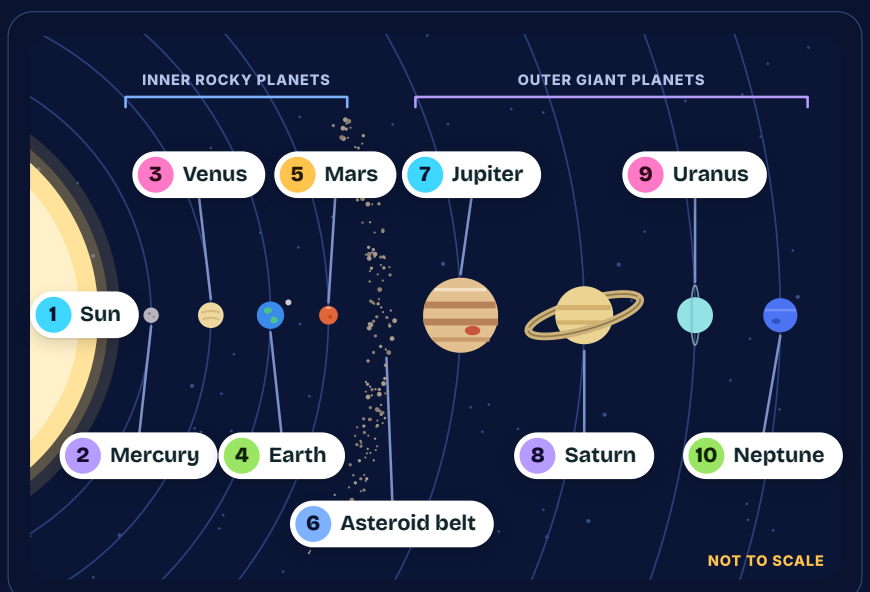
THE SOLAR SYSTEM · PART 1 OF 9 · AGES 11–16

The Solar System Explained

The Sun and the eight planets that orbit it, in order from Mercury to Neptune, with the asteroid belt in between.



1 Sun

Our star, a huge ball of hot hydrogen and helium about 109 times wider than Earth. It holds 99.8% of the Solar System's mass, and its gravity keeps everything else in orbit.

2 Mercury

The smallest planet and the closest to the Sun. With almost no air to hold heat, its cratered surface reaches 430 °C by day and falls to −180 °C at night.

3 Venus

Almost the same size as Earth, but wrapped in thick clouds and carbon dioxide that trap heat. It is the hottest planet, and it spins slowly backwards.

4 Earth

Our home, the only world known to have life and oceans of liquid water on its surface. It has one natural satellite, the Moon.

5 Mars

A cold, dusty desert world. Iron minerals in its soil have rusted, which makes it look red. It has two small moons, Phobos and Deimos.

6 Asteroid belt

A wide ring of rocky and metal leftovers between Mars and Jupiter, including the dwarf planet Ceres. All of its asteroids together have less mass than our Moon.

7 Jupiter

The largest planet: a gas giant made mostly of hydrogen and helium, about 11 times wider than Earth. Its Great Red Spot is a storm bigger than our whole planet.

8 Saturn

A gas giant circled by bright rings made of billions of chunks of ice and rock. It has more known moons than any other planet.

9 Uranus

An ice giant tipped on its side, with a tilt of about 98°, so it seems to roll around the Sun. Methane in its air gives it a blue-green colour.

10 Neptune

The farthest planet, over 30 times as far from the Sun as Earth. This dark, cold ice giant is the windiest world in the Solar System.

Shrink the Sun to a football

If the Sun were a 22 cm football, Earth would be a 2 mm peppercorn about 24 m away, and Neptune would be about 700 m away. That is why no diagram can show the Solar System to scale.

NEXT IN THE SERIES

2. The Planets by the Numbers

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