Geography - KS1 Year A

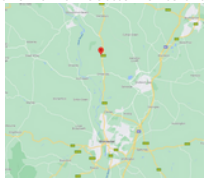
What is Geography?

Geography is about Earth's land, water, air, and living things—particularly people. The word comes from the Greek geo, which means "Earth," and graphy, which means "writing or description." Physical geographers study landforms, water, soil, and climate. They also study the distribution of living things.

Place Knowledge

What is it like where we live?

Sytchampton is a rural hamlet in the county of Worcestershire, which is in England. It is near the River Severn. Villages are small settlements with a small number of houses for a few hundred people. Most villages are found in the countryside and may be surrounded by farms where food is produced and sold to people in towns and cities. Some villages have a few shops. And there may be a place of worship, like a church. Hamlets are human settlements that are smaller than villages.



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Why might people choose to live in a Hamlet?

Why might people choose to live in a City?

Why might Cities grow close to Rivers?

Vocabulary

Land use: the way in which land is used by people (e.g. housing, industry, parklands, farmland)

Rural: relating to the countryside

Settlement: a place where people live, which can be categorised into villages, towns and cities)

Urban: relating to a town or city

City: a large and permanent human settlement

Village: small settlements with a small number of houses for a few hundred people

Hamlet: human settlements that are smaller than villages

Human Feature: things that are made or built by humans

Physical Feature: anything on the earth made by nature

Worcestershire (A Study of where we live) What do I know about where I live?

Geographical Skills Place Knowledge

Sytchampton Endowed Primary School

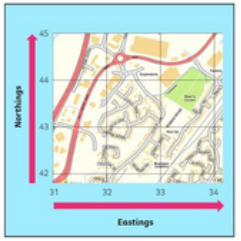
Sytchampton School is owned by the Lloyds Education Foundation Charity, which was established in the early 1700s by Richard Lloyd (an Ombersley Church Warden) and Sir Samuel Sandys (the then Lord of the Manor). These men wanted to build schools which were free for children from poorer families to attend. Their charity even provided equipment and clothing for these children.

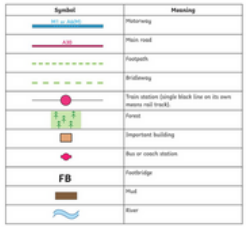
The first school was opened in 1729 at Brookhampton. In 1826, Brookhampton School was sold and our school, Sytchampton School was opened. Ombersley School was also built by the Foundation in 1873. Pupils will compare the historic picture of the school to now and look at how it has changed.

Fieldwork Physical Features Human Features Geographical Skills Place Knowledge

Fieldwork: Pupils will create their own map of the school grounds, using their own pictures and symbols/labels and identifying Human Features and Physical Features.

Mapwork: Pupils will find the school on Google Earth, Google Maps and a current ordnance survey map and identify some key symbols and features around the school, including:





Fieldwork Physical Features Human Features Geographical Skills Place Knowledge

How is Worcester different to Sytchampton?
(Fieldwork: Trip to Worcester)

Worcester is a city in Worcestershire, in the country of England. A city is a large and permanent human settlement. In the UK cities often have a Cathedral and/or a University. Worcester is 9.7 miles away from Sytchampton.

Pupils will compare ordanance survey maps, Google Maps and Google Earth with their findings about Sytchampton and identify Human Features and Physical Features. They will compare similarities and differences between Worcester and Sytchampton. Pupils will plan a fieldwork trip to the Cathedral and the River to include learning about the flooding of the River Severn. They will carry out a survey of what human and physical features they see on their trip.

Geography - KS1 Year A

What makes the United Kingdom special?

Place Knowledge | Geographical Skills

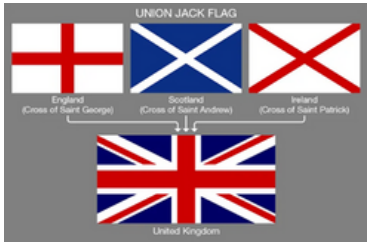
The United Kingdom of is a group of islands off the North West Coast of Europe. It is made up of four countries England, Wales, Scotland and Northern Ireland. England, Wales and Scotland are known as Great Britain. Northern Ireland is part of the island of Ireland. The UK is a democratic country and is led by a Monarchy.

Physical Features | Geographical Skills

The longest river in the UK is the River Severn (220 miles). The source of the River Severn is Plynlimon in the mountains of mid Wales. The mouth of the River Severn is the Severn Estuary which flows in to the Bristol Channel. Weston Super Mare sits on the coast of the Bristol Channel and the Severn Estuary.

Place Knowledge

The flag of the United Kingdom is called the Union Flag and is red, white and blue. When flown at sea, the flag is known as the Union Jack. The Union Jack, the national flag of the United Kingdom, combines the Crosses of St. George (England), St. Andrew (Scotland), and St. Patrick (Ireland).



Vocabulary

united: joined together
union: the joining together ofdifferent groups

monarchy: the king or queenand royal family

democratic: relating to a form ofgovernment in which peoplechoose the leaders by voting

government: the group of people who make the laws in a country

Physical Feature: things that we see all around us, created by nature

Human Feature: things that we see all around us created by humans

Climate: what we expect weather to be like in a particular place

Island: An island is a body of land that is surrounded by water

Physical Features

The UK has a temperate climate. In general, this means that Britain gets cool, wet winters and warm, wet summers. It rarely features the extremes of heat or cold, drought or wind that are common in other climates.

?

True or false? The United Kingdom is an island. How do you know?

Physical Features | Geographical Skills

Seas that surround the UK are: the Irish Sea and the Atlantic Ocean to the west, the North Sea to the east and, separating the UK and France to the south, the English Channel.

Geography - KS1 Year A

What do I know about where I live? England

Place Knowledge

Geographical Skills

England is the largest of the four countries of the United Kingdom (UK). It has a population of around 55.5 million. Its flag is the St George's cross which is named after its patron saint, St George. The national emblem is a rose.

Physical Features

The Pennines is a range of hills that runs roughly north to south and is sometimes called the backbone of England because it resembles a spine.
The longest River in England is the River Thames (215 miles). The source of the River Thames is at Thames Head in the Cotswolds. Its mouth is at the Thames Estuary at Southend on Sea where it meets the North Sea.

Human Features

England has many cities, the largest of which is London (Capital City). There are also many thousands of towns and villages. Most of the land in the country is used for farming.

Vocabulary

Human Feature: things that are made or built by humans

Physical Feature: anything on the earth made by nature

Climate: what we expect weather to be like in a particular place

City: a large and permanent human settlement

Capital City:The capital city, often called the capital, is the one from where the government of a country functions.

Government: a group of people who makes the law of the land and ensure that all the people in that nation or community are treated fairly by those laws.

Source (River): where a river begins

Trade: is the business of buying and selling goods and services.

Human Features

London is the Capital City of England and the United Kingdom.
The Brisith Government work in Westminster in the Houses of Parliament.
London is the biggest city in Britain and in Europe.
London occupies over 620 square miles.
The tallest building in London is The Shard London Bridge - 310 meters (1,017ft) tall. It is also the 45th tallest in the world.

?

Do all capital cities have rivers running through them?

Why was the River Thames so important in helping London to become as big and famous as it is?

Physical Features

Geographical Skills

The River Thames flows through London.
It is the longest river in England and the second longest in the United Kingdom.
Its source, referred to as 'Thames Head', is 3.5 miles south-west of Cirencester.
The Romans founded 'Londinium' in AD 43 because the Thames provided anatual defenses and an excellent trade route.
Because of the river, London grew and became one of the richest cities in the world.

Geography - KS1 Year A

What do I know about where I live?
Wales

Wales is one of the four countries of the United Kingdom (UK). Wales lies to the West of England.

It is also part of Great Britain, which includes Scotland and England. It has a population of around 3 million.

Wales has six cities and many rural areas. Its capital city is Cardiff.

The official language is English but some people also speak or understand the Welsh language. People from Wales are known as Welsh. The national flag is the Red Dragon which does not appear on the Union Flag. The Patron Saint is St David. The national emblem is the leek.

Human Feature: things that are made or built by humans

Physical Feature: anything on the earth made by nature

Climate: what we expect weather to be like in a particular place

City: a large and permanent human settlement

Capital City:The capital city, often called the capital, is the one from where the government of a country functions.

Government: a group of people who makes the law of the land and ensure that all the people in that nation or community are treated fairly by those laws.

Source (River): where a river begins

.

Wales is known for its mountains and valleys. The highest mountain is Snowdon.

Is Wales bigger or smaller than England? In what way? How do you know?

The source of the River Severn starts in the Cambrian Mountains of mid-Wales, on the bare slopes of Plynlimon which, less than 15 miles from the Welsh coast.

Geography - KS1 Year A

Australia is the smallest continent of the seven continents and many consider it as the largest island in the world.

Australia is the sixth largest country in the world

Its official name is the Commonwealth of Australia. It is part of the Commonwealth and sees King Charles III as its King. It has a democratic government and a population of around 25 million, 90 per cent of whom live in urban areas. Its capital city is Canberra and its official language is English.

Australia is a continent and a country in the southern hemisphere. Australia is an island continent surrounded by the Indian Ocean and the Pacific Ocean.

Is Australia a monarchy? How do you know?

Find out why Australia is a member of the Commonwealth.

Continent: a large area of land

Commonwealth: The Commonwealth is a family of 54 countries from all over the world with the British Monarachy as the head.

Country: land that is controlled by a single government.

I**sland:** An island is an area of land that is surrounded by water

Southern Hemisphere: the area of Earth that is south of the Equator

Capital City: The capital city, often called the capital, is the one from where the government of a country functions.

Climate: what we expect weather to be like in a particular place

What makes Australia special?

The main cities in Australia are: Sydney, Melbourne, Perth, Brisbane, Darwin, Adelaide, Hobart and Canberra – the capital city. The cities are all located at the coast or close to the coast. The main city in the country's interior is Alice Springs.

Overall, Australia is home to huge deserts, tropical rainforests, mountains, grasslands, rivers, lakes and tropical oceans. The huge range of environments leads to a large number of habitats and animals, some of which can only be found in Australia.

The country's interior, which covers two thirds of the country, consists of desert landscape which is referred to as 'outback'.
The highest mountain of Australia is Mount Kosciuszko. Ayers Rock, also called Uluru, which is in the centre of the country, is the largest lone standing rock in the world.

The longest river in Australia is the Murray River which is 1,558 miles long.

Australia is such a large country that it has a huge range of climates and weather varying from snow capped mountains in the South to deserts in the North.

Being located in the southern hemisphere, Australia's seasons are the opposite way round to many countries. Summer occurs in December and January while the coldest months are July and August. Generally, the climate in Australia grades North to South. The North and central parts of the country are a hot desert with temperatures sometimes exceeding 50 degrees celsius. In comparison the South East corner is a temperate area with snow-capped mountains.

Geography - KS1 Year A

What makes Australia special? The Great Barrier Reef

Place Knowledge

The Great Barrier Reef is the largest reef in the world – the size of about 70 million football fields. It is larger than Italy and astronauts can see it from space. It is called the Great Barrier Reef because it is very large and forms a barrier between the sea and the coast.

Physical Features

Although the reef is beautiful it also contains some of the deadliest animals in the ocean, including box jellyfish, the blue-ringed octopus and stone fish. The Disney/Pixar character Nemo is based on the anemonefish (clown fish), which can be seen all around the Great Barrier Reef.

Why is this called the Great **Barrier** Reef?

How is the Great Barrier Reef protecting our planet?

Vocabulary

Reef: a bar of rock, sand, coral or similar material, lying beneath the surface of water.

Coral: a small animal that lives in warm water and attaches itself to rocks, with some types building a hard skeleton

Marine: meaning of the sea, from the French marin(e)

Bacteria: are tiny organisms, or living things that you can only see with a microscope. Some of these can cause infections and disease.

Recycling: making rubbish into something new

Physical Features

Coral: Coral forms the shape of the Great Barrier Reef with over 400 species, all with vibrant colours. Even though corals look more like rocks or plants, they are actually animals.

Physical Processes

The survival of our planet depends on healthy coral reefs. They're home to a quarter of the ocean's marine life, generate clean air and protect vulnerable coastlines from erosion, flooding and storms.

Human Processes

Climate Change

Plastic waste in the oceans is killing coral reefs. It clings to coral and creates bacteria that kills it.
Recycling and cutting down on the amount of plastic used will help places like the Great Barrier Reef stay beautiful and its fish stay healthy.

The Great Barrier Reef is also one of the largest carbon sinks in the world. Its mangroves and seagrasses absorb carbon from the atmosphere and store it, cleaning our air and helping mitigate the effects of climate change.

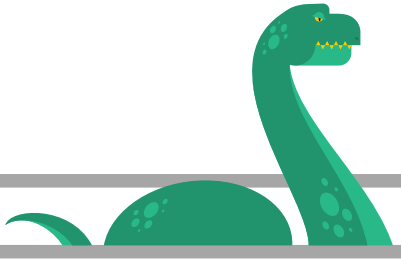
Geography - KS1 Year B

What makes the United Kingdom special? Scotland

The United Kingdom of is a group of islands off the North West Coast of Europe.

It is made up of four countries England, Wales, Scotland and Northern Ireland.
England, Wales and Scotland are known as Great Britain.
Northern Ireland is part of the island of Ireland.

Scotland has only seven cities, the largest of which is Edinburgh, the Capital City.



Scotland is one of the four countries of the United Kingdom (UK). It is also part of Great Britain, which includes Wales and England. It has a population of around 5.5 million. Scotland has seven cities and many rural areas. Its capital city is Edinburgh. The official language is EnglishPeople from Scotland are known as Scottish, not Scotch. The national flag is the Saltire or St Andrew's Cross, named after its patron saint, St Andrew. The national emblem is the thistle.. Scotland lies to the north of England.

peak: the pointed top of a mountain
munros: mountains over 3000 feet (914 metres)
legend: a story from long ago which may or may not be true
remote: far away and hard to get to
inhabitants: people living in a place

Scotland has lowlands, uplands, highlands and islands. The highest peak is Ben Nevis and there are 283 munros.
The Scottish word for lake is loch and Scotland has a number of large lochs, the most well-known being Loch Ness, famous for the legend of the Loch Ness monster, Nessie. The highlands and islands are very remote and have very few inhabitants.

?

Explain why people may choose to live in Scotland rather than England.

The climate in Scotland is primarily oceanic, meaning it is often cool, rainy, and windy, with temperatures a few degrees lower than the rest of the UK.
Rain is common throughout Scotland, with the west side (including the Highlands) wetter and warmer than the east, due to the warm air from the Gulf Stream.

Geography - KS1 Year B

What is Planet Earth?

The Earth is the planet on which we live.
- It is a sphere.
- It has a core, mantle and crust.
- The crust is the rock that covers the entire surface of the Earth.
- Below the crust is the mantle which is made of hot liquid rock called magma.
- Some of the crust is submerged by the oceans of the world.
- Under the oceans there are some high mountains and deep trenches that cannot be seen from the land.
- The part of the crust that is not submerged by the oceans is called land.
- Some of the land has formed into high mountains and some into low valleys
- Land is divided into continents, which are very large areas of land.

Continents:
There are seven continents (name them)
The biggest continent is Asia
Continents usually have many countries within them, apart from Australia which is a continent and a country.
Antarctica has no countries and no inhabitants as it is a landmass entirely covered in ice.

Oceans:
The biggest ocean is the Pacific
Oceans are made up of saline water and cover about three quarters of the Earth's surface
Oceans contain hundreds of thousands of known species.
Oceans that are enclosed are called seas.
The closest seas to the UK are the North Sea, Irish Sea and the English Channel

Explain why Antartica is not inhabited.

Organise the continents in order of size

Organise the oceans in order of size

Explain the difference between a continent and a country/an ocean and a sea

True or False – land floats on the oceans - explain

continent: a large area of land

ocean: a large area of saline water

saline: salty

species: plants or animals

seas: smaller, enclosed or partly enclosed areas of saline water

magma: hot, liquid rock
submerged: covered by water

The Seven Continents:

Asia
Africa
Europe
North America
South America
Astualia/Oceania
Antartica

Geography - KS1 Year B

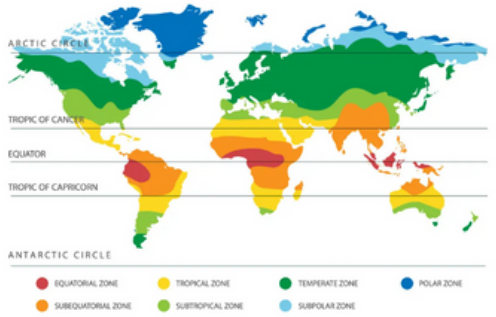
Climate - Is it always hot in the Summer and cold in the Winter?

Physical Processes

In different places on Earth we can expect to find different temperatures and weather. The type of weather that is usually expected in a place is called its climate.

The climate of a place does not change day by day. However, weather can change day to day or hour to hour and, although you might expect it to be hot in a particular place, it may be colder. A good way to remember the difference between weather and climate is: climate is what you expect to get in a place and weather is what you actually get on a day to day basis.

Geographical Skills



Place Knowledge

Polar climates are found in the Arctic Ocean in the north and the continent of Antarctica and the Southern Ocean in the south.

Equatorial (tropical) climates are found near the equator. The main areas of rainforest are around the Amazon River in the continent of South America, around the Congo River in Africa and the islands of Indonesia in the Pacific Ocean in Asia.

Desert climates are found on over one-third of the world's surface. The biggest deserts are: the Sahara and the Kalahari in the continent of Africa, and the Great Victoria in the continent of Australia.

Vocabulary

temperatures: how hot or cold a place is

climate: the expected weather in a place

weather: the conditions in a place at a particular time

polar: at the North or South Pole

equatorial: near the equator

tropical: in the tropics of Cancer and Capricorn

vast: huge

physical process: a series of things that happen naturally

atmosphere: the layer of gases that surround the Earth

Physical Features

Polar climates have extremely cold winters and during the summer the temperature rarely rises above freezing point. The polar ice caps are found in polar climates.

Equatorial (tropical) climates are hot and wet. Rainforests can be found here. Vast numbers of plants and animals thrive in these climates.
Desert climates are extremely dry places where there are few plants and animals. The temperature during the day is extremely high.

?

Why do vast numbers of plants and animals thrive in equatorial climates?

Always, sometimes or never? It is hot in summer and cold in winter.

Explain the difference between climate and weather

Geography - KS1 Year B

Weather

Physical Processes

Climate usually remains the same over long periods of time. Weather changes much more frequently. There are many different types of weather that can be represented by symbols. Certain types of weather are more likely to be found across the four seasons. In the UK, it is more likely to be sunny in the summer and to snow in the winter. Here are some of the main types of weather found in the UK.

Climate Change

How and why is the World Climate changing?

Climate change is the process of our planet heating up.

It has been estimated by scientists that since the industrial revolution, human activity has caused the Earth to warm up by approximately 1°C. While this might not sound like much, it means big things for the people and wildlife and for us on our Earth.

Rising temperatures do not only cause only warmer weather - they also make our climate more extreme and unpredictable. This means that events such as extreme heatwaves and heavy rainfall will happen more often. As our planet warms up, the ice caps are melting, which is leading to rising water levels.

Physical Processes

Fieldwork

Extreme Weather

No matter where on Earth you go, weather can sometimes cause disruption. Even in the UK we sometimes have extreme weather conditions. Here are some extremes of weather.

Fieldwork – Pupils will conduct a school grounds based weather study during this unit, tracking daily temperature, rain guague, cloud types, precipitation and any additional notes and recording these in a table.

Vocabulary

heatwave: a long period of extremely hot weather

drought: a lack of water due to hot weather

monsoon: seasonal heavy rain in the continent of Asia

blizzard: heavy snow, usually with wind

gale/storm: strong winds

cyclone/hurricane: very strong winds in a circular pattern

tornado/twister: a large column of rotating air

Deforestation - when forests are cut down to clear the land for other use.

Causes of climate change:

- **Burning of fossil fuels** - Fossil fuel is a material formed naturally in or on the earth's crust from the remains of dead plants and animals that is extracted and burned as fuel. The main fossil fuels are coal, crude, oil, natural gas, and peat. During the process of burning these fossil fuels, the gases released into the atmosphere act like an invisible 'blanket', trapping heat from the sun and warming the Earth. This is known as the "greenhouse effect."
- **Farming -** Believe it or not, cows' eating habits contribute to climate change. Just like us, when cows eat, methane - a type of greenhouse gas - builds up in their digestive system and is released in the form of... a burp! This might sound funny, but when you imagine that there are almost 1.5 billion cows releasing all that gas into the atmosphere, it sure adds up!
- **Deforestation** - Forests absorb huge amounts of carbon dioxide - another greenhouse gas – from the air and release oxygen back into it. The Amazon rainforest is so large and efficient at doing this that it acts like our planet's air conditioner – limiting climate change. Sadly, many rainforests are being cut down to make wood, and palm oil and to clear the way for farmland, roads, oil mines, and dams.

?

If it wasn't for humans, our weather would not be changing. Do you agree? Explain your answer.

Geography - Lower KS2 Year A

The UK -What is the difference between Great Britain, the United Kingdom and the British Isles? What is Europe?

The United Kingdom of Great Britain and Northern Ireland (UK) is made up of four countries. England and Wales united in 1284. Scotland became part of the union in 1707 and Northern Ireland in 1921.

England, Wales and Scotland are known as Great Britain.

Northern Ireland is part of the island of Ireland.

The UK is part of the British Isles – an archipelago in the North Atlantic Ocean made up of Great Britain and over six thousand smaller islands.

Europe

Europe is a continent, the western part of a larger landmass called Eurasia. There are over 50 countries in Europe and 23 recognised.official languages spoken. Europe is the second smallest continent in size but the third largest in population. About 10 per cent of the world's population lives in Europe.

The three largest countries are: Russia, Ukraine and France. Greenland is the largest island in Europe – and in the world.

The UK is part of the continent of Europe. Seas that surround the UK are: the Irish Sea and the Atlantic Ocean to the west, the North Sea to the east and, separating the UK and France to the south, the English Channel (called La Manche by the French).

democratic: relating to a form of government in which people choose the leaders by voting

government: the group of people who make the laws in a country

archipelago: a group of islands

Continent: a large solid area of land

Human Features

The Vatican City is the smallest country in Europe and in the world. It is called a city-state, and is an enclave within Italy. It is the smallest country both in terms of size and population.

Physical Features

Europe is covered by a variety of landscapes like tall mountains and deep valleys, long coastlines, and enormous rivers. Because many of these rivers are so large, they often cross boundaries, flowing in and out of many different countries.

How can the United Kingdom be part of Europe when it separated by sea?

There are five primary rivers in Europe: the Volga, the Danube, the Rhine, the Elbe and the Loire.
The longest river in Europe is the Volga (2,290miles) which flows through Russia.

The Danube, at 1,780 miles (2,865 km) long, is the second longest river in Europe. The river stretches through ten countries: Germany, Hungary, Serbia, Croatia, Austria, Slovakia, Romania, Moldova, Ukraine and Bulgaria. It flows through several cities, such as Vienna and Budapest, and drains into its delta in the Black Sea. It is the most important commercial waterway in Europe. It provides an important source of water for agriculture and drinking, and it allows for transportation of people and goods over much of Central and Eastern Europe.

Geography - Lower KS2 Year A

Landscapes - How are Mountains made?

Physical Features

Landforms
A landform is any natural surface feature of the Earth. Landforms include things like mountains and hills, valleys and canyons. They are formed and then change over time.

Weathering
Physical Processes shape landforms (e.g. After a winter of frosts, rain and snow there is often damage to roads, pathways and natural landforms). This is called weathering – where rocks and minerals are broken down by the elements of nature into smaller pieces. There are two types of weathering: mechanical weathering and chemical weathering.

Physical Features

Mountains – what are they?
A mountain is a large landform that rises above the surrounding land, usually in the form of a peak. A mountain is generally steeper than a hill but there is no one definition of the difference between a hill and a mountain. The official UK government's definition of a mountain is a summit of 600 metres (1,969 feet) or higher. A few mountains are isolated summits, but most occur in mountain ranges. The highest mountain on Earth is Mount Everest in the Himalayas of Asia, whose summit is 8,850 metres (29,035 feet) above sea level.

Physical Processes

Mechanical Weathering
Mechanical weathering is when rocks are broken down by physical agents such as ice, wind or water. An example of mechanical weathering is freeze-thaw weathering. Over time, water can get into a rock and, as it freezes, the water expands and breaks the rock into pieces.

Chemical Weathering
Chemical weathering is when rocks are broken down by chemical reactions. Chemical weathering is usually as a result of pollution in the atmosphere, caused by humans. Burning fossil fuels produces acid in the atmosphere, which causes a chemical reaction with rocks. The outer layers of rocks can be worn away by acids. This can also be seen on statues that are sometimes destroyed by chemical weathering.

Vocabulary

Weathering

Pollution - pollution: adding something that has harmful effects

Landforms - natural features of the Earth's surface

s**ummits**: the tops of mountains

mountain ranges: series of mountains

magma: molten rock that is formed in very hot conditions inside the Earth

plate tectonics: the movements of portions of the Earth's crust.

physical process: a series of things that happen naturally

physical feature: the things we see around us that are made by nature

Physical Processes

Mountains – How are they formed?
Physical processes shape landforms. The Earth's crust is split up into sections, like the cracked shell of an egg. The sections of the Earth's crust are called tectonic plates, and they float on hot magma or molten rock. There are three main types of mountains: volcanic, fold and block. All three types are formed from plate tectonics: when portions of the Earth's crust move, crumple and dive.

?

How is chemical weathering different to mechanical weathering?

Do you agree? Chemical Weathering is the result of irresponsible human processes.

Physical Features

Types of Mountain
Volcanoes are formed when a plate is pushed below another plate, which melts the rock and forms magma. When the magma reaches the surface, it often builds a volcanic mountain.

Fold mountains occur when two plates collide. They push upwards, folding the rock into mountain peaks. Some of the most famous fold mountains are the Himalayas in Asia.

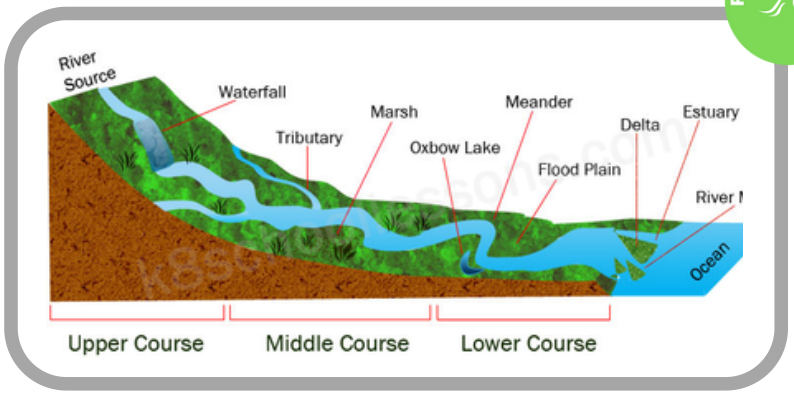
Block mountains are caused when plates move past each other. When rocks on one plate are higher than the other, this can form a mountain. Some of the most famous block mountains are the Sierra Nevada mountains that run from California to Nevada in the USA.

Geography - Lower KS2 Year A

Erosion and Deposition - Rivers - How does water shape our world?

Physical Processes

As well as weathering, the Earth also can be shaped by the action of water in rivers and at coasts. This is called erosion, transportation and deposition. Erosion is when rocks and soil are worn away, which puts lots of sand, mud, pebbles and silt into the river. Transportation is the moving of the eroded material. The force of the flowing water moves the mud, sand, pebbles and silt created by erosion. Deposition is the dumping of material. The sand, mud, pebbles and silt being transported by the river is eventually dropped as the river slows.



Physical Features

A river has three main stages: youthful, near the source; middle-aged, further downstream and mature, near the mouth. Different types of erosion and deposition happen at each stage.

Vocabulary

Weathering: where rocks and matrerials are broken down by nature

Erosion: the wearing away of land by forces such as water, wind and ice

Depostition:the dumping of rocks and material

Transportation:
the movement of rocks and material

Source: where rivers begin, usually in hills or mountains

Delta: where a river splits and spreads out into several branches before entering the sea

Estuary:where a freshwater river or stream meets the ocean/sea

Mouth: The place where a river enters a lake, larger river, or the ocean

Tributary:a stream or river that flows into and joins a main river. It does not flow directly into the sea.

At the **youthful stage**, the mountains or hills are steep and the river is fast flowing. The direction of erosion is downwards in the river bed which forms a v-shaped valley. As the river is fast flowing there is very little deposition.

At the **middle-aged** stage, the river starts to slow down and the erosion is to both the river bed and the banks of the river. This causes the river to widen and to bend and twist, forming meanders and, sometimes, ox-bow lakes. Deposition of silt happens at the sides of the banks of the river as they are usually not as deep as the centre of the channel.

In the **mature stage**, the river is much wider because the land is flatter and so the river is much slower. This leads to erosion mostly to the banks and little or no erosion to the river bed. After heavy rain or melting snow, the river can flood at this stage. Although this is dangerous, the deposition brings nutrients which is good for agriculture.

A **delta** is sometimes formed where a river meets the sea. This is formed because the river slows down quickly when it meets the sea and deposition happens quickly. Sometimes rivers flood at the mature stage which speeds the deposits on the soils which makes it very fertile and good for growing crops.

?

Which stage of the River do you think the River Severn is at in Worcester? Explain why.

What is the dfference between a River Mouth and an Estuary?

Do you agree? Speed of river flow and deposition are closely linked.

Geography - Lower KS2 Year A

Erosion and Deposition - Coasts - How does water shape our world?

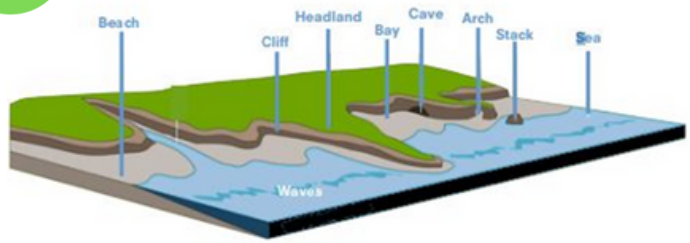
Physical Features

The surface of the Earth is completely covered in rock. Most of this rock is submerged by the oceans and seas but the higher areas, which are called land, are not covered. Coasts are where the edges of the higher land meet the oceans or sea. Some of the geographic features that are found there are beaches, cliffs, arches, stacks, headlands and bays. These features are formed through the processes of erosion and deposition.

Physical Processes

Waves are formed when wind blows over the seas or oceans. The force of the waves erodes the land. Waves erode softer areas of rock, which forms caves, short tunnels into a cliff. Waves also erode larger areas of the land which forms bays. The edges of the bay, where the land sticks out are called headlands. When a cave forms in a headland it sometimes gets so large that it forms an arch. When the roof of an arch collapses it forms a stack. Cliffs are rocks that are very hard and not easily worn away by the sea. Waves also deposit the materials they erode. This forms beaches.

Physical Features



Vocabulary

Erosion: the wearing away of land by forces such as water, wind and ice

Depostition:the dumping of rocks and material

headland: the edge of a bay where the land sticks out

bay: where waves have eroded areas of land

Human Features

Sea walls are concrete walls that are placed at the bottom of a cliff to prevent erosion. Their advantages are that they are effective at protecting the cliff and they usually have a promenade so people can walk along them. Their disadvantages are that waves can eventually erode the sea wall and they are very expensive to build – approximately £2000 per metre.

Rock armour is large boulders placed at the bottom of a cliff to protect it. The advantages of rock armour are that it is cheaper than a sea wall and easy to maintain. The disadvantages are that the rocks are expensive to transport and look different from the natural cliff.

Groynes are wooden or rock structures built out into the sea. Their advantages are that they form a beach – which encourages tourism. Their disadvantage is that they look unattractive.

?

Investigate coasts (in Europe) that have arches or stacks.

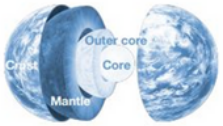
True or false? Arches and stacks do not appear where coasts are formed from clay and soils.

Geography - Lower KS2 Year B

How do Volcanoes shape our world?

Physical Features

The Earth has an inner and outer core, a mantle and a crust. The crust is the rocky surface that makes up the surface of the Earth and floats on top of the mantle. The crust has 'cracks' in it and so it is actually in pieces. These pieces are called plates. The plates move very slightly – by no more than a few centimetres a year



Physical Processes

The boundaries of the plates are called fault lines and movement along these lines causes earthquakes and volcanoes.

The plates move in three different ways:
- away from each other, which forms ridges
- towards each other, which causes earthquakes and forms volcanoes and mountains
- side by side, which causes earthquakes.

Place Knowledge

Geographical Skills

The main plate boundaries

Vocabulary

volcanoes: mountains from which lava, gas, steam and ash from inside the Earth sometimes burst

dormant: not active, but capable of becoming active in the future

Magma: Molten, or hot liquefied, rock located deep below the Earth's surface

erupt: to start suddenly or violently with great force

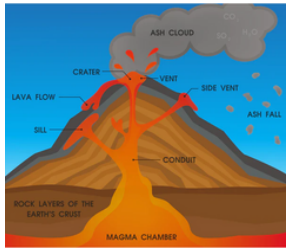
magnitude: the size or scale of something

meteoric: sudden and extremely strong

Physical Processes

Volcanoes form when magma travels from the Earth's upper mantle to its surface. Pressure builds up inside the volcano and pushes magma through cracks in it. When the magma reaches the surface it erupts. Lava, steam, gaseous sulfur compounds, ash and broken rocks can come out of a volcano when it erupts.

As the lava cools it forms a mountain shape. Repeated eruptions make the volcano get bigger. The explosion that happens when a volcano erupts causes the dome shape seen in some volcanoes.



?

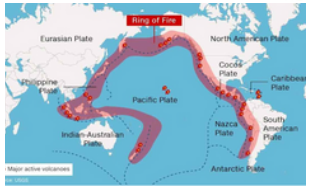
Volcanoes do not exist in the United Kingdom. Do you agree or disagree? Prove it!

Volcanoes are a bad thing. Do you agree or disagree.? Explain your answer.

Geographical Skills

Physical Features

The Pacific Ring of Fire is an arc around the Pacific Ocean where most of the world's volcanoes and earthquakes are formed. About three-quarters of the world's dormant and active volcanos are here. The ring is 25,000 miles (40,230 km) long, and there are 452 volcanoes on it. About 90 per cent of the world's earthquakes, including 15 per cent of the world's largest earthquakes occur along the Ring of Fire. The Ring of Fire is a result of plate tectonics – the movement and collision of the plates that make up the Earth's crust.



Geography - Lower KS2 Year B

How do Earthquakes shape our world?

Physical Processes

The boundaries of the plates are called fault lines and movement along these lines causes earthquakes and volcanoes.

The plates move in three different ways:
- away from each other, which forms ridges
- towards each other, which causes earthquakes and forms volcanoes and mountains
- side by side, which causes earthquakes.

Physical Processes

Earthquakes usually occur on the edges of large sections of the Earth's crust called tectonic plates. These plates slowly move over a long period of time. Sometimes the edges, which are called fault lines, can get stuck, but the plates keep moving. Pressure slowly starts to build up where the edges are stuck and, once the pressure gets strong enough, the plates will suddenly move causing an earthquake. The place where the earthquake starts, below the surface of the earth, is called the hypocenter. The place directly above this on the surface is called the epicenter. The earthquake will be the strongest at this point on the surface.

Place Knowledge

Geographical Skills

Over 80 per cent of large earthquakes occur around the edges of the Pacific Ocean, an area known as the 'Ring of Fire'

Vocabulary

tsunami: a very large wave, caused by an earthquake

magnitude: the size or scale of something

tecotonic plates: sections of the Earth's crust

Fault line: the edge of the tectonic plates and occur when different plates grind against each other

epicentre: the place on the surface of the earth directly above where the earthquake starts

seismic wave: the shock wave from an earthquake which travels through the ground

Geographical Skills

Shock waves from an earthquake that travel through the ground are called seismic waves. Scientists use seismic waves to measure how big an earthquake is. They use a device called a seismograph to measure the size of the waves. The size of the waves is called the magnitude.To tell the strength of an earthquake scientists use a scale called the Moment Magnitude Scale or MMS (it used to be called the Richter scale). The larger the number on the MMS scale, the larger the earthquake.

?

True or false – we would not be affected by a Tsunammi in the UK – explain your thinking

Physical Processes

The 2004 Boxing Day earthquake measured 9.3 on the Richter scale. It occurred under the Indian Ocean and was caused by the movement of the Burma and India tectonic plates. It created tsunami waves 30 metres (98 ft) high and caused an estimated 228,000 deaths in countries bordering the Indian Ocean.

Geography - Lower KS2 Year B

International Trade (Food) and International Transportation

What is 'trade' and why is it important?

Human Processes

International transportation involves the movement of people or goods between countries. Depending on what is being transported, and how quickly it needs to arrive at its destination, different forms of transport are used. Almost all international travel causes pollution and therefore needs to be managed. Tourism and the trade of goods and services between countries are the main reasons for international transportation.

Human Processes

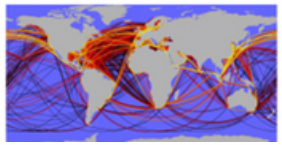
What is International Trade and why does it happen?

International trade is the exchange of goods and services between countries. There are several reasons why international trade in food is important:

- Not all countries have suitable conditions for growing food and so they trade with other countries. For example, the United Arab Emirates is mostly desert and so it needs to import a lot of its food from other countries.
- Different climates allow different types of food to be grown. For example, Colombia has a good climate for growing coffee beans and the United Kingdom does not.
- Countries can earn money by exporting food to other countries.

The world's biggest food exporter is the Unites States of America.

Place Knowledge | Human Processes | Geographical Skills



This map shows the main shipping routes for trade around the world. The areas in red and yellow show the busiest routes. Cargo ships carry goods in large quantities. The biggest port in the world is Shanghai in China.

Means of transport	Journey points	Used for	Advantages	Disadvantages	Management
Air travel	Airports	Tourism, trade	Safe, fast, cheap	Noise and air pollution	New 'greener' aeroplanes
Sea freight	Sea ports / docks	Shipping goods	Large shipments	Air and sea pollution	Cleaning exhaust fumes
Passenger ships	Terminals	Tourism	Luxury travel	Air pollution	Cleaning exhaust fumes
Rail	Railway stations	Travel over land	Safe, cheap	Not as fast as air travel	New high-speed trains
Roads	Anywhere	Travel over land	Personal, convenient	Air pollution	Electric vehicles

Vocabulary

international: between countries

destination: a place to which someone is travelling or goods are being sent

cargo: goods carried by a vehicle

import: buy goods from another country

exporting: selling goods to another country

beverage: drink

Human Processes

The term '**food security**' refers to the availability of and access to food. The map below shows levels of food security – the ability of countries to produce/import enough food for their population.

?

True or false? Countries export food to make money.

How could we reduce the impact of the International Food Trade on our environment?

Climate Change

Location

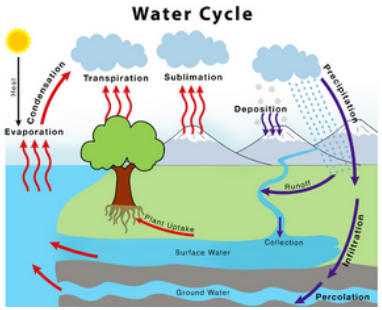
The term '**food miles**' is used to describe how far the food we eat travels from where it is first produced, before it ends up on our tables. Although food trade is essential, the vehicles that transport the food cause pollution. The more miles, the greater the pollution. Below is a map that shows some popular imported foods in the UK and their food miles.

Geography - Lower KS2 Year B

The Water Cycle - How does water affect our weather?

Physical Processes

The water cycle is a physical process that happens on the surface of the Earth and in the Earth's atmosphere.



Physical Processes

A cloud is a large group of tiny water droplets that we can see in the air. Clouds are formed when water on Earth evaporates into the sky and condenses high up in the cooler air. Rain, snow, sleet and hail falling from clouds is called precipitation. Only the lower clouds give precipitation; the cumulonimbus cloud creates thunder and lightning storms. The prefix 'nimbo' and the suffix 'nimbus' mean that the cloud produces precipitation.

Physical Processes

1) Water from oceans, seas, rivers and lakes evaporates and rises into the air as a vapour. Evaporation is the process of water turning into a vapour. It is caused by the heat of the sun.
2) As the vapour rises, it cools and condenses from a vapour to a liquid to form clouds. This process is called condensation.
3) As the clouds become heavy, precipitation occurs. This is the process of liquid falling from the clouds as rain, snow, sleet or hail.
4) This creates run-off, which is water that travels on the surface and collects in bodies of water such as rivers, lakes, oceans and seas.
5) Sometimes this water is soaked into the ground. This process is called percolation and involves the water flowing downward under the layers of the soil. This ends the water cycle, which then starts again.

Vocabulary

atmosphere: the gases that surround a planet

continuous: happening all of the time without any breaks

vapour: a mass of small drops of liquid which fly in the air, for example because the liquid has been heated

Evaporation: when a liquid changes into a gas (e.g. water changes into vapour)

Condensation: water vapour cools down and turns back into a liquid

Percolation:Water is drawn downward through the soil

precipitation: rain, snow, sleet or hail falling from clouds

Physical Processes

The main cloud types include stratus, cumulus and cirrus. Stratus clouds are dark and featureless, creating grey skies. Cumulus clouds are puffy, like cotton wool floating in the sky. Cirrus clouds are thin and wispy, and appear high in the sky. There are also variations of these three main cloud types including altostratus, altocumulus, nimbostratus, cumulonimbus and cirrocumulus.

?

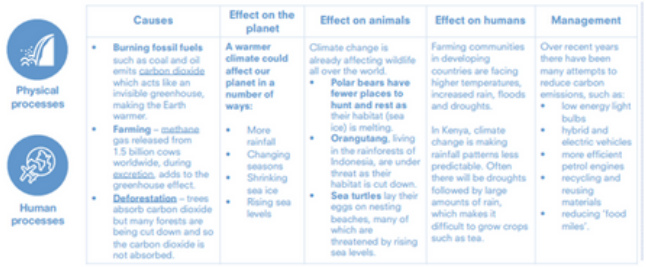
Compare and contrast a photograph of a cool bright winter's day with one of a rainy, dull day.
• Identify clouds in pictures.
• Explain how meteorologists use clouds to forecast the weather.

Relate your knowledge of the water cycle to your knowledge of the formation of rivers.

Geography - Lower KS2 Year B

Climate Change - Why is our world changing? Why is this a problem?

Climate change (or global warming), is the process of our planet heating up so that temperatures are higher than would be expected. The Earth has warmed by an average of 1°C in the last century, and although that might not sound like much, it has an effect on people and wildlife around the globe.



Unfortunately, rising temperatures don't just mean that we'll get nicer weather. The changing climate will make our weather more extreme and unpredictable. As temperatures rise, some areas will get wetter and humans and animals will need to adapt.

Climate is the long-term temperature expected in a place.

Weather is the day-to day conditions which change frequently

adapt: change behaviour
carbon dioxide: a greenhouse gas

methane: a greenhouse gas

excretion: getting rid of waste from the body

deforestation: cutting down large areas of trees

What can we do to slow down Climate Change – our voice?

Children have powerful voices and can make big things happen. Here are two young people who have inspired others with their passion for the planet.

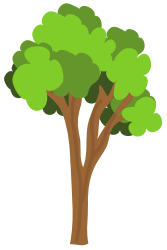
Greta Thunberg was just 15 when she went on strike from school and urged politicians do more to fight climate change. Her protest made the news and went on to inspire a worldwide wave of action, with millions of children and adults joining protests across the globe.

Felix Finkbeiner was only nine years old when he started a tree-planting campaign at his school in Germany. Today, aged 23, his organisation plants trees all over the world and educates youngsters about climate change.

Which humanprocesses are affecting climate change the most?

What else can we do to help?

1. Plant Trees
2. Use Green Transport
3. Don't waste things
4. Eat less meat and dairy
5. Spread the word



Geography - Upper KS2 Year A

North America - How is North America different to where we live?

Place Knowledge

Geographical Skills

North America is the third largest continent. The 49° N latitude forms the boundary between the two largest countries – the USA and Canada. The Great Lakes and St Lawrence River act as the boundary between the two countries. Lake Superior is the largest fresh water lake in the world. Mount Mackenzie – an active volcano situated in Alaska – is the highest peak of North America. The world famous Niagara Falls is located between Lake Erie and Lake Ontario.

Human Features

Human Features

North America has an estimated population of 580 million. The most populous cities are: 1. Mexico City, Mexico 2. New York City, USA 3. Los Angeles, USA 4. Chicago, USA 5. Toronto, Canada The northern half of North America – Canada and Greenland – is sparsely populated. This is largely due to the sub-polar and polar climate zones which makes agriculture, transport and living more difficult.

Mexico City is the largest city, both in size and population. Its population is 21.3 million, which makes it the largest metropolitan area of the western hemisphere and the largest Spanish-speaking city in the world.

Place Knowledge

Geographical Skills

North America is a continent in the northern hemisphere and mostly within the western hemisphere. It is bordered to the north by the Arctic Ocean, to the east by the Atlantic Ocean, to the west (where it is separated from Asia by the Bering Strait) and south by the Pacific Ocean, and to the southeast by South America and the Caribbean Sea.

See the next page for a larger map of the northern parts of North America

Vocabulary

Latitude: the distance of a place from the equator

Colonised: took control over

Indigenous: originally from a country

Populous: with a large population

Sparse – with only a small number of people

Metropolitan: relating to a large city

Topographic: relating to the physical features of an area

Subduction: the movement of one tectonic plate below another

Seismic: relating to earthquakes

Caldera: a large depression formed when a volcano erupts and collapses

Physical Features

Physical Features - Rivers

There are hundreds of rivers across North America. They are vital for irrigation for agriculture, fishing, the generation of hydroelectricity and as navigation routes for shipping. Rivers are also sacred to the Native American indigenous peoples who, for centuries before European colonisation, learnt to use this limited, precious resource wisely.

Missouri: the longest river in North America at 2,500 miles (4,023 km) long. It rises in Montana in the Rocky Mountains and flows into the Mississippi River, just to the north of St Louis.

Physical Features – Mountains

The topographic map on the left shows the mountainous areas of North America. The western coastline is dominated by the Rocky Mountain chain. This is also the location of a tectonic plate boundary and the mountains are formed through the process of subduction. There is a great deal of seismic activity in this area as it is part of the Pacific Ring of Fire.

Rocky Mountains: about 3,000 miles (4,800 km) in length, extend from the US state of New Mexico into the northernmost reaches of Canada.

?

How is North America similar to the UK?
How is North America different to the UK?

Physical Features

Yellowstone Volcano

The Yellowstone Volcano, also known as the Yellowsone Caldera, is a supervolcano located in the National Park of the same name, I nthe states of Wyoming and Montana, UK. The Yellowstone volcano is one of the largest volcanic areas in the world. The park contains about half of the Earth's geothermal features and about 60 per cent of all the world's geysers.

The volcano was created during an eruption that took place about 640,000 years ago. The caldera is the spot where hot, molten rock rises towards the surface.

Major eruptions of the Yellowstone Volcano happen about every 600,000 to 800,000 years. Two of the past explosions have been among the most powerful ever.

The magma is the reason for the many geysers and hot springs in the park. Yellowstone has over 300 geysers, and over 10,000 hot springs and bubbling mud holes.

A geyser is created when the steam is forced through the surface by the high temperatures beneath the surface. Old Faithful is the most famous geyser at Yellowstone and erupts almost every 91 minutes.

The huge magma chamber in the Yellowstone Volcano is at least 50 percent larger than first thought. It measures about 37 miles long, 18 miles wide and up to 7 miles deep in parts.

Geography - Upper KS2 Year A

Ocean Currents - Why are the Oceans important?

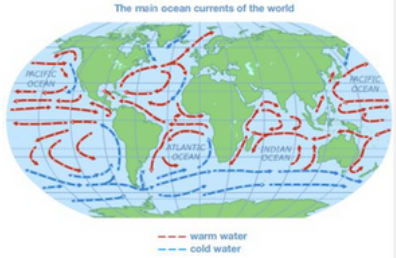
Place Knowledge

An ocean is a huge body of salt water which fills the huge basins on the Earth's surface between continents. Oceans cover nearly 71 percent of Earth's surface. They contain almost 98 percent of all the water on Earth.

Geographical Skills | Physical Processes

An ocean current is a continuous movement of ocean water from one place to another. Ocean currents are created by wind, water temperature, salt content and the gravity of the moon.

The currents are called gyres and can flow for thousands of miles. One major example of an ocean current is the Gulf Stream in the Atlantic Ocean. Gyres travel clockwise in the northern hemisphere and anticlockwise in the southern hemisphere. Ocean currents affect weather patterns around the world: they transport warm water to colder areas and cold water to warmer ones.



Place Knowledge | Geographical Skills

There is one world ocean, but it is divided into five main areas: the Pacific, the Atlantic, the Indian, the Arctic, and the Southern, or Antarctic. Together, they can be seen as one world ocean because they have no real borders, and water flows freely between them.

Vocabulary

continuous: happening all of the time without a break

gyres: circular movements pollution: a poisonous or dirty substance

garbage: American word for rubbish

ocean: An ocean is a huge body of salt water which fills the huge basins on the Earth's surface betweem continents

sea: seas are smaller than oceans and are usually located where the land and ocean meet.

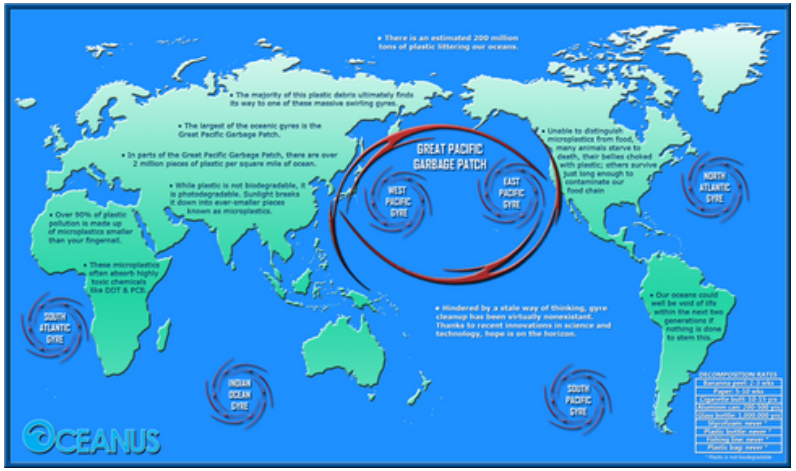
Physical Processes | Human Processes

The Great Pacific Garbage Patch is a big area of rubbish in the middle of the northern Pacific Ocean. It is caught in the water currents. It formed because the gyres are circular, which traps rubbish, like floating pieces of plastic.

?

What causes Ocean Currents?

How is an Ocean different to a Sea?



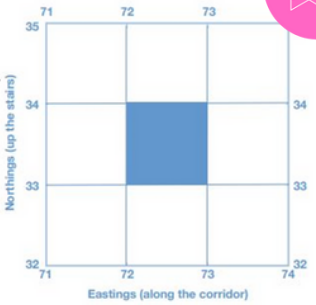
Geography - Upper KS2 Year A

Maps of the World - Features and 4 and 6 figure grid references - Why are maps useful?

Maps have a grid system to help locate places with accuracy. The horizontal lines that divide the map are known as eastings and the vertical lines are known as northings. All of the eastings and northings are labelled with numbers that can be seen on all four edges of the map. By combining the numbers of the eastings and northings a grid reference is formed. A four-digit grid reference corresponds to a specific square on the map, allowing you to accurately describe an area on the map.

To find a place using a four-figure grid reference

Remember the rule: always go 'along the corridor' before going 'up the stairs'. In this example, you are looking for the grid reference 7233. First use the eastings to go 'along the corridor' until you come to the first two-digit number in the reference (72). Then use the northing to go 'up the stairs' until you find the second two-digit number in the reference (33). The reference takes you to the bottom left-hand corner of the square you are looking for on the map.



Why do we have maps? How do they help us?

Map key: a little box of information found at the bottom of a map. It contains an explanation of what the different lines and symbols on the map mean

Map scale: A map is always smaller than the area it represents. Most maps include something called a scale to show how much smaller the map is. The scale shows how distances on the map are related to the actual distances.

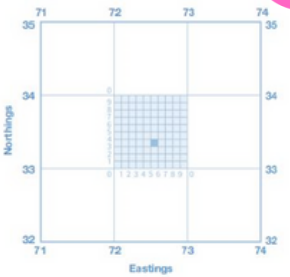
Line of longitude and latitude: a system of lines used to describe the location of any place on Earth. Lines of latitude run in an east–west direction across Earth. Lines of longitude run in a north–south direction

Equator: an imaginary circle around Earth. It divides Earth into two equal parts: the Northern Hemisphere and the Southern Hemisphere.

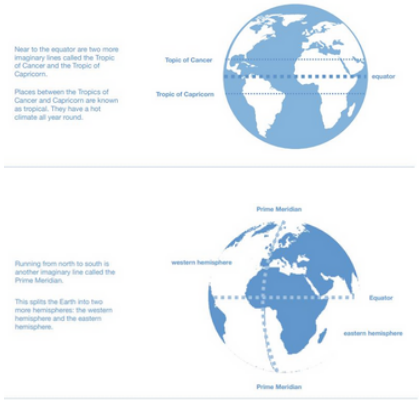
Prime meridian: An imaginary line running from the north of the earth to the south

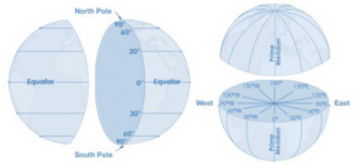
To describe a location using a six-figure grid reference

First find the four-figure grid reference for the square that the location is in and write it down with a space after each set of numbers: 72_ 33_ Then imagine this square is divided up into 100 smaller squares with 10 squares along each side. Still remembering to go along the corridor and up the stairs, work out the numbers to indicate the bottom left-hand corner of the smaller square and put them into your four-figure grid reference: 725 333.



Maps contain several features that help us to better understand the information presented about a specific place. For instance, a map generally has a title, compass rose, map key and map scale. Some maps also have map insets to represent land that is too small or out of frame. Maps of the world usually show the lines of longitude and latitude.





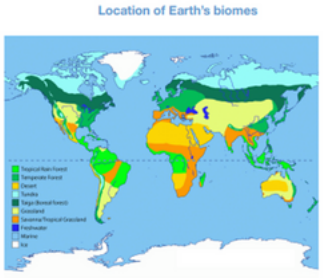
Geography - Upper UKS2 Year B

Biomes and Climate Zones - How does climate affect how we live?

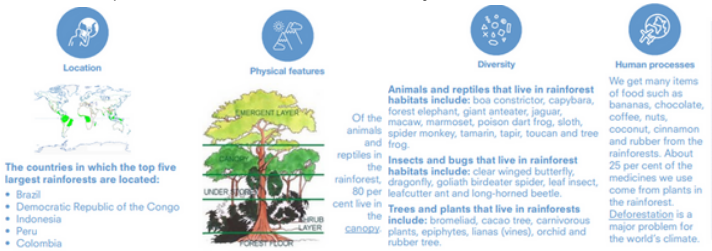
What are Biomes?
Biomes are a way to categorise the Earth's surface. These categories are based on climate patterns, soil types and the animals and plants that inhabit an area.

What types of Biomes are there?
There are terrestrial biomes and aquatic biomes. Every part of the Earth's surface is a part of one or more biomes.

There are ten biomes: tropical rainforest, temperate, deciduous forest, desert, tundra, taiga, grassland, savannah, marine, freshwater and ice



Tropical Rainforest Biome
Tropical rainforests are rainforests that occur in the equatorial and sub-equatorial climate zones, which are in the tropics. They are hot, wet places with high levels of precipitation – sometimes up to 10 metres (33 ft) of rain can fall in a year.



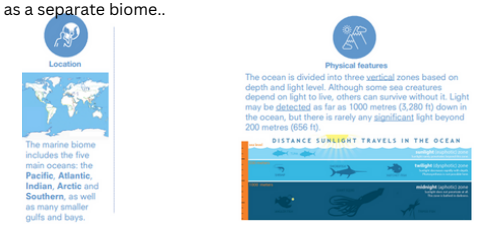
What are Climate Zones?

Climate is the average weather expected in a place (weather is the day-to day conditions in a place).

Earth has seven zones of expected climate: polar, subpolar, temperate, tropical, sub-tropical, equatorial and sub-equatorial. Biomes are directly linked to climate zones.

Marine Biome

The marine biome is the biggest biome in the world. It covers about 70 per cent of the Earth. Marine regions are saline and contain millions of species of plants and animals. The amount of light in the marine biome gives it three zones. Coral reefs are part of the marine biome but some see them as a separate biome..



Vocabulary

categorise: to put into groups (categories)

i**nhabit**: to live in

terrestrial: on land

aquatic: in water

climate: the average expected weather in a place

equatorial: at the equator

sub-equatorial: close to the equator

precipitation: rain, snow, sleet or hail
emergents: tall trees growing above the canopy

canopy: the thick layer of leaves covering arainforest
under storey: trees just below the canopy

deforestation: cutting down large areas of trees

saline: containing salt

photosynthesis: the way that green plants make their food using sunlight

What human processes affect our biomes?

How do climate zones affect the biomes?

What similarities and differences do you notice about the two biomes you have studied?

How does climate affect how we live?

Diversity

Over 1 million species of plants and animals have been discovered in the oceans; there are also an estimated 9 million undiscovered species. Through photosynthesis, marine plants and algae provide much of the world's oxygen supply and take in huge amounts of carbon dioxide. This absorption of carbon dioxide may be a useful tool in reducing the severity of climate change.

Geography - Upper UKS2 Year B

South America and The Amazon - How is South America different to where we live?

What is South America and where is it?

South America is a continent made up of 12 countries.
Its largest country is Brazil, which covers more than half the continent's landmass.
Brazil is only slightly smaller than the USA.

Population

The population of South America is estimated to be 432 million – about 5.6 per cent of the total world population.

The most populous country in South America is Brazil, with 207.7 million people.

Location

South America is a continent located in the western hemisphere and mainly in the southern hemisphere. It is bordered to the north by the continent of North America and the Caribbean Sea; to the west by the Pacific Ocean; to the east by the Atlantic Ocean and to the south by the Southern Ocean.

The Amazon region is the site of the world's largest rain forest, often called 'the lungs of the world.'.The human lungs absorb oxygen and give out carbon dioxide. Similarly, the Amazon rainforest absorbs the carbon dioxide from the atmosphere and releases oxygen in a very large amount. It absorbs about 25% of atmospheric carbon dioxide. It produces 6 per cent of total oxygen in Earth's atmosphere through the process of photosynthesis.

Its plant and animal life is remarkably rich. Almost three fourths of all the types of plants in the world grow there. The animals include jaguars, monkeys, sloths, anteaters, armadillos, anacondas, toucans, and huge rodents called capybaras. Around 400-500 indigenous Amerindian tribes call the Amazon rainforest home. It's believed that about fifty of these tribes have never had contact with the outside world!

Physical Features – The Amazon River

South America is home to the largest river basin in the world – the Amazon. It is also home to the Angel Falls waterfall, which is the highest in the world at over 900 m. A river basin is the portion of land drained by a river and its tributaries.

The Amazon carries more water than any other river. It is about 4,000 miles (6,400 kilometers) long. Only the Nile River in Africa is longer.
The Amazon begins in the Andes Mountains in Peru. From there it flows north and then east through Brazil. It empties into the Atlantic Ocean.
The Amazon drains about one third of South America.

River basin: A river basin or drainage basin is an area of land drained by a river and its tributaries

Watershed: The edge of the drainage basin is known as the watershed

Tributary: A tributary is a stream or river that flows into and joins a main river. It does not flow directly into the sea.

Source: The start of a river is its source. This could be a spring on a hillside, a lake, or a bog or marsh. A river may have more than one source.

Atmosphere: a jacket of gases that surrounds our planet. It keeps us warm, gives us oxygen to breathe, and it is where our weather happens.

Sediment: solid material that is moved and deposited in a new location. Sediment can consist of rocks and minerals, as well as the remains of plants and animals.

Indigenous: Indigenous people are the first. people to live in a place

Floodplain: A flood plain is an area of flat land alongside a river. This area gets covered in water when the river floods.

Deforestation: when forests are converted for other purposes by cutting down the trees to clear the land for other use.

Floodplain forests represent between 3-4% of the Amazon Basin area. When rainfall increases the Amazon River floods. This usually happens twice a year (Oct to Jan and Mar to July). The Amazon Basin is mostly flat so when there is more water than the waterways can contain, the water spills outside the riverbanks and into the low-lying floodplains. In the dry season the river can be up to 6 miles wide, but when it floods, it can be over 20 miles wide. Sediment carried down from the Andes mountains enriches the soil during the floods which is why the rainforest has such a vast range of plants. People and animals living in the flood plains have adapted to live with the floods. Jaguars have learnt to live in the tree branches when the floods arrive and people build houses on stilts or floating houses.

True or false: Floods are a bad thing. Explain your answer.

Do you Agree/Disagree: Humans are destroying the planet.

Think of three things we could do as humans to prevent Climate Change. Then explain why these things are difficult to achieve.

Climate Change

The countries of the Amazon region have encouraged businesses to use the resources found there. Mahogany, Amazonian cedar, and other trees are cut down for their wood. Rubber is another valuable plant product. Diamonds, gold, and oil are mined.

Huge areas of rainforest are destroyed due to clearing for farming, timber, roads, hydropower dams, mining, house-building and other development. The World Wildlife Fund predict that by 2030, 27% (nearly a third) of the Amazon will be without trees. This mean that more Carbon Dioxide is escaping into the atmosphere which will, in turn, speed up global warming and climate change.

Geography - Upper UKS2 Year B

The Severn River - A geographical study of a local river

Place Knowledge

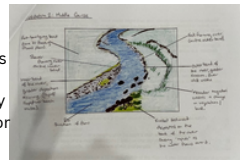
Enquiry Question: Why does the River Severn flood so often in Worcester?

A study of the history of flooding:
The River Severn has burst it's banks and flooded the surrounding flood plains for hundreds of years. The highest recorded flood being in 1795. In the last century, severe flood events occurred in the 1940s, 1960s, 1990s and in the year of 2000. In 1947, the flood was 5 metres above normal summer river levels. In Autumn 2000, Worcester suffered three serious floods in six weeks.

Fieldwork

Fieldwork:

1. Pupils will visit the River Severn in Worcester. They will visit the Worcester Watermarks and investigate when the worst floods happened.
2. They will draw a brief sketch of the river, looking either up or down stream and will use compasses to add the direction in which they are looking on their sketch and which way the river is flowing. They will also label any features they see such as the bank, channel, erosion, deposition and any human features they notice. Pupils may also take photographs for use in class and for display. Are pupils able to identify whether they are visiting the upper, middle or lower course of the river system by looking at the flow of the water, depth and colour. Children will note how humans may have altered the natural flow of the river e.g. have river banks been reinforced or raised, are there bridges, weirs or fords, flood defences or actions to prevent erosion?



Geographical Skills

Preparation
Pupils will prepare a map of the River Severn from it's source to mouth labelling the stages, towns and cities. They will research the stages of the river and add these to their map using symbols and a key. They will re-cap the key features of each stage of a river. Pupils will also investigate where the flood plains are around Worcester and add these to their map.

Vocabulary

Floodplain: A flood plain is an area of flat land alongside a river. This area gets covered in water when the river floods.

Sediment: solid material that is moved and deposited in a new location. Sediment can consist of rocks and minerals, as well as the remains of plants and animals.

River basin: A river basin or drainage basin is an area of land drained by a river and its tributaries

Watershed: The edge of the drainage basin is known as the watershed

Tributary: A tributary is a stream or river that flows into and joins a main river. It does not flow directly into the sea.

Source: The start of a river is its source. This could be a spring on a hillside, a lake, or a bog or marsh. A river may have more than one source.

erosion: the wearing away of rocks

transportation: the movement of rocks

deposition: the dumping of rocks

youthful: a river near its source

middle-aged: a river downstream from its source

mature: a river near its mouth

meanders: bends and changes to direction in a river

ox-bow lakes: parts of a meander cut off from the rest of a river

delta: where a river splits and spreads out into several branches before entering the sea

Fieldwork

3. Pupils will test how fast the River is flowing. They will mark a 10 metre stretch of the river. Using a stopwatch drop a float (a dog biscuit, stick or other non damaging item) and time how long it takes to pass the 10 metre mark. Repeat this exercise so that pupils can record the average speed that the water is flowing. Consider repeating this at a different point on the river.

	Time (seconds)
First recording	
Second recording	
Third recording	
etc	
Average time	

?

How is climate change affecting the River Severn?

Geographical Skills

Presenting Findings:

Pupils will create a display using a map and the pupils' field sketches supplemented by labelled photographs and historical images. Pupils will study how flood defences have been installed and add this to the final display. Pupils will build and label a 3D model of the river identifying the physical features.