

VENUS

Orbiting about 108 million kilometers (67 million miles) from the Sun, Venus is the second planet in our Solar System. It is the third-brightest object in the sky, after the Sun and the Moon. Venus is the hottest planet in the Solar System, with an average temperature of about 457°C (865°F). Venus is so hot because of its thick atmosphere. As sunlight passes through the clouds surrounding Venus, it heats up the surface of the planet. Most of this heat cannot escape back into space because the thick atmosphere blocks it. The trapped heat builds up to extremely high temperatures.

How Big Is Venus?

Venus is similar in size to Earth, with a diameter of 12,104 kilometers (7,517 mi.).

How Long Are a Day and Year on Venus?

Venus takes about 225 Earth days to orbit the Sun, so a year on Venus is about 225 Earth days long. It takes Venus about 243 Earth days to spin around once on its axis. That means Venus's days are longer than its years.

What Is Venus Made Of?

Astronomers believe that the interior of Venus is similar to Earth's. Venus has a thick crust made of hard reddish-brown rock. Smooth plains formed from lava that flowed out of openings in the crust cover most of Venus. The planet also has mountainous areas, craters, and over one thousand volcanoes.

How Many Moons Does Mars Have?

Like Mercury, Venus has no moons. Scientists think that Venus may have had moons at one time, but not today.



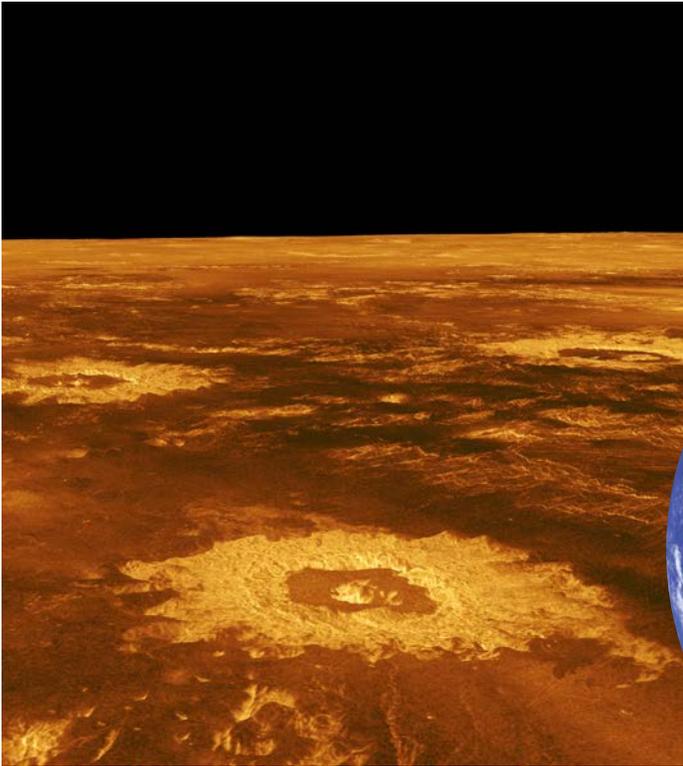
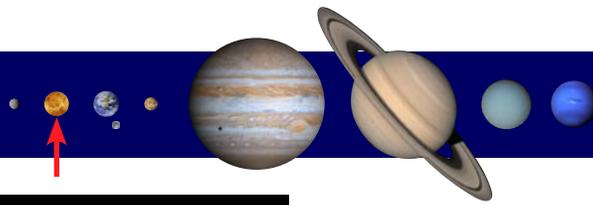
The clouds that swirl around Venus trap heat and keep the temperature on the surface hot enough to melt lead. Some of those clouds are made of acid. The heavy atmosphere creates a surface pressure 90 times greater than that of Earth. That would be like walking on the bottom of a swimming pool—that's a mile and a half deep! The first spacecraft that made it to Venus was crushed in minutes.



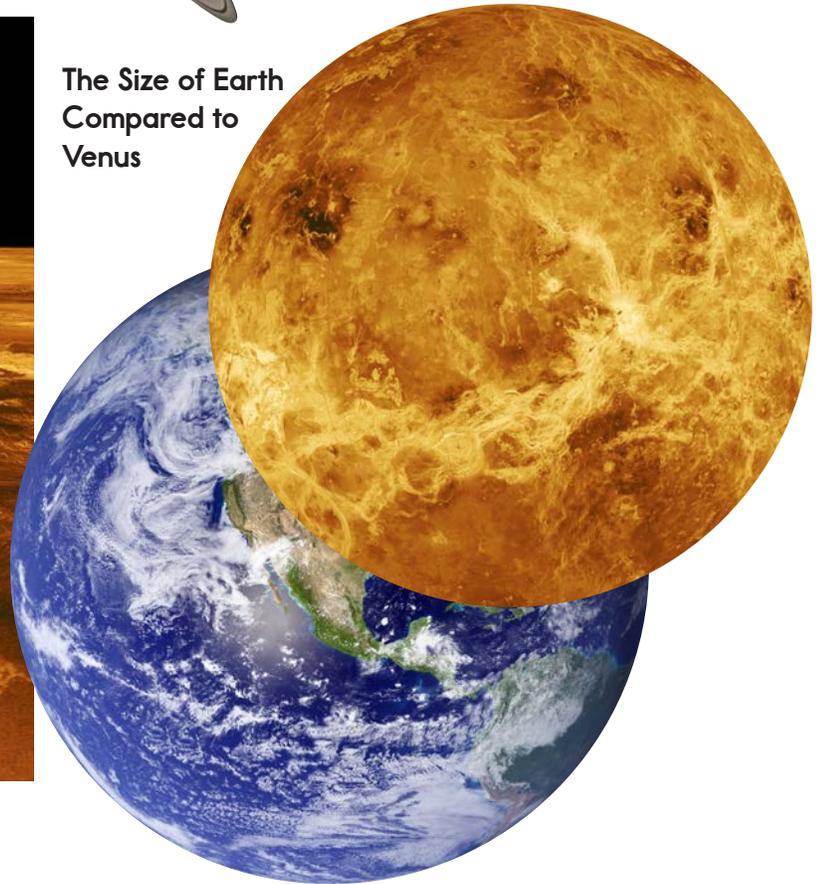
Do You Know?

- Venus was named after the Roman goddess of love and beauty. It was probably given this name because it's bright and beautiful.
- Venus has only two sunrises a year.
- Venus rotates backward. The Sun rises in the west and sets in the east. On Earth, the Sun rises in the east and sets in the west.
- Venus is sometimes called Earth's twin because Venus and Earth are almost the same size, weigh about the same, and are made of similar material.

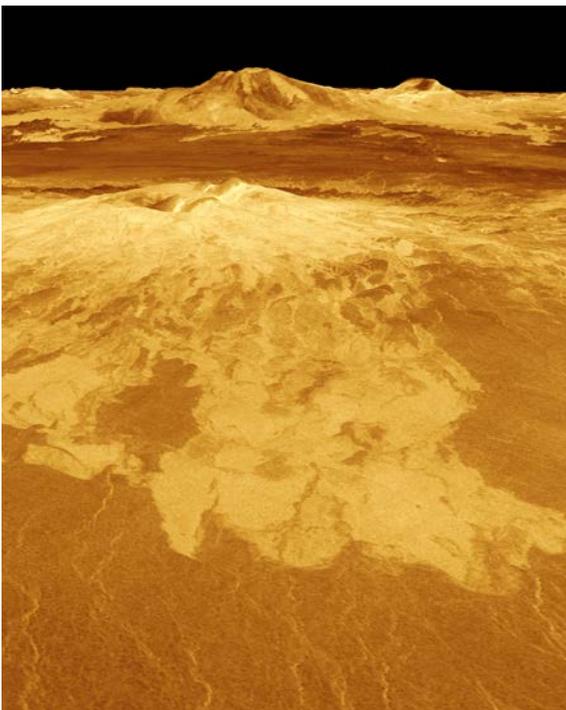
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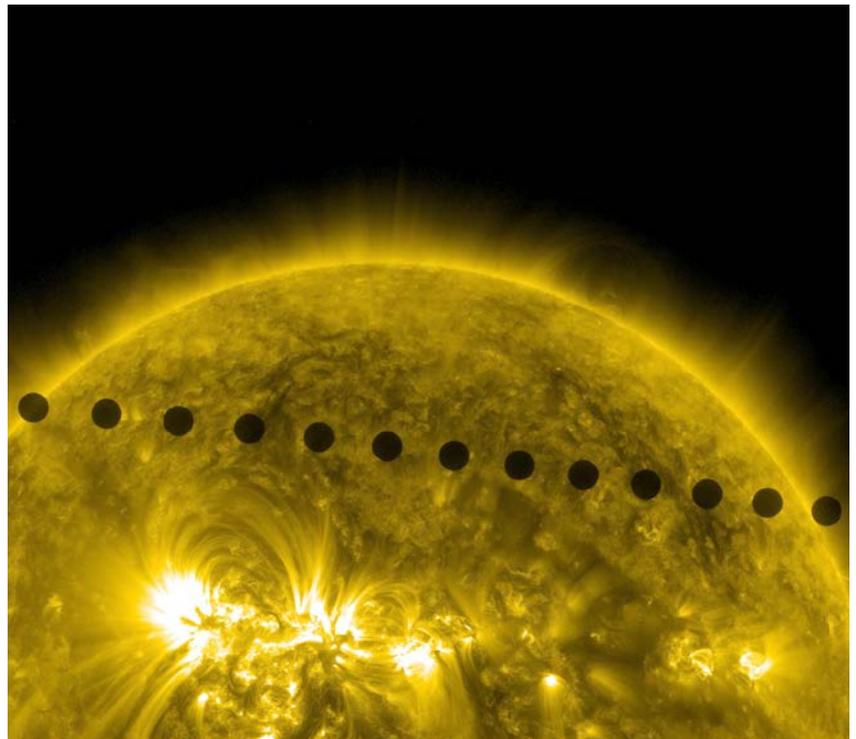
The Size of Earth Compared to Venus



This image, taken by the *Magellan* spacecraft, is called "The Crater Farm." It shows three impact craters surrounded by volcanic activity on Venus's surface.



The massive Sapas Mons volcano covers about 400 kilometers (248 mi.) and rises 1.5 kilometers (.9 mi.) on Venus's surface. The lighter color on the side of the volcano is active lava flows, which pour out slowly from the sides rather than erupting from the top.



In 2012, something extraordinary happened: people on Earth could see Venus pass across the face of the Sun. This event, called a *transit*, happens very rarely—the next transit will take place in the year 2117. Using special cameras, scientists were able to document Venus's path. Remember to never look directly at the Sun.