Discovering Venus - Educator's Guide (Ages 12-15)

At the end of these Night Sky activities students will understand:

- Venus is a planet in the Solar System visible from Earth
- The atmosphere of Venus determines its extreme surface conditions
- Cloud cover hides the surface features of Venus
- Depending on the time of year, Venus appears in the evening or morning sky

Astronomy background information

Venus is the second planet from the Sun so it is both close to the Sun and the Earth. Venus can look very bright in the sky. This is because the planet is near the Sun and is wrapped in a blanket of creamy white clouds. Through a telescope, Venus shows as a featureless white disc.

As Venus is close to the Sun in the Solar System, it is also close to the Sun in the sky. This means Venus can only be observed for a few months at a time when its orbital movement separates it from the Sun and it is not hidden by the glare.

The white clouds of Venus hide a surface which seems utterly hostile to life. Radar observations from spacecraft show the surface is covered with barren plains and occasional mountain ranges. The dense carbon dioxide atmosphere of Venus has trapped solar heat in a "runaway Greenhouse effect". As a result, the surface of Venus at over 450° C is hotter than that of airless Mercury.

Recent research shows that in the past, Venus was far more Earth-like and there seem to have been extensive oceans of water there.

Night Sky App Essential Settings

Go to Night Sky Settings and make sure the following Preferences are set.

Turn On these Effects: Environment Based Horizon Draw Trajectories and Orbits

Show Satellites
Real Sky Representation
Show Glass Mythology
Show Constellation Lines

Turn Off these Effects:



Accessible Learning:

- Text size can be increased in the Preferences section
- Star numbers can be reduced by sliding two fingers down the screen

