

READING PASSAGE · LEVEL 2 · ON-GRADE

MERCURY: A WORLD OF EXTREMES

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

Mercury is the smallest and innermost planet in our solar system. It is only a little bigger than Earth's Moon, and from a distance it looks rocky and grey, with thousands of craters covering its surface.

A year on Mercury is the shortest in the solar system — just 88 Earth days. That's because Mercury is so close to the Sun that it doesn't have far to travel to complete its orbit. A day on Mercury, however, is very long. From sunrise to sunrise takes about 176 Earth days!

Mercury has almost no atmosphere — nothing to trap heat or keep things warm. So while the side facing the Sun can reach 430°C (hot enough to melt lead!), the side facing away can plunge to −180°C. That's the biggest temperature swing of any planet.

Strangely, even though Mercury sits right next to the Sun, scientists have found water ice hiding in the bottoms of deep craters near its poles, where sunlight never reaches.

Two spacecraft have already explored Mercury: Mariner 10 in the 1970s and MESSENGER, which orbited the planet from 2011 to 2015. A new mission called BepiColombo is on its way and is expected to begin orbiting Mercury later in 2026.

★ WORDS TO KNOW 4 TERMS

orbit
The path a planet takes as it travels around the Sun.

crater
A bowl-shaped hole made by an impact from space.

atmosphere
The layer of air or gas around a planet.

polar
Relating to the poles of a planet — the very top and bottom.

★ COMPREHENSION QUESTIONS 5 QUESTIONS

1. How big is Mercury compared to Earth's Moon?

2. Why is a year on Mercury so short?

3. Why does Mercury have such extreme hot and cold temperatures?

4. What surprising thing have scientists found in Mercury's craters near the poles?

5. Name two spacecraft that have visited Mercury.