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MORE COOL MOON FACTS



Original Caption Released with Image:

During its flight, the Galileo spacecraft returned images of the Moon. The Galileo spacecraft took these images on December 7, 1992 on its way to explore the Jupiter system in 1995-97. The distinct bright ray crater at the bottom of the image is the Tycho impact basin. The dark areas are lava rock filled impact basins: Oceanus Procellarum (on the left), Mare Imbrium (center left), Mare Serenitatis and Mare Tranquillitatis (center), and Mare Crisium (near the right edge).

Mare Serenitatis (Sea of Serenity)	Size 394x394 Miles
Mare Tranquillitatis (Sea of Tranquillity)	Size 424x 424 Miles
Oceanus Procellarum (Ocean of Storms)	Size 1560x1000 Miles

The moon's diameter is 2170 miles – about $\frac{1}{4}$ the diameter of Earth. If the Earth were hollow, about 49 moons could fit inside. The moon is 238,000 miles away.

The moon takes 27.3 days to revolve around the Earth. This is the same amount of time that it takes for the moon to rotate once on its axis. As a result, the moon always keeps the same side facing the Earth. Because both the Earth and the moon are moving, it takes 29.5 days for the moon to return to the same position relative to the Earth; this is one lunar month, and the amount of time required for the moon to go through one cycle of its phases.

The phases show which parts of the moon are experiencing day and night. Each point on the moon has two weeks of “day” and two weeks of “night”. During the “day”, the temperature can go higher than 100 degrees C (212 degrees F) – higher than the boiling point of water. During the “night”, the temperature can go below –170 degrees C (-274 degrees F).

The moon looks bright to us because it is reflecting the sunlight. Moon rocks are actually dark gray, and reflect only 12% of the sunlight that reaches them.

The moon's surface is marked with many craters, that were formed by impact of meteorites. Some craters have smaller craters inside them! And some craters have rays extending outwards, due to rocks thrown out at the time of the meteorite impact. We can easily see rays of this type around the crater Tycho when the moon is full. The craters are named after famous scientists of the past. The moon also has mountains, which are named after mountain ranges on Earth.

The dark areas on the moon are large craters filled with darker rock, formed from lava that cooled down and solidified. These areas have names meaning “Sea”, “Bay” and “Ocean” because early observers of the moon assumed that they were bodies of water. Today we know that they are only rock.

The moon is the only place outside the Earth that has been visited by humans.