Mars is the Fourth Planet from the Sun and the second smallest Planet in the Solar System, after Mercury. Named after the Roman God of War. Often described as the “Red Planet” because of the Iron Oxide prevalent on its surface gives a reddish appearance. Mars is a Terrestrial Planet with a thin Atmosphere, having surface features reminiscent both of the impact craters of the Moon and Volcanoes, Valleys, Deserts, and the Polar Ice Caps of Earth.

The Rotational Period and seasonal cycles of Mars are likewise similar to those of Earth, as it is the tilt that produces the seasons. Mars is the site of Olympus Mons, the second Highest Known Mountain within the Solar System (Tallest on the Planet), and Valles Marineris, one of the Largest Canyons.

The smooth Borealis Basin in the northern hemisphere cover 40% of the planet and may be a giant Impact Crater feature. Mars the two known moons, Phobos and Deimos, which are small and irregular shaped. These may be captured Asteroids, similar to 5261 Eureka, a Martian Trojan Asteroid.

Until the first successful Mars flyby in 1965 by Mariner 4, many speculated about the present of liquid water on the planets surface. This was based on observed periodic variations in the light and dark patches, particularly in the polar latitudes, which appeared to be seas and continents. Long dark striations were interpreted by some as irrigation channels for liquid water.

These straight lines were later explained as Optical Illusions, though Geological Evidence gathered by later Unmanned Missions suggest that Mars once had large-scale water coverage on its surface.