



Year 11 into Year 12 Summer holiday homework booklet

The tasks in this booklet will help you to prepare for the aptitude test that you will sit when you return, It is split into two sections

Section A Coasts

Section B Regeneration

In each section you will find

- a checklist of everything you need to know for that topic
- Articles and text books extract for you to read, summarise
- A space for you to write questions about the material that you are reading about and engaging with
- Some example questions that you could be asked about the text that you have read

Good Luck and we look forward to seeing you in September

SECTION A - Coasts

A Level Geography

Specification and PLC (Personal Learning Checklist)

AREA OF STUDY: 1: Dynamic Landscapes

Topic 2B: Coastal Landscapes and Change

Autumn Y12

Overview:

Coastal landscapes develop due to the interaction of winds, waves and currents, as well as through the contribution of both terrestrial and offshore sources of sediment. These flows of energy and variations in sediment budgets interact with the prevailing geological and lithological characteristics of the coast to operate as coastal systems and produce distinctive coastal landscapes, including those in rocky, sandy and estuarine coastlines. These landscapes are increasingly threatened from physical processes and human activities, and there is a need for holistic and sustainable management of these areas in all the world's coasts. Study must include examples of landscapes from inside and outside the UK.

What do I need to know?

Enquiry question 1: Why are coastal landscapes different and what processes cause these differences?

Key Idea	Detailed content	PLC		
		RED	AMBER	GREEN
2B.1 The coast, and wider littoral zone, has distinctive features and landscapes.	a. Define (and locate) littoral zone, backshore, nearshore and offshore zone.			
	b. Understand the littoral zone includes a range of coastal types and is a dynamic zone of rapid change.			
	c. Understand how coasts can be classified by using longer term criteria such as geology and changes of sea level or shorter term processes such as inputs from rivers, waves and tides.			
	d. Describe characteristics of rocky coasts (high and low relief) result from resistant geology (to the erosive forces of sea, rain and wind), often in a high-energy environment.			
	e. Describe characteristics of coastal plains (sandy and estuarine coasts) found near areas of low relief and result from supply of sediment from different terrestrial and offshore sources, often in a low-energy environment.			
2B.2 Geological structure influences the development of coastal landscapes at a variety of scales	a. Explain how geological structure is responsible for the formation of concordant and discordant coasts.			
	b. Explain how geological structure influences coastal morphology (Dalmatian and Haff type concordant coasts and headlands and bays on discordant coasts).			
	c. Explain how geological structure (jointing, dip, faulting, folding) is an important influence on coastal morphology and erosion rates, and also on the formation of cliff profiles and the occurrence of micro-features, e.g. caves.			
	a. Understand that bedrock lithology (igneous, sedimentary, metamorphic) and unconsolidated material geology are important in understanding rates of coastal recession.			

2B.3 Rates of coastal Recession and stability depend on lithology and other factors.	b. Explain how differential erosion of alternating strata in cliffs (permeable/impermeable, resistant/less resistant) produces complex cliff profiles and influences recession rates.			
	c. Explain how vegetation stabilises sandy coastlines (dune succession and marsh succession).			

Enquiry question 2: How do characteristic coastal landforms contribute to coastal landscapes?				
Key Idea	Detailed content	PLC		
		RED	AMBER	GREEN
2B.4 Marine erosion creates distinctive coastal landforms and contributes to coastal landscapes.	a. Differentiate between constructive/destructive waves.			
	b. Explain how wave type influences beach morphology and profiles at a variety of timescales (daily/longer periods).			
	c. Recall and differentiate between erosion processes (hydraulic action/ corrosion/ abrasion/ attrition).			
	d. Describe how erosion types are influenced by wave type, size and lithology.			
	e. Describe the formation of erosional landforms - wave cut notch, wave cut platform, cliffs, cave-arch-stack-stump.			
2B.5 Sediment transport and deposition create distinctive landforms and contribute to coastal landscapes.	a. Describe/Explain the process of longshore drift and how it affects sediment transport (as well as angle of wave attack, tides and currents).			
	b. Describe the formation of transportation and depositional landforms - beach, recurved and double spits, offshore bars, barrier beaches and bars, tombolos and cusped forelands - which can be stabilised by vegetation succession.			
	c. Understand the coast as a system using the Sediment Cell concept (sources, transfers and sinks) - including negative and positive feedback - as an example of dynamic equilibrium.			
2B.6 Subaerial processes of mass movement and weathering influence coastal landforms and contribute to coastal landscapes.	a. Define and differentiate between mechanical, chemical and biological weathering.			
	b. Understand why weathering is important in sediment production and influences rates of recession.			
	c. Define and differentiate between blockfall, rotational slumping and landslides (mass movement).			
	d. Understand why it is important on some weak/ complex coasts.			

	e. Describe the formation of mass movement landforms - rotational scars, talus scree slopes, terrace cliff profiles.			
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Enquiry question 3: How do coastal erosion and sea level change alter the physical characteristics of coastlines and increase risks?

Key Idea	Detailed content	PLC		
		RED	AMBER	GREEN
2B.7 Sea level change influences coasts on different timescales.	a. Understand eustatic and isostatic factors lead to longer term sea level change, as well as tectonics.			
	b. Describe the features associated with emergent coastlines (raised beaches with fossil cliffs).			
	c. Describe the features associated with submergent coastlines (rias, fjords and Dalmation).			
	d. Explain the risk to contemporary coastlines from global warming and tectonic activity.			
2B.8 Rapid coastal retreat causes threats to people at the coast.	a. Explain the physical factors (geological and marine) that lead to rapid coastal recession, as well as the human (dredging, coastal management). (See: Nile Delta, Guinea and California coastline).			
	b. Describe subaerial processes and their influence on the rate of coastal recession.			
	c. Explain the factors (short and long term) that influence the rate of coastal recession (wind direction/fetch, tides, seasons, weather systems and occurrence of storms).			
2B.9 Coastal flooding is a significant and increasing risk for some coastlines.	a. Explain (local) factors that increase flood risk on some low-lying and estuarine coasts (height, degree of subsidence, vegetation removal), as well as the risk from global sea level rise. (See: Bangladesh, the Maldives for examples).			
	b. Evaluate the impacts (short term) of storm surge events causing severe flooding (depressions, tropical cyclones). See: the Philippines, Bangladesh for examples).			
	c. Evaluate the increased risk caused by climate change (frequency and magnitude of storms, sea level rise), refer to mitigation and adaptation.			

Topic 2B: Geographical Skills (focus on quantitative skills)			
<i>Note: These skills are not exclusive to the topic areas under which they appear; you will need to be able to apply these skills across any suitable topic area throughout their course of study.</i>	PLC		
	RED	AMBER	GREEN
GIS mapping of the variety of coastal landscapes, both for and beyond the UK.			
Satellite interpretation of a variety of coastlines to attempt to classify them.			
Field sketches of contrasting coastal landscapes.			
Using measures of central tendency to classify waves into destructive and constructive wave types.			
Using student t-test to investigate changes in pebble size and shape along a drift aligned beach and also across the littoral zone to above the storm beach.			
Map and aerial interpretation of distinctive landforms indicating past of sea level change.			
Use of GIS, aerial photos and maps to calculate recession rates for a variety of temporal rates (annual changes and longer-term changes).			
Interrogation of GIS of management cells to ascertain land use values and develop cost/benefit analysis to inform the choice of coastal management strategy.			
Photo interpretation of a range of approaches to management to assess environmental impact.			
Sand dune or salt marsh surveys to assess the impact of succession using an index of diversity, X^2 (Chi-square) to compare features of the various zones).			

NOTES/CASE STUDIES

Task 1 – Coastal processes

Read the information below about the different coastal processes that occur along coastlines across the globe. In the space beneath create a mind map to state and explain how the following types of coastal processes operate at the beach: Abrasion, Hydraulic Action, corrosion & Longshore drift.

Abrasion (also known as **corrasion**) – see Figure 2. When waves advance, they pick up sand and pebbles from the seabed. Then, when they break at the base of the cliff, the transported material is hurled at the cliff foot – chipping away at the rock. The size and amount of sediment picked up by the waves, along with the types of wave experienced, determines the relative importance of this erosive process.

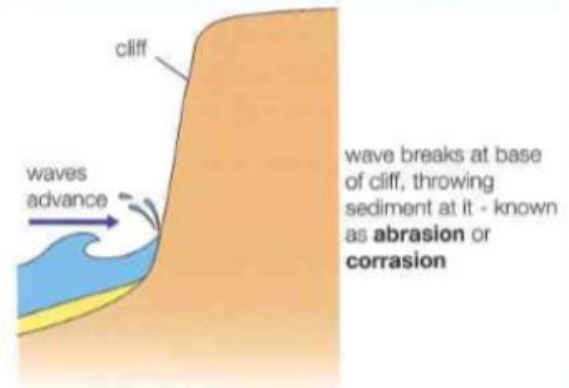


Figure 2 Cliff-foot erosion: abrasion

Hydraulic action – see Figure 3. When a wave advances, air can be trapped and compressed (either in joints in the rock forming the cliff, or between the breaking wave and the cliff). Then, when the wave retreats, the compressed air expands again. This continuous process can weaken joints and cracks in the cliff – causing pieces of rock to break off. The force of the breaking wave can also hammer a rock surface. At high velocities, where bubbles form in the water and then collapse, they erode by hammer-like pressure effects.

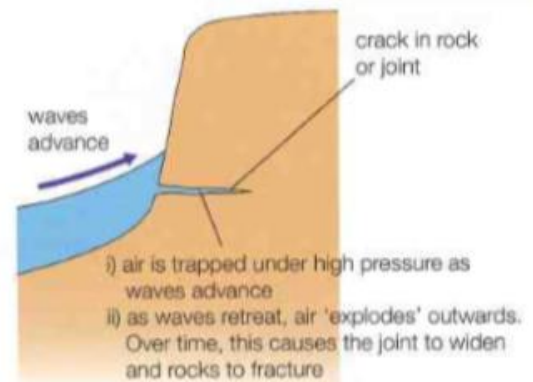


Figure 3 Cliff-foot erosion: hydraulic action

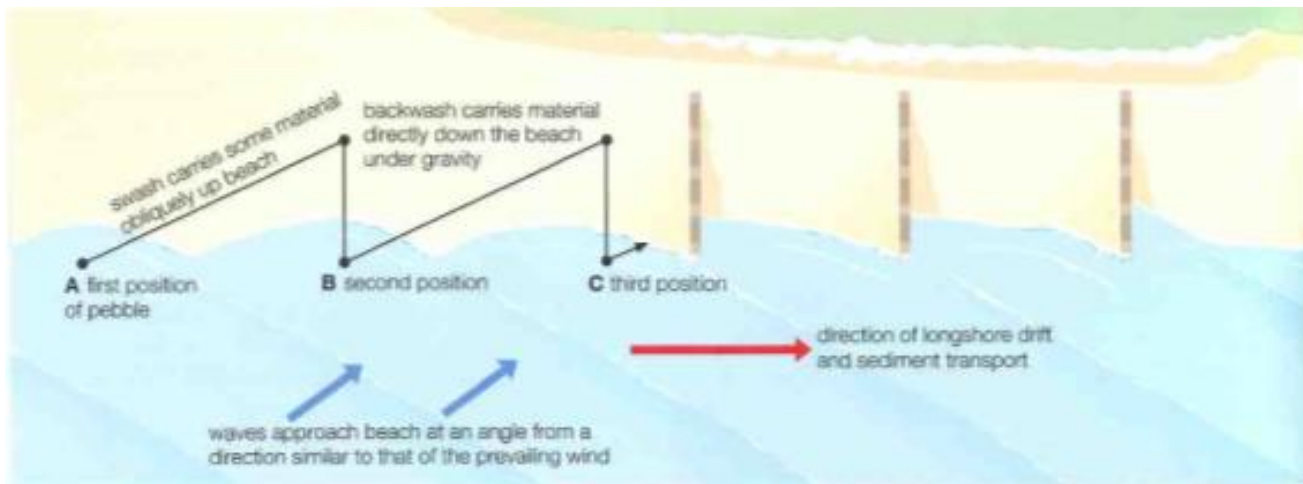
Corrosion. When cliffs are formed from alkaline rock (such as chalk or limestone), or an alkaline cement bonds the rock particles together, solution by weak acids in seawater can dissolve them.

In addition, the process of **attrition** also takes place. This term refers to the gradual wearing down of rock particles by impact and abrasion, as the pieces of rock are moved by waves, tides and currents. This process gradually reduces the particle size and makes stones rounder and smoother.

Longshore drift

Most waves approach a beach at an angle – generally from the same direction as the prevailing wind. Along the coast of West Africa, winds blow onshore from the south-west throughout the year. As the waves advance, material is carried up the beach at an angle. The backwash then pulls material down the beach at right angles to the shore. The net effect of the movement of sediment up and down the beach is a **lateral shift** – and the process is known as **longshore drift** (see Figure 2). Where the removal of sediment is greater than the supply of new sediment, the beach is eroded.

Strong prevailing south-westerly winds and large waves create significant and sustained longshore drift in West Africa. As a result, a huge amount of sand is transported along the coast – from Ghana eastwards to Togo and Benin. However, despite that, not enough sand is deposited to replace that transported by longshore drift, so Benin's coastline is still being eroded at a rapid rate.



Create a mind map below to summarise the information above

Task 2 – Concordant & discordant coastline characteristics

Read the following information on concordant and discordant coastlines and in the table below describe the characteristics of each, using named examples as evidence for you descriptions

Concordant coasts

Located in East Dorset, near Poole, the Isle of Purbeck is the eastern gateway to the Jurassic Coast. Because it's only surrounded on three sides by water, it isn't really an island but a peninsula. It has distinctive coastal features that are clearly linked to its geology and lithology.

The combination of different rock types on the Isle of Purbeck has led to coastal landscapes ranging from Lulworth Cove (Figure 4) to Kimmeridge Bay (Figure 5). Along its southern coast, the different rock types run in bands parallel to the coast – forming what is known as a **concordant coast**.

Key word

Concordant coast – This is where bands of more-resistant and less-resistant rock run parallel to the coast.



Over time, the sea gradually eroded the resistant Purbeck limestone at the entrance to Lulworth Cove. Then, rapid erosion of the less-resistant clays behind the limestone led to the formation of a cove or bay.

Figure 4 Lulworth Cove

The rock type on Dorset's coast varies between resistant Purbeck limestone, which forms steep cliffs, to less-resistant clays and sands. These rock types alternate along the coast (see Figure 6), so that where a resistant rock is eventually eroded (e.g. at the entrance to Lulworth Cove) – allowing the sea to break through to the less-resistant rocks behind – erosion follows more quickly. At Lulworth, this has led to the formation of a small bay or cove (helped by a local stream, the valley of which makes erosion inland easier).



The cliffs at Kimmeridge Bay consist of less-resistant clays, where fossils can easily be found.

Figure 5 Kimmeridge Bay

Dalmatian and Haff coasts

Dalmatian coasts are another type of concordant coastline. They have formed as a result of a rise in sea level. Valleys and ridges run parallel to each other. When the valleys flooded because of a rise in sea level, the tops of the ridges remained above the surface of the sea – as a series of offshore islands that run parallel to the coast.

The best example of a Dalmatian coastline is the one that gives this feature its name – the Dalmatian coast in Croatia (see Figure 7). Dalmatian coasts are also known as Pacific coasts, e.g. in southern Chile.

Haff coasts also consist of concordant features – long spits of sand and lagoons – aligned parallel to the coast. These are named after the Haffs, or lagoons, of the southern shore of the Baltic Sea, which are enclosed by sand spits or dunes.

Discordant coasts

Whilst the Isle of Purbeck's southern coast is concordant, its eastern coast is **discordant**. It runs south from Studland Bay to Durlston Head (see Figures 8 and 9). Here, more-resistant rocks (folded into ridges) emerge at the coast as headlands and cliffs, whilst less-resistant rocks form bays. Both landforms can be seen clearly in both figures.

The geology and geological structure of the Isle of Purbeck (see Figure 6) has influenced the coastal morphology of its eastern coast in the following ways:

- The Bagshot and Tertiary beds consist of unconsolidated sands and clays. These are less resistant to erosion and, where exposed to the sea at Studland, have formed a large bay as a result.
- The chalk is strong and resistant to erosion, so it has formed cliffs and a headland at the coast (The Foreland).
- The Wealden beds consist of unconsolidated clay, which (like the Bagshot and Tertiary beds) is less resistant to erosion and has led to the formation of Swanage Bay, where it's exposed to the sea.
- The Purbeck and Portland beds consist mainly of limestone. This is resistant and has led to the creation of the headlands at Peveril Point and Durlston Head. However, the limestone is also jointed, which has created lines of weakness that can be more easily eroded in places.

Key word

Discordant coast – The geology alternates between bands of more-resistant and less-resistant rock, which run at right angles to the coast.

Concordant coastline	Discordant coastline

Task 3 – Read the extract below and then distinguish between the pairs of terms beneath the text:

The Lulworth Crumple

Stair Hole, on the Jurassic Coast, lies less than half a mile west of the more famous Lulworth Cove. At Stair Hole, the sea has eroded through limestone and clays to create a small cove. It's the best place to see the 'Lulworth Crumple' – one of the best-known examples of limestone folding (see Figure 1). Here, thin beds of Purbeck limestone and shale are clearly visible in the side of the cliff. These layers of rock were folded (or crumpled) in response to tectonic movements about thirty million years ago.

Coasts and geological structure

Coastal morphology is related not only to the underlying geology, or rock type, but also to its geological structure (known as its **lithology**). Lithology means any of the following characteristics:

- ♦ **Strata** – Layers of rock.
- ♦ **Bedding planes** (horizontal cracks) – These are natural breaks in the strata, caused by gaps in time during periods of rock formation.
- ♦ **Joints** (vertical cracks) – These are fractures, caused either by contraction as sediments dry out, or by earth movements during uplift.
- ♦ **Folds** – Formed by pressure during tectonic activity, which makes rocks buckle and crumple (e.g. the Lulworth Crumple).
- ♦ **Faults** – Formed when the stress or pressure to which a rock is subjected, exceeds its internal strength (causing it to fracture). The faults then slip or move along **fault planes**.
- ♦ **Dip** – This refers to the angle at which rock strata lie (horizontally, vertically, dipping towards the sea, or dipping inland).

The **relief** – or height and slope of land – is also affected by geology and geological structure. There is a direct relationship between rock type, lithology, and **cliff profiles**. The five diagrams that make up Figure 2 help to illustrate this.



Figure 1 The Lulworth Crumple at Stair Hole

Key words

Coastal morphology – The shape and form of coastal landscapes and their features.

Coastal recession – Another term for coastal erosion.

Lithology – The physical characteristics of particular rocks.

A) Geology and lithology

B) Relief and coastal morphology

C) Joints and bedding planes

D) Folds and faults

E) Strata and dip

Task 4 – Contemporary Vs Longer term sea level change

Contemporary sea level change

What's happening in Kiribati?

In 2014, President Anote Tong of Kiribati finalised the purchase of 20 km² of land in one of the Fijian Islands – 2000 km from Kiribati. The inhabitants of Kiribati (a group of islands in the central Pacific Ocean) now own a refuge somewhere else.

The nation of Kiribati consists of 33 widely spaced islands, which stretch across an area of the Pacific Ocean nearly as wide as the USA. Kiribati's islands are very low-lying sand and mangrove atolls – only one metre or less above sea level in most places (see Figure 1). To visitors, Kiribati can seem like paradise, but it's been predicted that many of its islands could disappear under the sea in the next 50 years. In places, the sea level is rising by 1.2 cm a year (four times faster than the global average).



Figure 1 Tarawa Atoll, Kiribati – a vulnerable

Why are sea levels rising?

Global warming. Average global temperatures rose by 0.85°C from 1880 to 2012. During a similar period, 1870 to 2010, average sea levels rose by 21 cm. Sea levels are rising because the polar ice sheets (as well as glaciers worldwide) are melting, and because of **thermal expansion** (sea water expands as it warms).

No one knows exactly how far sea levels will rise. Climate scientists estimate that, by 2100, average sea levels will have risen by somewhere between 30 cm and 1 metre – with perhaps a ‘best guess’ of 40 cm. And that means that low-lying nations, like Kiribati, are at risk of disappearing under the waves.

What next for Kiribati?

The land purchased in Fiji by Kiribati will be used in the immediate future for agriculture and fish-farming projects – to guarantee the nation’s food security. Rising sea levels in Kiribati are contaminating its ground water sources and affecting its ability to grow crops. In the future, if necessary, people could move from Kiribati to Fiji. The government has launched a ‘migration with dignity’ policy to allow people to apply for jobs in neighbouring countries, such as New Zealand. If the islands are submerged, Kiribati’s population will become **environmental refugees** – people forced to migrate as a result of changes to the environment.

Longer-term sea level change

Sea level varies over time. It is measured relative to land, so the relative sea level can change if either the land or the sea rises or falls. The two types of sea level change are called:

- ♦ **eustatic change** – when the sea level itself rises or falls
- ♦ **isostatic change** – when the land rises or falls, relative to the sea

Eustatic change is global. In cold, glacial periods, precipitation falls as snow (rather than rain) and forms huge ice sheets that store water normally held in the oceans. As a result, sea levels fall. At the end of glacial periods – as temperatures rise – the ice sheets begin to melt and retreat. Their stored water then flows into the rivers and the sea again – and sea levels rise.

Isostatic change occurs locally. During glacial periods, the enormous weight of the ice sheets (which can be several kilometres thick) makes the land sink. This is called **isostatic subsidence**. As the ice begins to melt at the end of a glacial period, the reduced weight of the ice causes the land to readjust and rise. This is called **isostatic recovery**.

Distinguish between eustatic and isostatic change

To what extent are the risk from sea level rise in the south east England (a) similar to, (b) different from the risks in Kiribati?

Task 5 – Weathering Vs Erosion

You have already made notes on the different types of erosion, read the information below about weathering at the coast and then assess which process has a greater role in the formation of coastal landforms (e.g. beaches, spits, bars, cliffs, wave cut platforms arches etc) weathering or erosion.

Reshaping the coast

A series of landslips (see Figure 1) affected the coast at Lyme Regis in Dorset during 2014 – in a sequence of movements that significantly reshaped the coastline. Less-dramatic mass movements, such as rock falls, also happen frequently all along this coast. These are important mechanisms for producing sediment for the sea to transport and redistribute.

Sub-aerial processes

Parts of the North Yorkshire coast suffer from rapid erosion (which you'll examine in more detail on pages 126–131). However, **sub-aerial processes** (weathering and mass movement) help to make things worse:

- ♦ **Weathering** is the gradual breakdown of rock, *in situ*, at or close to the ground surface. It can be divided into three different types: mechanical, chemical and biological (see below). By breaking rock down, weathering creates sediment which the sea can then use to help erode the coast. Weathering also helps to increase the rate of erosion of some coasts.
- ♦ **Mass movement** is the movement of weathered material down slope, as a result of gravity.



▲ **Figure 1** One of seven holiday chalets that had to be demolished and removed from this location at Lyme Regis in 2014, following a series of landslips

Mechanical weathering

- ♦ **Freeze-thaw weathering** (also known as frost-shattering) occurs when water enters a crack or joint in the rock when it rains – and then freezes in cold weather. When water freezes, it expands in volume by about 10%. This expansion exerts pressure on the rock, which forces the crack to widen. With repeated freezing and thawing, fragments of rock break away and collect at the base of the cliff as **scree**. These angular rock fragments are then picked up by the sea, and used as tools in marine erosion. Despite the fact that the coast tends to be milder than places inland, freeze-thaw weathering is still important in coastal locations. For example, in 2001 (following a very wet autumn and a cold February) freeze-thaw weathering triggered several major rock falls along the south coast of England (see Figure 2). Chalk (a permeable and porous rock) was the main rock affected.
- ♦ **Salt-weathering.** When salt water evaporates, it leaves salt crystals behind. These can grow over time and exert stresses in the rock, just as ice does – causing it to break up. Salt can also corrode rock, particularly if it contains traces of iron.
- ♦ **Wetting and drying.** Frequent cycles of wetting and drying are common on the coast. Rocks rich in clay (such as shale) expand when they get wet and contract as they dry. This can cause them to crack and break up.

▼ **Figure 2** A major rock fall at the White Cliffs of Dover in February 2001, caused by freeze-thaw weathering



Biological weathering

This occurs in several ways:

- ◆ Thin plant roots start to grow into small cracks in a cliff face. These cracks then widen as the roots grow thicker, which breaks up the rock (as shown in Figure 3).
- ◆ Water running through decaying vegetation becomes acidic, which leads to increased chemical weathering (see below).
- ◆ Birds (such as puffins) and animals (such as rabbits) dig burrows into cliffs.
- ◆ Marine organisms are also capable of burrowing into rocks (e.g. piddocks, which are similar to clams), or of secreting acids (e.g. limpets).



Figure 3 Biological weathering

Assess which process has a greater role in the formation of coastal landforms (e.g. beaches, spits, bars, cliffs, wave cut platforms arches etc) weathering or erosion

Section B – Regenerating Places

A Level Geography

Specification and PLC (Personal Learning Checklist)

AREA OF STUDY: Dynamic Places

Topic 4A: Regenerating Places

Spring Term Y12

Overview: Local places vary economically and socially with change driven by local, national and global processes. These processes include movements of people, capital, information and resources, making some places economically dynamic while other places appear to be marginalised. This creates and exacerbates considerable economic and social inequalities both between and within local areas. Urban and rural regeneration programmes involving a range of players involve both place making (regeneration) and place marketing (rebranding). Regeneration programmes impact variably on people both in terms of their lived experience of change and their perception and attachment to places. The relative success of regeneration and rebranding for individuals and groups depends on the extent to which lived experience, perceptions, and attachments to places are changed.

What do I need to know?				
EQ1: Why are some locations more at risk from tectonic hazards?				
4A.1 Economies can be classified in different ways and vary from place to place.	a. Define each sector of economy activity (primary, secondary, tertiary and quaternary) and know economic activity can also be classified by type of employment (part-time/full-time, temporary/permanent, employed/self-employed).			
	b. Give reasons for differences in economic activity (employment data and output data) which is reflected through variation in social factors (health, life expectancy and levels of education).			
	c. Use quality of life indices to illustrate the inequalities in pay levels across economic sectors and in different types of employment.			
4A.2 Places have changed their function and characteristics over time.	a. Give examples and reasons for changing functions (of places) over time (administrative, commercial, retail and industrial). Refer to physical factors, accessibility and connectedness, historical development and the role of local and national planning.			
	b. Give examples and reasons for changing demographic characteristics (of places) over time (gentrification, age structure and ethnic composition). Refer to physical factors, accessibility and connectedness, historical development and the role of local and national planning.			
	c. Understand how these changes are measured using employment trends, demographic changes, land use changes and levels of deprivation (income deprivation, employment deprivation, health deprivation, crime, quality of the living environment, abandoned and derelict land).			
4A.3 Past and present connections have shaped the economic and social characteristics of your chosen places.	a. Explain how regional and national influences have shaped the characteristics of your chosen places. Remember places can be represented in a variety of different forms (e.g. media, art), giving contrasting images to that presented more formally and statistically. How the lives of students and those of others are affected by this continuity and change, both real and imagined. Refer to roles of TNCs and IGOs.			
	b. Explain how international and global influences have shaped of your chosen places. Remember places can be represented in a variety of different forms (e.g. media, art), giving contrasting images to that presented more formally and statistically. How the lives of students and those of others are affected by this continuity and change, both real and imagined. Refer to roles of TNCs and IGOs.			
	c. Discuss how economic and social changes in your places have influenced people's identity.			

EQ2: Why might regeneration be needed?				
4A.4 Economic and Social inequalities Changes people's perceptions of an area.	a. What are the benefits of successful regions (See: San Francisco Bay area) (high rates of employment, inward migration (internal and international) and low levels of multiple deprivation) and the disadvantages (high property prices and skill shortages in both urban and rural areas).			
	b. Discuss the negative side to economic restructuring in some regions (See: The Rust Belt, USA) including increasing levels of social deprivation (education, health, crime, access to services and living environment) in both deindustrialised urban areas and rural settlements once dominated by primary economic activities.			
	c. Assess the priorities for regeneration due to significant variations in both economic and social inequalities (gated communities, 'sink estates', commuter villages, declining rural settlements).			
4A.5 There are significant variations in the lived experience of place and engagement with them.	a. Explain reasons for wide variations in levels of engagement in local communities (local and national election turnout, development and support for local community groups).			
	b. Discuss how people's experiences and their attachment to place(s) is affected by age, ethnicity, gender, length of residence (new migrants, students) and levels of deprivation; these in turn impact on levels of engagement.			
	c. Explain why groups in communities have different views about priorities/strategies for regeneration and how these views can lead to conflict (lack of political engagement and representation, ethnic tensions, inequality and lack of economic opportunity).			
4A.6 There is a range of ways to evaluate the need for regeneration.	a. Demonstrate the use of statistical evidence to determine the need for regeneration in your chosen local place.			
	b. Discuss that media can provide contrasting evidence, questioning the need for regeneration in your chosen local place.			
	c. Examine how different representations of your chosen local place could influence the perceived need for regeneration.			

EQ3: How is regeneration managed?

4A.7 UK Government policy decisions play a key role in regeneration.	a. Explain how infrastructure investment is needed to maintain growth and improve accessibility to regenerate regions (high speed rail, airport development). Refer to national government in partnerships with charities and developers.			
	b. Understand that rate and type of development (planning laws, house building targets, housing affordability, permission for 'fracking') affects economic regeneration of both rural and urban regions.			
	c. Understand how potential for growth and direct and indirect investment is affected by UK government decisions about international migration and the deregulation of capital markets. (See: foreign investment in London real estate).			
4A.8 Local government policies aim to represent areas as being attractive for inward investment.	a. Explain, with examples, how local governments compete to create sympathetic business environments with local plans designating areas for development for a range of domestic and foreign investors (Science Parks).			
	b. Describe the roles of local interest groups (Chambers of Commerce, local preservation societies, trade unions) in regeneration decision making.			
	c. Discuss the tensions between these groups - those that wish to preserve urban environments and those that seek change. (See: London 2012).			
4A.9 Rebranding attempts to represent areas as being more attractive by changing public perception of them.	a. Describe different urban and rural regeneration strategies - to include retail-led plans, tourism, leisure and sport. (See: London 2012) Public/private rural diversification. (See: Powys Regeneration Partnership).			
	b. Describe the process of rebranding, to include re-imaging places using a variety of media to improve the image of both urban and rural locations and make them more attractive for potential investors.			
	c. Understand how rebranding can stress the attraction of UK deindustrialised cities - creating specific place identity - building on their industrial heritage. Thus attracting visitors. (See: Glasgow 'Scotland with Style'.			
	d. Describe and explain rural rebranding strategies (based on heritage and literary associations, farm diversification and specialised products, outdoor pursuits and adventure in both accessible and remote areas). (See: Bronte country, Kielder Forest).			

EQ4: How successful is regeneration?				
4A.10 The success of Regeneration uses a range of measures: economic, demographic, social and environmental.	a. Assess the success of economic regeneration, using measures of income, poverty and employment (both relative and absolute changes) both within areas and by comparison to other more successful areas.			
	b. Assess the social progress made by using reductions in inequalities both between areas and within them as indicators; social progress can also be measured by improvements in social measures of deprivation and in demographic changes (improvements in life expectancy and reductions in health deprivation), as indicators.			
	c. Evaluate the success of regeneration on the understanding that it must lead to an improvement in the living environment (levels of pollution reduced, reduction in abandoned and derelict land).			
4A.11 Different urban Stakeholders have different criteria for judging the success of urban regeneration.	a. CASE STUDY: e.g. Salford Quays - Describe the strategies used in the regeneration of an urban place. Evaluate the (contested) decisions within local communities. Refer to NIMBYism.			
	b. Describe and explain the changes that have taken place as a result of national and local strategies in an urban area.			
	c. Discuss these changes using a range of economic, social, demographic and environmental variables in an urban area.			
	d. Understand that different stakeholders (local and national governments, local businesses and residents) will assess success using contrasting criteria; their views will depend on the meaning and lived experiences of an urban place and the impact of change on the reality/image of that place.			
4A.12 Different rural stakeholders have different criteria for judging the success of rural regeneration.	a. CASE STUDY: e.g. North Antrim Coast - Describe the strategies used in the restructuring of a rural place. Evaluate the (contested) decisions within local communities. Refer to NIMBYism.			
	b. Describe and explain the changes that have taken place as a result of national and local strategies in the rural area.			
	c. Discuss these changes using a range of economic, social, demographic and environmental variables in a rural area.			
	d. Understand that different stakeholders (local and national governments, local businesses and residents) will assess success using contrasting criteria; their views will depend on the meaning and lived experiences of an urban place and the impact of change on the reality/image of that place.			

Geographical Skills for Topic 4A (focus on qualitative approaches)			
<i>Note: These skills are not exclusive to the topic areas under which they appear; you will need to be able to apply these skills across any suitable topic area throughout their course of study.</i>	RED	AMBER	GREEN
Use of GIS to represent data about place characteristics.			
Interpretation of oral accounts of the values and lived experiences of places from different interest groups and ethnic communities.			
Use of Index of Multiple Deprivation (IMD) database to understand variations in levels and types of deprivation.			
Investigation of social media to understand how people relate to the places where they live.			
Testing of the strength of relationships through the use of scatter graphs and Spearman's rank correlation .			
Use of different newspaper sources to understand conflicting views about plans for regeneration.			
Evaluation of different sources (music, photography, film, art, literature) and appreciation of why they create different representations and image of a local place.			
Exploration of discursive/creative media sources to find out how place identity has been used as part of rebranding.			
The interpretation of photographic and map evidence showing 'before and after' cross-sections of regenerated urban and rural places.			
Interrogation of blog entries and other social media to understand different views of the success of regeneration projects			
<u>NOTES/CASE STUDY INFORMATION:</u>			

Task: Read the following text book extracts and answer the questions below:

A good day for Yorkshire!

It's 5 July 2014. Rick, a salesman from Leeds, is up early. He and some friends have spent the night in the small Yorkshire Dales town of Hawes. They're up early to get a good viewing point. In a few hours the first cyclists will appear – travelling through the Yorkshire Dales on Day 1 of the Tour de France (one of the world's biggest sporting events). The race is starting outside France this year, as it often does; beginning in Leeds, it will head north and circle its way around the Yorkshire Dales over some of northern England's most challenging hills. Figure 1 shows the full route of the three UK stages – Day 2 sees it ending in Sheffield. It's a great time for Yorkshire!

A sense of belonging

Where Rick comes from is important to him. Born in Leeds, where he still lives, he proudly declares himself to be a Yorkshireman. July 2014 was a great time to come from Yorkshire, and people there lost no opportunity in announcing their heritage! Those who had moved away also declared their Yorkshire roots with pride. Looking at its landscapes in Figure 2, it's easy to see why.

What we call 'Yorkshire' is actually four counties: West, South, and North Yorkshire, plus the East Riding. Over the years, the Yorkshire region has varied in size – depending on boundary changes by different governments – but at its core is a sense of identity; if you think you're from Yorkshire, then you are!



Figure 1 The start of the Tour de France in 2014

Figure 2 Tour de France cyclists in Yorkshire's Pennine landscape



BACKGROUND

Identifying with places

How do we become attached to a place and develop a strong sense of identity with it? Some factors are personal, such as our families, friends, and things we've done there growing up. But what makes Leeds different from London or Cornwall? Much of what makes a place distinctive is geographical in nature, and includes its:

- ♦ physical landscapes, which result from geology and landscape processes (such as erosion).
- ♦ human landscapes, which are often linked to physical factors. Local geology has produced Yorkshire's gritstone buildings, e.g. Leeds Town Hall (see Figure 3).
- ♦ economic past. Leeds Town Hall dates from the city's wealthy Victorian industrial past. Many of West and South Yorkshire's towns and cities have grand civic buildings like this.

Other things which make a place distinctive include:

- ♦ its religious past. Places of worship – churches, mosques, temples or synagogues – form the heart of many places.
- ♦ its food and drink, with regional specialities such as Yorkshire pudding.
- ♦ how it's portrayed in the media. Books, film and TV often characterise places – e.g. *Coronation Street* (Manchester) or *Doc Martin* (Port Isaac in Cornwall).



Figure 3 Leeds Town Hall – typical of the imposing civic buildings of many northern towns and cities, built during their Victorian industrial heyday

Key word

Regeneration – Redeveloping former industrial areas or outdated housing to bring about economic and social change. Regeneration plans focus on the fabric of a place: new buildings and spaces with new purposes.

Rebranding – Ways in which a place is deliberately reinvented for economic reasons, and then marketed using its new identity to attract new investors.

Rebranding places

Place image is also used to encourage economic growth. The 2014 Tour de France was worth a lot to Yorkshire's tourism industry. The Yorkshire region has been through hard times since the 1970s – with the closure of most of its coalmines and textile mills, as well as many of Sheffield's famous steel mills. What's left is a region that sometimes struggles to find an economic future – hence the importance of **regeneration** (see the key word box). Part of that process involves changing people's image of a place from somewhere that's run down to somewhere that has economic potential and excitement. This change of image is called **rebranding**. Regeneration, and the ways in which places change and rebrand, are what this topic is all about.

- 1) Draw a spider diagram to explain how different places in Yorkshire might have benefitted from the visit of the Tour De France in 2014
- 2) Compare Rick's image of Yorkshire with the image of your own locality. Describe your own locality and its characteristics as follows: (a) Physical and human landscape (b) population and religions (c) buildings (d) distinctive local food and drink options (e) people's image of it and (f) any other characteristics of your choice
- 3) Explain the difference between regeneration and rebranding
- 4) Explain the extent to which the place you live has strong characteristics and how these may have evolved

I love the north, but ...

Roisin works in Sheffield. She's a recent graduate from Sheffield University and loves the city. But like many graduates in northern cities, she's finding it difficult to get a well-paid job. Many of her friends have moved to London, and are earning over £35 000 a year. Should she join them, or stay in Sheffield? It's a question that many in the north have faced before.

Understanding economic change

The drift to London is typical for many young graduates in the twenty-first century. It's arisen because of two long-term economic changes in the UK:

- ◆ The decline of the primary and secondary sectors.
- ◆ The growth of the tertiary and quaternary sectors.

These changes are illustrated in Figure 1.

Date	Primary	Secondary	Tertiary	Quaternary
1980	0.89	8.9	14.8	2.8
2015	0.48	5.1	22.1	5.98
Trend	Down by 45%	Down by 43%	Up by 49%	Up by 113%

Primary and secondary sectors decline ...

In the 1980s, the Conservative government planned changes to the UK economy – often called the **old economy**.

Goods produced by primary (e.g. coal mining) and secondary (manufacturing) industries in the UK were often more expensive than the equivalent goods produced overseas. Reasons for this included that:

- ◆ British coal was located deeper underground and was more expensive to mine than in many other countries.
- ◆ UK wages were often higher than those overseas – making British products more expensive. The growth of manufacturing in Asia, with its cheaper labour costs, led to cheap imported goods.

Large numbers of UK mines and manufacturing plants closed during the 1980s, creating derelict land (like the example in Figure 2). Employers like these had provided mainly full-time, well-paid jobs. The closures particularly affected northern England, the Midlands, Wales and Scotland, where unemployment soared.

BACKGROUND

Classifying employment

Classifying 31 million jobs in the UK is complex! The most common method is by economic sector:

- ◆ **Primary sector** – producing food crops and raw materials (e.g. farming, mining, forestry)
- ◆ **Secondary sector** – manufacturing finished products
- ◆ **Tertiary sector** – providing services, either in the private sector (e.g. retail, tourism) or public and voluntary sectors (e.g. health care, education)
- ◆ **Quaternary sector** – providing specialist services in finance and law, or industries such as IT and biotechnology.

But these terms do not fully describe a person's job, position, or their hours. To overcome this, there are other classifications, depending on whether jobs are:

- ◆ **full-time** (35 hours per week) or **part-time** (under 35 hours)
- ◆ **temporary** or **permanent**
- ◆ **employed** or **self-employed**.

Figure 1 Changes to primary, secondary, tertiary and quaternary employment in the UK between 1980 and 2015 (in millions of workers)



Figure 2 When their industries closed in the 1980s, many former industrial areas ended up like this

... while tertiary and quaternary sectors grow

To replace the lost jobs in the primary and secondary sectors, the government encouraged the growth of a new **post-industrial economy** – sometimes called the **new economy**. This growth took place in the:

- ♦ tertiary sector, particularly in tourism and retail. These areas grew because of higher incomes, cheaper air travel and increased car ownership. Some parts of the UK also sought to **rebrand** their past to create a new image (like Liverpool in Figure 3). But, unlike the former industrial jobs, many of these new jobs are seasonal (tourism in summer and retail at Christmas), and are often low paid and part-time.
- ♦ quaternary sector, which has shown the fastest growth (see Figure 1). This is usually called the **knowledge economy**, and it provides highly specialised jobs that use expertise in fields such as finance, law and IT. The biggest of these fields is banking and finance; international banks in London generate huge wealth.

Quaternary industries can locate anywhere, so they're described as **footloose**. Their locations are often chosen according to financial incentives (e.g. low tax rates) and **connectivity** (good transport links and superfast broadband are vital). Growth in the quaternary sector has concentrated in London's Docklands (see Section 5.3). Quaternary salaries are much higher than the average, so divisions in wealth between the north and south of the UK have widened.

Employment, incomes and inequality

Variations in employment lead to significant economic and social inequalities. Figure 4 shows different job types, the percentage of UK employees in each type, and their mean weekly wage. Some data are not surprising – you'd expect a company director to earn more than a worker in an elementary occupation (such as a cleaner), for example. However, the mean weekly wage of 'managers, directors and senior officials' is about four times higher than that of workers in 'sales and customer services', which is more surprising. Based on this are five inequalities, discussed on the next two pages.

Job type	% of all UK employees	Mean weekly wage
Managers, directors and senior officials	9.8%	£907.90
Professional	21.0%	£700.80
Associate professional and technical	14.3%	£610.00
Skilled trades	7.5%	£486.50
Process, plant and machine operatives	5.8%	£440.70
Administrative and secretarial	12.4%	£355.80
Caring, leisure and other services	9.6%	£266.50
Elementary occupations (no training required, e.g. a cleaner)	8.0%	£241.70
Sales and customer services	11.6%	£237.10
UK average		£502.20



Figure 3 Liverpool docks – an example of the regeneration of former wharves and warehouses as luxury apartments, shops, cafes/restaurants, and a marina – a different 'brand' altogether

Figure 4 Job types in the UK, ranked by weekly wage in 2013. The highest income categories are in green, and the lowest in blue.

Socio-economic inequalities

Job type is the cause of many other inequalities. London's position as the UK capital means that incomes there are far higher than elsewhere. This leads to other inequalities in areas such as health and education.

1 Regional inequalities

Incomes vary regionally. Figure 5 shows the distribution of average incomes by UK economic region. Incomes in London are the UK's highest because:

- ♦ it's the capital, so incomes are higher in senior positions in government, the civil service and in major company headquarters
- ♦ those who work in the Docklands-based knowledge economy have higher incomes than the average.

58% of jobs in London occur in the three highest-income categories from Figure 4 on page 197, and only 22% of jobs in the lowest three categories. In areas where the knowledge economy is weaker, such as Yorkshire and Humber, the equivalent percentages are 41% and 31% respectively.

2 Variations in quality of life

Do higher incomes increase happiness? Workers in London and South East England have higher average incomes, but housing and many other costs are also higher there. In 2015, Hampton's estate agents produced a 'happiness map' (Figure 6). The map uses Geographical Information Systems (GIS) to show several combined indicators. It shows where people feel happiest (according to the government's 'Life Satisfaction Index') and where houses are cheapest/most affordable. 'Life satisfaction' means how people assess their quality of life (e.g. their work-life balance). Light-shaded areas in Figure 6 show the UK's happiest and most affordable places – and it looks as if housing affordability is more important to happiness!

3 Occupation and life expectancy

A person's occupation has social consequences. By recording parental occupation at birth and a person's occupation when they die, there is a national database which helps to assess relationships between life expectancy and job type. It uses a different job classification from the one in Figure 4, because it classifies people by role (e.g. managers, skilled worker, etc.). But its results are quite startling, as Figure 7 shows. For example, there is a difference of 5-6 years (depending on gender) between the life expectancy in the highest and lowest occupational groups.

Class	Occupational group	Life expectancy	
		Men	Women
1	Higher managerial and professional	82.5	85.2
2	Lower managerial and professional	80.8	84.5
3	Intermediate	80.4	83.9
4	Small employers	80.0	83.5
5	Lower supervisory and technical	78.9	81.9
6	Semi-routine workers	77.9	81.7
7	Routine workers	76.6	80.8
	Unclassified	74.0	78.5

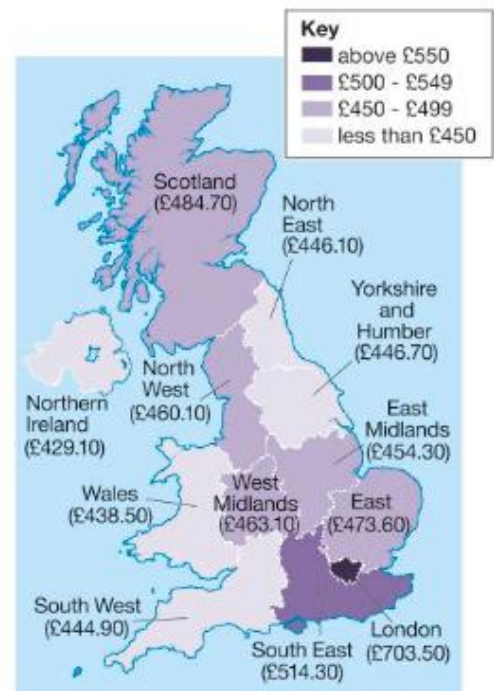


Figure 5 Regional variations in mean weekly incomes in 2013

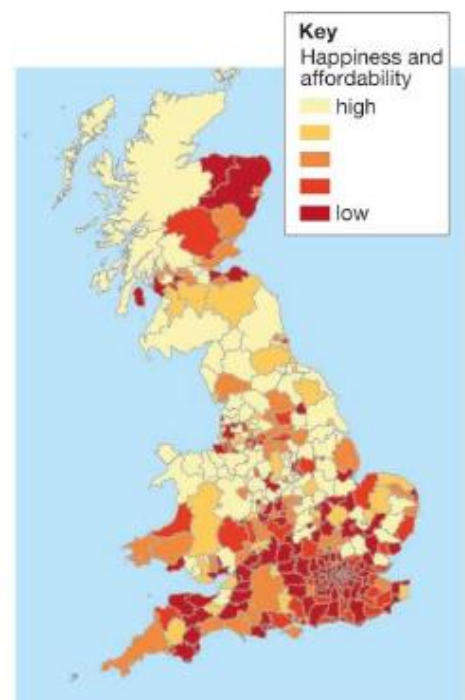


Figure 6 A GIS map of happiness in Great Britain

Figure 7 Occupational groups and life expectancy at birth, 2007–2011

4 Income and health

The same relationship occurs between income inequality and health. Those on the lowest incomes are said to be the most **deprived** (that is, lacking a reasonable standard of living). In the 2011 Census, people were asked to record the state of their health. Figure 8 plots the percentage of those who reported that their health was 'not good', against their level of deprivation (calculated from other parts of the Census). The population has been divided into 'deciles' (or tenths, based on deprivation). The top 10% are the most deprived ('Decile 1' on the graph), while the least deprived are shown as 'Decile 10'. There is therefore a clear link between income, deprivation, and health.

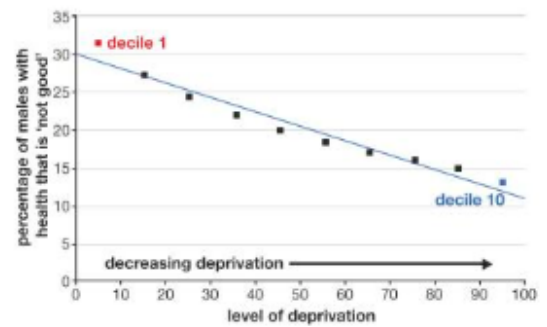


Figure 8 Comparing deprivation in males in England and their health

5 Variations in educational achievement

Figure 9 shows regional variations in the level of good GCSE passes in England, as well as the percentage of those qualified up to university degree level. Again, London has the highest in each column, with North East England the lowest. This does not mean that there is something about London that makes students there more able to pass GCSEs, nor does it mean that schools are poorer-quality elsewhere. The relationship is linked to employment – those with the highest qualifications are more likely to work in London and to move there. Their children are more likely to pass GCSEs with high grades – the result of factors such as paying for extra tuition, or a home culture of doing homework.

	Percentage of students obtaining A/A* grades	Percentage of adults with university degrees
London	25.3	40.5
South East	24.1	32.3
East	21.3	28.1
South West	20.9	29.5
West Midlands	18.4	25.5
North West	19.7	26.6
East Midlands	18.3	25.8
Yorkshire and Humber	17.6	25.4
North East	17.6	24.3

Figure 9 Variations in educational achievement by economic region in 2013 (obtained from ONS regional surveys)

- 1) List the advantages and disadvantages of reducing primary and secondary employment and expanding tertiary and quaternary sectors
- 2) Give examples of jobs in the different occupational categories in figure 7
- 3) Describe and suggest reason for the regional variation in weekly income in the UK (Figure 5)
- 4) Define the following terms: Old economy, new economy, knowledge economy, deprivation
- 5) Using the data categories in this section, research deprivation data for your local area. Describe and explain what makes your area similar to or different from the rest of the UK.