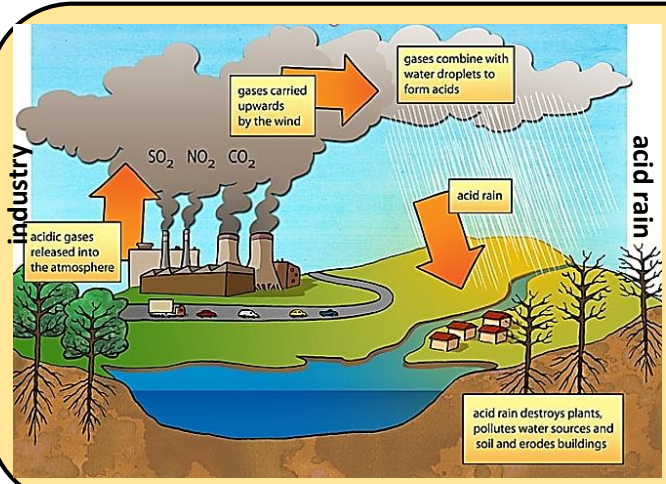


Vision: We show curiosity about our world and understand our responsibility towards it.



Geography Year 5 Autumn 1 - Germany

Big Question: What are the effects of acid rain on Germany's Black Forest?



biome - temperate deciduous forest

Vocabulary



Berlin



trees with needle loss in Black Forest



Zugspitze -

Wetterstein Mountains

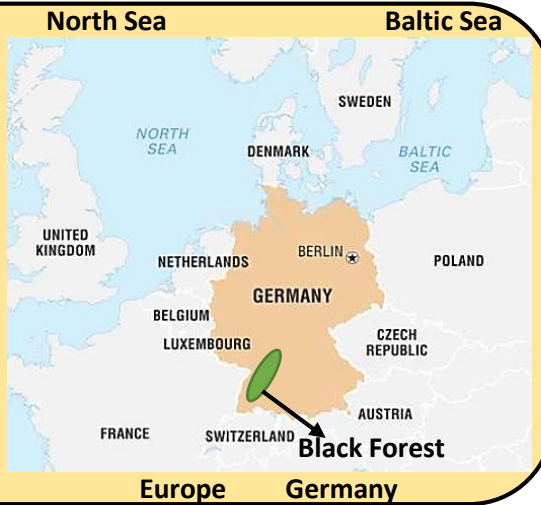


Rhine River



pollution

power plant - burning fossil fuels



Year 3 Summer 1: What do I already know?

- Climate change, also called global warming, is the rise in average surface temperatures on Earth.
- Climate change is happening mainly due to humans using fossil fuels: coal, oil, natural gas.
- These releases carbon dioxide, a colourless gas, and other greenhouse gases that trap energy from the Sun into the air.
- Melting ice speeds up climate change. Global warming is causing Arctic ice to melt. Ice reflects sunlight, while water absorbs it. When the Arctic ice melts, the oceans absorb more sunlight and heat up, making it warm.
- Sea levels are rising. Over the past century, the average sea level has risen 10-20cm. If this continues, coastal cities will flood and some small island countries will submerge.
- Year 4 Spring 2:
- Egypt is suffering from severe water scarcity because of:
- Climate – Egypt has low levels of rainfall and high temperatures, which cause drought.
- Pollution – Waste from drains and leaks in waterpipes, industrial waste containing chemicals and agricultural wastewater carrying chemical fertilisers and pesticides, is drained back into the Nile River.
- Inefficient irrigation - Irrigation is the watering of land for farming. 86% of Egypt's water is used for farming. A lot of this water is wasted because most of the water evaporates. Flooding farm land, overwatering and using sprinklers wastes water.

Where is Germany?


- Germany is in the continent of Europe.
- Germany borders nine countries: Denmark, Poland, Czech Republic, Switzerland, Austria, France, Belgium, Luxembourg and the Netherlands.
- The bodies of water to the north of Germany are the North Sea and the Baltic Sea.
- A biome is a region with similar climate, animals and plants.
- Germany's biome is temperate deciduous forest, where trees lose their leaves seasonally
- The capital of Germany is Berlin.
- Germany has a population of 83 million.
- The Rhine is the longest river in Germany - 1232km.
- The Zugspitze in the Wetterstein Mountains is the highest point - 2962m.
- The Black Forest is in southwest and is 160km long.
- The name Black Forest comes from the dark colour of the pine trees that grow in this region.
- The Black Forest is home to lots of mountains, forests, lakes and villages.

What is acid rain?

- Acid rain is rain that is more acidic than normal.
- Atmospheric pollution causes rainfall to become very acidic.
- Coal, oil and natural gas are fossil fuels.
- Germany is one of the world's biggest consumers of coal.
- Germany has more than 40 power plants running either fully or partially on hard coal.
- When they are used by industry to fire power plants, carbon dioxide (colourless gas) and sulfur dioxide (toxic gas) are released.
- These acidic gases escape into the atmosphere (air) and are carried upwards by the wind.
- As sulfur dioxide dissolves in the water droplets in the clouds, it makes acid rain.
- When acid rain falls, it harms and destroys plants, pollutes water sources and soil, killing fish and trees.

Geography Year 5 Autumn 2 – India

Big Question: How were the Himalayas formed?



Asia India

AFGHANISTAN CHINA

PAKISTAN Nepal BANGLADESH

Islamabad New Delhi


Himalayas

Arabic Sea Bay of Bengal

INDIA

SRI LANKA

Indian Ocean



EURASIAN PLATE

INDIA Today

10 million years ago

38 million years ago

Equator


55 million years ago

INDIAN OCEAN


71 million years ago

"INDIA" Land mass


SRI LANKA



Indus River




Tectonic plates



New Delhi

Vocabulary



equator

Pangea

India


North America Eurasia

South America Africa


India Australia

Antarctica


Pangea



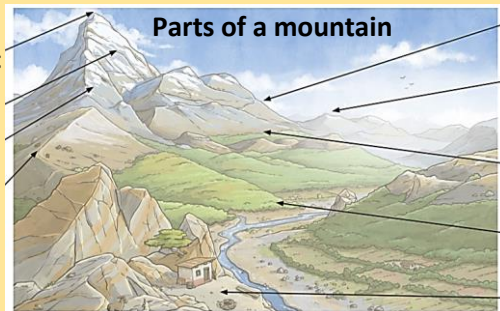
monsoon



Taj Mahal



Himalayas Kangchenjunga



Parts of a mountain

slope

mountain range

tree line

base


plateau

summit



Face

snow line

ridge



Thar Desert

Biome - tropical forest and alpine

What do I already know?

- Year 4 Summer 1:
- Norway has more than 1000 fjords.
- The longest fjord in Norway is Sognefjord - 203km.
- A fjord is a long, deep, narrow body of seawater, reaching far inland and connecting to the sea.
- Fjords are set in a U-shaped valley with steep rock on three sides.
- Glaciers are made up of fallen snow that, over many years, compresses into large, thickened ice masses.
- Glaciers move very slowly over time.
- Glaciers carve deep valleys through the ground, changing the landscape as they move.
- The U-shaped valleys fill with melted glaciers.
- This process is called glaciation that took place over 2.5 million years.
- The opening toward the sea is shallow and the inner part is deep.
- Cold-water coral reefs and skerries are features of Norway's fjords.

Where is India?

- India is in the continent of Asia.
- India borders seven countries: Afghanistan, Pakistan, China, Bhutan, Nepal, Myanmar and Bangladesh.
- The bodies of water around India are Arabian Sea, Indian Ocean and Bay of Bengal.
- The capital city of India is New Delhi.
- The population of India is 1.3 billion.
- A biome is a region with similar climate, animals and plants.
- The biomes in India are tropical forest and alpine.
- The climate varies from tropical monsoon in south to temperate in north.
- The Thar Desert is a large, arid region in the north-western part of India.
- Kangchenjunga, a summit in the Himalayas, is the highest mountain peak in India - 8586 m. Mount Everest is in China.
- The Indus is the longest river - 3180 km.
- Taj Mahal is a famous landmark in India.

What are the Himalayas?

- The earth's surface is made up of large pieces of land called tectonic plates, that move slowly.
- Pangea was a supercontinent 225 million years ago and India was a large island off the coast of Australia.
- 200 million years ago Pangea began to break up due to tectonic plate movement.
- The movement of the Indian tectonic plate caused the island of India to drift northwards towards Asia.
- The Indian plate then collided with the Eurasian plate forcing one piece of land underneath the other.
- This lifted the piece of land on top higher, pushing it upwards and eventually forming a mountain.
- The shifting that formed the Himalayas began 50 million years ago and continues today.

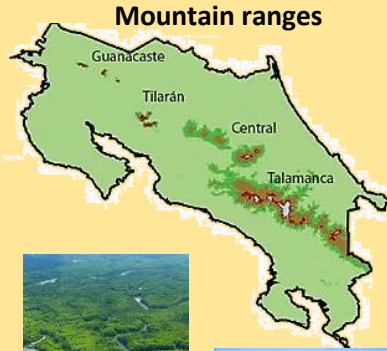


Geography Year 5 Spring 1 – Costa Rica

Big Question: How does a banana get from field to supermarket?



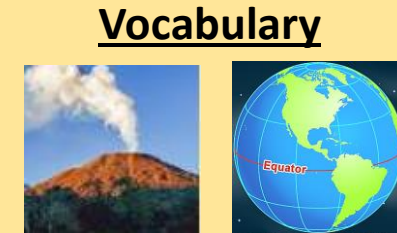
Costa Rica Biome – rainforest
A biome is a region with similar climate, animals and plants.



Terraba River



Mount Chirripó



Turrialba volcano

Equator



Poas volcano
Last erupted 2017



Veragua Rainforest

Vocabulary



Plastic bags



Purple flower



Banana plant



Foam inserts



Ethylene gas

What do I already know?

Year 4 Spring 1:

- China is an 'emerging country' that is getting richer.
- China used to make its money mainly from agricultural production – farming crops and animals.
- China has seen massive growth in manufacturing - making items on a large scale using machinery.
- It is the largest exporter in the world - sends goods to another country for sale.
- China is able to produce on a mass scale as it has lots of giant factories.
- China has lots of highly-skilled workers, who are used to working hard for long hours.
- China can pay their workers little because there is no minimum wage.
- Health and safety laws are relaxed so companies do not have to spend lots of money on safety.
- China has a massive demand for products to be sold domestically due to its very large population.
- As the Chinese people earn more, they spend more

Where is Costa Rica?

- Costa Rica is a country in North America.
- The capital of Costa Rica is San Jose.
- Costa Rica is bordered by Nicaragua and Panama.
- The Pacific Ocean is to the west and the Caribbean Sea is to the east of the country.
- The longest river is the Terraba River - 160km long.
- Costa Rica has lots of mountains stretching from the north to the south of the country: Guanacaste, Tilarán, Central and Talamanca mountain ranges.
- There are over 100 volcanoes - only five are active: Poas, Irazu, Turrialba, Rincon de la Vieja, and Arenal.
- Mount Chirripó is the highest mountain at 3,821m.
- With a rainforest biome, a third of Costa Rica is dense forest.
- Costa Rica is 10 degrees north of the equator and so has a tropical and subtropical climate.
- There are two seasons: dry season (December to April) and rainy season (May to November).
- Costa Rica experiences occasional earthquakes, hurricanes and frequent flooding of lowlands.

What's the journey of a banana?

- Costa Rica's major food exports are: coffee, bananas, sugar and pineapples.
- Bananas are grown in plantations - large-scale estates for farming.
- The old banana plant is cut and replanted.
- When the fruit emerges it is pruned - the purple flower is removed.
- The bunches are covered in large plastic bags.
- The banana plants are then sprayed with pesticide.
- The plastic bags are removed and foam inserts are placed between the bunches.
- Large bunches are chopped from the tree.
- Large bunches are cut to smaller bunches and washed.
- The bananas are checked for quality and boxed.
- The boxes are loaded onto a ship and sent to the UK.
- In the UK, they are stored in sealed ripening rooms.
- When they are ready to be sold, they are exposed to ethylene gas so they ripen.
- Finally they are placed on supermarket shelves.



Geography Year 5 Spring 2 – Italy

Big Question: What caused Mount Vesuvius to erupt?



Europe

Biome - temperate forest (64%) and Mediterranean (36%) with dry summers and rainy winters



Mediterranean



Temperate forest



Venice floating city

Vocabulary



Colosseum



Pompeii ruins



Lake Garda



Leaning Tower of Pisa

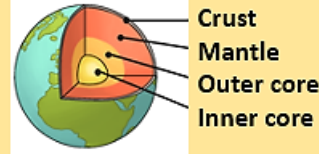


Volcano - rupture in the Earth's crust

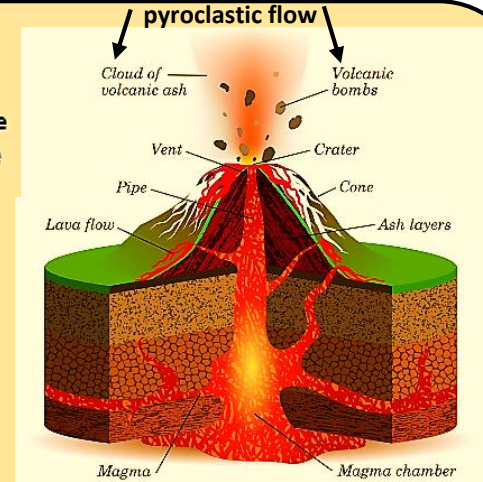


Lava – 1200 °C

Four layers of Earth



Mount Vesuvius will erupt again but no one knows when. It will reach Naples in three minutes.



Type of volcano - Stratovolcano

What do I already know?

- Year 3 Spring 2:
- The Giant's Causeway is off the coast in County Antrim, Northern Ireland.
- There are 40,000 interlocking basalt columns.
- The columns are mostly hexagonal - some have four, seven or eight sides.
- The columns look like stepping stones that lead to the sea.
- Some of the columns are as high as 12 metres.
- The Giant's Causeway is a natural rock formation.
- 50-60 million years ago there were many volcanic eruptions in this area.
- As the lava cooled down very quickly, it contracted and made solid pillar-like structures.
- There were three periods of volcanic activity making the Lower, Middle and Upper Basalts.
- Weathering (the sea crashing into the rocks) has made some of the columns circular.

Where is Italy?

- Italy is in Europe.
- Italy borders France, Switzerland, Austria and Slovenia.
- The bodies of water around Italy are: Adriatic Sea, Tyrrhenian Sea, Ionian Sea, and Mediterranean Sea.
- Italy has over 450 islands including Sicily and Sardinia.
- A biome is a region with similar climate, animals and plants.
- Italy's biome is temperate forest and Mediterranean.
- The capital city of Italy is Rome.
- Italy has a population of 60.5 million.
- Mont Blanc is the highest mountain peak (in Alps) 4808m.
- River Po is the longest river in Italy - 652km.
- Lake Garda, in north Italy, is the largest lake.
- Italy is mostly rugged and 40% of Italy is mountainous.
- The Alps and the Apennine are the main mountain ranges.
- Famous landmarks include: Roman Colosseum, Leaning Tower of Pisa and Pompeii.
- Venice, city in north Italy, is built on around 100 small islands in a lagoon (a lake of sea water) in the Adriatic Sea.
- Venice has no roads, just canals and people use water buses water taxis or gondolas to travel around.
- Italy is a volcanically active country with 13 volcanoes.

What is Mount Vesuvius?

- Mount Vesuvius is a volcano located on the west coast of Italy 9km from the city of Naples.
- Vesuvius is the only active volcano on mainland Europe.
- It is famous for the eruption in 79 AD that destroyed the Roman cities of Pompeii and Herculaneum.
- Mount Vesuvius last erupted in 1944 during the Second World War, destroying an airbase and three villages.
- Mount Vesuvius is a stratovolcano.
- Stratovolcanoes have a pyroclastic flow - very hot ash, lava fragments and gases - that flow at great speed – 240km ph.
- Stratovolcanoes create highly explosive eruptions, rising high into the atmosphere.
- The lava (molten hot liquid rock) is highly viscous (thick consistency) so it cools and hardens before it travels far.
- Mount Vesuvius was formed because the African and Eurasian tectonic plates collided, causing the African plate to tear and sink down into the Earth's mantle.
- Pressure and temperature built up in the Earth's mantle.
- The Earth's mantle melted and magma formed. This magma (gases and hot liquid) pushed upwards to the surface through the tear and then the volcano's vent.

Vision: We show curiosity about our world and understand our responsibility towards it.

Geography Year 5 Summer 1 – Russia

Big Question: Why is Russia's population relatively small despite its size?



Oymyakon River



Reindeer herders



Steppe



Taiga



Mount Elbrus



Tundra



Lena River



deciduous forest



The five main biomes are: tundra, taiga, deciduous forest, steppe and desert.

Vocabulary



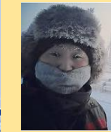
The lowest recorded temperature in Oymyakon is -67.7°C . This is the coldest outside Antarctica. A biome is a region with similar climate, animals and plants.



Urban



Rural - Oymyakon Village



Village resident



What do I already know?

Year 3 Summer 1:

- The Arctic is located at the northernmost part of our planet- above the Arctic Circle.
- The Arctic consists of: Arctic Ocean and parts of Canada, Russia, USA, Greenland, Norway, Finland, Sweden, Iceland.
- The lowest temperature recorded in Greenland was -70°C .
- The North Pole is not in any country, it is part of international waters.
- There is no land at the North Pole instead enormous ice sheets that are 2 - 3 metres deep rest on the Arctic Ocean.
- The ice of the Arctic contains 10% of the world's fresh water.
- Animals found in the Arctic include: polar bears, Arctic foxes, walruses, seals and whales. Narwhals are only found here.
- Mineral resources found in the Arctic include oil, natural gas, iron ore, copper, nickel and diamonds.
- Because of the Earth's tilt, there is an entire day of darkness and also a full day of sunshine for one day a year.
- In the North Pole, during the summer the sun is always up. The sun rises in March and sets in September. That's a really long day and night!
- Four million people live in the Arctic including the indigenous people - Inuit.

Where is Russia?

- Russia is the largest country in the world occupying one tenth of the land on Earth.
- 25% of Russia is in Europe and 75% is in Asia.
- There are 11 time zones across Russia.
- The capital of Russia is Moscow.
- Russia's population is about 144 million. (Bangladesh is 118 times smaller with a population of 166 million).
- 25% of people live in rural areas and 75% live in urban areas - mostly in the west of the country.
- The bodies of water around Russia are Arctic Ocean, Atlantic Ocean and Pacific Ocean.
- The lowest point: Caspian Sea, 28m below sea level.
- The highest point: Mount Elbrus, 5,633m above sea level - highest mountain in Europe.
- The Lena River is the longest river – 4294km.
- Lake Baikal contains more water than any other lake on Earth.
- Although, half of Russia is covered in forests – only 14% of these are suitable for agricultural land use because of the harsh climate.

What is Oymyakon like?

- Oymyakon is the coldest inhabited place on Earth.
- Oymyakon village is in Siberia, northeast Russia, in the subarctic region (area just below the Arctic Circle).
- In winter there are 3 hours of daylight (cloudy and hazy), whereas in summer there are 21 hours of daylight.
- Winters are long (7 months) and excessively cold (-50°C), summers are mild (15°C), occasionally hot (30°C).
- Oymyakon is between two valleys by hills and mountains that trap the wind creating the cold climate.
- The ground is permanently frozen down to 1640m deep - this is called continuous permafrost.
- Oymyakon River does not freeze as ground water escapes to the surface.
- Oymyakon was a stop for reindeer herders watering animals but then the travellers settled in the area.
- The population of Oymyakon is about 500 people.
- Crops will not grow - the diet is of meat, fish and dairy.
- Many people work as reindeer-breeders, hunters and ice-fisherman.
- Children go to school if it is warmer than -55.0°C .



Geography Year 5 Summer 2 - Greece

Big Question: How does nature recycle water?

Features of a River

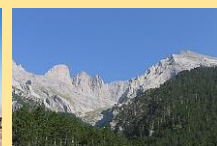


Vocabulary

TYPES OF PRECIPITATION



Parthenon Temple



Mount Olympus



Haliacmon River



Shrublands



Peninsula

Mediterranean Sea

Greece Biome – Mediterranean
A biome is a region with similar climate, animals and plants

What do I already know?

Year 4 Spring 2:

- The River Nile is the longest river in the world - (6,695km).
- The River Nile flows through 11 countries: Tanzania, Uganda, Congo, Rwanda, Burundi, Ethiopia, Kenya, Eritrea, South Sudan, Sudan and Egypt.
- The ancient Egyptians could only grow crops on the mud left behind when the Nile flooded every August.
- 95% of Egypt's population live near the River Nile valley.
- 85% of Egypt's freshwater is from the River Nile.
- The river is home to turtles, hippos and Nile crocodiles.
- The climate is extremely hot (cold and windy in the north).
- Egypt is suffering from severe water scarcity because of:
- Climate – Egypt has low levels of rainfall and high temperatures, which causes drought.
- Pollution – Waste from drains and leaks in waterpipes, industrial waste containing chemicals and agricultural wastewater carrying chemical fertilisers and pesticides, is drained back into the Nile.
- Inefficient irrigation - Irrigation is the watering of land for farming. 86% of Egypt's water is used for farming. A lot of this water is wasted because most of the water evaporates. Flooding farm land, overwatering and using sprinklers wastes water.
- Population growth – There is a growing number of people in Egypt so there is greater demand for water.

Where is Greece?

- Greece is in the continent of Europe.
- Greece borders four countries: Albania, Macedonia, Bulgaria and Turkey.
- The bodies of water around Greece are: Mediterranean Sea, Aegean Sea and Ionian Sea.
- There are 200 islands including Crete, Corfu and Rhodes.
- Greece's biome is Mediterranean and is composed of shrublands and woodlands with evergreen trees.
- Greece is mostly mountainous with ranges extending into the sea as peninsulas or islands.
- The climate is temperate with mild, wet winters and hot, dry summers.
- The capital of Greece is Athens.
- The landmark Parthenon Temple of the Athens Acropolis symbolises ancient Greek civilization.
- The highest point is Mount Olympus - 2917m.
- The Haliacmon is the longest river - 297 km.
- There are 21 rivers in Greece.
- The rivers could not be relied on for transportation in ancient Greece because they dried up in the hot summers so seas were used instead.

Where does the water go?

- A river is freshwater flowing down and across the surface of the land to the sea.
- Rivers begin at their source - high points in hills or mountains.
- They are then joined by streams and rivers at tributaries.
- They then flow in a winding course called meanders.
- Rivers end their journey at their mouth or delta by reaching a lake, sea or an ocean.
- A water cycle is the journey water takes, from land to the sky and back again. There are four stages:
- Evaporation: Heat from the sun causes water in oceans, lakes, rivers etc to evaporate and rise into the sky. The water vapour collects in the sky in the form of clouds.
- Condensation: As water vapour in the clouds cools down it becomes water again.
- Precipitation: Water falls from the sky in the form of rain, snow, hail, or sleet.
- Collection: Oceans, lakes and rivers collect water that has fallen.
- Water evaporates into the sky again and the cycle repeats.