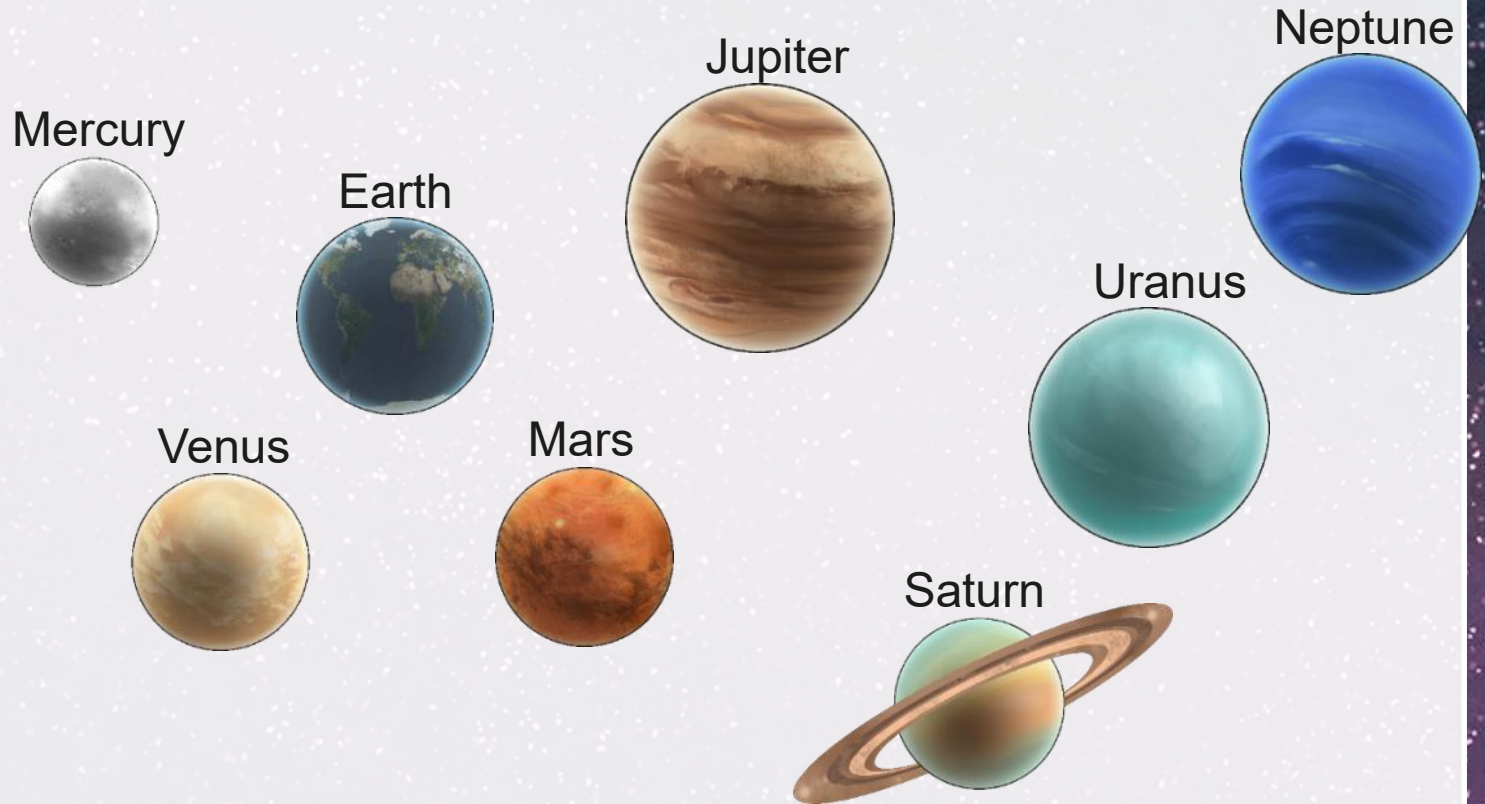


All About Venus



twinkl

Earth is only one of the planets in our solar system. There are seven other planets that also orbit our Sun.



The Hottest Planet

The planet Venus is the hottest planet in the Solar System. It is the second planet from the Sun and 261 million kilometres away from Earth, our closest neighbour planet.



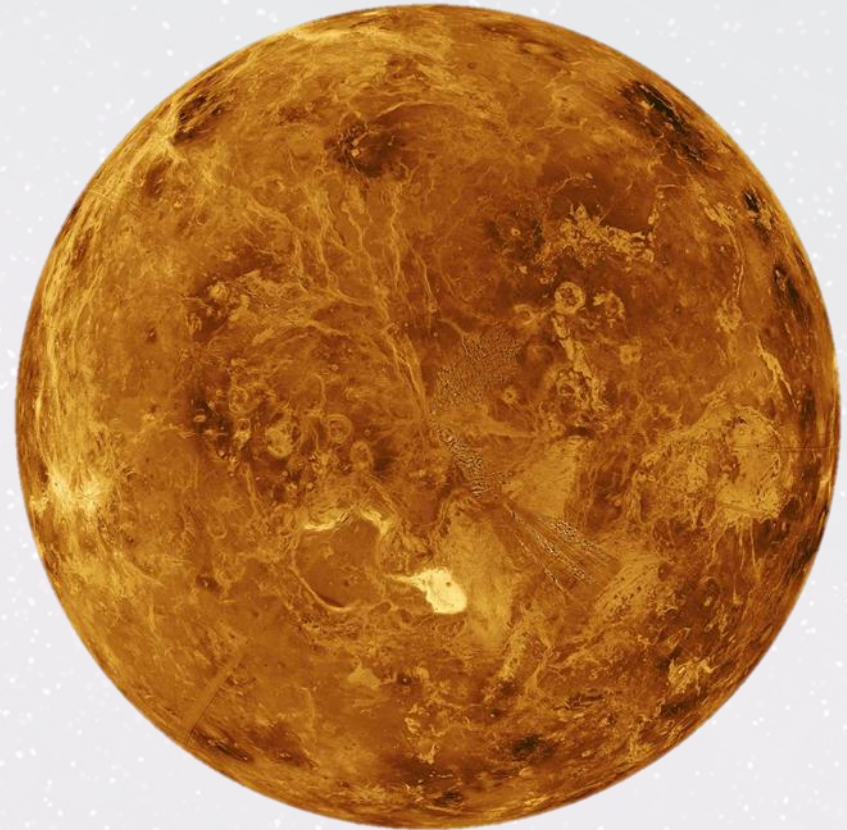


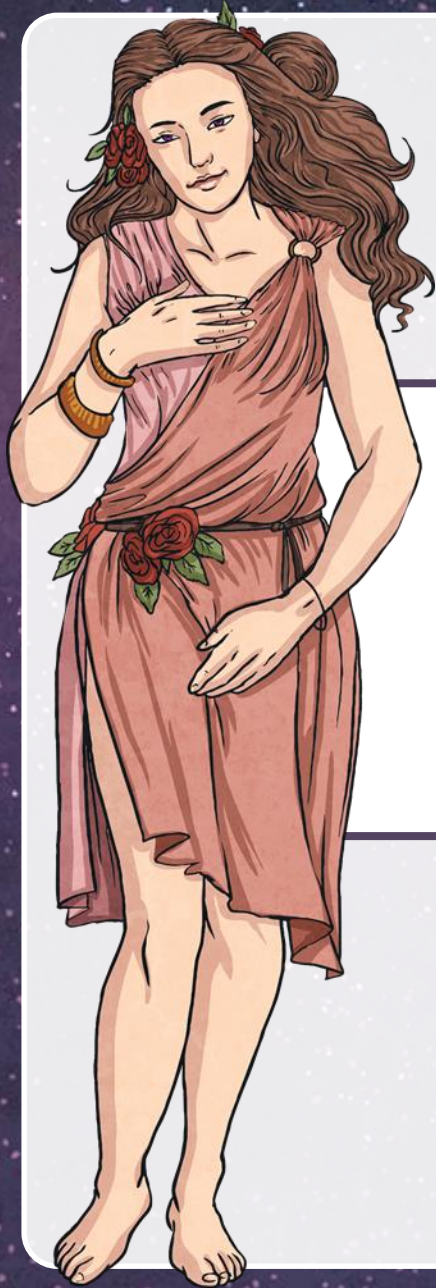
Venus is easily seen in the night sky. It is the brightest object in the sky apart from the Sun and the Moon.

Venus is a rocky planet about the same size as Earth.

It has a thick atmosphere, which traps heat inside, causing Venus to be incredibly hot. The temperature on Venus is about 462°C , which is hot enough to melt some metals!

Venus is different from the other planets because it spins the other way around. It spins very slowly; one day on Venus is the same as 243 Earth days.





Venus is named after the Roman goddess of love and beauty.

A long time ago, Venus was thought to be two different stars called the 'morning star', as it sometimes appears in the sky before sunrise, and the 'evening star' because it appears in the night sky.



Venus and Earth

On Venus, a day is longer than a year! One day on Venus lasts 243 Earth days but a year (the time it takes for Venus to orbit the Sun) is only 224 Earth days!

Very rarely, Venus and Earth are at the same place in their orbit. Because of this, it is possible to view Venus move in front of the Sun. This is called a transit. The last transit of Venus was on 5th and 6th June 2012 and will not happen again until 10th and 11th December 2117.

Venus has no moons.



Exploration

Humans have known about Venus for thousands of years. However, it is only recently that we have had the technology to study our neighbouring planet close up.

The first space probe to visit Venus was Mariner 2 in 1962, which was the first craft to successfully encounter a different planet. Mariner 2 was able to measure the temperature of Venus and the planet's atmosphere.

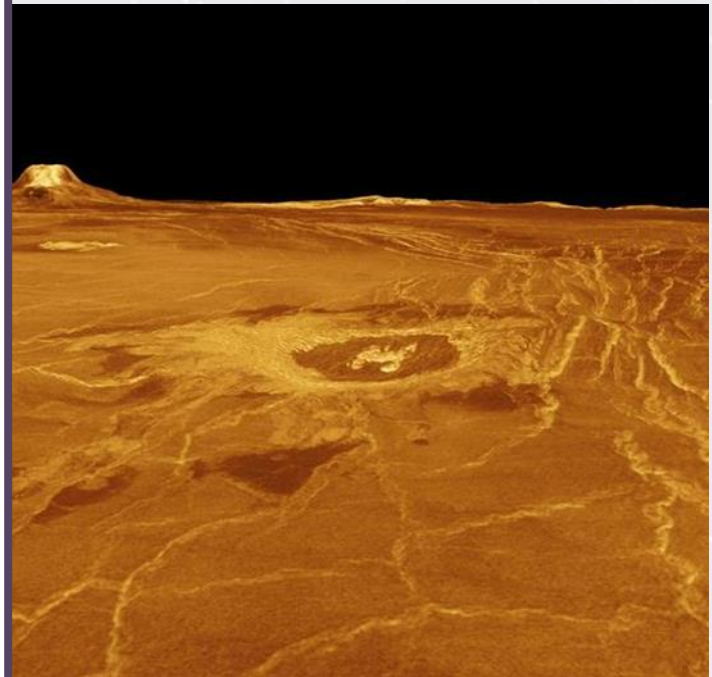
The success of Mariner 2 was followed by Mariner 5 successfully reaching Venus in 1967 and then by Mariner 10 in 1973.



Exploration

After many failed attempts, the first successful landing on Venus was on 15th December 1970 when the Soviet probe Venera 7 was able to land safely and transmit information back to Earth for 23 minutes from the planet's surface. The probe was able to measure the temperature on Venus as being 475°C.

The probe Venera 9 then followed, entering the orbit of Venus on 22nd October 1975. This probe was able to measure the atmosphere and weather on the planet.



Exploration

In May 1978, NASA launched the Pioneer orbiter. It entered Venus' orbit in December 1978 and it launched four probes towards the surface of the planet. All four sent data back to Earth on their way to the surface but only one survived landing on the surface. This surviving probe sent data from the surface of Venus for over an hour.

The orbiter kept transmitting until the end of its mission in 1992.



Exploration

In 1990, NASA's Magellan spacecraft entered orbit around Venus. Magellan used radar to map the surface of Venus for the first time. The maps of Venus' surface that Magellan made are still the most detailed we have today.

Magellan's mission ended in 1994 when it burnt up in Venus' atmosphere as planned.

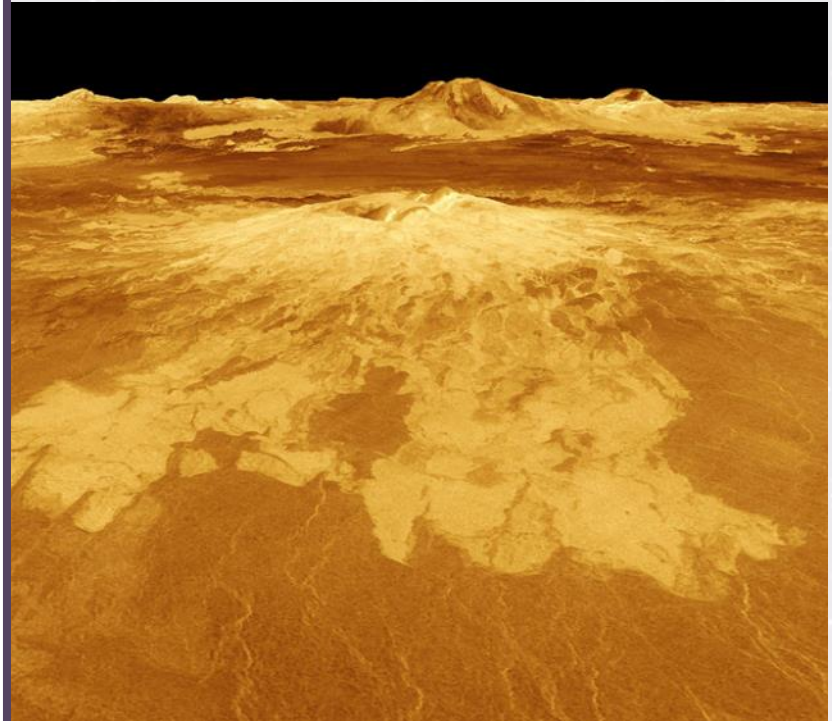


Exploration

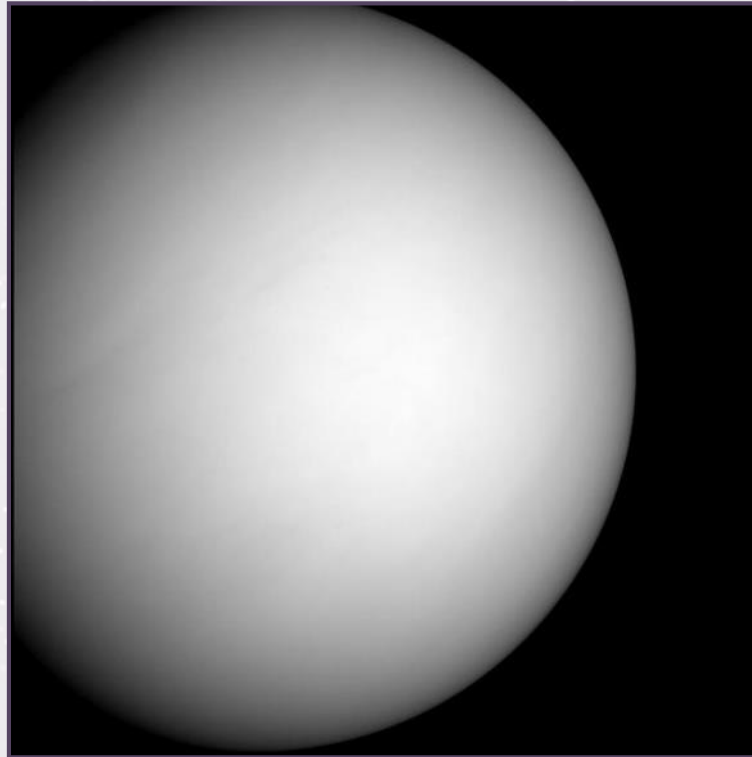
One of the most recent missions to Venus was the Venus Express, a probe made by the European Space Agency to further investigate the planet.

It successfully entered the orbit of Venus on 11th April 2006 and found evidence of past oceans and made further measurements of the atmosphere.

The probe's mission ended in 2014 when it ran out of fuel.

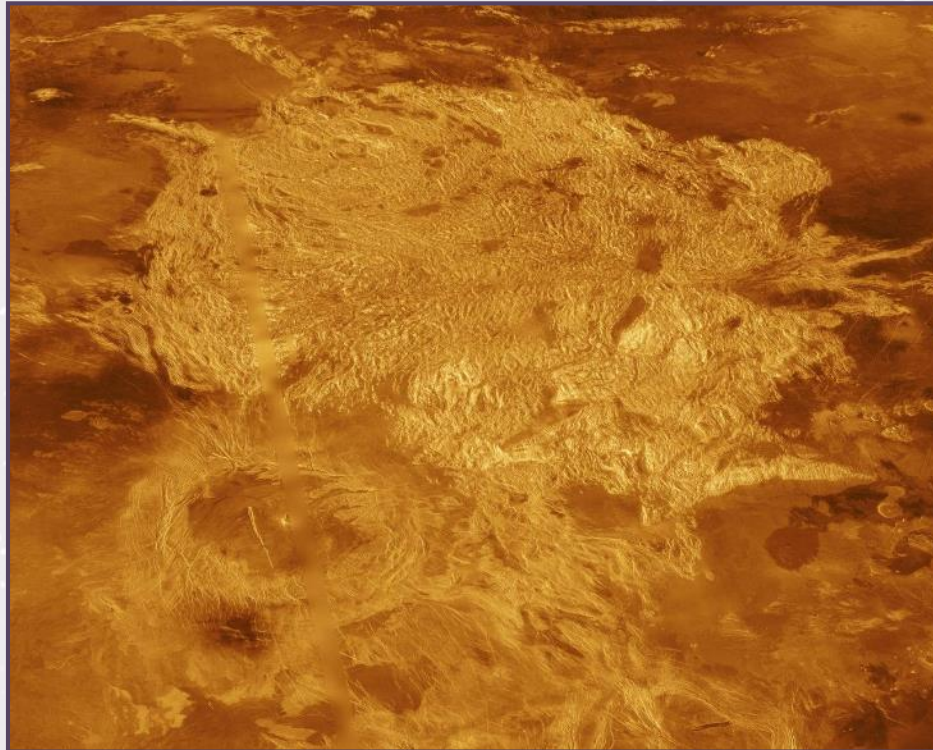


Pictures of Venus



An image of Venus taken by the MESSENGER probe on its way to Mercury in 2007.

Pictures of Venus



A computer-generated snapshot of Venus' surface as taken by NASA's Magellan spacecraft.

Pictures of Venus



A computer-generated image of Venus made up from data from the Magellan and Pioneer missions.

"Global view of Venus from Magellan, Pioneer, and Venera data" by NASA is licensed under [CC BY 2.0](https://creativecommons.org/licenses/by/2.0/)

twinkl