

Mercury

The world of fire and ice

Mercury is the closest planet to the Sun. Its enormous metallic core, cratered surface and extreme temperature contrasts tell an ancient and violent story.

Type	Rocky planet
Diameter	4,879 km
Mass (Earth = 1)	0.055 Earth masses
Average distance	0.39 AU · 57.9 million km
Orbital period	87.97 days
Rotation	58.65 days
Temperature	−180 to 430 °C
Main orbiting bodies	No moons

Compare with Earth

Its diameter is about 38% of Earth's.

Understanding Mercury

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Composition and interior

Mercury has a proportionally enormous iron-rich metallic core, surrounded by a relatively thin rocky mantle and crust. Craters and broad plains cover its ancient surface.

Atmosphere and environment

It has an extremely thin exosphere rather than a substantial atmosphere, containing oxygen, sodium, hydrogen, helium and potassium. Temperatures therefore vary greatly between day and night.

Exploration

Mariner 10 was the first spacecraft to fly past Mercury. MESSENGER later mapped the whole planet. The European-Japanese BepiColombo mission is now in its arrival phase and is due to enter orbit in November 2026 to study Mercury's surface, interior and magnetic field.

A remarkable fact

Water ice can survive in permanently shadowed polar craters, despite Mercury's closeness to the Sun.

Sources and limitations

NASA Science: <https://science.nasa.gov/mercury/facts/>

Online fact sheet: <https://systeme-solaire-3d.fr/en/mercure>

Values are rounded. The artistic view changes sizes and distances for readability. Check dated information before reusing it.