

Venus

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About Venus:

- It is the **second planet from the Sun** and the **sixth largest planet**.
- It is the **hottest planet** in the Solar System, even though Mercury is twice as close to the Sun and receives four times more solar energy.
 - **Venus' atmosphere traps heat** from the sun **as an extreme version of the greenhouse effect** that warms Earth.
 - Temperatures on Venus reach 880 degrees Fahrenheit (471 degrees Celsius), which is more than hot enough to melt lead.
- **Venus and Earth** are **often called twins** because they are **similar in size, mass, density, composition, and gravity**.
 - Venus is only a **little bit smaller** than Earth, **with a mass of about 80% of Earth's**.
- **Composition:**
 - It is not a gas planet, but a **rocky planet**. The interior of Venus is **made up of a central iron core** and a **rocky mantle**, similar in composition to Earth.
 - Its **atmosphere** is made up of **mainly carbon dioxide (96%) and nitrogen (3.5%)**, with trace amounts of carbon monoxide, sulfur dioxide, water vapour, argon, and helium making up the other

0.5%.

- Venus is **one of only two planets** in our solar system **that doesn't have a moon** (the other being Mercury).
 - Venus is unusual because it **spins the opposite direction of Earth and most other planets**.
 - It takes **243 Earth days** to rotate on its axis, which is by far the slowest of any of the major planets.
 - It takes **225 Earth days** for Venus **to go all the way around the Sun**. That means that a **day on Venus** is a little **longer than a year on Venus**.
 - Venus is **highly visible** from Earth **due to its reflective clouds**. In the sky, Venus appears as a brilliant white object that is **one of the brightest natural things in the night sky**.
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Q1: What is the greenhouse effect?

The greenhouse effect is the process through which heat is trapped near Earth's surface by substances known as greenhouse gases. This process makes Earth much warmer than it would be without an atmosphere. Greenhouse gases consist of carbon dioxide, methane, ozone, nitrous oxide, chlorofluorocarbons, and water vapor.

Source: [Study finds why water vanished from Venus: Hydrogen chemistry at play](#)

Source: <https://vajiramandravi.com/current-affairs/venus/>

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