

Year 7 Geography Knowledge Organiser



<p>1. Spell it</p> <p>Prepare for a spelling test of key words. Your teacher will misspell the words and you have to try to correct them.</p>	<p>2. Quiz it</p> <p>Prepare for a quiz in your next lesson – all of the answers to the test are in the knowledge organiser.</p>	<p>3. Sort it</p> <p>Organise the information somehow e.g. sort it into physical or human geography, or cause and effect.</p>
<p>4. Challenge somebody</p> <p>Use the knowledge organiser to make a quiz or test for a classmate (e.g. a word jumble).</p>	<p>5. Ask for help</p> <p>Underline any words or terms you don't know or understand in the knowledge organiser – ask a teacher at school or someone at home.</p>	<p>6. Investigate it</p> <p>Find out more about something in the knowledge organiser that your teacher has asked you to investigate.</p>
<p>7. Think and draw</p> <p>Create something visual to help you learn the information. For example, a mind map, spider or flow diagram.</p>	<p>8. Improve it</p> <p>Add extra ideas, facts, and details to the knowledge organiser. Be ready to share it with the rest of the class.</p>	<p>9. Use it</p> <p>Use the information in your knowledge organisers to help answer a question your teacher has given you.</p>

Revision Guide

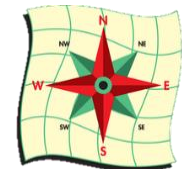
Topic: Geographical Skills

Year 7 Geography

What will you study?	How is it linked to other topics you will study?	How is it linked to what you will study in GCSE Geography ... and beyond?
Measuring distance and direction, grid references, OS map symbols, contours, atlas skills, knowing the continents, graph skills.	Useful to you throughout Year 7 - 9!	The GCSE exam papers contains questions to test your map skills.

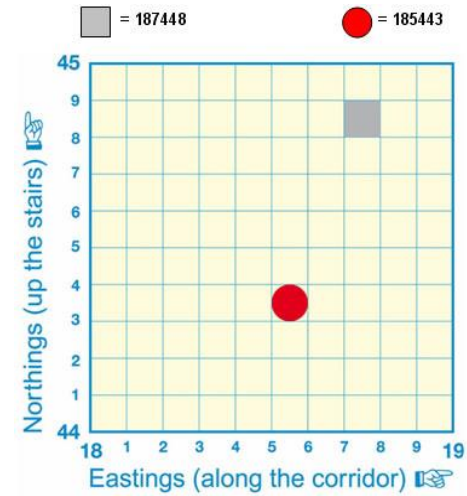
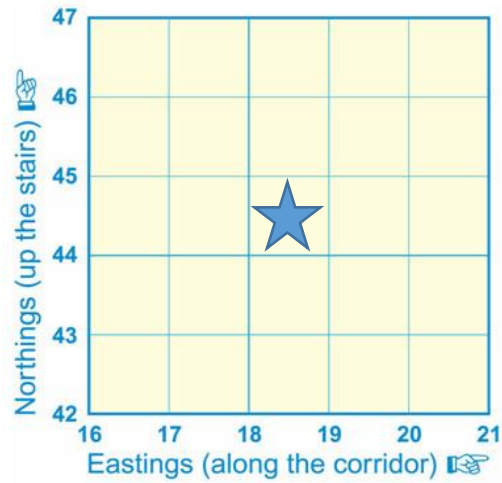
Knowledge box

1) There are seven continents on Earth. Continents are mega-islands (mostly surrounded by ocean).	6) Places can be located on maps using grid references .
2) Naughty Elephants Spray Water can be helpful when trying to remember the main compass points: North, East, South and West.	7) 'Along the corridor and up the elevator' – useful advice to help with four figure grid references .
3) Geographers often use atlases to find places. Atlases contain different types of map. Maps can be on paper, but many maps we use today are digital .	8) Six figure grid references give more precise locations than four figure grid references. They can be worked out by dividing one grid square into 100 small squares.
4) Different maps use different scales – these have different levels have detail. OS Maps scales you will use are usually 1:25000 or 1:50000 – 1:25000 means 1cm on the map is 25,000 centimetres (250 metres) in real life.	9) OS maps contain map symbols to identify different features e.g. a church with a spire, or a post office. You can find out what the symbols mean using the map key .
5) The distance between places is usually measured in kilometres (1 km = 1000 metres) or miles (1 mile = 1609 metres).	10) Contour lines on faint brown lines on OS maps which are used to show the height of the land (e.g. whether it is flat or hilly). When contour lines on maps are close to each other it indicates a steep slope or cliff. The contour interval is usually 10 metres, but you should always use the map key to check.



Grid References (4 & 6)

4FGR = 1844



OS Map symbols

Information centre	Telephone	Parking	Railway Station	Level Crossing	Motorway	Trunk or main road	Footpath
	Sch	PO					
Youth hostel	School	Post office	Camp site/ caravan site	Viewpoint	Picnic site	Access information point	Building of historic interest

Take it further

KS3 Geography Skills on the BBC Bitesize website

<https://www.bbc.com/bitesize/topics/zm38q6f>

OS map zone website

<https://www.ordnancesurvey.co.uk/mapzone/map-skills>

Topic: UK Geography

Year 7 Geography

What will you study?	How is it linked to other topics you will study?	How is it linked to what you will study in GCSE Geography ... and beyond?
Countries and regions of the UK; UK geology, climate and population	You will study climate change later this year, and geology and population again in Year 8	GCSE Geography Paper 1 is all about the geography of the UK

UK Maps



Knowledge box

1. The 'UK' is the United Kingdom. The full name is the United Kingdom of Great Britain and Northern Ireland. Sometimes the UK is called Britain.	7. The UK has an area of 242,500 km ² . The UK is the 78th largest country in the world.	13. The UK is a constitutional monarchy. The monarch of the UK is Queen Elizabeth II. She has reigned since 1952. The UK is a parliamentary democracy. The government is based at Westminster in London.
2. The main island (containing England, Scotland and Wales) is called Great Britain.	8. The UK lies between latitudes 49° to 61° N, and longitudes 9° W to 2° E.	14. The UK was formed by a Union between England, Wales and Scotland in 1707.
3. England, Scotland, Wales and Northern Ireland are all part of the UK.	9. The UK is surrounded by the Atlantic Ocean. It has the 12 th longest coastline in the world.	15. Great Britain and the Kingdom of Ireland formed in 1801. In 1922, the Republic of Ireland became a separate country, but Northern Ireland remained part of the UK.
4. The capital city of the UK (and England) is London. The other capital cities are Edinburgh, Cardiff and Belfast.	10. The UK has an estimated population of roughly 65 million people. 17. The UK is the 21 st most populous country in the world.	16. The UK is a wealthy developed country – it is the world's 5th largest economy. The UK is an unequal society – most people are well-off by world standards, but there is poverty too.
5. The UK shares a border with another country – the Republic of Ireland. This is because Northern Ireland is on the island of Ireland.	11. The UK has a mild, temperate climate, with plenty of rainfall. On average it rains one day in every three.	17. The UK has diverse landscapes – with hilly, upland areas, flat lowlands areas, rivers and coastlines, cities and countryside.
6. Great Britain, Ireland, and many smaller islands (e.g. Shetland, Orkneys, Guernsey) together make up the British Isles.	12. The UK climate has distinct seasons - The coldest months are Jan/Feb and the warmest are July/Aug. On average, the temperature in London is 3°C higher than Edinburgh (Scotland)	18. The UK has a diverse population – roughly 15% of people were not born in the UK. Some places are more diverse than others. London is a <i>multicultural</i> city - 30% of Londoners were not born in the UK.

Taking it further

<https://www.3dgeography.co.uk/geography-of-the-uk>

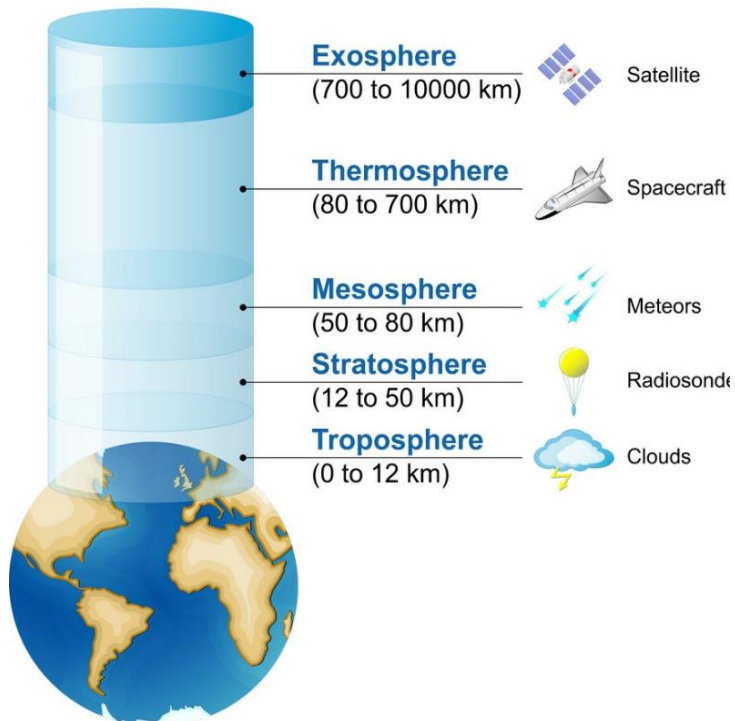
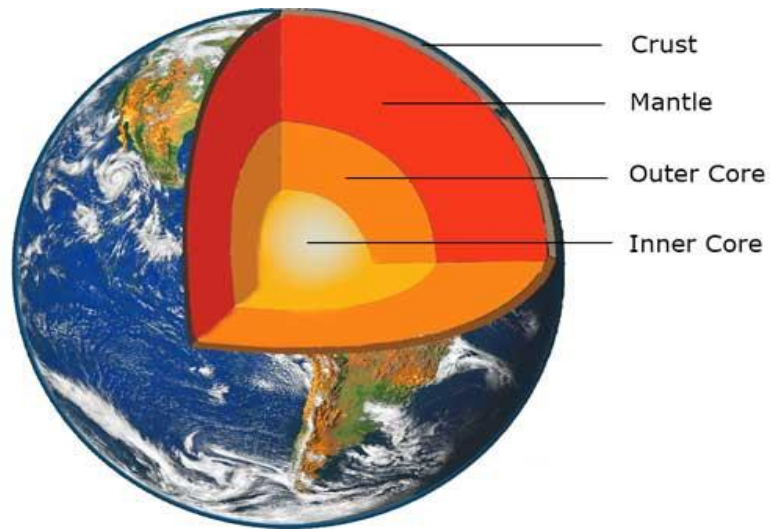
Topic: Our Planet

Year 7 Geography

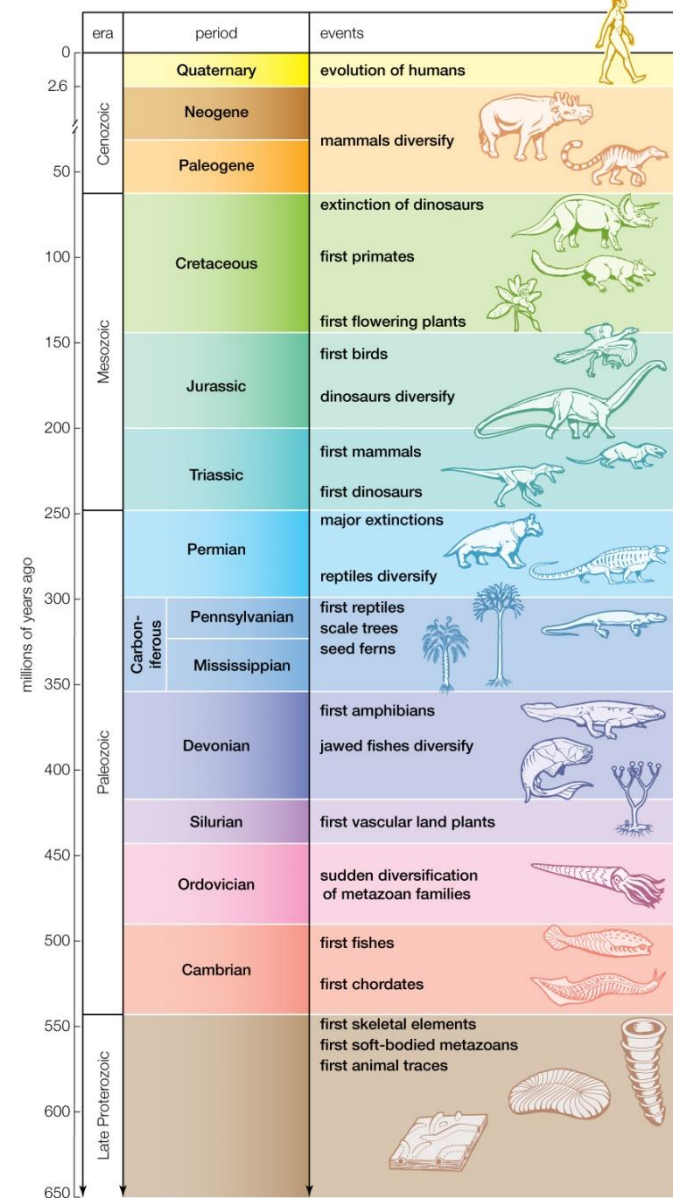
<i>What will you study?</i>	<i>How is it linked to other topics you will study?</i>	<i>How is it linked to what you will study in GCSE Geography ... and beyond?</i>
Layers of the Earth, Geological time, Life on Earth, Natural landforms, Atmosphere, the Greenhouse effect, Food chains, adaptation.	You will study rocks in more detail later this year. In year 8 you will study the climate, plants & animals found in different environments.	Ecosystems is a GCSE topic and you will study atmospheric circulation and the greenhouse effect in more depth.

Knowledge grid

1. The Earth is around 4.6 billion years old.	7. Plants and animals form food chains or more complex food webs. There are producers, consumers and decomposers.
2. Geologists use large units of time lasting millions of years to measure geological time, such as eons, eras, periods, and epochs.	8. Earth is wrapped in a thin layer of gases called the atmosphere.
3. Examples of geological time periods include the Cambrian, Jurassic, and Cretaceous period.	9. The Earth's atmosphere is composed mainly of nitrogen (78%) and oxygen (21%).
4. Landforms are natural features that have formed on the Earth's surface, such as mountains and rivers.	10. The atmosphere is made up different horizontal layers - including the troposphere, stratosphere, mesosphere, thermosphere, and exosphere.
5. The Earth has four main layers: the inner core, the outer core, the mantle, and the crust. The crust is the thinnest outer layer and is mostly made up of igneous rock.	11. Carbon dioxide is a greenhouse gas. Human activity has increased the levels of carbon dioxide in the atmosphere through burning fossil fuels.
6. The other layers of the Earth are mostly made of metals including iron, magnesium and aluminium.	12. The enhanced greenhouse effect is responsible for rising global temperatures and global sea levels.



Geologic time scale, 650 million years ago to the present



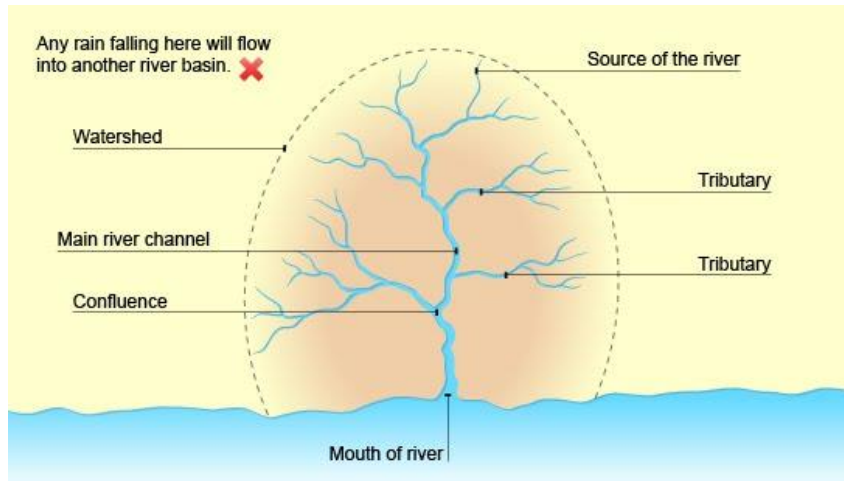
Topic: Rivers & Flooding

Year 7 Geography

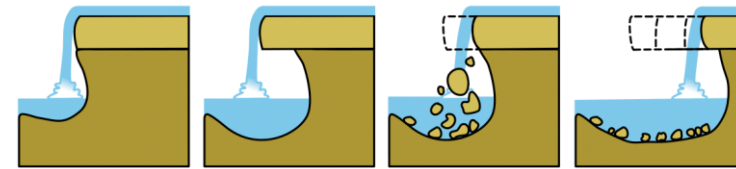
<i>What will you study?</i>	<i>How is it linked to other topics you will study?</i>	<i>How is it linked to what you will study in GCSE Geography ... and beyond?</i>
Rivers, river processes (weathering, erosion, transport, deposition), the formation of river landforms, flooding.	You will revisit geomorphic processes when you study coasts in Year 7 and Glaciers in Year 8	You will study rivers in the UK for the 'Landscapes of the UK' topic at GCSE.

Knowledge grid

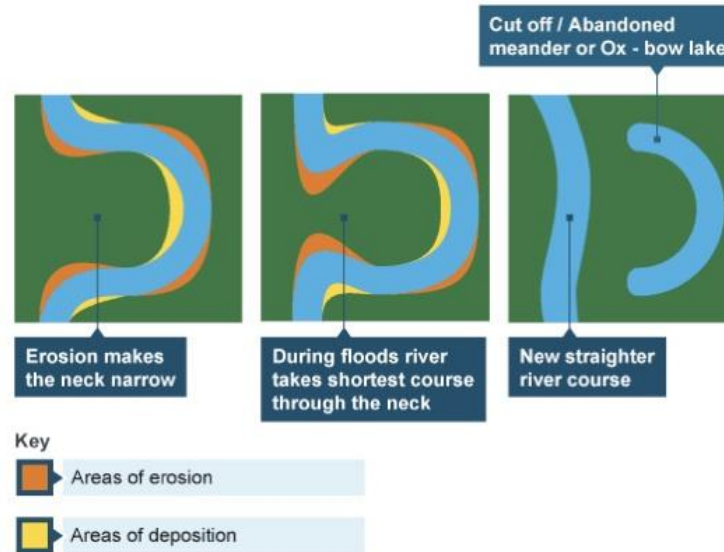
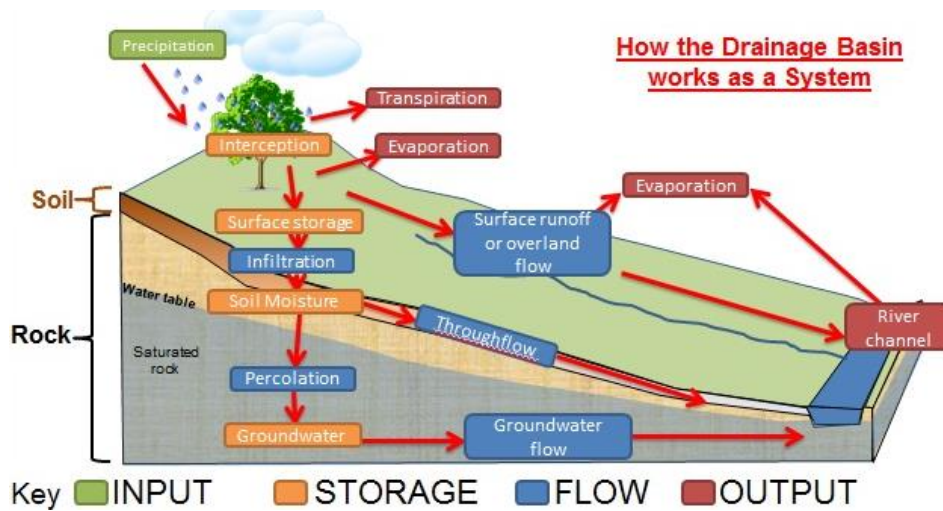
1. A river basin or drainage basin is an area of land drained by a river and its tributaries.	9. A meander is a bend in the river. Meanders usually occur in the middle or lower course, formed by erosion and deposition.
2. The edge of the drainage basin is known as the watershed. This can be compared to a sink or basin, which catches the water falling into it.	10. As the river flows around a meander, the water flows fastest around the outside of the bend. This causes erosion on the outside and deposition on the inside of the bend.
3. The river will eventually leave the river basin through its mouth and enter the sea or a lake.	11. If the meander moves so much that the bend becomes very large, the course of the river may change. The meander may be cut off, forming an ox-bow lake.
4. River landscapes change downstream from the source to the mouth.	12. A river floods when the water normally flowing in the channel overflows its banks and spreads out onto the surrounding land.
5. When a river is near its source, it often develops a V-shaped valley as the river erodes down (this is called vertical erosion).	13. Physical causes of flooding to do with the climate include heavy rainfall, long periods of rain, and snowmelt.
6. Weathering breaks up material on the valley slopes. Weathered rock material from the valley sides gets deposited in the river.	14. Physical causes of flooding to do with rocks and soils include: steep slopes, impermeable rock (doesn't allow water through) very wet, saturated soils, compacted or dry soil.
7. Waterfalls often form in the upper stages of a river where it flows over different bands of rock. It erodes soft rock more quickly than hard rock.	15. Human factors increasing flood risk: urbanisation, because towns and cities have more impermeable surfaces.
8. A steep-sided gorge is formed as the waterfall retreats.	16. Deforestation increases flood risk, because removing trees reduces the amount of water intercepted and increases run-off.



The formation of a waterfall



1. Waterfalls typically form in the upper stages of a river. They occur where a band of hard rock overlies a softer rock. Falling water and rock particles erode the soft rock below the waterfall, creating a plunge pool.
 2. The soft rock is undercut by erosional processes such as hydraulic action and abrasion creating a plunge pool where water and debris swirl around eroding the rock through corraision further deepening it and creating an overhang.
 3. Hard rock overhang above the plunge pool collapses as its weight is no longer supported.
 4. Erosion continues and the waterfall retreats upstream leaving behind a gorge.
- www.internetgeography.net

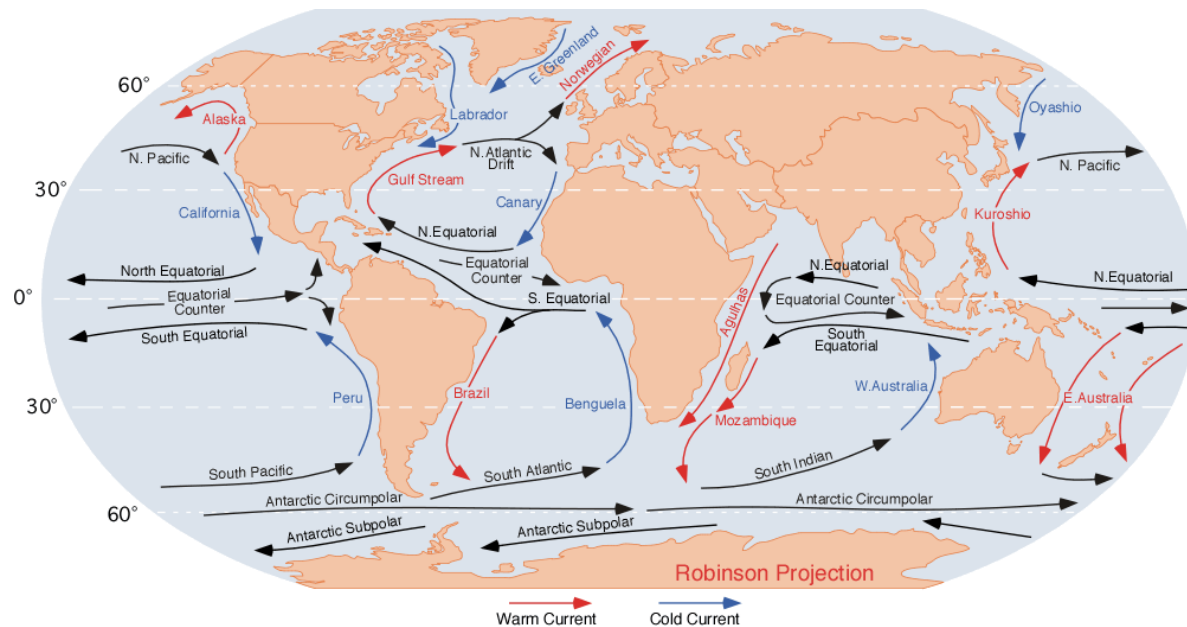


Topic: Oceans & Coasts

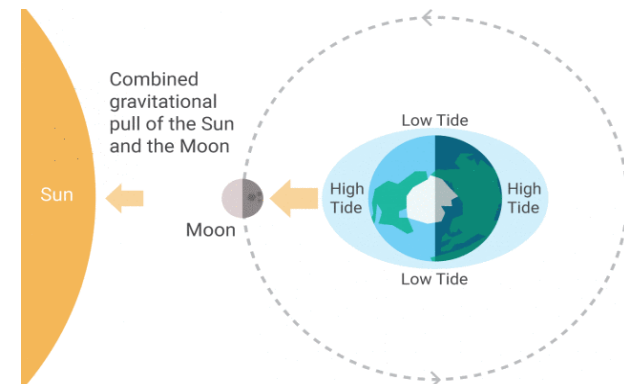
Year 7 Geography

What will you study?	How is it linked to other topics you will study?	How is it linked to what you will study in GCSE Geography ... and beyond?
Oceans, tides, ocean currents, geomorphic processes (e.g. weathering), waves, longshore drift coastal landforms of erosion and deposition,	You will revisit geomorphic processes when you study Glaciers in Year 8	You will study coastal landscapes of the UK for the 'Landscapes of the UK' topic at GCSE.

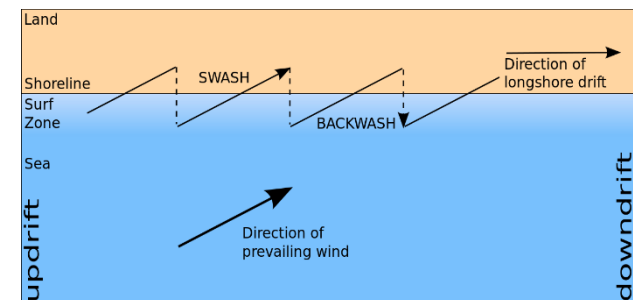
Ocean currents



Tides



Longshore Drift



Knowledge grid

1. Tides are caused by the gravitational pull of the Moon (and to a lesser extent, the Sun).	11. Waves can be constructive or destructive. With a constructive wave, the <i>swash</i> is stronger than the <i>backwash</i> . With a destructive wave, the <i>backwash</i> is stronger than the <i>swash</i> .
2. Ocean currents circulate around the oceans. There are warm and cold ocean currents and they affect weather and climate.	12. Abrasion - waves transport material which hit the cliff and gradually wear it away.
3. The UK has approximately 18,000 km of coastline, and there are many different types of coastal environment: cliffs, beaches, sand dunes, salt marshes, ports/harbours, and seaside resorts etc.	13. Hydraulic action - as waves approach the coast they trap air and force it into gaps in the cliff. Eventually this weakens the rock.
4. Different geomorphic processes take place in the coastal zone, such as weathering, erosion, transportation and deposition. Weathering is the break-down of rocks by the weather (e.g. changes in temperature, rainfall).	14. Attrition - waves cause the rocks to crash against each other, breaking them down into smaller and rounder pieces.
5. Erosion - waves can erode the coastline in a similar way to the water in rivers. This usually occurs when the sea takes lots of energy from the power of destructive waves.	15. Corrosion (also known as solution) - salts and acids in seawater dissolve the rock gradually over thousands of years.
6. Transportation - the movement of eroded material up and down, and along the coast.	16. There are different types of coastal protection: this involves building structures to protect the coast such as sea walls, groynes & gabions.
7. Chalks and limestone can form steep cliffs, whereas clays and softer rock form large bays. Where rocks are at an angle to the edge of the coastline, will erode at different rates, creating headlands and bays.	17. Caves, arches, stacks and stumps - Headlands can be vulnerable to erosion because they stand out from the rest of the coast. Over time, these other features may develop on a headland.
8. Deposition is likely to occur when: waves enter an area of shallow water, waves enter a sheltered bay, and / or there are calm conditions with little wind.	18. Longshore drift is a process of transportation that shifts eroded material along the coastline. Waves approach the coast at an angle. This creates a zig-zag movement of sediment along the beach.
9. The size of a wave depends on: length of time the wind has been blowing, strength of the wind, or the 'fetch' - how far the wind has travelled.	19. Caves, arches, stacks and stumps Headlands can be vulnerable to erosion because they stand out from the rest of the coast. Over time, other features may develop on a headland.
10. When a wave breaks, water is washed up the beach. This is called the <i>swash</i> . Then the water runs back down the beach, which is called the <i>backwash</i> .	20. Spits are caused by deposition - they are features that are formed by the process of longshore drift. An example of a spit is Spurn Head, north of the Humber Estuary in the north east of England.

Topic: Extreme Weather & Climate Hazards

Year 7 Geography

What will you study?	How is it linked to other topics you will study?	How is it linked to what you will study in GCSE Geography ... and beyond?
Types of weather, extreme weather (hurricanes, tornadoes, drought), atmospheric circulation, climate change – evidence, causes, impacts and responses.	You will revisit climate change again in more detail in Year 9 when you study environmental issues, including the carbon cycle.	You will study climate change at GCSE. Understanding the carbon cycle is very important part of the A-level course.

Knowledge Grid

1) Climate change – long-term changes in temperature and climate.	5) Ecosystems – a community of plants and animals living together in an environment.
2) Deforestation – chopping down and removal of area of forest.	6) The greenhouse effect is a natural process which occurs in the atmosphere. Heat is trapped by a layer of greenhouse gases, including methane, water vapour and carbon dioxide.
3) Wind is moving air. Moving air circulates in pattern around the planet. Warm air rises, cools and condenses, forming clouds and rain.	7) The enhanced greenhouse effect is the idea that humans have increased the greenhouse gases that are naturally in the atmosphere, leading to global warming.
4) Rising warm air = low pressure. Cool, dry sinking air = high pressure.	8) Melting ice and thermal expansion are raising ocean levels, threatening low lying islands such as the Maldives.

