READING PASSAGE · LEVEL 2 · ON-GRADE

VENUS: EARTH'S HOTTEST TWIN

A reading passage for middle-grade students (Ages 8–10)

Venus is the second planet from the Sun and our closest planetary neighbour. It is sometimes called Earth's twin because it is almost exactly the same size as our planet — only a little smaller. But that is where the similarity ends.

Venus is the hottest world in the solar system, with surface temperatures around 464°C. That is hot enough to melt lead. Venus is even hotter than Mercury, which is closer to the Sun. The reason is its atmosphere: thick clouds of carbon dioxide and sulfuric acid trap the Sun's heat in what scientists call a runaway greenhouse effect.

The pressure on Venus is also extreme. If you were standing on its surface, the air would push on you about 90 times harder than the air on Earth — like being deep underwater. The few spacecraft that have landed on Venus have lasted only an hour or two before being crushed.

A day on Venus is longer than a year. It takes Venus 243 Earth days to spin once on its axis, but only 225 Earth days to orbit the Sun! And Venus is the only major planet that spins backwards — clockwise instead of counter-clockwise.

Despite its harsh conditions, Venus is one of the easiest planets to spot in our sky. It is the third-brightest object after the Sun and the Moon.

★ WORDS TO KNOW 4 TERMS

atmosphere
The layer of gas around a planet.

pressure
How hard something is pushing on you.

carbon dioxide
A kind of gas — the same one we breathe out when we exhale.

greenhouse effect
When gases in a planet's atmosphere trap heat from the Sun.

★ COMPREHENSION QUESTIONS 5 QUESTIONS

1. Why is Venus called Earth's "twin"? Name one big way the two planets are different.

2. Why is Venus hotter than Mercury?

3. How does air pressure on Venus compare to air pressure on Earth?

4. How do a day and a year on Venus compare to each other?

5. What makes Venus easy to spot in the sky?