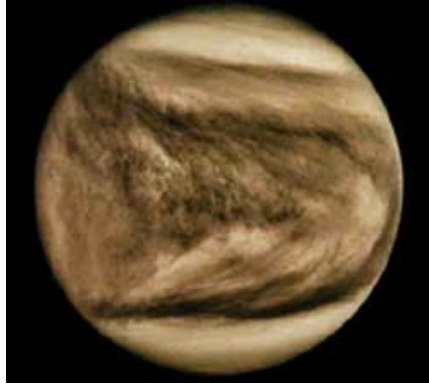


The Planet Venus Fact Sheet



The planet Venus is the second planet in our solar system. It's named after Venus the Roman goddess of love and beauty. The planet is named this way because it is the brightest object in the sky, except for the Sun and the Moon, and has been known since prehistoric times.

Venus has sometimes been regarded as Earth's sister planet because it's only slightly smaller than Earth (95% of Earth's diameter, 80% of Earth's mass), both have very few craters indicating relatively young surfaces and their densities and chemical compositions are similar. Because of these similarities, it was once thought that there may be life below its dense clouds. But, unfortunately, after more detailed study of Venus it was discovered that in many important ways Venus is very different from Earth and may be the least hospitable planet for life in the solar system.

Venus has been found to be composed mostly of carbon dioxide. There are several layers of clouds many meters thick composed of sulfuric acid which completely obscure our view of the planet's surface. This dense atmosphere produces a greenhouse effect that raises Venus' surface temperature by about 400° to over 740 Kelvin - that's actually hot enough to melt lead! Crazy enough, Venus' surface is actually hotter than Mercury's despite the fact that it's nearly twice as far from the Sun. Doesn't sound very habitable to me.

The very first spacecraft to visit the planet Venus was the Mariner 2 in 1962. It was then visited by many others (more than 20 so far), including the Soviet Venera 7 - the first spacecraft to land on another

planet and Venera 9 - which returned the first photographs of the surface. Most recently, the orbiting US spacecraft Magellan produced detailed maps of Venus' surface using radar.

This data shows that there are several large shield volcanoes similar to Hawaii or Olympus Mons. Recently announced findings indicate that Venus is still volcanically active, but only in a few hot spots; for the most part it has been geologically quiet for the past few hundred million years.

Some Venus Quick Facts

- Venus probably once had large amounts of water like Earth but it's all been boiled away, leaving the planet very dry. Scientists have recently discovered that Earth would've suffered the same fate had it been just a little closer to the Sun! Studying Venus has taught us a lot about Earth.
- Venus has no magnetic field, perhaps because of its slow rotation.
- On June 8 2004, Venus passed directly between the Earth and the Sun, appearing as a large black dot traveling across the Sun. This event is known as a "transit of Venus" and is very rare: the last one was in 1882, the next one is in 2012 but after that you'll have to wait until 2117.
- Venus can be seen with the naked eye and it's sometimes called the "morning star".
- The periods of Venus' rotation and of its orbit are synchronized so that it always has the same side facing Earth when the two planets are at their closest.
- The oldest terrains on Venus seem only to be about 800 million years old, because extensive volcano activity at that time wiped out the earlier surface including any large craters from early in Venus' history.



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- [Our Crazy Universe Homeschool Unit Study](#)