

OUR LIVING PLANET

WHY IS EARTH A UNIQUE PLANET IN OUR SOLAR SYSTEM?

Position in the Solar System

(not to scale)



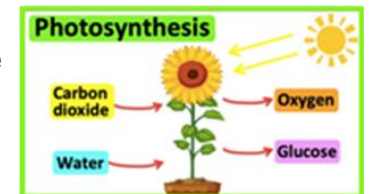
Overview

- Earth is the third planet from the Sun.
- Earth is the fifth-largest planet, and the largest of the terrestrial planets (the smaller, rocky planets).
- 29% of the Earth's surface is land, with the remaining 71% covered in water. Most of the Earth's polar regions are covered in ice.
- Earth has one moon (the Moon). It is the fifth-largest moon in the Solar System and is the largest moon in relation to its planet.
- The highest point on the Earth is Mount Everest (8,848m above sea level) and the lowest point is the Mariana Trench (10,929m below sea level).



What makes Earth a Unique Planet in our Solar System?

- As far as we know, Earth is the only body in the Solar System that can support life. Life doesn't just mean humans – it can be anything from the tiniest microbe to the biggest whale!
- Earth is the only planet that has water in liquid form on its surface. All living things need water to survive.
- The distance Earth orbits the Sun is just right for water to remain a liquid. This distance from the Sun is called the habitable zone, or the Goldilocks zone.
- If you looked at Earth from outer space, the atmosphere would look like a pale blue bubble around the planet.
- The atmosphere is a thin layer of gases that surrounds a planet. Earth's atmosphere is made up of mostly nitrogen and oxygen, which is what we need to breathe. (Venus and Mars have atmospheres mainly made up of carbon dioxide.)
- Earth is the perfect distance from the Sun so we get the right amount of heat and light to sustain life.
- Earth's atmosphere traps some of the sun's heat at night to keep Earth at the right temperature to sustain life.
- The plants we use for food need light energy for photosynthesis. This is the process that plants go through to make food.



Key Facts

Earth is the planet on which we live and is home to millions and millions of different life forms.

Orbit	Earth orbits the Sun once every 365.3 days.	A year on Earth is not exactly 365 days. For ease, we humans have added a leap year into our calendars once every four years. A leap year includes an extra day (February 29 th) to account for the additional time.
Size	Earth has a diameter of 12,742km	Earth is the largest of the terrestrial planets, being slightly larger than Venus. However, it is far smaller (in mass and diameter) than the gas and ice giants (Jupiter, Saturn, Uranus and Neptune).
Temperature	The average temperature on Earth is 14°C	Earth is in a part of the Solar System known as the 'Goldilocks Zone' where the temperature is not too hot and not too cold to support intelligent life.
Rotation	Earth rotates on its axis once every 23 hours 56 minutes.	As one side of Earth faces the Sun, it is daytime. As it faces away, it is nighttime. Earth's axis is on a tilt, which creates the seasons for the northern and southern hemispheres as the Earth moves around the Sun.

What are Climate Zones?

The weather changes in different parts of the world. Where there are similar weather patterns, this is known as a **climate**.

At the top of the Earth there is an **arctic climate** and some of the coldest temperatures in the world are found here.

Temperate climates are found a bit further south and as you approach the equator you find **Mediterranean and desert climates**.

Some of the hottest places on Earth are found here and few people live in this climate.

At the equator there is a **tropical climate** and travelling south of the equator it gets cooler again before reaching the **Antarctic**.

