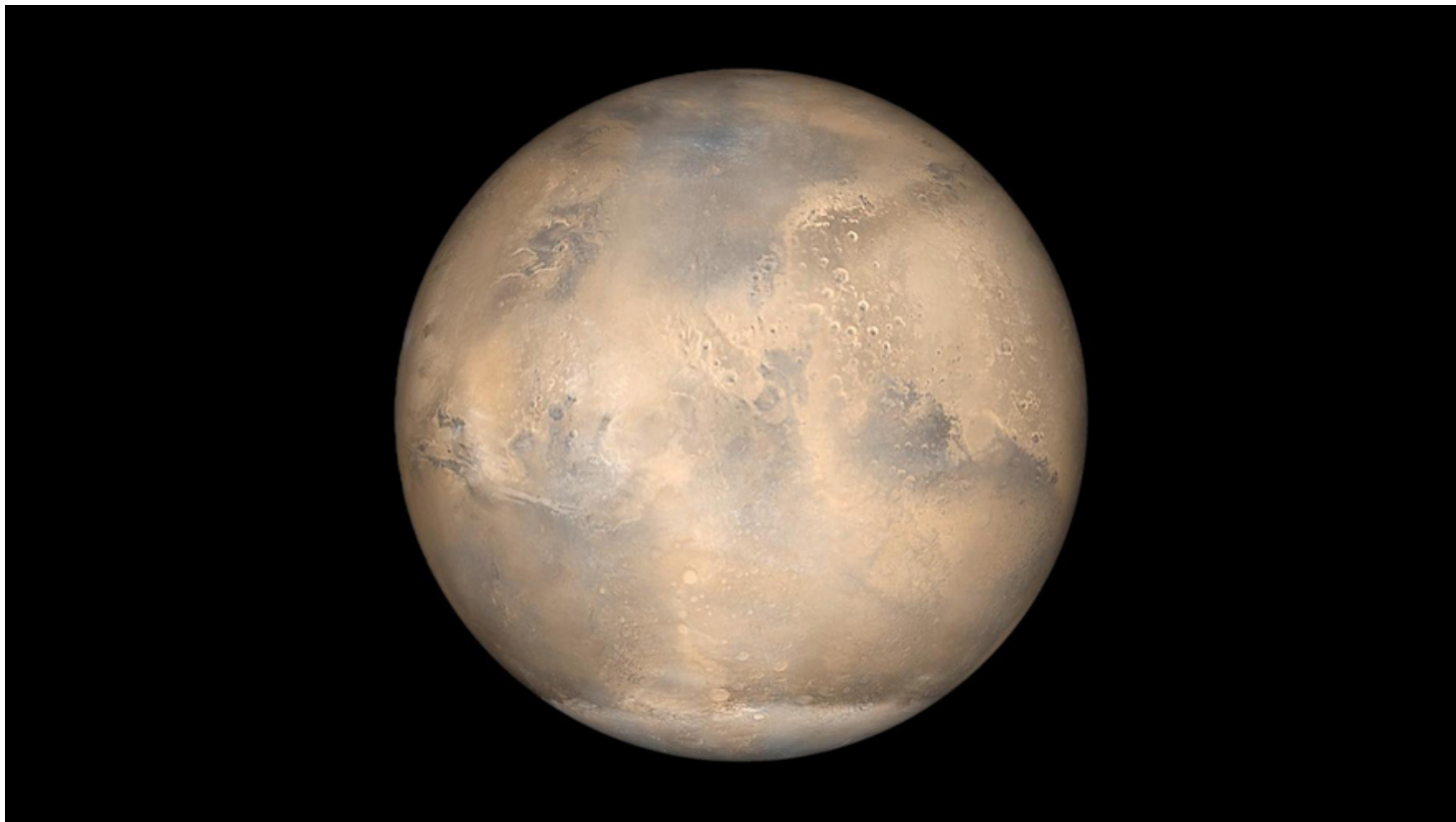


Exploring The Planets: Mars

By Encyclopaedia Britannica, adapted by Newsela staff on 08.24.17

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Mars is the fourth planet from the sun and the second-smallest planet in our solar system. It appears bright and reddish in the night sky. Photo from: NASA/JPL/MSSS.

Mars is the fourth planet from the sun and Earth's outer neighbor. It has two small moons, Phobos and Deimos.

Mars is easily seen from Earth. People have been observing it since ancient times. The planet often appears quite bright and reddish in the night sky. Because of its blood-red color, ancient people associated Mars with death and disease. Mars is named after the ancient Roman god of war.

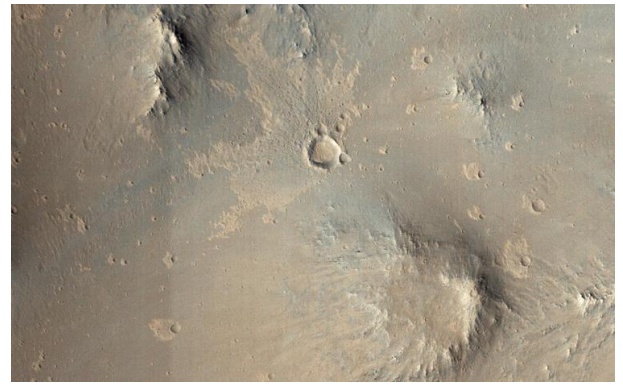
For years, people have wondered whether there is life on Mars. Studies have shown that there are no obvious signs of life. Scientists are still trying to learn more. They want to find out if tiny, simple creatures ever lived on Mars.

Physical Features

Mars lies between Earth and the main asteroid belt. The asteroid belt is an area where many asteroids are gathered. Asteroids are pieces of rock that orbit the sun. Beyond the asteroid belt is Jupiter.

Along with Mercury, Venus and Earth, Mars is one of the terrestrial planets. That means it is rocky and solid.

Mars is the second-smallest planet in the solar system. The smallest is Mercury. Mars has several layers, including a metal core, a rocky middle and a crust. The surface of Mars is made of rock and dust. Parts of the planet have many pits called craters. The land includes plains, deep valleys and high mountains.



Mars has only a thin atmosphere, or layer of gases, surrounding it. For this reason, it does not trap heat well. The planet can get very cold. Temperatures sink to -118 degrees Fahrenheit.

Water is rare in the solar system, except on Earth. Yet water exists on Mars, as well. It is in the ice caps at its north and south poles. There are also patches of ice beneath the surface. Some scientists think Mars used to have liquid water. It may have even had large seas.

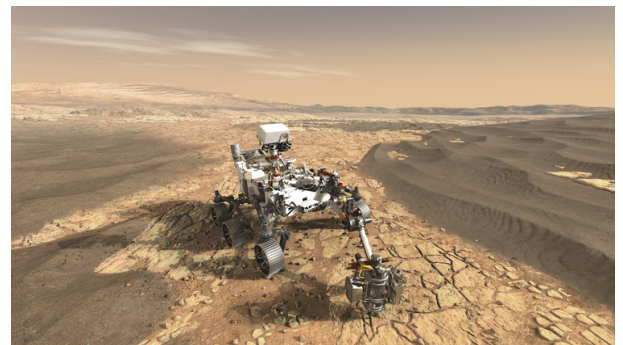
Orbit And Spin

A year is the amount of time it takes a planet to go around the sun. Earth takes just over 365 days to make a full trip. Mars is farther away from the sun, so it takes longer. A year on Mars lasts 687 Earth days.

A single day is equal to the time it takes a planet to make a full rotation. That is one complete spin, or turn, of the planet. Earth takes 24 hours to make one full rotation. Mars spins at nearly the same rate as Earth does. It takes about 24.6 hours to make one full rotation. A day on Mars is about as long as a day on Earth.

Observations And Exploration

Since 1964, many spacecraft have collected information about Mars. The United States and the Soviet Union each sent several spacecraft to Mars from the 1960s to the 1980s. Some of them flew past Mars or circled around it. Other spacecraft successfully landed on Mars. These included two U.S. spacecrafts. Their names were Viking 1 and Viking 2.



The U.S. spacecraft Pathfinder landed on Mars in the 1990s. It released a robot called a rover on the surface. In 2003, the United States sent two more rovers to the planet. In 2012, a fourth rover, called Curiosity, landed on Mars. The rovers drive around on the surface of Mars. They collect samples and take photos up there.

