



The Temperate Climate Zone



What are temperatures and rainfall like in temperate climate zones?

In temperate areas the temperature (how hot it is) does not change that much between seasons and rain generally falls all year round. The amount of precipitation (rain and snow) is about the same throughout all of the temperate zone, but temperatures in different places within the temperate zone can be very different. On average (average means overall or most of the time) temperatures range from about 5°C to more than 20°C. Usually with places in temperate climates the closer they are to the equator (the imaginary line around the middle of the Earth), and the further away from the poles (the top and bottom part of the Earth) they are, the warmer they will be. In contrast the further away from the equator, and so the closer they are to the poles, the colder places tend to be. This is shown on the map below.

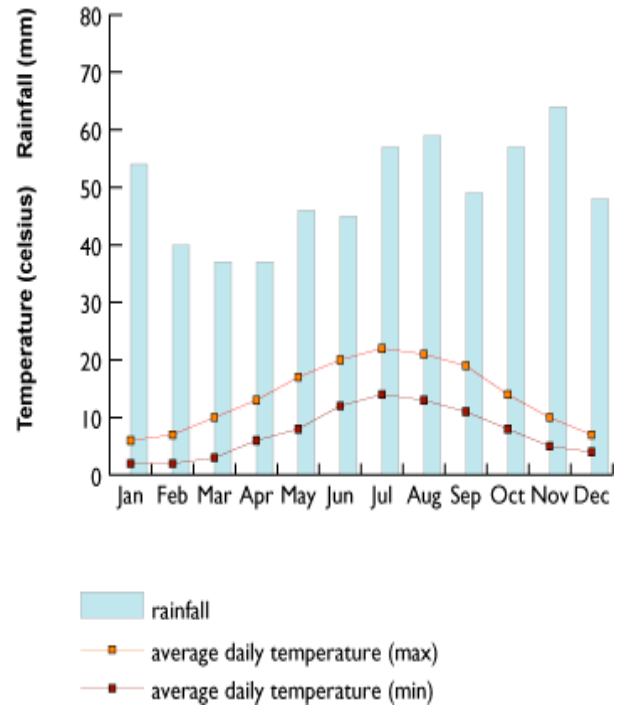


Fig. 1: Climate in an average temperate zone.

Which parts of the globe have a temperate climate?

Temperate areas of the world are found between 30° and 60° latitude and include Britain,

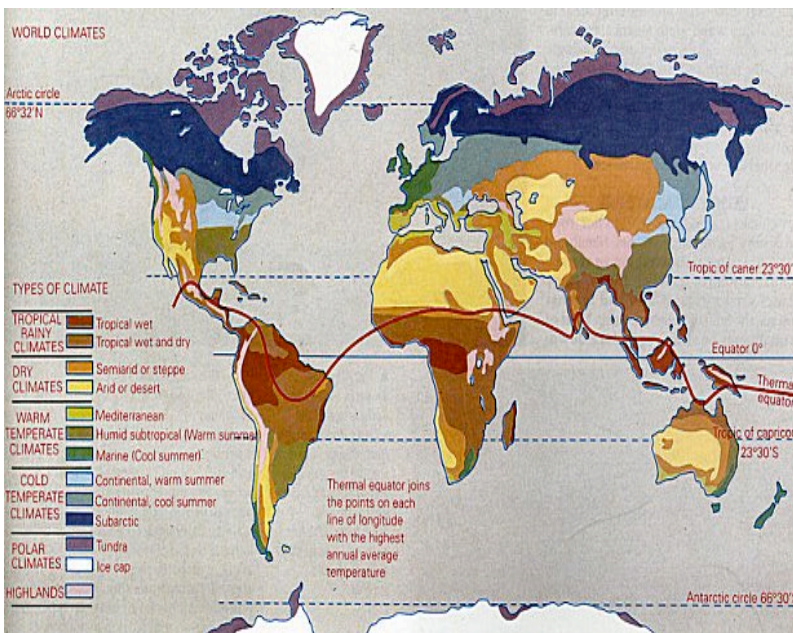


Fig. 2: Map of the globe that shows climate zones

much of the rest of Europe, parts of the north-west and north-east of the United States, New Zealand and eastern Asia. On Fig. 2 these are the green areas. However, some of these areas have quite different types of weather because of the sea and winds. Although New York in North America is at roughly the same latitude (distance from the equator) as London in the UK, it is much colder in the winter. This is because a warm wind called the North Atlantic Drift blows onto Britain from the Atlantic Ocean, but does not blow on to the USA. Also places that are closer to the sea have milder weather than places that are far away from the sea. Furthermore, places that are close to hills or mountains tend to get more rainfall.

Do many people live in temperate areas?

Even though temperate zones account for the smallest area of the Earth out of all the major climate zones, they are by far the most popular areas in which to live. Around four out of every ten people live in a temperate area. This is largely due to the mildness of the climate, which means it is not too hot, cold or wet. There is still usually enough rain for people and animals to drink and for lots of plants to grow. Soil is also generally very fertile, which means that it is good for growing crops in.



Fig. 3: Houses in a temperate area.

What seasons are there in temperate climates?



There are normally four seasons in temperate climates: spring, summer, autumn and winter. In Britain spring is in March, April and May and is when many plants start to grow new leaves and a lot of animals have their offspring (new babies), for example, sheep have their lambs. Summer is in June, July and August and is when many people take their holidays because it is the hottest and driest of the seasons. It is autumn in September, October and November, which is when trees start to lose their leaves. Winter is the coldest

season and is in December, January and February. In winter some animals migrate (travel) to warmer places or hibernate (sleep for months without waking up) because it is cold and there is not much food available.

Which plants and animals live in temperate areas?

Temperate climates support a wide range of plants and animals. Deciduous trees, such as the oak and the beech, are the most common types of tree found in the temperate zones. The leaves of trees make food for the tree by using sunshine, in a process called photosynthesis. Deciduous trees are trees that lose their leaves in winter because there is much less sunshine than in summer, and so the leaves are no use. Most of the temperate zone, including Britain, was covered with forests before people cleared a lot of them to make space for farms. Animals that live in deciduous forests include deer, squirrels and hedgehogs.



Fig. 5: A deer

Summary

So remember temperate climates are the mildest of all the major climate zones with a sufficient amount of rain, both of which make them popular to live in. There are four seasons and these have a big impact on the lives of people and animals, such as squirrels and hedgehogs. Finally, remember you live in a temperate climate!

References and sources

Text

http://www.bbc.co.uk/weather/features/weatherbasics/zones_temperate.shtml

http://www.ace.mmu.ac.uk/eae/Climate/Older/Temperate_Climate.html

Images

Fig. 1:

http://www.bbc.co.uk/weather/world/city_guides/results.shtml?tt=TT003790

Fig. 2: Map of the globe that shows climate zones

<http://www.meteorologyclimate.com/Climate.htm>

Fig. 3: Houses in a temperate area

<http://www.victorianweb.org/art/architecture/london/79.html>

Fig 4: changes in a tree in different seasons

<http://rouserantings.blogspot.com/2007/05/celebrate-arbor-day-belatedly-that-is.html>

Fig. 5: A deer

<http://www.zoobangoo.com/content/tag/canada/>

Date

T: understand a report on temperate climates

- 1) What happens to temperatures the closer you get to the equator?
- 2) What latitude are temperate areas found between?
- 3) Why might the writer have used photos right at the top of the report?
- 4) Why has the writer used subheadings?
- 5) Why has the writer used questions for the subheadings?
- 6) Why has the writer included diagrams in the report?
- 7) Why do people prefer to take their holidays in the summer when it is warm and dry?
- 8) Why might some animals find it difficult to migrate in winter?
- 9) When and why have brackets been used in the report?
- 10) Why does the author only use brackets to explain a technical term once, and then not keep doing it when they use the same technical term again e.g. poles in the first paragraph?
- 11) Why might the report end with 'finally, remember *you* live in a temperate area'?
- 12) Why is it surprising that New York has a much colder winter than London even though New York is at roughly the same latitude as London?
- 13) Name one thing that all four seasons in Britain have in common.

Date

T: understand a report on temperate climates

- 1) They increase / get warmer
- 2) 30° to 60°
- 3) To make it grab your attention / to let you know what a temperate area looks like because you might not know / to make it more aesthetically pleasing
- 4) To help you quickly find information on a particular topic / to organize the information
- 5) To make you want to read on to find out the answer to the question / to make you think about the question before you read the answer (year 3 optional SATs say 'to get you interested' is insufficient)
- 6) To help explain difficult ideas / to help you picture how difficult ideas work e.g. water cycle
- 7) They can get outside / go swimming / get a tan and so on
- 8) Snow / ice making it hard to travel / lack of food
- 9) To explain technical words
- 10) Once it has been explained there is no need to keep explaining it
- 11) To make you enthusiastic to find out more about where you live / to make the report seem relevant to you
- 12) Normally places at similar latitudes have similar climates
- 13) They are 3 months long