

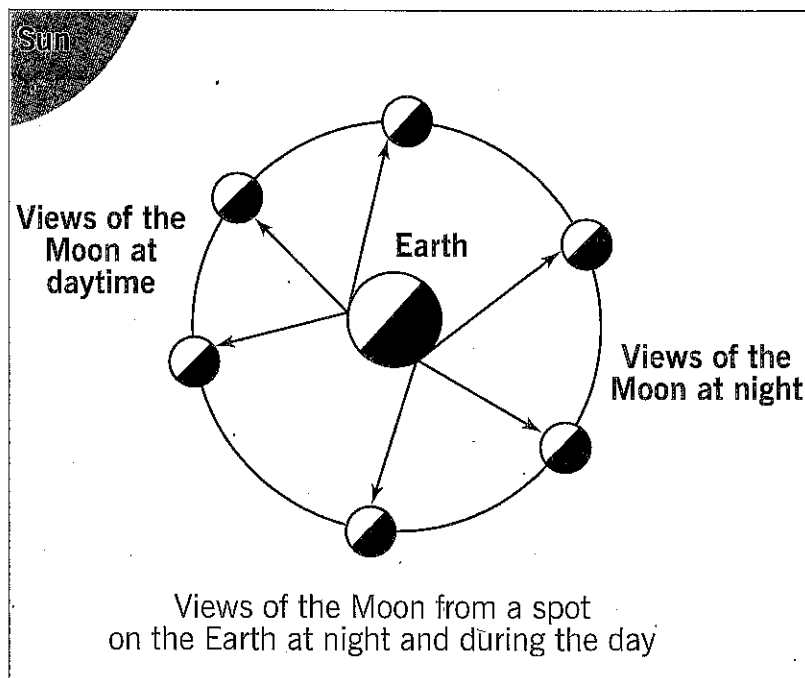


The Moon

A moon is a large body or mass of material that orbits around a planet. It is usually much smaller than the planet. The diameter of the Earth's Moon is 2 160 miles. This compares with the diameter of the Earth at about 4 000 miles. The Earth has only one moon. Mars has two moons, while Jupiter has nine moons.

The Moon orbits around the Earth, taking approximately $29\frac{1}{2}$ days for a complete orbit. The Moon rotates on its axis at the same rate, such that the same side of the Moon always faces the Earth.

As the Moon travels around the Earth, different views of the side that is illuminated by the Sun and the side that is dark are seen. The views create the different phases of the Moon. Consequently at different times of the month, the Moon can appear like a crescent, half circle, or full. The Moon is sometimes visible in the daytime. The Moon appears brighter at night because of sunlight that is reflected off its surface.



Furthermore, the gravity of the Moon is one-sixth the gravity on the Earth. This means that a person who has a mass of 90 kg on Earth would have a mass of only 15 kg, if measured on the Moon. That is why the astronauts were able to jump so high when they were on the Moon. The force of gravity from the Moon affects the Earth. Its gravity reaches the Earth and pulls the oceans toward the Moon, causing the tides.

see <http://www.schoolforchampions.com/science/moon.htm>