THE DUSTON SCHOOL 11-19

Knowledge Organiser World Studies

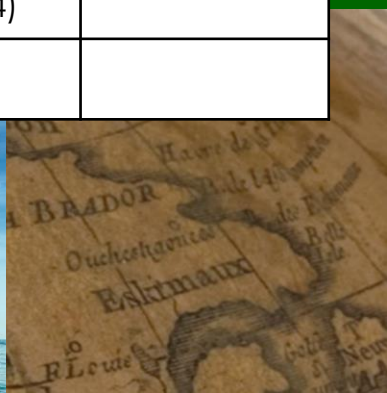
Year 7 Geography

Term 3: Exploring the UK Part 2

Name:

Class Teacher:

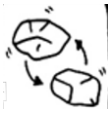
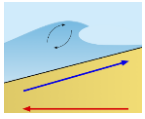
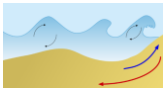
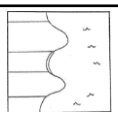
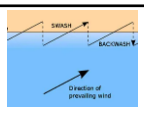
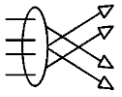
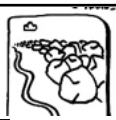
Big Question	Task	Due Date
9	Complete Homework 1 on page 5	
14	Complete Homework 2 on page 11	
17	Complete Homework 3 on page 15	
Voluntary (5 HPs each)	Wider Reading: UK intense storms (Page 22)	
	Wider Reading: What are fossil fuels (Page 23)	
	Wider Reading: Yorkshire coastline (Page 24)	
	Revise for end of unit assessment	



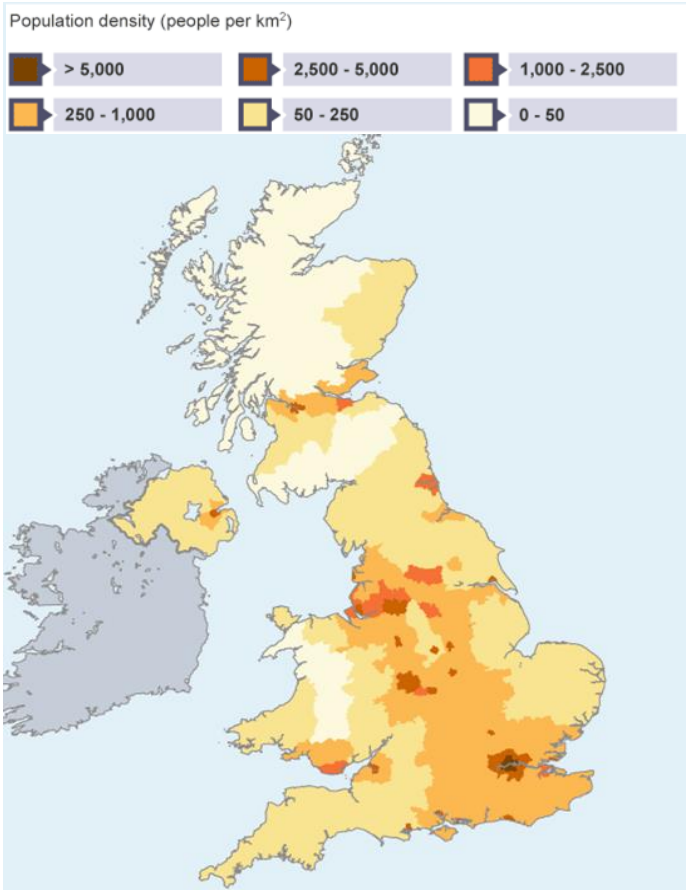
Enquiry Questions

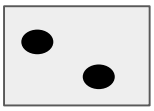
1. What is the population distribution of the UK?
2. How does migration affect the UK?
3. What is the economy of the UK like?
4. How has the changing UK economy impacted on energy used?
5. What are the causes of climate change?
6. Can renewable sources of energy meet UK energy needs?
7. Why is the coast important?
8. How is the coastline shaped by weathering?
9. Why are waves important?
10. How are headlands and bays formed?
11. How do caves, arches and stacks form?
12. How do beaches form?
13. How are spits and bars formed?
14. How can the coast be defended?
15. Why is Happisburgh at risk?

GLOSSARY

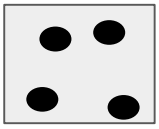
Key term	Icon	Definition
Abrasion		Blocks of rock in the base and sides of the glacier are scraped over the rock surface, just like sandpaper.
Attrition		Eroded particles smash against each other in the water breaking up into smaller pieces. Their edges become more rounded forming pebbles.
Concordant Coast		Is typically made up of the same type of rock, meaning it is eroded at the same rate
Constructive waves		Low energy waves with a strong swash and weak backwash.
Destructive waves		High energy waves with a weak swash and strong backwash.
Discordant Coast		A coastline that is made up of different layers of hard and soft rock at right angles to the shore
Fetch		The distance blown by the wind
Groynes		Wooden OR rock structures built out at right angles into the sea to stop longshore drift
Hard Engineering		These work against nature to reflect or absorb wave energy to prevent erosion and transportation
Hydraulic action		The force of water and air in cracks causing rocks to break
Longshore drift		A zigzag motion as sediment is transported along the coastline.
Refraction		Waves approaching the coast have energy concentrated on the headlands
Rock Armour		Large boulders placed at the foot of a cliff. They break the waves and absorb their energy.
Soft Engineering		These work with nature to absorb wave energy to prevent erosion and transportation
Weathering		The breakdown of rocks

BQ9. What is the population distribution of the UK?

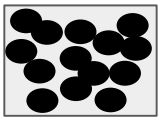




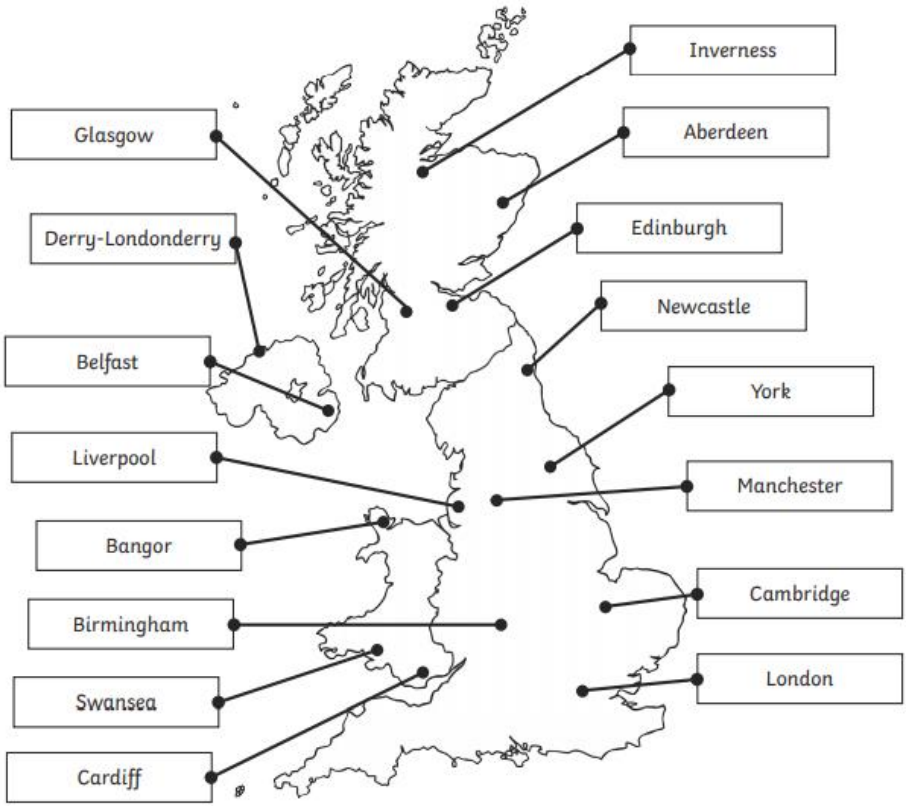
Sparsely populated
Isolated dwellings & villages



Fairly densely populated towns and small cities



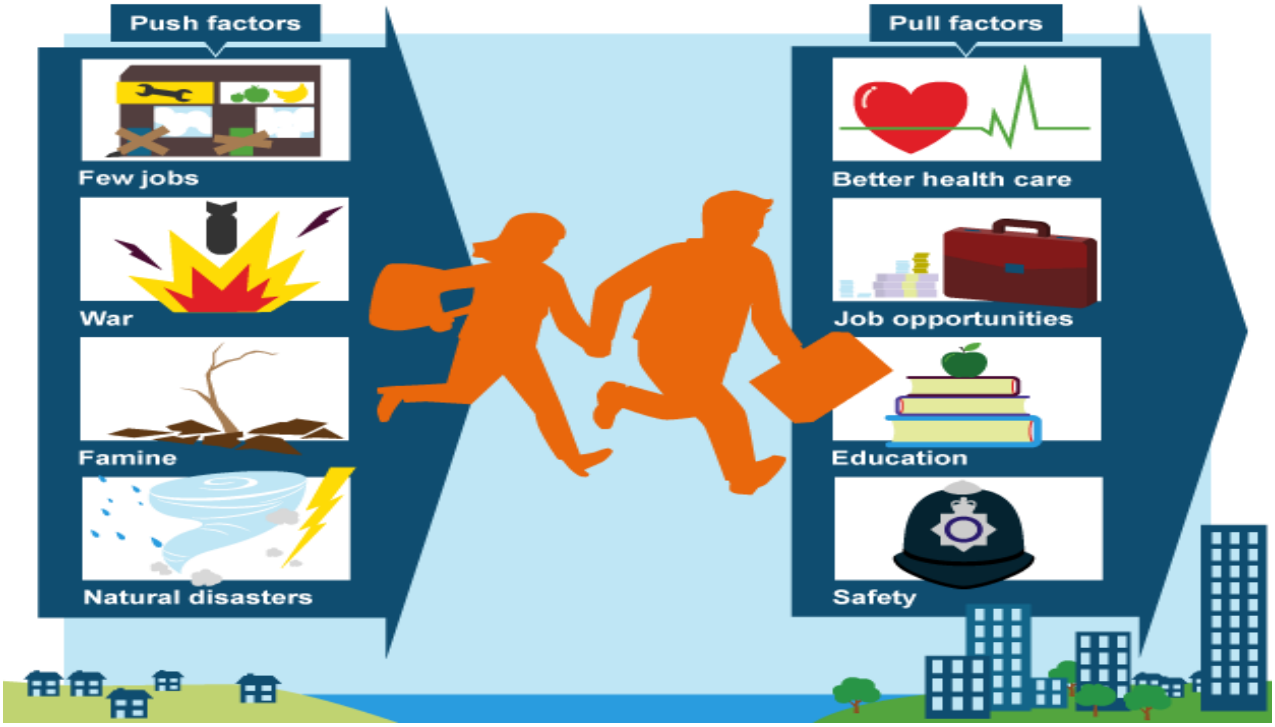
Very densely populated large towns and villages

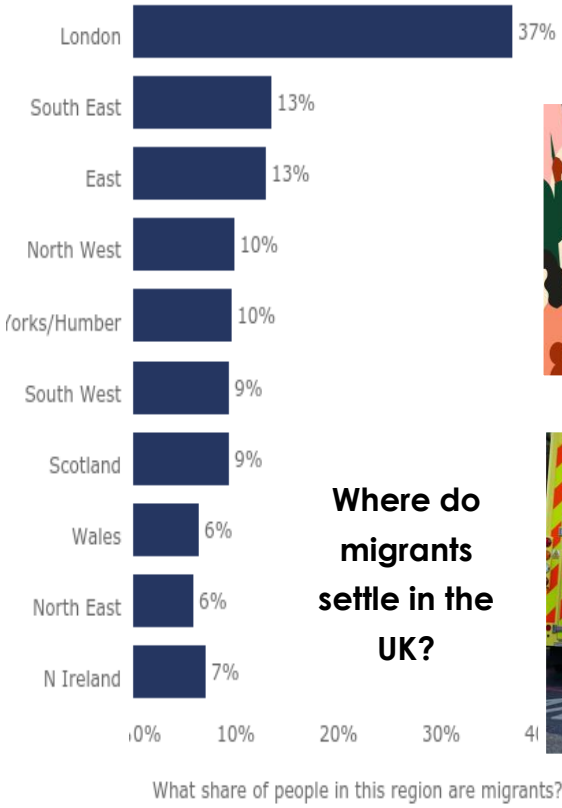


Homework 1

Using the map on page 4 you need to learn the location of the major cities in the UK. You should practice on the blank map, covering the answers to test yourself.

BQ10. How does migration affect the UK?

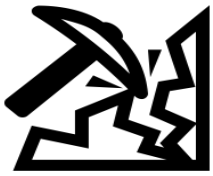
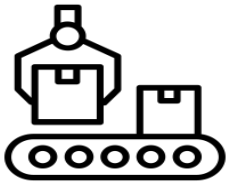




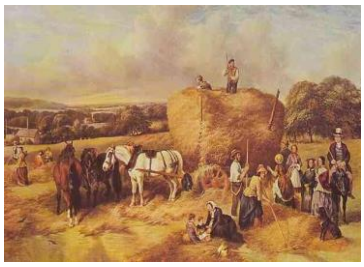
Where do migrants settle in the UK?

Advantages and disadvantages of migration for the UK

BQ11. What is the economy of the UK like?

Primary sector Resources from earth e.g. • Fishing • Mining • Farming	**Secondary sector** Manufacturing goods e.g. • Car factory • Chocolate factory	**Tertiary sector** Services & selling goods e.g. • Shops • Teachers • Chefs	**Quaternary** Research and web e.g. • Google • Science • Bitcoin



In the UK in **1800** most people would have been employed in the **primary sector.** Many people worked on the land, and made their living from **agriculture** and related products.

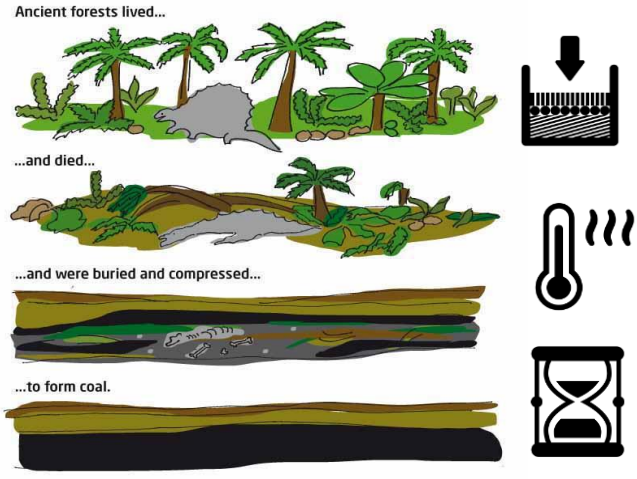
During the **industrial revolution**, more people were needed to build ships, work in steel-making and with textiles. All of these jobs are found in the **secondary sector.** By **1900** over half of the workers in the UK were employed in secondary industries in cities.

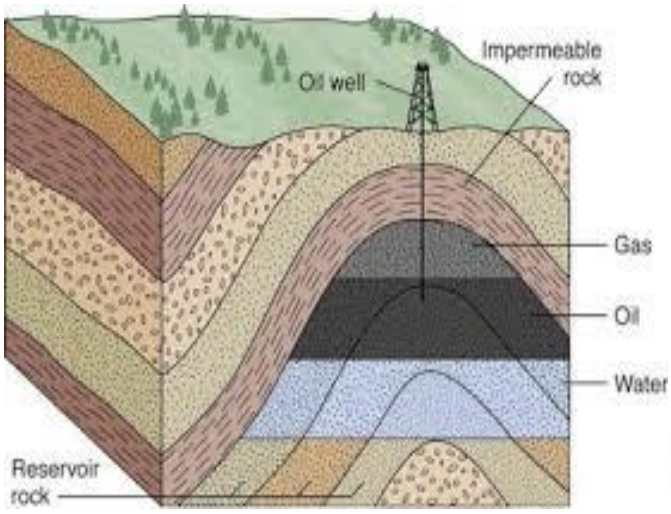
By the **late 20th Century** Foreign industries became more competitive which led to **industrial decline** in the UK

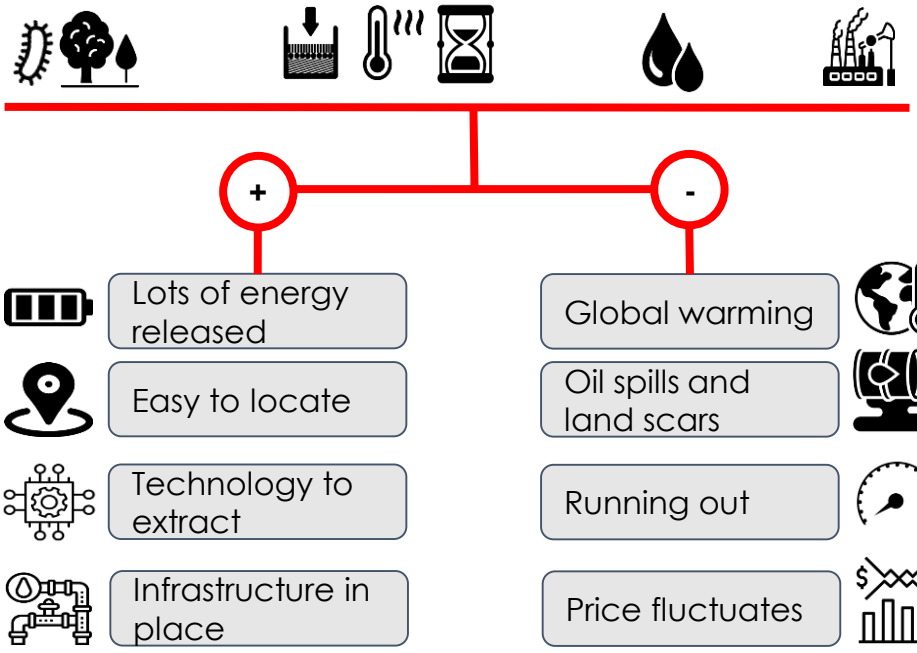
During the **20th century** as the UK became **wealthier** (and more developed), more people worked in the **tertiary sector.**

Quaternary industries are a relatively new concept, it is a growing sector in the UK as many firms want to carry out **research and development** for their products.

BQ12. How has the changing UK economy impacted on energy use?

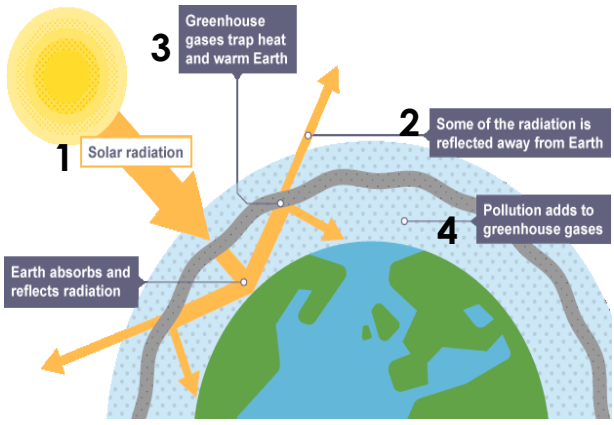






BQ13. What are the causes of climate change?

Greenhouse effect



Earth's past climate

The earth has experiences warming and cooling throughout its 4.5 billion year history

Agriculture - agricultural practices lead to the release of nitrogen oxides into the atmosphere.

Burning fossil fuels, e.g. coal, gas and oil - these release carbon dioxide into the atmosphere.

Orbital changes - the Earth has natural warming and cooling periods. When the orbit is more oval the earth cools

Volcanic activity - during a volcanic eruption carbon dioxide is released into the atmosphere.

Solar output - there can be fluctuations in the amount of radiation from the sun. If there is high amount emitted there will be an increase in Earth's temperatures.

Deforestation - trees absorb carbon dioxide during photosynthesis. If they are cut down, there will be higher amounts of carbon dioxide in the atmosphere.

BQ14. Can renewable sources of energy meet UK energy needs?

Wind farms

Advantages	Disadvantages
• little pollution • safe • land beneath them can be used for other things • cheap to produce energy • some people find them interesting to look at • the farms can provide income for farmers and other landowners in rural areas of the UK • wind is usually stronger in the winter, which is when there is more demand for electricity	• wind doesn't always blow • some people say they spoil the environment • noise pollution

Hydro-electric power (HEP)

Advantages	Disadvantages
• little pollution • produced in areas where few people live • dams can reduce risk of flooding and water shortages • lakes used for water sports	• expensive to build • floods large areas and destroys the environment • silt stays in reservoir rather than helping to fertilise nearby land • methane and carbon dioxide given off by rotting vegetation in lake • fish cannot migrate easily upstream

Solar

Advantages	Disadvantages
• no pollution • can be used in remote areas • usually produced where it is used • easy to install	• expensive to set up • you need a large number of panels and a large area of land • energy only produced in daylight hours • depends on climatic conditions

Geothermal

Advantages	Disadvantages
• renewable • free • little pollution • constant supply	• can only be found in certain locations • power stations may be at risk from earthquakes and volcanoes • sulphuric gases sometimes given off

Homework 2

Try to answer all of these key knowledge questions. Then check your answers using the answer page. These are some of the questions that will be in the knowledge quizzes and the mid and end of unit tests.

Questions in *italics* are from older work.

Key knowledge question	**Your answer**
What is population density?	
What is migration?	
What is tertiary employment?	
What do we mean by 'non-renewable'?	
What are the 3 requirements for dead organisms to turn into fossil fuels?	
What is the greenhouse effect	
What is global warming?	
What is climate change?	
Outline one advantage of solar power	
Outline one disadvantage of solar power	
What is the name that describes the drawing of maps?	
What does the word demography mean?	
Name the two main branches of geography	

BQ15. WHY IS THE COAST IMPORTANT?

Factors that influence the coast

- Geology (rock type)
- Natural processes
- Humans

Why Coasts?

Importance of the coast

- Human settlements *Social*
- Wildlife habitats *Environmental*
- Tourism & Industry *Economic*

Dorset Case Study

Why is the Dorset coastline called the Jurassic coast?

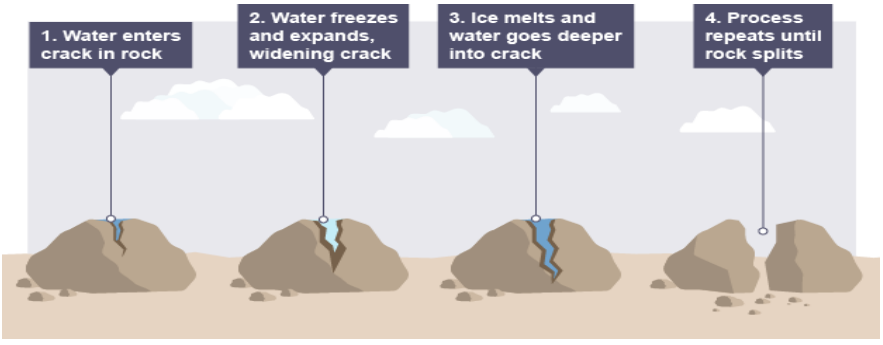
Mary Anning was a Georgian and Victorian (early 19Cth) fossil collector on the Jurassic coast in Dorset, Southern England. Her work was not always recognised because she was a woman!! She identified the identified ichthyosaur skeleton.

BQ16: How is the coastline shaped by weathering?

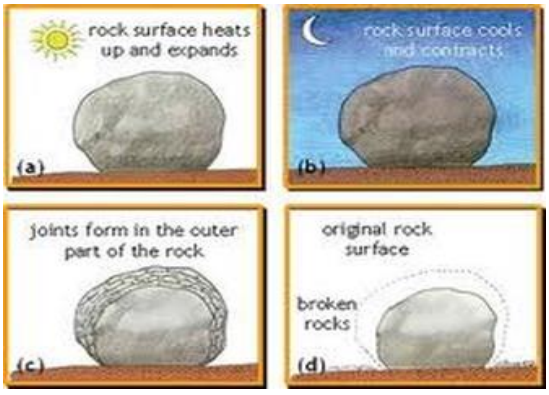
Weathering
Breaking down of rocks

- Physical
  - Freeze Thaw
  - Onion Skin
- Carbonation
- Biological
  - Plants
  - Animals

Freeze thaw weathering



Onion skin weathering



Biological weathering

Chemical weathering

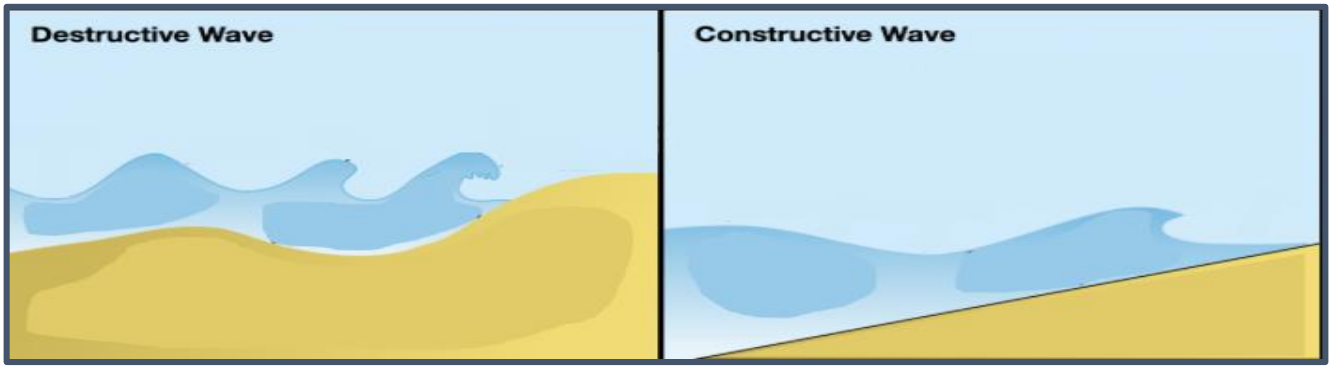
Carbonation is an example of chemical weathering. Rainwater reacts with carbon dioxide (CO_2) in the atmosphere to form a weak solution of carbonic acid (H_2CO_3). When this acidified water comes into contact with rocks, it causes a chemical reaction that slowly dissolves the rock away.

BQ17: Why are waves important?

Factors that affect the size of a wave

- **Fetch** — Distance (kilometers)
- **Strength** — Wind speed (KMs/Hour)
- **Duration** — Time (Days & Hours)

There are two types of wave: Destructive and Constructive



Destructive waves TAKE AWAY beach material because *their backwash is stronger than their swash* = Erosion happens and the beach is made smaller. The beach is steep and stepped.

Constructive waves ADD material to the beach because *their swash is stronger than the backwash.*

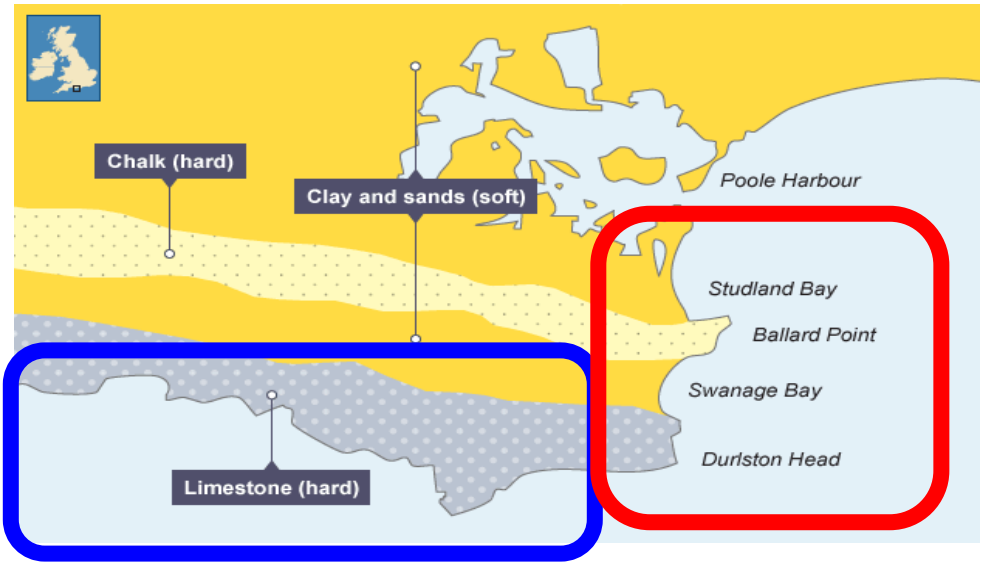
Homework 3

Try to answer all of these key knowledge questions. Then check your answers using the answer page. These are some of the questions that will be in the knowledge quizzes and the mid and end of unit tests.

Questions in *italics* are from older work.

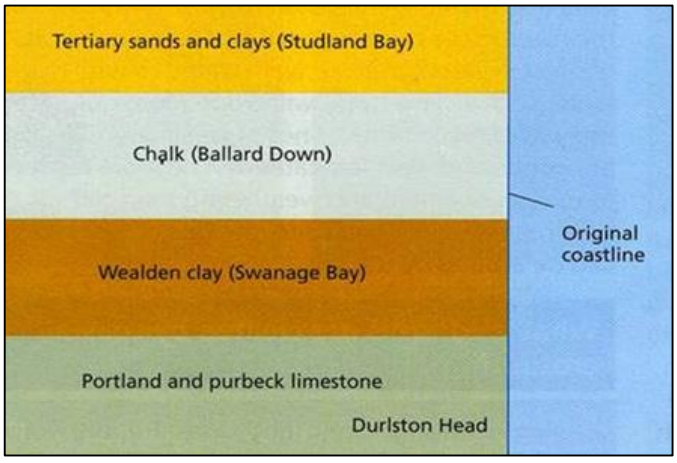
Key knowledge question	**Your answer**
Name the three factors that influence the coast	
What three natural process shape the coastline?	
What is weathering?	
What is erosion?	
What is carbonation weathering?	
When temperatures are very cold what kind of weathering will occur?	
What three factors affect the size of a wave	
What is the difference between swash and backwash?	
What causes waves to break?	
What are the two types of waves?	
What latitudes are temperate deciduous woodlands found?	
When an area has few people living there how can we describe it?	
What is an ecosystem?	

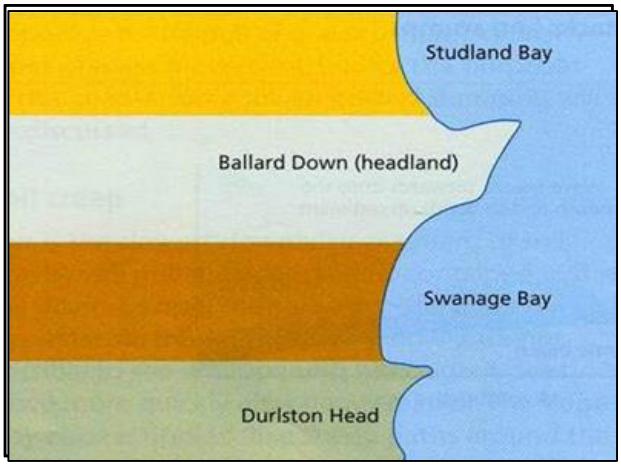
BQ18: How are headlands and bays formed?



A discordant coastline is a coastline that is made up of different layers of hard and soft rock at right angles to the shore, whereas a **concordant coastline** is typically made up of the same type of rock, meaning it is eroded at the same rate (see the image below).

Formation of Headlands and Bays

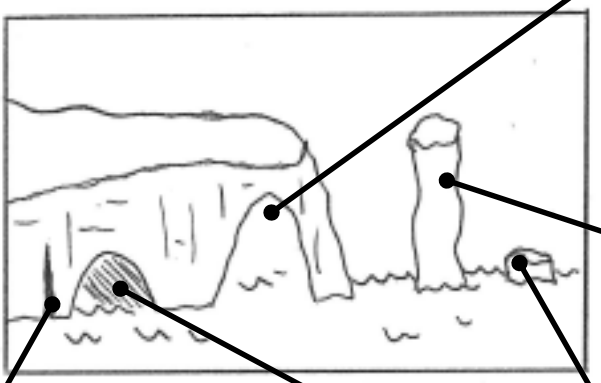




- ❑ Destructive waves erode the coastline by **hydraulic action** and **abrasion**.
- ❑ The harder rock such as chalk, limestone or sandstone is more resistant to erosion and so the waves energy is focused on the layers of softer rock such as clays either side of the hard rock.
- ❑ The softer rock erodes much faster, forming a bay.
- ❑ Over time, a beach may form in the bay as sand and shingle is deposited by constructive waves.
- ❑ The hard rock then juts (points) out to sea. It erodes much slower.

BQ19: How do caves, arches and stacks form?

Caves, arches, stacks and stumps



A line of weakness, fault or **crack** in the rock makes the cliff vulnerable to **hydraulic action.**

The hydraulic action forces the crack apart to eventually form a **cave.**

Abrasion and undercutting will widen the cave and eventually it will meet the cave on the other side of the headland to form an **arch.**

Eventually the arch is undercut by erosion processes and weakened by weathering making it **collapse** due to gravity. This leaves an isolated **stack.**

The stack will eventually collapse to from a **stump.**

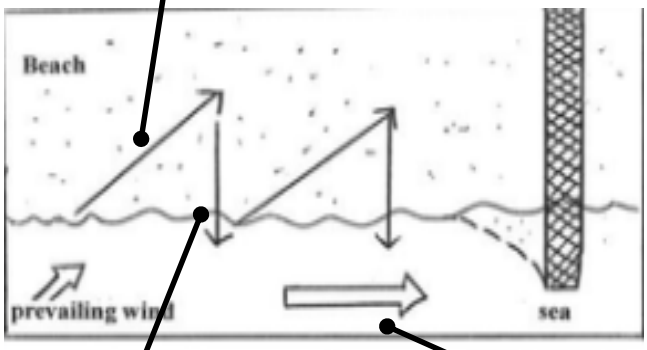
Refraction: As waves approach a coast they are refracted so that their energy is concentrated around headlands but reduced around bays. Waves then tend to approach coastline parallel to it, and their energy decreases as water depth decreases.

BQ20: How do beaches form?

When the waves lose their energy due to friction with the seabed or a lack of wind, they can no longer transport the eroded material, therefore it is deposited. The deposits of sand and shingle build up and over time until a beach is formed. Beaches are accumulations of sand and shingle.

Longshore Drift

The swash carries the material up the beach at an angle because of the **prevailing wind.**



The backwash carries the material straight back down the beach because of **gravity.**

Material is carried along the shore

Beaches may form in sheltered bays where **constructive waves** are dominant, areas where there are large expanses of flat beach, where the coastline changes shape or when structures such as groynes trap sediment.

Whereas pebble beaches are found in exposed coastal areas where there are no or few headlands, and are formed by **destructive waves** (high energy). e.g. Brighton, England

BQ21: How are spits and bars formed?

Geomorphology

Longshore Drift

Sediment supply

Change angle of coast

Landform

SPIT

Impacts

Settlements (Social)

Salt Marsh (Environmental)

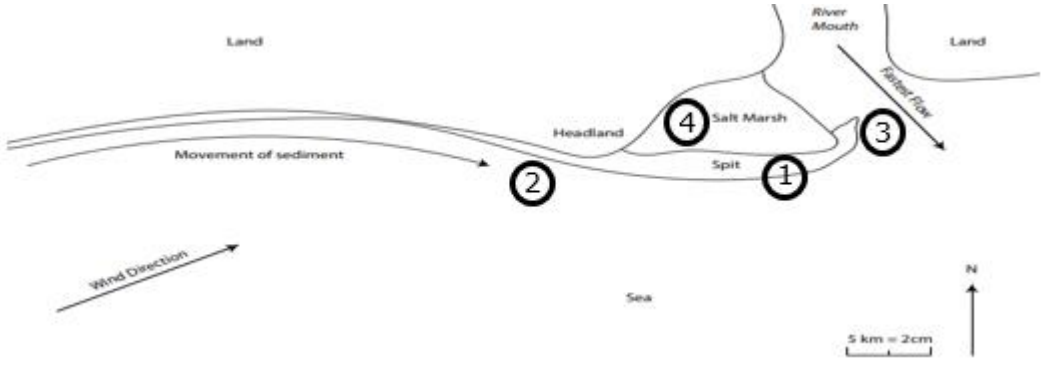
Tourism/Industry (Economic)

1. A **spit** is a long narrow finger of sand or shingle jutting out into the sea.

2. It is formed by long-shore drift continuing when the coast suddenly changes direction and sand is deposited out to sea.

3. This builds up over time and the end becomes curved due to strong winds and tidal currents.

4. Saltmarshes and sand dunes form in the sheltered area behind the spit



BQ22: How can the coast be defended?

Hard engineering - The use of concrete and artificial structures by engineers to defend the land against erosion.

- o Timber or rock structures built on the beach at right angles to the coastline.
- ✓ Trap sediment by interrupting longshore drift and the beach formed protects the coast from destructive waves
- × They **interrupt longshore drift** and so can cause problems elsewhere.

- o Large boulders piled up in front of the cliffs to protect them from the force of the waves.
- o They **absorb wave energy**.
- ✓ Cheaper than other methods and easier to maintain.
- × Can be **expensive** to transport.
- × May not fit into local geology and can look ugly.

- o A concrete or rock barrier against the sea. Placed at the foot of cliffs or as part of a promenade.
- ✓ Effective at stopping waves
- × **Very expensive** so only used on resort seafronts.
- × Lasts 25 years so will need to be replaced.

Soft engineering - Managing erosion by working with natural processes. Working with nature not fighting it.

- o Sand and shingle is dredged from offshore and transported by barge to the coast.
- ✓ **Relatively cheap** and easy to maintain.
- ✓ Increased tourism
- × Needs constant maintenance and one storm can remove the beach.
- × Work can only be done in winter months to avoid loss of tourist revenue.

- o Allowing cliff erosion to occur as nature taking its course.
- ✓ Less money is spent as defences are not replaced.
- ✓ **Natural environments are created**.
- × Some people may have to move as their homes are flooded by the advancing sea.
- × Can be unpopular with coastal habitats as they feel abandoned by the government.
- × Not possible on densely populated coastlines.

BQ23: Why is Happisburgh at risk?

Setting

Old wooden defences

soft rocks

destructive waves

H

Problems

High rates of erosion

property at risk

tourism impacted

Solutions

guided READING

UK MUST PREPARE FOR MORE INTENSE STORMS, CLIMATE SCIENTISTS SAY

A Guardian news report discussing whether the UK can be protected against future climate change – 17th Feb 2020

Britain must brace for more storms like Dennis and Ciara because rainfall will be more intense in a climate-disrupted future, scientists have warned.
They said the government needed to increase the creation of more natural drainage systems if it wanted to avoid having to raise the level of sea and river defences every few years to counter the growing threat of flooding and storm surges.
Storm Dennis killed at least three people and flooded many parts of the country at the weekend. Politicians from all parties have acknowledged the link to the climate crisis, but differ over how to respond.
The new environment secretary, George Eustice, said on Sunday that the UK was already spending billions of pounds on flood infrastructure, but that there was a limit to how effective this could be in the face of a worsening threat.
"We'll never be able to protect every single household just because of the nature of climate change and the fact that these weather events are becoming more extreme," he said, "but we've done everything that we can do with a significant sum of money, and there's more to come."

The shadow environment secretary, Luke Pollard, has called for a new strategy, saying the government is not doing enough to respond to the crisis.
England has experienced a major flood almost every year since 2007, leaving about 100,000 properties damaged, according to scientists in the Climate Coalition.
They said the risks were amplified by human-driven global heating because a warmer atmosphere was able to absorb more moisture. This can then be dumped in shorter periods of time, as happened at the weekend, when parts of the UK experienced a month's rainfall in two days.
Dr Marc Stutter, a senior scientist at the James Hutton Institute in Aberdeen, said: "Such storms are part of a shifting baseline for the climate and the state of the landscape on which the rain falls. While future scenarios for rainfall and runoff are highly uncertain, there is less doubt that the future has greater variability in extremes of rainfall, both in terms of flood and droughts."

Stutter said the problems were worsened by the degradation and concreting over of natural buffers, such as soil and green spaces. "Infiltration and places to slow, store and filter water need to be planned back into landscapes to add resilience to floodwalls; the alternative is we risk raising the walls every few years."
Dr Mohammad Heidarzadeh, the head of coastal engineering and resilience at Brunel University, said the UK's flood defences were not suited to the current situation, which is characterised by high frequency and high intensity climate events.
"While the interval for major floods was 15–20 years in the past century in the UK, it has dramatically shortened to two-to-five years in the past decade. Therefore, it is no surprise that several flood defence systems were overtopped or damaged by flood water," he said.
Heidarzadeh said the solution was not just to pour more concrete into barriers and channels, which can sometimes make the situation worse. Instead, soft-engineering solutions were just as important.
"Non-structural solutions, such as managed retreat, sustainable drainage systems and public involvement, are vital. The country needs further investment in its flood systems, but such investment should be within a holistic and integrated framework."
After Storm Desmond devastated parts of Scotland, the Lake District and Northern Ireland in 2015, scientists estimated human-driven change to the climate made extreme rain about 40% more probable. Similar attribution studies for the latest downpours will need more time, but the overall trends towards more extreme weather are well established.
Compared with 50 years ago, the Met Office says the maximum daily deluge each year has risen by 17% from 64mm to 75mm, while the longest wet spell has increased from an average of 12.4 days to 12.9 days.

Met Office forecasters cannot confirm that storms in the UK will become more powerful or more frequent in the future, though some climate models suggest this. What is clear, they say, is that extreme rainfall is more intense.
"The headline is wetter winters and drier summers, but there is still uncertainty over how much wetter and drier," said Jeff Knight, the Met's manager of climate variability modelling.
The storms were driven by an unusually powerful jet stream across the Atlantic, which has also led to a record fast flight from New York to London, said Knight.

1 What were the names of the 2 storms that hit in February 2020?

2 Use your prior knowledge to explain how the scientists advice would help in future.

3 What is the argument for never being able to protect all homes?

4 How big is the flooding problem in the UK?

5 What is the explanation for more intense storms?

6 Is flooding the only climate related issue that the UK needs to plan for?

7 How is urbanisation affecting the UK's ability to cope?

8 What is the issue with the current flood defences in the UK?

9 How has the frequency and magnitude of floods changed in the last 10 years?

10 What is the scientists view of coastal engineering strategies and why?

11 Which parts of the UK were affected by Storm Desmond in 2015?

12 Why do you think the Met Office name storms?

13 Why do you think that the Met Office can't be sure that storms will become more frequent and powerful in the future?

14 How are the changes likely to differ across the seasons?

15 What is the jet stream?

WIDER READING: 5 HOUSE POINTS

guided READING

WIDER READING: 5 HOUSE POINTS

WHAT ARE FOSSIL FUELS?

Decomposing plants and other organisms, buried beneath layers of sediment and rock, have taken millennia to become the carbon-rich deposits we now call **fossil fuels**. These non-renewable fuels, which include coal, oil, and natural gas, supply about 80 percent of the world's energy. They provide electricity, heat, and transportation, while also feeding the processes that make a huge range of products, from steel to plastics.

When fossil fuels are burned, they release carbon dioxide and other greenhouse gases, which in turn trap heat in our atmosphere, making them the primary contributors to global warming and climate change.

Major types of fossil fuels

There are several main groups of fossil fuels, including:

Coal: Black or brown chunks of sedimentary rock. Mined via surface or underground methods, coal supplies a third of all energy worldwide, with the top coal consumers and producers in 2018 being China, India, and the United States. Co2 emissions from burning coal account for 44 percent of the world total, and it's the biggest single source of the global temperature increase above pre-industrial levels. The health and environmental consequences of coal use, along with competition from cheap natural gas, have contributed to its decline in the U.S. and elsewhere. But in other places, such as India, demand is expected to rise through 2023.

Oil: Crude oil, a liquid composed mainly of carbon and hydrogen, is often black, but exists in a variety of colours. Extracted from onshore and offshore wells, crude oil is refined into a variety of petroleum products, including gasoline, diesel, and heating oil. The top oil-producing countries are the U.S., Saudi Arabia, and Russia, which together account for nearly 40 percent of the world's supply.

Petroleum use accounts for nearly half the carbon emissions in the U.S. and about a third of the global total. In addition to the air pollution released when oil is burned, drilling and transport have led to several major accidents. Nonetheless, oil demand continues to rise, driven not only by our thirst for mobility, but for the many products—including plastics—made using petrochemicals, which are generally derived from oil and gas.

Natural gas: An odourless gas composed primarily of methane, natural gas often lies in deposits that, like those for coal and oil, formed millions of years ago from decaying plant matter and organisms. Both natural gas and oil production have surged in the U.S. over the past two decades because of advances in the drilling technique most people know as fracking. Natural gas is cleaner than coal and oil in terms of emissions, but nonetheless accounts for a fifth of the world's total.

Article from National Geographic

1 What are the three fossil fuels?

2 How much of the world's energy do fossil fuels create?

3 How do fossil fuels link to the greenhouse effect?

4 What is coal and how is it mined?

5 What has been the biggest single source of global temperature increase?

6 What is crude oil, and how is extracted?

7 What is crude oil turned into?

8 How much of the global carbon emissions is from petrol?

9 What common products includes oil in its manufacture?

10 What is natural gas?

11 Natural gas accounts for what proportion of global carbon dioxide emissions?

12 Reflection:
What have you learnt from this? List three things.

guided READING

5 Define rock armour and explain the advantages of using this method to protect the coastline.

1 How much land is being lost in Skipsea?

2 Why did Chey first move to the area?

3 How are the council monitoring the rate of erosion?

4 What are the impacts of the erosion at Skipsea?

LIFE ON YORKSHIRE'S CLIFF EDGE AS COASTAL EROSION THREATENS HOMES

THE YORKSHIRE POST

Every morning before she puts the kettle on Chey Kenyon looks to see if her garden fence is still there.

With the fence literally marking the edge of a crumbling cliff yards from her home, her concern is understandable.

Chey is one of more than 20 property owners living on Green Lane, Skipsea, on Yorkshire's fast-eroding coastline, where up to 3ft of land is being lost to the sea every month.

Chey bought the property five years ago and says: "I got a good deal, I thought it doesn't matter, the view is beautiful. I am hoping for another five years bug once it takes my fence I will start worrying."

As she speaks, two officials wearing backpacks make their way over the clifftop using **satellite-based navigation systems** to monitor erosion.

A new East Riding Council report says while erosion losses down the East Yorkshire coast were much lower than expected over the winter of 2018/19, there are exceptions. These include Skirlington, Tunstall and south Withernsea.

It adds: "Since March 2019 the monthly **GPS surveys** have shown that erosion rates at Skipsea and Withernsea have increased significantly, with south of Withernsea recording an erosion rate of over one metre per month." A "single erosion event" could see many of the houses on Green Lane "becoming at **imminent risk** within the next year".

Chey's neighbour Sarah Carlill says that when it gets to just over nine metres, they will be forced to move out and demolish their own homes.

"I did buy it for the view," she says. "It is beautiful out here. I am enjoying it while it lasts. If the Government put **rock armour** here I would be even happier".

The council's most recent **aerial survey** shows 24 properties will be at risk of coastal erosion by 2025, and some 237 by 2105.
Vast strips of Holderness, outside the built-up areas of Bridlington, Withernsea and Hornsea, have been left undefended for decades as a result of a **"do nothing"** policy, agreed by successive Governments.

Coastal defences are judged "not economically, socially or environmentally sustainable" for much of the **sparsely inhabited area**, which has one of the fastest eroding coastlines in North West Europe.

Last October, residents in Withernsea celebrated after securing a **£3m grant** from Europe towards extending defences by 400m and saving a key coastal road, as well as 70 homes and 250 chalets. The £5.5 million scheme should get underway this year.

Sarah is one of six living on Green Lane hoping that a housing association's plans to develop land inland for housing will get the go ahead. She said: "It's frustrating. They will do it for Withernsea, for Bridlington, but they won't do it for Green Lane. If I was Boris, I'd put a sea defence up, end of."

It comes as the Government is being urged to set up a national fund to cover the often unforeseen costs of coastal erosion.

The council report warns that the local authority may not have sufficient funding to cover the cost of demolishing all 24 properties, set to be lost by 2025.
It could leave homeowners having to pick up the cost of knocking down their own home, as well as the expense of relocating.

Councillor Jane Evison said: "We are asking for a **national fund** that we would be able to bid for, for demolishing houses. It's not huge sums in the grand scheme of things. For people to lose a home and incur a cost - that is a really hard thing."

She said in areas like Skipsea their "hands were tied" as they are not allowed to actively intervene. She said: "There must be some financial support".

6 Suggest reasons why areas outside of Bridlington, Withernsea and Hornsea have been left to defend themselves.

7 Do you think Skipsea should be protected? Who do you think is responsible for paying for the defences/removal of properties?

WIDER READING: 5 HOUSE POINTS

Key knowledge questions

Key knowledge question	Answer
What is population density?	The number of people living per km2.
What is migration?	The movement of people from one permanent home to another
What is tertiary employment?	Services and selling goods e.g. shops, teachers and chefs
What do we mean by 'non-renewable'?	Cannot be replaced within a human lifetime
What are the 3 requirements for dead organisms to turn into fossil fuels?	Pressure, heat and time
What is the greenhouse effect	A natural function of the Earth's atmosphere is to keep in some of the heat that is lost from the Earth.
What is global warming?	Rise in global temperatures due to increasing concentrations of greenhouse gases in the atmosphere
What is climate change?	Increasing changes in the climate over a long period of time.
Outline one advantage of solar power	No pollution, can be used in remote areas
Outline one disadvantage of solar power	Expensive to set up, energy only produced in daylight hours
What is the name that describes the drawing of maps?	Cartography
What does the word demography mean?	Describing (to write about) the people
Name the two main branches of geography	Physical and Human geography
Name the three factors that influence the coast	Geology, natural processes and humans
What three natural process shape the coastline?	Erosion, transportation and deposition

Key knowledge questions

Key knowledge question	Answer
What is weathering?	Is the action of the weather, plants and animals on rocks. Weathering weakens and breaks down rock, but does not move them.
What is erosion?	The process that removes down material by wind and water.
What is carbonation weathering?	Chemical breakdown by weak carbonic acid
When temperatures are very cold what kind of weathering will occur?	Freeze-Thaw
What three factors affect the size of a wave	Fetch, strength of the wind, duration of the wind
What is the difference between swash and backwash?	Swash travels up the beach and backwash down the beach
What causes waves to break?	Friction at the base of the wave with the seabed.
What are the two types of waves?	Destructive and constructive waves
What latitudes are temperate deciduous woodlands found?	Temperate deciduous forests are found between 40° and 60° north and south of the equator.
When an area has few people living there how can we describe it?	Sparsely populated
What is an ecosystem?	A group of living organisms interacting with the non-living parts of an environment