

GEOGRAPHY
SUMMER
KNOWLEDGE
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Geography - Y5 - The Geography of Europe



Key Facts

- Europe borders onto the Arctic Ocean in the North, the Atlantic Ocean in the west and the Mediterranean Sea in the South
- There are 50 countries in Europe with a total of more than 742 million people living on the continent
- there are different climates in different places; for example, in the north like Finland it stays snowy in the winter for 5-6 months and is about -30 degrees Celsius. However, during winter in Spain it is warmer and hardly snows, except on high mountains
- Highest Peak: Mount Elbrus in Russia stands at 5,643m above sea level.
- Largest Lake: Lake Ladoga in north western Russia has an area of 17,700km² (6,800 square miles).
- Longest River: The Volga River in Russia is 3,530km (2,193 miles) long.
- Smallest Country (by land area and population): Vatican City is a tiny country within the Italian city of Rome. The Pope, the leader of the worldwide Catholic Church, lives here along with its 800 other citizens.

Key vocabulary

Border - a boundary especially of a country or state

Capital city - a city that physically encompasses the government's offices and meeting places

City - a place where people live and work that is larger than a town

Climate - the average measurements of temperature, wind, humidity, snow, and rain in a place over the course of years - like the weather, but over a long time

Continent - a continent is a large solid area of land - Earth has seven continents

Country - a country is land that is controlled by a single government. Countries are also called nations, states, or nation-states - they can be large or small

Euro - the currency used by many countries of the European Union

Europe - Europe is the sixth largest continent in size and the third largest in population - it is bordered by the Mediterranean Sea to the south, Asia to the east, and the Atlantic Ocean to the West

European Union - the European Union is a group of countries whose governments work together

Government - a group of people that has the power to rule in a territory, according to the law. - it could be a country, a state or province within a country, or a region

Human features - something that is built by humans and would not have existed in nature without humans

Landmarks - something that is easy to see, a building of historical importance or a very important event or achievement

Geography - Y6 – Rivers and Flooding

Key facts about rivers

A river is a body of moving water that flows from its source (start) to its mouth (end).

Rivers normally start in upland (hilly) areas where there is a lot of precipitation (rain, sleet, snow, hail).

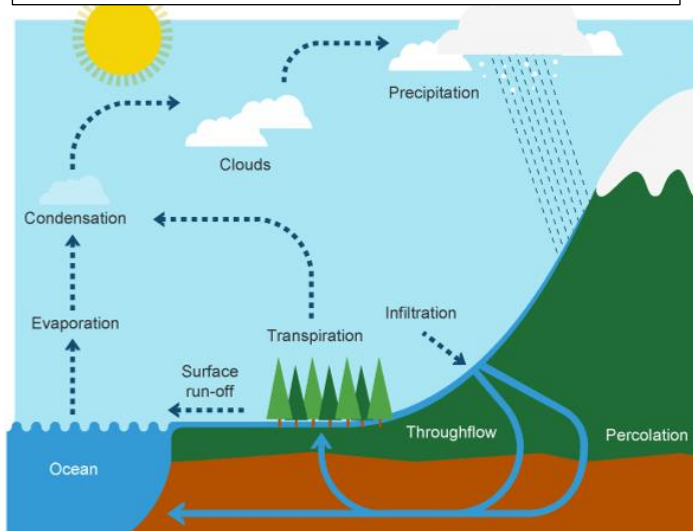
The river flows downhill along the channel where they meander across the floodplain until they reach the sea or join with another river

Where are the world's main rivers located?



Water Cycle

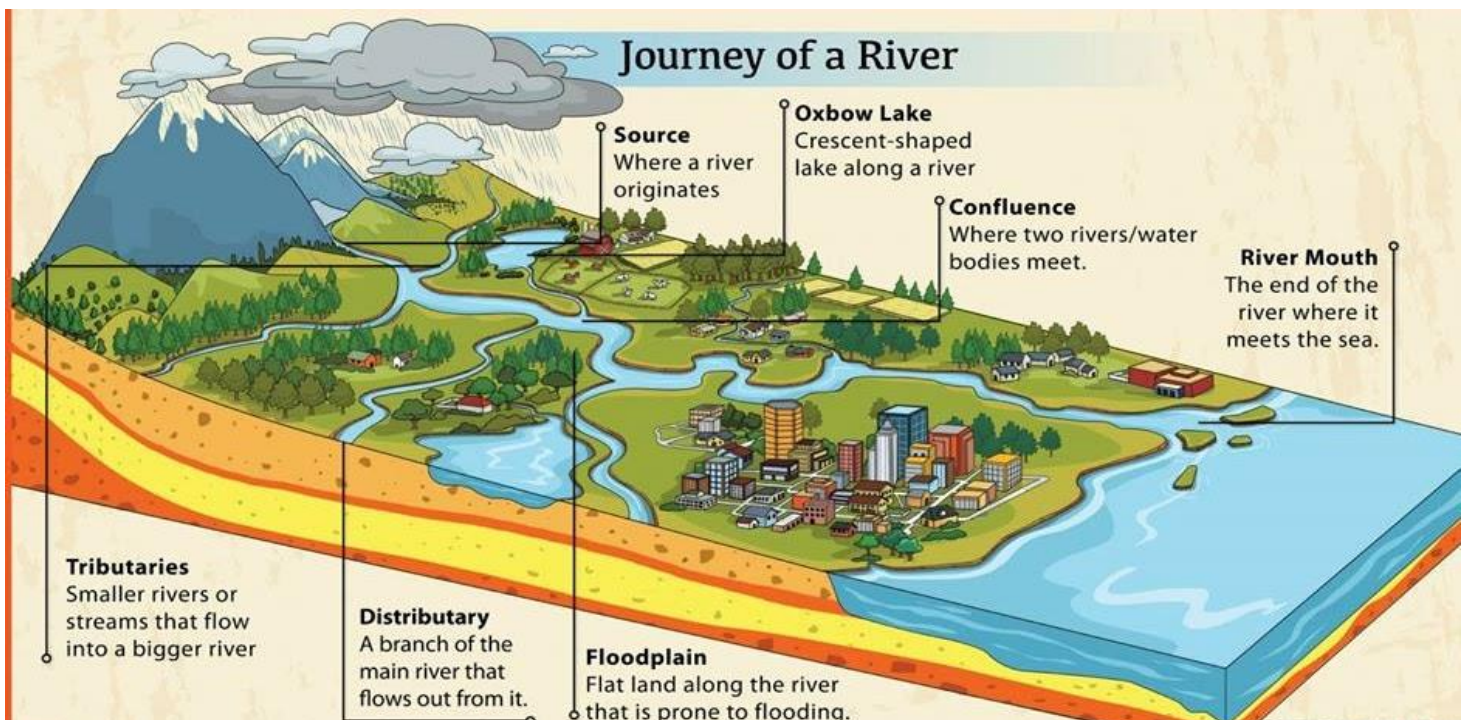
Without the water cycle rivers would not exist.



Key Vocabulary

Source	The start of a river – usually found on high ground
Mouth	The place where the river meets the sea
Delta	Sometimes a river splits up and has several mouths. Usually this looks a bit like a D shape and is named after the Greek letter delta.
Meander	When rivers curve or bend a lot on their journey towards their finish.
Flood	When there is too much water for a river channel to contain.
Floodplain	The area of flat land along the side of the river channel. This will be the land likely to get covered in water if the river floods.
Evaporation	When water turns to a vapour – caused by the heat from the sun.
Transpiration	When water is given off by vegetation.
Condensation	When water vapour turns back to water droplets.
Precipitation	When water droplets fall back to the ground, can be in the form of rain, sleet, snow or hail.

Journey of a River



Geography - Y7 - Coasts, Coastal Defences and Coastal Management (Part B)

Now that we have learned about the way that **coasts can shape the land through erosion** we will be examining the impact that this can have on people and how we can help protect the valuable coastline.

Coastal management is really important as although the **coastal areas** only make up about 15% of the world's area **45% of people live there**.



The place in the photograph is called Happisburgh. The town is under attack by the constant action of the waves. As the sea strikes the soft rock it erodes away and eventually the cliff collapses and retreats backwards. Obviously, this will have an impact on the people living in the local area.

Types of coastal defence

Groynes

Advantages : The groynes stick out perpendicular to the beach trapping sand and stopping longshore drift. This creates a beach causing waves to break and lose power, resulting in less erosion of material.

Disadvantages: Ugly and can be expensive to keep repairing as wood rots over time.



Sea Wall

Advantages : Sea walls reflect the waves away from the coast and form a solid barrier between the sea and the soft rock on the land. They also last a long time.

Disadvantages: Unfortunately sea walls are the most expensive form of coastal management



Rock Armour

Advantages : Absorbs the energy of the waves and allows a beach to build up.

Disadvantages: Expensive to buy. Difficult to transport the boulders and put into position. Can be unsightly.



Key Vocabulary

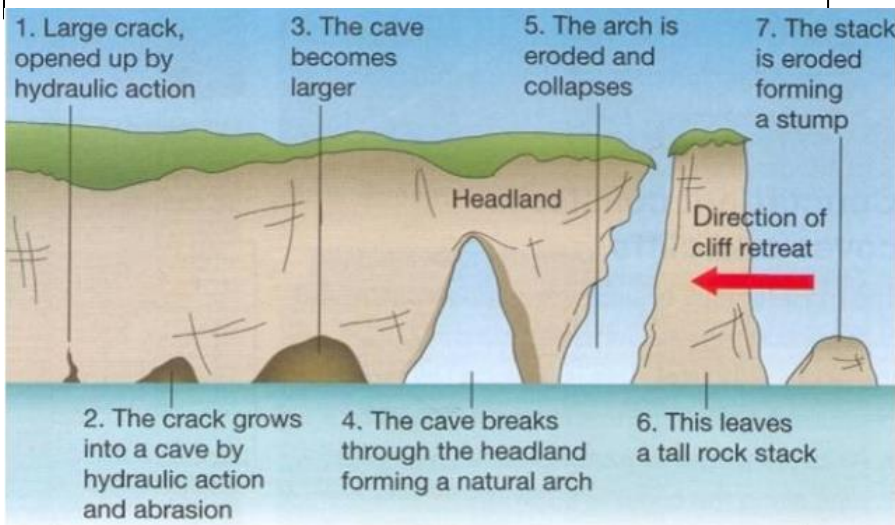
Coastline	The place where the land meets the sea.
Erosion	The process by which land is broken down and worn away.
Coastal management	How people look after, plan and use the coastline.
Sea wall	A wall that stops the waves hitting the land.
Groynes	Long wooden barriers built out into the sea.
Rock Armour	Large boulders to stop the waves striking land directly.
Absorb	Take in or soak up something.
Economic impact	The affect something has on the money of a place.
Environmental impact	The affect that something has on the natural surroundings.
Social Impact	How an event or process can affect the people in a place.

Geography - Y7 - Coasts, Coastal Defences and Coastal Management (Part A)

Waves are **caused** by the **wind**. When the wind blows across the water it transfers its **energy** into the water making them bigger. Wave size is most commonly affected by how long the wind blows for, the strength of the wind and the distance the wind travels over the water (the fetch) -



Coastal Landforms are mainly caused by erosion from the waves. If the waves did not have energy the shape of our coastline would look completely different.



What causes Tides?

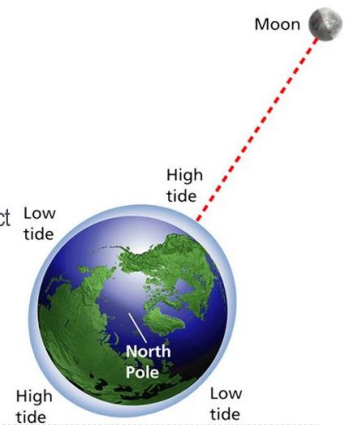
- ▶ Tides are caused by the interaction of Earth, the moon, and the sun

- How?

- Gravity!

- Gravity is the force exerted by an object that pulls other objects toward it.

- ▶ As the distance between objects increases, the pull of its gravity weakens

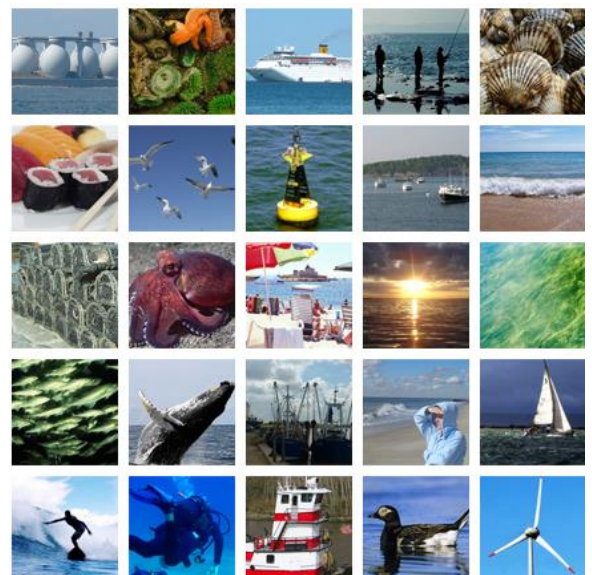


Tides are the natural rise and fall of our seas and oceans and they occur approximately every 12 hours. The maximum high tide varies throughout the month. It is important to have knowledge of tides in many coastal industries such as fishing and engineering.

Key Vocabulary	
Fetch	The distance the wind blows over open water.
Gravity	When an object exerts a pulling force on an object.
Deposition	When material being carried water is dropped.
Erosion	The process by which land is broken down and worn away.
Hydraulic Action	When waves trap and force air into cracks in the cliff face.
Cave	A big hole in the cliff caused by erosion.
Arch	The feature left when a cave erodes completely through the cliff.
Stack	A feature left when an arch collapses

What are the uses of coastal land?

- places to live
- places to work, eg fishing, ports and power stations
- places to relax - leisure and tourism industries
- wildlife habitats
- beautiful scenery
- educational value, eg geology and natural history



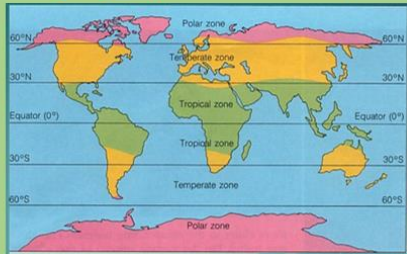
Geography - Y8 - Climate Change

Weather and Climate

Weather is the day to day conditions in the Earth's atmosphere. Types of weather include rain, snow, sun etc. All the weather on Earth is driven by the Sun.



Climate is used to describe the average types of weather over both longer periods of time and larger areas of land



What is Climate Change?

Over the last 4 billion years the Earth has seen many changes to the climate.



These changes do take place naturally for example 18000 years ago most of Britain was covered by snow and ice during the last ice age.

When we mention Climate change in the present we are talking about the rising temperature of the Earth and the effects that this will have.



What Causes Climate Change?

In one word, modern climate change is caused by people. For 1000's of years people didn't rely on technology but in the 1700's life changed in a major way.

People began to make complicated machines that were powered by coal oil and gas (fossil fuels)

Next came electricity and the combustion engine, they also required burning of fuel. The burning process causes a release of Carbon dioxide that leads to global warming



The Greenhouse Effect

The greenhouse effect is the process where gases trap the sun's heat causing the planet to heat up like the inside of a greenhouse. This is sometimes called global warming.

Without the greenhouse effect Earth would be 33°C colder but obviously we don't want it to increase by producing too many greenhouse gases.

The most well known greenhouse gas is carbon dioxide. Other greenhouse gases include carbon monoxide, methane and water vapour.



What is the Impact of Climate Change?

Flooding has increased from one major flood every 100 years to one every ten years.

Animals habitats can change causing meaning the extinction of many species e.g. Polar bears if sea ice melts.

If Climate changes, our farmers may have to change what is grown in this country. It is thought our climate could become like that in the South of France!

Health could be affected due to an increase in illness and disease.



Key Vocabulary

Climate	Examines the average weather over a long time. Results in answers like hot, cold, wet or dry.
Weather	What is happening in the atmosphere on a day-to-day basis e.g. raining or sunny.
Atmosphere	The thin layer of air surrounding the Earth.
Greenhouse effect	The natural effect of gases trapping the sun's heat to warm the Earth.
Greenhouse gas	Gases that are responsible for the greenhouse effect. Carbon dioxide, methane and water vapour.
Global warming	This is the rising of the Earth's temperature.
Carbon emissions	Carbon that is being released into the atmosphere as a gas.
Carbon footprint	How much Carbon each person or country produces
Dispute	An argument about something.
Solar radiation	Heat from the sun.

