



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.

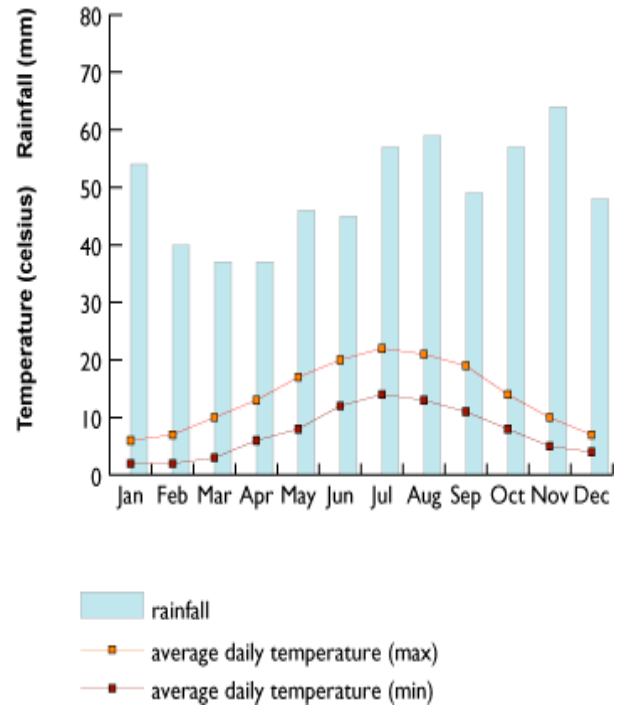


Fig. 1: Climate in an average temperate zone.

Which parts of the globe have a temperate climate?

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

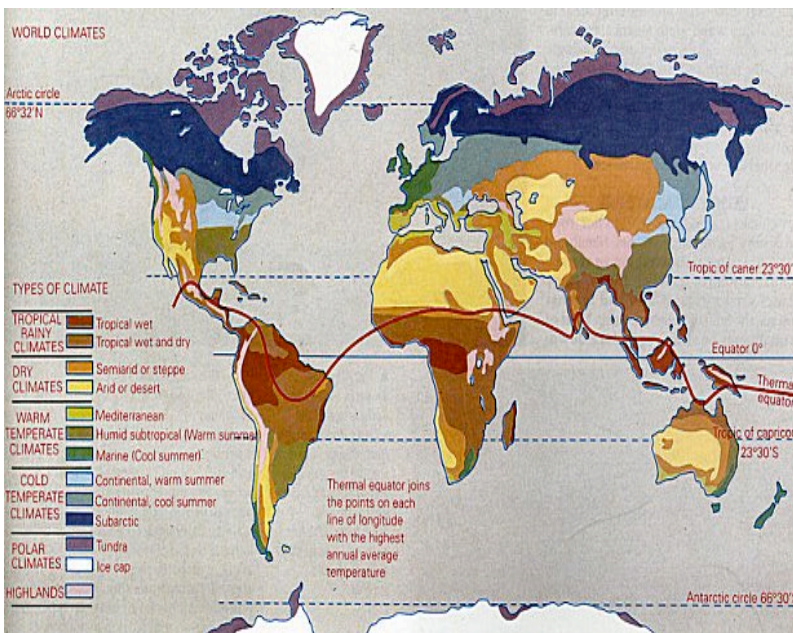


Fig. 2: Map of the globe that shows climate zones

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 climate zones

- 1) What is the title of the report?
- 2) Find and copy a subtitle e.g. 'Do many people live in temperate areas'?
- 3) What is the 'equator'?
- 4) What do average temperatures range from in temperate areas?
- 5) Name two places that have a temperate climate.
- 6) What is the name of the wind that blows onto Britain from the Atlantic Ocean?
- 7) Give one reason why it is good that there is plenty of rain.
- 8) What are the four seasons in Britain called?
- 9) Which season is the coldest of the four seasons?
- 10) Autumn is in which months?
- 11) Name two types of deciduous tree.
- 12) Why do deciduous trees lose their leaves in winter?

Name _____

Date _____ T: understand a report on climate zones

- 1) The title of the report is 'The _____
_____ zone'.
- 2) Complete the subtitle: 'Do _____ people live in temperate areas?'
- 3) The equator is _____ around the middle of the Earth.
- 4) Average temperatures range from about ____ to ____ in temperate areas.
- 5) Temperate areas of the world include _____ and much of the rest of Europe..
- 6) A warm wind called the _____
_____ blows onto Britain from the Atlantic Ocean.
- 7) One reason it is good that there is plenty of rain is that there is enough rain for _____ and _____ to drink.
- 8) The four seasons in Britain are called spring, _____, _____
_____ and _____.
- 9) _____ is the coldest season.
- 10) Autumn is in _____, _____ and _____
_____.
- 11) Two types of deciduous trees are _____ and _____
- 12) Deciduous trees lose their leaves in winter because _____
_____.

Date

T: understand a report on climate zones

- 1) The title of the report is 'The Temperate Climate zone'.
- 2) Complete the subtitle: 'Do many people live in temperate areas?'
- 3) The equator is an imaginary line around the middle of the Earth.
- 4) Average temperatures range from about 5°C to 20°C in temperate areas.
- 5) Temperate areas of the world include Britain and much of the rest of Europe..
- 6) A warm wind called the North Atlantic Drift blows onto Britain from the Atlantic Ocean.
- 7) One reason it is good that there is plenty of rain is that there is enough rain for people and animals to drink.
- 8) The four seasons in Britain are called spring, summer, autumn and winter.
- 9) Winter is the coldest season.
- 10) Autumn is in September , October and November.
- 11) Two types of deciduous trees are oak and beech
- 12) Deciduous trees lose their leaves in winter because there is much less sunshine than in summer so they are no use.