

Tell me about...

# 















A FIRST SCIENCE book for curious minds!

Written by Emily Dodd Illustrated by Chorkung

# Earth is Home

You live on a brilliant ball of spinning rock called Earth. It's a planet travelling through space on a gigantic loop around a star called the Sun.

There's another ball of rock about a quarter of the size of Earth and you can see it in the night sky. It's called the Moon.





It takes a whole year to travel all the way around the Sun. So if you are five years old, you have circled the Sun five times alreadu!

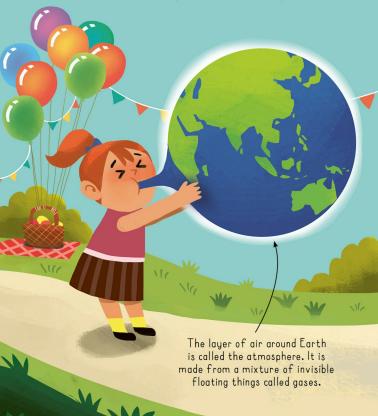
Earth travels around the Sun on an oval path but it also spins on the spot. The spin is why it gets dark at night. It takes a month for the Moon to travel around Earth on an oval path.



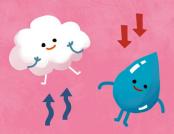
Your home turns away from the Sun at night and by morning, it has turned back towards the Sun once again. It takes 24 hours for a complete spin to happen, and we call that a whole day.

### Air

Planet Earth is surrounded by air. You might think the air around you feels like it's nothing. But if you blow up a balloon, it is full of something, and that something is air!



One of those gases is water. That's right – water can be an invisible floating gas! It floats in the sky when it's a gas and then it turns back into a liquid and falls down as rain!





The atmosphere works like a window – it lets sunlight through to warm us up. But it protects planet Earth too. Dangerous light from the Sun hits the atmosphere and bounces off back into space.

Another important gas in our atmosphere is oxygen. Trees make oxygen and we breathe it in. It travels in our blood and it powers our body. All living things need oxygen to survive.



## Light and Land

As the Sun's light shines onto Earth, it spreads out across Earth's round shape. If you shine a torch onto a ball, you'll see it do just the same thing.



The way the light spreads out across Earth gives us different temperatures and weathers. This changes how the land looks, too.



Imagine slicing Earth into two equal halves. They would join at a middle line called the equator.



Places along the equator are hotter because lots of light shines down onto them all at once.

Swamp Tropical rainforest



At Earth's top and bottom are the north and south poles. Sunlight is more spread out over these places so they're colder.



Tundra





Arctic

In between the poles and the equator are countries where sunlight is only a bit spread out. They have a medium temperature and four different weather patterns called seasons.







Temperate forest

Marsh

The type of rock the land is made from also changes how Earth's surface looks.

We'll learn about that later!

### Reason for the Seasons

The Earth is always spinning like a top, but it also leans to one side. The wonky spin is why we get different seasons throughout the year. Here's how it works...

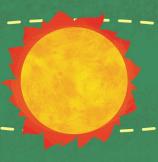


There are two in-between seasons called spring and autumn. These happen when a country is tilted halfway away from the Sun and halfway towards it.



When it is summer in the north half of the world, it is winter in the south.

Summer More light and warmth



Did you know...?
A season is around three months long.



Earth leans away from the Sun later in the year.

Plants and animals get used to the seasons and they grow and change in time with them.

Earth leans towards

the Sun for part of its

year-long journey.



Some countries only have two seasons: wet and dry. The wet season is called a monsoon. It rains a lot and it can last several months.

