licence. It was before he could even drive a car!

Armstrong was known for being calm and controlled in a crisis. He flew fighter planes in the Navy and later joined NASA. In September 1962, he was accepted to their astronaut corps, which would eventually lead to the ultimate test of control: flying all the way to the Moon and landing safely!

#### A Close Call!







They were in danger of passing out. Luckily, Armstrong's quick thinking saved their lives due to the fact that he pressed the button to power the back-up thrusters and rescue the mission.

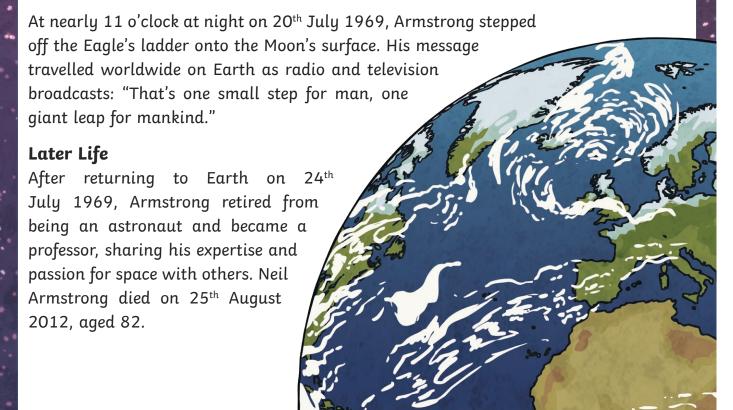
Now he had proven himself ready to fly to the Moon.

## Apollo 11 and the Moon Landing

On 16<sup>th</sup> July 1969, three years and countless tests after the Gemini 8 mission, the Apollo 11 mission launched and the Saturn 5 rocket blasted Neil Armstrong and crew mates Edwin 'Buzz' Aldrin and Michael Collins into space towards the Moon.

The journey through space took four days. After they arrived on 20<sup>th</sup> July, Armstrong undertook the greatest challenge of his career. The crew split up: Collins stayed in orbit around the Moon doing experiments while Armstrong and Aldrin boarded 'the Eagle' lunar module to begin the descent to the surface.

After further testing, Armstrong carefully piloted the Eagle down and avoided a large crater. Due to his excellent flying skills, they both landed safely in the Sea of Tranquility (a large crater) on the Moon.





On 20th July 1969, an American astronaut, Neil Armstrong, became the first person to walk on the Moon. An estimated 600 million people watched on television as he and crewmate 'Buzz' Aldrin stepped on to its surface, cementing their names in the history of mankind.

## The Beginning

Neil Alden Armstrong was born on 5th August 1930, in Ohio, USA. From a young age, he developed a passion for aviation. At two years old, his parents took him to Cleveland Air Race to see aircraft up close. Four years later, at age six, his father paid for them both to ride as passengers in a small plane at a local airport. Here, he later started flying lessons – paid for himself by working after school in a pharmacy.

Armstrong devoted hours to his passion. Consequently, at 16 years old he passed his pilot's licence – before he could even drive a car!

Known for being resilient and calm in a crisis, Armstrong was used to flying in dangerous situations. He flew sophisticated fighter planes in the Navy and later joined NACA, which would later become NASA. In September 1962, he was accepted to their astronaut corps, which would eventually lead to the ultimate test: flying to the Moon!

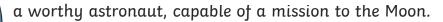
#### A Close Call!

Neil Armstrong's first trip into space almost ended in catastrophe. The Gemini missions were a practice-run for space. Was it possible for two objects – each travelling ten times faster than a bullet – to dock in orbit?

Armstrong was responsible for piloting the Gemini VIII space capsule, travelling at a mind-boggling 18 000 miles per hour. Although docking with the target went smoothly, trouble was brewing. Suddenly, the thrusters malfunctioned. Armstrong and his co-pilot were sent into a wild spin.

In danger of losing consciousness, it was only Armstrong's quick-thinking in hastily switching to back up thrusters that saved the mission and their lives. It had been a close call but he had proven himself to be





## Apollo 11 and the Moon Landing

On 16th July 1969, three years after the Gemini VIII mission, the Apollo 11 mission launched and the Saturn V rocket blasted Neil Armstrong and crew mates Edwin 'Buzz' Aldrin and Michael Collins into space towards the Moon.

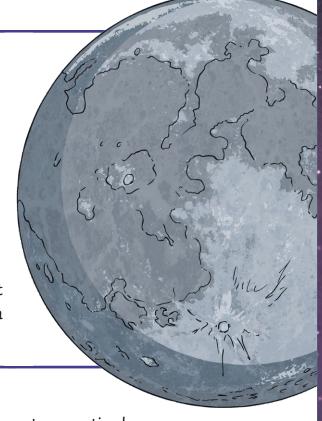
The journey took four days. It was not until the night of 20th July that Armstrong had the greatest challenge of his career. The crew separated: Collins stayed in orbit on the command module conducting experiments and taking photographs. Meanwhile, Armstrong and Aldrin boarded the lunar module (nicknamed 'the Eagle') to begin the descent to the Moon.

Armstrong, who expertly guided the Eagle down to the Moon's surface, narrowly avoided a crater in order to carefully land in the Sea of Tranquillity.

At 10.56pm on 20th July 1969, a further special moment came. As he stepped off the ladder, Armstrong's message travelled worldwide on Earth as radio and television broadcasts: "That's one small step for man, one giant leap for mankind."

#### **Fun Facts**

- The computing power of a modern smartphone is several thousand times greater than that of the Apollo XI computers!
- The Saturn V rocket was the largest rocket ever built. It stood 111 metres tall which was higher than the Statue of Liberty!
- The Sea of Tranquillity on the Moon is not a real sea! It is a large crater on the Moon which looks very dark from Earth.



## Later Life

After returning to Earth on 24th July 1969, Armstrong retired from being an astronaut and became a professor, sharing his expertise and passion for space with others. Neil Armstrong died on 25th August 2012, aged 82.



On 20th July 1969, an American astronaut called Neil Armstrong achieved what had long been thought impossible in becoming the first person to walk on the Moon. An estimated 600 million people tuned in on television as he and a crewmate, Edwin 'Buzz' Aldrin, stepped on to its surface, cementing their names in the history of mankind. Furthermore, it was Neil Armstrong who had had the challenging task of manually piloting and landing the lunar module on to the Moon. How had he achieved such a difficult, dangerous manoeuvre? Why had he been selected for the role? What were his chosen words to those millions of transfixed viewers? Read on to discover more about the first man on the Moon.

## The Beginning

Neil Alden Armstrong was born on 5<sup>th</sup> August 1930, in Ohio, USA. His passion for aviation blossomed from an early age. When Armstrong was aged two, his parents took him to Cleveland Air Race to see aircraft in proximity. By age six, his father had paid for them to be passengers in a Ford Tri-Motor aeroplane. He started flying lessons in his teens, in a basic two-seater 'Aeronca Champ' plane – funded by his after-school job in a pharmacy. Armstrong, whose passion was clear to his family and friends, practised and persevered for hours on end. As a consequence, at the tender age of 16 he achieved his pilot's licence, even before his driving licence!

Armstrong was renowned for his resilience and self-control in a crisis; these strengths helped him to fly in dangerous situations. From that simple Aeronca Champ to sophisticated fighter planes in the Navy, Armstrong gained experience quickly. At NACA, which would later become NASA, he was responsible for flying numerous aircraft: propeller-, jet- and even rocket-powered ones! In September 1962, he joined their astronaut corps, which would eventually lead to his historic trip to the Moon; the ultimate test of his flying prowess!

#### Fun Fact!

After returning to Earth, the intrepid explorers spent eighteen days in quarantine due to the risk of contamination by lunar microbes (AKA moonbugs!).



#### A Close Call!

Neil Armstrong's initial space voyage had almost catastrophic consequences. The Gemini missions were a trial-run for space exploration. Was it possible for two objects – each travelling ten times faster than a bullet – to simultaneously fly and then dock in orbit?

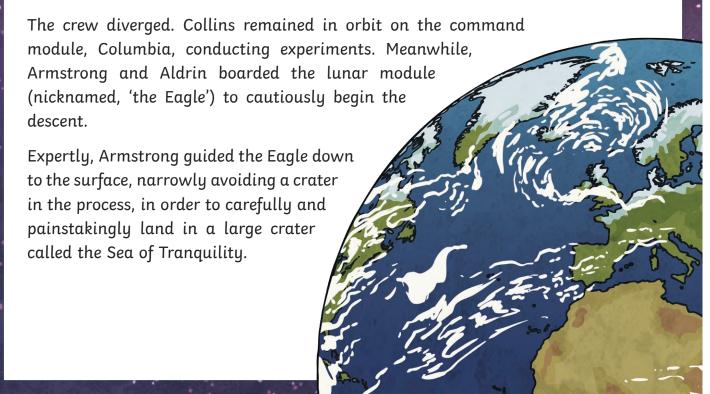
It was Armstrong's responsibility to pilot the Gemini 8 space capsule, flying at an astonishing 18 000 miles per hour, to dock with a radio-controlled target. Incredibly, the docking had gone smoothly but meanwhile, trouble was brewing. All of a sudden, the thrusters malfunctioned, resulting in Armstrong and his co-pilot being hurled into a wild spin, rotating at a nauseating one revolution per second.

The astronauts were in grave danger; at any second, they could lose consciousness. Undaunted, it was Armstrong's quick thinking which saved the mission: he hastily switched to back-up thrusters. Thus, he had proven himself capable of a mission to the Moon.

## Apollo 11 and the Moon Landing

On 16<sup>th</sup> July 1969, three years after the risky Gemini 8 mission, the powerful Saturn 5 rocket blasted Neil Armstrong and crew mates Edwin 'Buzz' Aldrin and Michael Collins into space for the culmination of years of preparation: Apollo 11's voyage to the Moon.

After four days' travel, Apollo 11 reached its target but it was not until the night of 20<sup>th</sup> July that Armstrong embarked on the greatest challenge of his career.





At 22:56 EST on 20<sup>th</sup> July 1969, his defining moment came. As he stepped off the ladder from the Eagle's hatch, planting one foot firmly on the Moon's dusty surface, Armstrong's message was broadcast live across planet Earth: "That's one small step for man, one giant leap for mankind."

## Later Life

After returning to Earth on 24<sup>th</sup> July 1969, Armstrong chose to retire from being an astronaut and became a professor, sharing his expertise and passion for space with others. However, he was not finished with facing daunting challenges. In 1985, Armstrong joined a group of renowned explorers – such as the first man to climb Mount Everest, Edmund Hillary – on a journey to the North Pole. Armstrong said that he was curious to see what the North Pole looked like from ground level, as he had only seen it from the Moon.

Neil Armstrong died on 25th August 2012, aged 82.

Neil Alden Armstrong: pilot, astronaut and first man on the Moon  $(5^{th}$  Aug  $1930 - 25^{th}$  Aug 2012)

