

The birth of the Moon.

The Moon is about 4.5 billion years old and is the only natural satellite in our Solar System. The moon formed about 30–50 million years after the Earth formed. The moon came about when a large object hit the Earth and blasted out rocks that all came together and orbited round the Earth.

Eventually they all melted together like in a big heated pot, cooled down and became the Moon. For another 500 million years pieces of rock kept striking against the surface of the Moon.

Marks on the surface of the Moon.

You can see the surface of the Moon by using a pair of binoculars or a small telescope. The Moon's surface shows the damage caused by these large pieces of rock hitting it billions of years ago. The surface is covered in craters, pits and scars.

The reason we can still see this damage is that the Moon has no atmosphere, so we can still see what happened billions of years ago.



People on the Moon.

The first spacecraft to reach the Moon was Luna 1 in 1959 which was a Soviet craft launched by the USSR. It didn't land on the moon but passed within 3,725 miles (5,995) kilometers of the surface of the moon before going into orbit around the sun.



The very first manned Moon landing was in 1969 from the famous NASA Apollo 11 mission. The Moon has been walked on by 12 people; all American men. The first man to set foot on the Moon in 1969 was Neil Armstrong, while the last man to walk on the Moon in 1972 was Gene Cernan on the Apollo 17 mission. Since then the Moon has only be visited by unmanned vehicles.

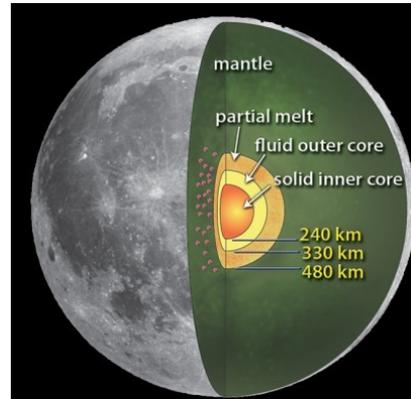
There is no wind on the moon, so all those footsteps will stay there forever, unless of course somebody else stands on top of them! It's like having your foot cast in stone there forever!

Neil Armstrong was the very first person, to put his footsteps on the moon. He stepped out of his spacecraft, the Eagle, on 21 July 1969 and said these very famous words: **“That’s one small step for man, one giant leap for mankind”**.



Fact about the Moon

- It is the fifth largest moon in the Solar System.
- The average distance from the Moon to the Earth is 385.000 kilometers. If you had to drive from the moon to the Earth at 100kph it would take you 153 days driving non-stop 24 hours a day.
- The moon very likely has a very small core which is only about 1 to 2 percent of the moon's mass and roughly 680 km wide. It probably consists mostly of iron, but may also contain large amounts of sulfur and other elements.



Its rocky mantle is about 825 miles (1,330 km) thick and made up of dense rocks rich in iron and magnesium.

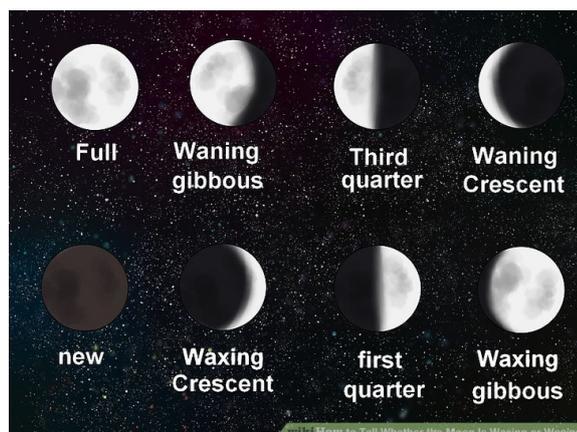
The Moon goes round the Earth every 27.3 days.

You can always only see one side of the moon; the other side is always turned away from us. The Moon revolves on its axis in about the same length of time it takes to orbit the Earth. What this means is that from Earth we will only ever see about 60% of its surface.

The far side of the Moon looks very different to the near side and this is because it doesn't have ancient pools of solidified lava, which is actually called maria.

Waning vs Waxing

- Now we move onto waning. This means the moon is getting smaller.
- Next is the third quarter and what happens is that it takes us from a full moon to a half moon again, but now it is the left hand side of the moon that is shining.
- Now we move onto the last quarter which is the waning crescent Moon. Now the half moon becomes a crescent shape again.



Moon vs Earth

Gravity on Earth is much stronger than that on the Moon which is why astronauts have to wear all that space gear as they can just float away. The gravity on the moon is only about 1/5 when compared to the earth. At least we know we're not going to float away!

The Moon is slowly moving away from earth at about 3.8 cm every year. Scientists say it will keep on moving away for about 50 billion years. By the time that happens, the Moon will take around 47 days to orbit the Earth instead of the current 27.3 days.

The Moon is airless, waterless and lifeless.

The Earth has a much bigger surface than the Moon and was also hit by debris many years ago. But because we've got wind and rain from our atmosphere, which the moon doesn't have, most of the damaged has disappeared into thin air.

There is a tall mountain on the Moon? Well there is and it's called Mons Huygens. It is nearly 3 miles (4700 meters) tall. That's just over half the height of Mount Everest at just over 5 miles (8848 meters).

The temperature of the moon changes all the time and goes from -233 degrees Celsius) to 123 degrees Celsius. Wow, one minute you'll be freezing off your toes, the next minute you'll be burning up!

