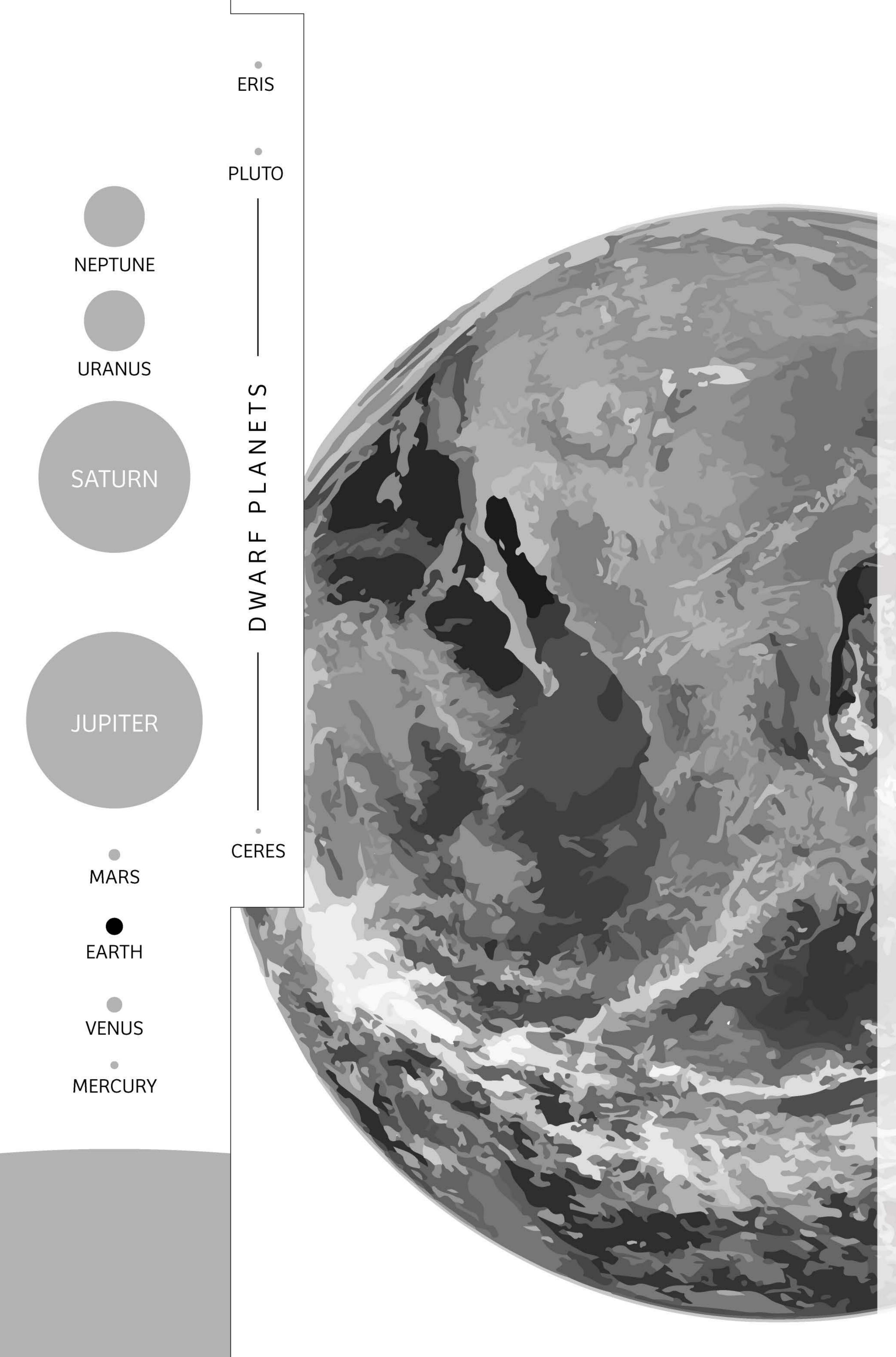


SUN

## EARTH: THE THIRD PLANET FROM THE SUN: A ROCKY (TERRESTRIAL) PLANET



The Earth is the largest of the inner, rocky planets. It is the only planet with conditions suitable for liquid water on the surface, and the only one currently known to harbour living organisms of any kind. Earth's atmosphere is mainly nitrogen and oxygen, with small amounts of argon, carbon dioxide and water vapour. The atmosphere warms the planet by trapping and reflecting sunlight, whilst shielding life from harmful high energy solar radiation.

Earth has one natural satellite, the Moon, whose diameter is a little more than a quarter that of the Earth. It revolves around the Earth every 27.32 days, and always keeps the same face towards us. The lunar month is about 2 days longer than this, owing to the motion of the Earth-Moon system around the Sun.

Unlike the other terrestrial planets, the Earth's crust is divided into a dozen or so solid plates, 10-16 km thick, that float independently on top of the hot mantle below. Earthquakes and volcanoes result from the movement of these 'tectonic plates' as they pull apart or crash into each other.

## EARTH STATISTICS

Diameter: 12,756 km Mass: 6 x 10<sup>24</sup> kg

Mean distance from the Sun: 1.00 AU\*

(150 million km)

Orbital period (sidereal\*\*): 365.26 days Rotational period: 23 hrs 56 mins

Moons: 1

Inclination of equator to orbit: 23.4 degrees Composition: 34.6% iron, 29.5% oxygen and 15.2% silicon

FASCINATING FACT: The temperature of Earth's core (7500 K) is hotter than the surface of the Sun (5800 K).

<sup>\*</sup> One Astronomical Unit (AU) = mean distance of the Earth from the Sun.

<sup>\*\*</sup> Sidereal time is time kept with respect to distant stars.