

Moon

Earth's companion

The Moon's synchronous rotation keeps nearly the same side facing us. Its craters, dark maria and rocks preserve valuable evidence of the early Solar System.

Type	Natural satellite
Diameter	3,474.8 km
Mass (Earth = 1)	0.0123 Earth masses
Average distance	384,400 km from Earth
Orbital period	27.32 days around Earth
Rotation	27.32 days
Temperature	−173 to 127 °C
Main orbiting bodies	No satellites

Compare with Earth

Its diameter is a little over a quarter of Earth's.

Understanding the Moon

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Composition and interior

The Moon is a rocky world with a crust, mantle and small iron-rich core. Its surface is covered in regolith, broken rock and dust produced by billions of years of impacts.

Atmosphere and environment

Its exosphere is too thin to retain heat or effectively protect the surface. Temperatures range from about -173°C at night to 127°C in sunlight.

Exploration

The Apollo missions brought hundreds of kilograms of samples back to Earth. International orbiters and landers continue to study the Moon, while Artemis aims to develop lasting human exploration near the south pole.

A remarkable fact

The Moon's rotation is synchronous: it takes as long to spin once as it does to orbit Earth. We therefore see nearly the same side all the time.

Sources and limitations

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

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

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