

Tundra

Lichen, herbs, and grasses grow on the thin soils in these regions, which are too cold for trees to live in.

Coniferous forest

Coniferous trees are cold resistant, and have narrow, needle-shaped leaves.

Mediterranean

Tough evergreen trees and shrubs grow where the summers are hot and dry and winters are warm and wet.

Desert

Little or no vegetation grows in this dry region with low rainfall.

Tropical rainforest

Warm, wet climates support more plant and animal species than any other land environment.

The Amazon rainforest

What makes a climate?

A climate is an average weather pattern that occurs in a set area over many years. The climate experienced at a certain location is influenced by its distance from the equator, elevation above sea level, the amount of sunlight it gets, and how nearby circulation patterns in the ocean and atmosphere affect it.



Temperature

Places near the Earth's equator generally have higher average temperatures and more diverse ecosystems.

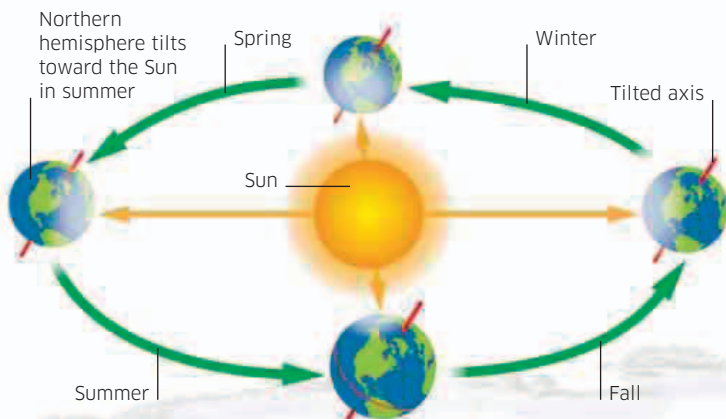


Rainfall

Atmospheric circulation creates zones of high and low rainfall around the Earth—some areas get more rain than others.

The seasons

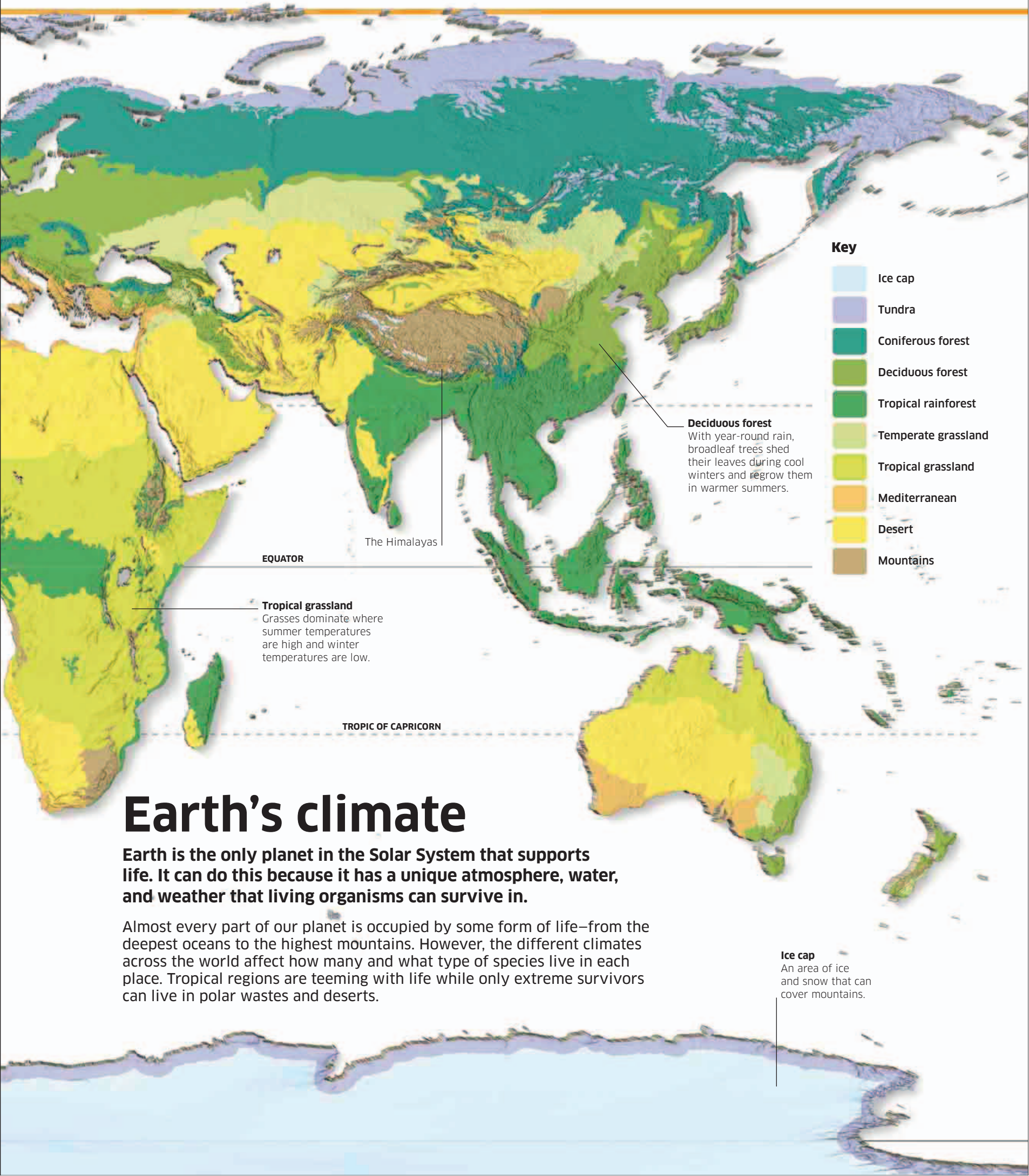
There are four seasons in a year: spring, summer, fall, and winter. Each has its own climate conditions and hours of daylight. The seasons differ in the northern and southern hemispheres and are more distinct further away from the equator, because of the tilt of the Earth's axis of rotation.



Earth's biomes

Communities of plants and animals are different as a result of the climate they develop in. There are five main groups of communities, or biomes—water, deserts, forests, grasslands, and tundra. Most of these biomes can be broken down further: for example, there are coniferous forests, deciduous forests, and tropical rainforests. The size and location of Earth's biomes has changed very slowly over geological time. The most recent changes have mainly been caused by human activity.

1.5 million species of plants and animals live in tropical rainforests.



Earth's climate

Earth is the only planet in the Solar System that supports life. It can do this because it has a unique atmosphere, water, and weather that living organisms can survive in.

Almost every part of our planet is occupied by some form of life—from the deepest oceans to the highest mountains. However, the different climates across the world affect how many and what type of species live in each place. Tropical regions are teeming with life while only extreme survivors can live in polar wastes and deserts.