

# Venus

by Cynthia Sherwood

Did you know that Earth has a twin? It's Venus, the second planet from the sun. Venus is the planet that comes closest to Earth, even though it's still very far away—about 24 million miles (about 39 million kilometers). Venus is almost the same size as Earth and is made up of similar material, so that's why scientists call it Earth's twin.

Venus is Earth's opposite in other ways. Because it's much closer to the sun than Earth, Venus is extremely hot on its surface—about 870 degrees Fahrenheit (400 degrees Celsius). That's hotter than any other planet. It's even hotter than most ovens! Venus is also very dry. Scientists think Venus used to have a lot of water, just like Earth, but it all boiled away from the heat. Much of Venus is now covered by volcanoes. It has the most of any planet and some are huge—up to 150 miles (241 kilometers) long.

Although astronauts have never landed on Venus, several spacecraft without people on board have visited. Those spacecrafts have taken very detailed pictures of Venus. The most famous one was named "Magellan" and it orbited Venus for four years, ending in 1994. Using radar, Magellan made detailed maps of almost all of Venus's surface.

When you look into the night sky, you can often spot Venus. That's because it's the brightest thing you can see, except for the sun and moon. Venus is sometimes called the "Morning Star" or "Evening Star" because it appears brightest shortly before sunrise and shortly after sunset.

Venus is unique among our solar system's planets in one unusual way. It's the only planet to rotate clockwise on its axis, in the same direction that you'd see the hands of a clock move. All the other planets turn in the opposite direction, known as "counter-clockwise."

## *Did You Know...*

Venus was named for the Roman goddess of love and beauty.

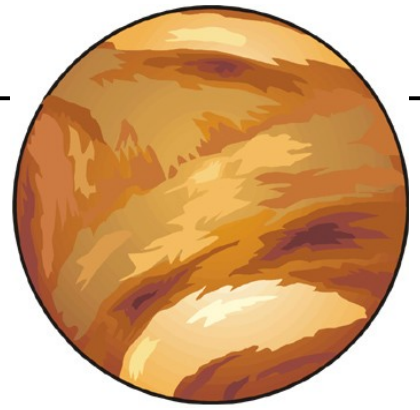
Venus is known as the "cloudy planet." The clouds on Venus aren't made from water like Earth clouds, they're made of a poison called "sulfuric acid."

Venus and Mercury are the only planets without moons.

Name: \_\_\_\_\_

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1. In the Venn diagram, list two ways Earth and Venus are alike, and two ways they're different.

Earth

Venus

Both

1. \_\_\_\_\_

\_\_\_\_\_

2. \_\_\_\_\_

\_\_\_\_\_

1. \_\_\_\_\_

\_\_\_\_\_

2. \_\_\_\_\_

\_\_\_\_\_

1. \_\_\_\_\_

\_\_\_\_\_

2. \_\_\_\_\_

\_\_\_\_\_

2. Why is Venus sometimes called the "Morning Star" or the "Evening Star"?

\_\_\_\_\_  
\_\_\_\_\_

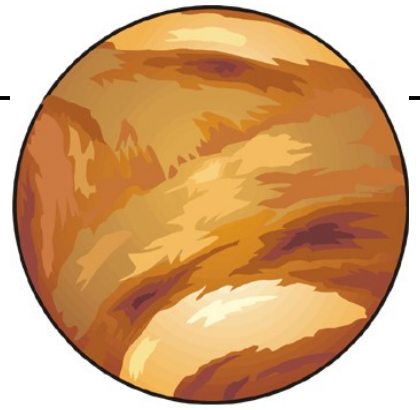
3. Explain how the Earth's rotation is different from Venus'.

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# ANSWER KEY

# Venus

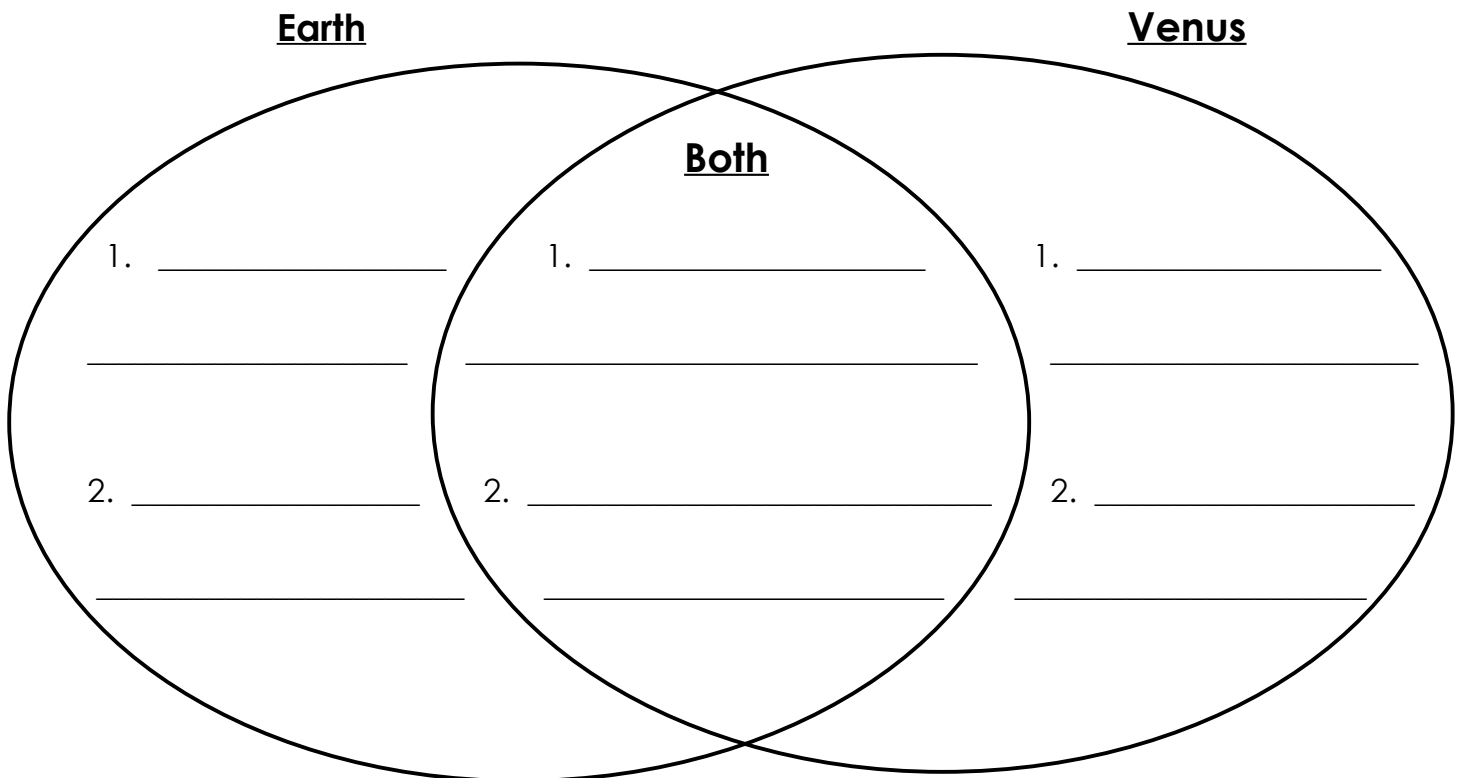
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1. In the Venn diagram, list two ways Earth and Venus are alike, and two ways they're different.

Answers will vary. For similarities, students might mention that they are made out of similar material, they are about the same size, they both have clouds, or they both have volcanoes.

For differences, students may say that Venus is hotter and Earth is cooler; Venus probably does not have water and Earth has water; Earth rotates clockwise and Venus rotates counterclockwise; Earth has a moon Venus does not.



2. Why is Venus sometimes called the "Morning Star" or the "Evening Star"?

It appears shortly before sunrise and shortly after sunset.

3. Explain how Earth's rotation is different from Venus'.

Earth rotates counterclockwise, Venus rotates clockwise.