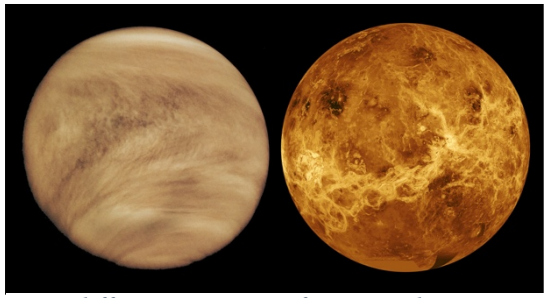
Venus: Second Planet from the Sun

The second planet from the Sun is a unique place. Its name comes from the Roman goddess of love and beauty, Venus. It shines brighter than any other star or planet in the nighttime sky, so it is often called the "Evening star," even though it is not a star at all.

Venus is also called Earth's "Sister Planet" because they have several things in common. Both planets are terrestrial planets, meaning they're mostly made of rock. They're also almost the same size, so the force of gravity is similar on both planets.

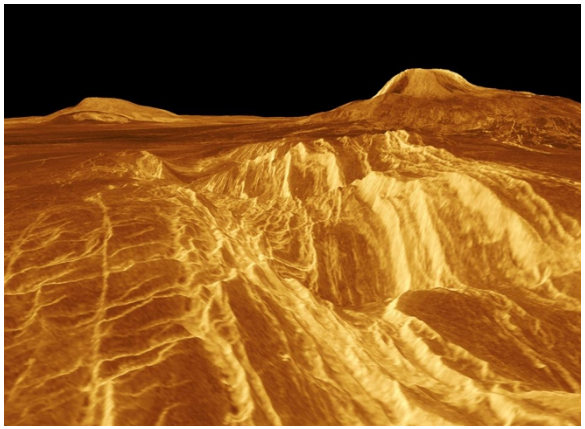


Two different pictures of Venus. The image on the left was photographed in ultraviolet light by the Pioneer spacecraft in 1979, whereas the image on the right was photographed in radio light by the Magellan spacecraft in 1990.

There are many things that are different about Venus, too. A year on Venus is 225 Earth days. One day is even longer, taking a total of 243 Earth days. If you were on the surface of Venus and wanted to watch the sun rise, you'd have to look to the West because it rotates in the opposite direction of Earth. Venus also has no moons or rings.

The weather on Venus is very different from what we experience. Every day there is much hotter than the nicest beach day here on Earth: The average temperature on Venus is almost 900 degrees Fahrenheit, making it the hottest planet in the Solar System, even though it's not the closest planet to the Sun. This is due to Venus' thick atmosphere, which is mostly made up of carbon dioxide. Carbon dioxide is a greenhouse gas, so once heat from the Sun enters Venus' atmosphere, the carbon dioxide traps it.

Venus' atmosphere isn't its only interesting figure. On the surface, we see many mountains, valleys, plateaus, and even active volcanoes. The land is also covered with rivers of liquid sulfur, which are refilled by acid rain. If you've ever smelled sulfur, you know that these rivers would stink: sulfur smells like rotten eggs. Yuck!



This is a computer-generated image of Venus's surface, created using radar data from the Magellan orbiter. The sky is black because Venus' thick clouds would completely block out starlight at night.

These extreme conditions would make it challenging for any human to survive on Venus. In fact, due to the high temperatures and acidic environment, it's unlikely that life as we know it ever existed there. However, scientists still have many questions about the second planet in our Solar System. To answer these questions, many countries, including the U.S.A., have sent probes and orbiters to study Venus and send important data back to Earth.

Konnie the Star Projector

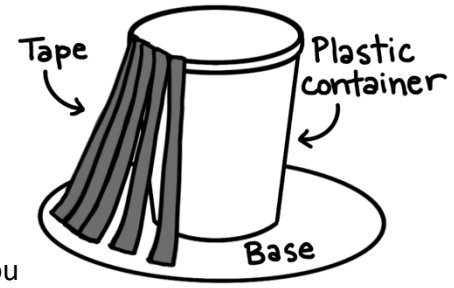
A Beautiful Neighbor

Konnie is the star projector in our planetarium. Color in her visit to Venus!

Make your Own Erupting Volcano!

To create your own volcano at home, follow these steps.

1. Gather supplies: A carboard or plastic tray, a tall plastic container, tape (painter's tape, masking tape, or duct tape), baking soda, vinegar, acrylic paint (optional) and food coloring (optional).
2. Use the cardboard or plastic tray as your base.
3. Tape your plastic container to your base. This will keep your container from wiggling around as you build your volcano. The height of your container will be the height of your volcano.
4. Attach one end of a long piece of tape to the rim of your container and attach the other end to your base at an angle to create the sides of your volcano, like the picture. Repeat until you go all the way around the rim of the plastic container. Fill in gaps with shorter pieces of tape.



5. Optional: use acrylic paint to color your volcano yellow like the volcanoes on Venus.
6. Bring your volcano outside or put it in a sink or large container to help contain the eruption.
7. Add 1 ½ tablespoons of baking soda to the plastic container. Prepare 1 cup of vinegar. Optional: add a few drops of red food coloring to the vinegar to color it red like lava.
8. Pour the vinegar into your volcano and enjoy the eruption!

Word Jumble

Can you unscramble these words?

Hint: each unjumbled word can be found in the reading on the first page.

NUVSE _ _ _ _ _

ARRDA _ _ _ _ _

YTBUEA _ _ _ _ _ _

ERENOSUHEG _ _ _ _ _ _ _ _ _

VCLNAOO _ _ _ _ _ _ _

ULSFRU _ _ _ _ _ _

OTETSTH _ _ _ _ _ _ _