All About the Moon

The Moon is about 1/4th the diameter of Earth - it would take about 64 Moon’s to fill up the Earth’s inside.

The Moon is ~250,000 miles from Earth - A trip takes humans 2 - 3 days.

If the Earth were the size of a basketball, the Moon would be the size of a tennis ball and it would be about 23.5 feet away.

The Moon’s gravity is about 1/6th of Earth’s - if you weighed 80 pounds on Earth you would weigh about 13 pounds on the Moon.

The Moon does not make its own light. The Moon glows because it reflects the Sun’s light. Planets (like Earth) and moons do not make their own light; only stars like our Sun make their own light.

Lunar eclipses occur when the Sun, Earth, and Moon are all in a line, with the Earth between the Sun and Moon; the Moon is in the Earth’s shadow.

The mean temperature at the surface is 224° F on the side exposed to the Sun and 243° F below zero on the side facing away from the Sun.

The Moon rotates about as fast as it orbits Earth (about 27 days) – so we always see the same side of the Moon from Earth.

There is no atmosphere (or magnetosphere) on the Moon to project the surface from dangerous radiation or incoming meteoroids.

You can see the dark circular lunar basins and light colored highlands on the Moon’s surface.

The light colored, very cratered highlands are the old lunar crust – the crust that formed from a magma ocean soon after the Moon formed 4.5 billion years ago!

The basins were formed by BIG impacts early in the Moon’s history.

Later, lava filled the basins. The dark-colored plains we see are made of a fine-grained, dark, volcanic rock called basalt – the same rock that is found on Earth’s ocean floors and that makes up the Hawaiian islands.

While BIG impacts stopped occurring after about 4 billion years ago, smaller, more occasional, impacts continued, giving the Moon its cratered surface. All this pummeling has created layer of ground-up rocky “soil” - regolith - that blankets nearly the entire surface of the Moon.

Since 1959 there have been 46 successful missions to the Moon, including orbiters, landers, and the Apollo missions. 12 Astronauts have walked on its surface between 1969 and 1972.