Geography

Summer Independent Learning
Summer 2021.

We study 6 different topics in A Level Geography.
In order for you to gain some basic knowledge and understanding of what our A level course is about, have a go at completing the following tasks/answering the questions that are taken from the A level specification.
How many can you do? Some are trickier than others.
(You will be quizzed on some or all of these when you start college)
You can present your work in any way that you want.

Human Geography	Physical Geography
Changing places	**Coastal systems and landscapes**
1. Give examples of what 'endogenous factors' and 'exogenous factors' mean in relation to places. 2. How do you think an 'outsiders' (someone from outside Doncaster) feelings about Doncaster might be different to an 'insiders' (someone that lives in Doncaster) feelings? 3. List three TNCs (Transnational Companies) that you find in Doncaster.	1. List and explain as many coastal processes as you can. 2. Draw and annotate a cross section of a saltmarsh. 3. Explain how sea level change has affected the island nation of Tuvalu.
Global systems and global governance	**Hazards**
1. What does globalisation mean? 2. Find an example of a 'global commons'.	1. List and explain the different tectonic plate boundaries. 2. Find out and explain what is meant by the 'Hazard Management Cycle'. 3. Are tropical storms becoming more damaging? Explain your thoughts.
Resource security	**Water and Carbon**
1. Explain what is 'grey water' is. 2. How is the consumption (use of) of water being managed in the UK? 3. How are countries trying to create more sustainable energy supplies?	1. List the places that water is stored in (and around) the planet. 2. List the places that carbon is stored in (and around) the planet.



A Level Geography Summer Independent Learning
Part 1- COASTS
Checklist. Upon completion of all tasks in Section 1 and 2 -

I can explain and evaluate different methods of coastal management.	
I can describe and give reasons for sea defences in Heysham, Morecambe Bay.	
I can recall key facts about the coastal management case study.	
I understand the threats to Venice in the past, present and future.	
I can explain and find evidence for sea level rises in Venice in the context of the global picture.	
I can evaluate the different approaches to protect Venice from rising sea levels.	
My work is A Level ready; a range of ideas are explained and developed in detail; keywords/vocabulary is accurately used throughout; it has clear headings and sub-headings.	

1 Coastal Management – Human intervention in coastal landscapes

Coastal management is defence against flooding and erosion, and evaluating the techniques that stop erosion to protect land. Coastal zones occupy less than 15% of the Earth's land area, while they host more than 45% of the world population.

Traditional approaches to coastal flood and erosion risk: hard and soft engineering. Sustainable approaches to coastal flood risk and coastal erosion management: shoreline management/integrated coastal zone management.

What do I have to do?

- Your independent learning is **to research 6 different coastal hard engineering strategies** – provide a description of how the management work within the coastal system and research the effectiveness (advantages and disadvantages) of these different methods.
- Create a **case study profile** of the coastal town of **Heysham, Morecambe Bay in Lancashire** as this is an illustrative example of the use of hard engineering. It includes a mix of traditional hard engineering strategies with a mix of more contemporary methods to improve the potential for sustainable management.

How do I do it?

- Use the following tables as a guide to help you organise your research and work.
- This should take you approximately 3-4 hours.
- You can present your case study profile in any way you want but it will need handing in within your first week of lessons.
- Please use some of the suggested resources at the bottom of this page

Why do I have to do it?

A Level geography is about being able to investigate and learn new theories and concepts.
An A Level geographer needs to be able to be able to think holistically and apply theory to real life.
You will be tested on your knowledge and understanding of different coastal management and be able to evaluate the importance of coastal management in Morecombe and Heysham.

Task 1

Create a table or mind map based on the table below, explaining how each strategy protects the coasts, often each strategy is large scale and costs a significant amount of money. Your task is to independently **research the specific purpose of each strategy and the effectiveness** within the coastal system. **Detailed paragraph not one-word answers.**

Technique	Description	Advantage	Disadvantage	Approximate Cost
Groynes				
Sea Walls				
Cliff drainage				
Rock armour/rip rap				
Gabions				
Off-shore breakwater				

Task 2

Create a case study profile of the material you have learnt on **Hard engineering: Heysham**. It must include the following information:

1. Background information – Why do Heysham and Morecambe need protecting?
2. The council has selected 'Hold the line' management. Explain this strategy and why they have selected this.
3. What Council is in charge of this management?
4. What type of management schemes does Heysham and Morecambe use? Suggest why each strategy has been used in each location.
5. How many phases were in this comprehensive improvement scheme and when did the programme take place?
6. Extension - Suggest how these strategies will be challenged by future sea level rises – how future-proof is the hard engineering in Heysham?

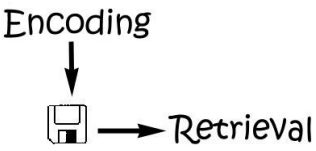
Coastal management, and hard and soft engineering approaches are topics that are well resourced in books and online - a sample of resources below:

http://www.alevelgeography.com/coastal-protection-and-management-hard-engineering/
https://www.tutor2u.net/geography/reference/coastal-protection-hard-engineering
https://www.bbc.co.uk/news/uk-england-lancashire-27676639
https://www.brainscape.com/flashcards/hard-management-case-study-coastal-town-o-6692822/packs/9755863
https://www.lancaster.gov.uk/planning/engineering/wave-reflection-wall-replacement-project

Task 3

Now you have acquired new knowledge on coastal management and applied to a specific location can you retrieve this information ready for your first assessment?

Lets find out….. **Scan the QR code** to see if you can retrieve the key facts about Morecambe and Heysham. A level Geography you need to be place specific when answering exam questions!



Retrieval Practice
[Practice Testing]

This RGS resource, web link below, is a review of the situation in Venice, considering the factors that make it vulnerable to coastal flooding – in the past, present and future. You will focus on Section 2 in these resources (Physical Environment and Flooding), where the threats of flooding from rising sea levels are highlighted.

TASK 4 Venice

As a comprehensive introduction, first read through/look at the material for all sections/Overview.
In Section 2 Physical Environment and Flooding. Complete the Starter tasks and the 2 Main Activities (not the Plenary)
https://www.rgs.org/schools/teaching-resources/what-future-for-venice-and-its-lagoon/

Part 2: Strongly recommended content.
Hazards

1)The concept of hazard in a geographical context

2) Plate tectonics

Checklist-

I can explain the concept of a natural Hazard.	
I am able to explain the difference between a geophysical, atmospheric and Hydrological Hazard.	
I understand the terms fatalism, prediction, adjustment/adaptation, mitigation, management, risk sharing and how they show different human responses to hazards.	
I can explain the structure of the earth and the characteristic of each of the three interior layers.	
I am able to draw annotated diagrams to show the formation of different plate boundaries and their associated landforms (Destructive, constructive and conservative plate margins.)	
I can explain how one volcanic or one seismic event will have different impacts: primary/secondary, environmental, social, economic, political.	

Complete the task below, use some of the suggested reading material and websites to support your learning.

1) Name the three types of natural hazards, and give examples of each.
   https://www.youtube.com/watch?v=xYSH-95VlLc
2) Create a vocabulary sheet / quizlet revision cards to define the key concepts associated with human responses to hazards.
3) Draw an annotated diagram to show the key features of the earth's structure, create a additional diagram to show how convection currents in the earth's interior cause plates to move.
   https://www.youtube.com/watch?v=AHF_ZVj798g
   https://www.youtube.com/watch?v=ryrXAGY1dmE
4) Draw annotated diagrams to show the formation of different plate boundaries and their associated landforms.
5) Create a case study profile of either a volcanic or seismic event you have studied at GCSE, use the template below to ensure you research it in enough detail. (Suggested examples Mount ST Helens, Monserrat, the Japanese Tsunami or Nepal earthquake.)

Name of Hazard **Tectonic setting-** Type of plate boundary (Diagram) Development of country Magnitude of event	**Location-** Map
Impacts on People EG- Death toll, Number of homes destroyed etc	**Impacts on the economy (money)** Cost to economy/ Building damage/Aid needed
Impacts on the environment (Physical and human) Loss of habitat/Physical impacts (Flooding, wildfire, landslide etc)	**Response-** How was this event managed on a local, national or international scale?

Suggested support material

https://www.youtube.com/watch?v=2HoTK_Gqi2Q
https://www.youtube.com/watch?v=xjlPmSXj24Y
https://www.tutor2u.net/geography/collections/a-level-notes-physical-hazards
http://www.coolgeography.co.uk/A-level/AQA/Year%2013/A_Level_Revision.htm

Changing Places

Place differs to the abstract notion of space because places have meaning to people. Space becomes place as we get to know it better. For many, the most familiar example of place is their home, where they feel most attached and can be themselves. As a geographer, you need to look at the different aspects or multidimensionality of place. In its simplest way, place is a location with meaning

Checklist-

I can explain the **concept of place** and space.	
I am able to explain what **places** might **mean** to different people and how this can vary.	
I understand that places can **change over time** and how places can be **connected** to other places.	
I can explain and find evidence of **multiculturalism** and how this might change the **character** of a place.	
I can explain what **makes a place great** and how this is reflected for my **local place**.	
My work is A Level Ready: a range of ideas are explained and developed in detail; keywords are accurately used throughout; it has clear headings/sub-headings; presentation is something to be proud of; my work is ***at least* 7+ pages** long (including the 4 ready prepared fieldwork pages).	

Doreen Massey (c1994)a geographer engaged with the theorisation of place stated that 'Places are not simply bounded locales where people gather…places are made of flows and movements and the myriad of interlinkages and interdependencies among places. They are simultaneously local and global, their social, cultural and economic relations stretched out across the globe, shaped by structural processes but retaining local particularities'.

Yi Fu Tuan (1977) contrasts place with the allied concept of space, stating that 'place is security' while 'space is freedom' suggesting that while space is infinite, place is bounded, identifiable and something to which humans can become emotionally attached.

Complete the task below, use some of the suggested reading material and websites to support your learning.

6) **Special place**.
    a. Name a place that is special to you. Where is this special place? What is your special place like?
    b. How would you describe it to someone else? Why is it special/ important to you?
    c. Is this place special to anyone else? Is it special to everyone? Why/not?
    d. How has your place changed over time? Why might this be?
    e. If you had to summarise the character of your place in just 5 words, what would they be?
7) Mini case study of **Portsmouth**, use this clip https://timeforgeography.co.uk/videos_list/cities/location-importance-and-sense-place-uk-cities-portsmouth/
    a. How has the city of Portsmouth changed over time?
    b. How is Portsmouth connected to other places?
    c. What does Portsmouth mean to people (sense of place)? How and why do these views vary? Positive views about place - topophilia? Negative views about place- topophobia?
    d. If you had to summarise Portsmouth's character from the clip or what you know about Portsmouth in just 5 words, what would they be?

8) Mini case study of **London**, use this clip https://timeforgeography.co.uk/videos_list/cities/multiculturalism-london/:

a. How is London multicultural? What evidence can you find? Quantitative (numerical) or Qualitative (non-numerical) data?
b. Explain what the term 'Windrush generation'.
c. How did Brixton become to have a strong West Indian culture? How is this reflected in the 'changed character' of Brixton?
d. The West Indian community often suffered ethnic or racial discrimination. Give examples of this. How did this then develop social cohesion within the community?
e. You are an outsider (most probably unless you are from there) to Brixton, how would you feel about visiting this place? Do you think it would be a positive experience? Negative? How comfortable would you feel? Why?
f. Using the 'Lives on the Line - Tongues' London map, describe the multicultural nature of London (note you can click on the stations to find out the language diversity of a place https://tubecreature.com/#/tongues/current/same/U/940GZZLUBLG/FFTFTF/11/-0.1000/51.5200/
g. **Challenge**: select 'Lives on the line' on the 'Metric' tab. How does life expectancy vary with the previous 'Tongues' map? What patterns can you find?

9) Using the image to the left, explain why **your local place** is great (or what is it lacking if you don't think it's great!). Do you agree with these categories? Would you like to add anything else?

10) **FSC Fieldwork LIVE Investigating Place**.

Complete the **three fieldwork methods** around your local place, out of your window or other places using google streetview. Use the fieldwork material on the following pages and watch this 45 minute interactive lesson from the FSC: https://encounteredu.com/live-lessons/ks4-5-investigating-place-280420

Suggested support material

https://www.tutor2u.net/geography/reference/introduction-to-concept-of-place

https://www.tutor2u.net/geography/reference/the-concept-of-place

https://www.tutor2u.net/geography/reference/factors-contributing-to-the-character-of-places

https://www.tutor2u.net/geography/reference/insider-outsider-perspectives-on-place

Investigating Place

We will discuss the validity of a range of methods used to measure place experience and perceptions. You will get secondary datasets for each data collection method to work with later.

Fieldwork Method 1: Non-participant observation of interactions and use of space

This method involves the researcher making qualitative observations of people using and experiencing a place. The researcher does not participate in the activities going on but observes behaviour passively.

People's use and experiences of Place	People's use and experiences of Place	People's use and experiences of Place
Appearance, clothing, age, gender, physical appearance of users of area	Note down anything that might indicate membership of a group such as profession, social status, socioeconomic class, religion or ethnicity	
Physical behaviour and gestures	What are people doing? Running, walking? Body language, are they looking around the space or looking down? Behaviour and gestures towards other people and the space	
Interactions with each other (verbal/ non-verbal)	Are people communicating with each other? Who does what, who interacts with whom, who is not interacting? What is the manner of communication?	
Use of space	How are people interacting in the space? What are they doing? Where do they go? Which service do they use? Which routes do they take? Is this a transient place or do people congregate?	
People who stand out	Does anyone standout in the environment? How and why? What are their characteristics? What are they doing?	

Evaluation of Non-participant observation method: note here any pros or cons we identify	
+	-
+	-

Fieldwork Method 2: **Place check**

This method involves observing the features and characteristics of the place around you. Guided by 'What makes this place...' column, record your qualitative observations to define the range of ways that people's experiences and perception of a place might be shaped.

METHOD HINT: Try to consider the questions from a range of users' viewpoints e.g. over 70s, families etc. How might this improve or detract from our data?

What makes this place…	Your notes/ evidence…
• a special place? • What makes this place special or unique? • Why does it look the way it does? • What local activities/events have shaped its look? • Why do we like this place? • What can we make more of? • What potential is there to enhance the place?	
• a well-connected, accessible and welcoming place? • How accessible is it? What limits connectivity? • How welcoming is it here? Is anything confusing? • How well does parking work? • How can it be made more welcoming and accessible?	
• a safe and pleasant place? • What makes the streets/public space here safe? • What detracts from the safety and pleasantness? • How safe are the pavements/ road? • How can safety and pleasantness be improved?	(continued)

• How do people enjoy nature? What is missing?	

KS5 Investigating Place
LIVE LESSON

FSC

(continued) **What makes this place…**	**Your notes/ evidence…**
• a planet-friendly place? • What makes this place planet friendly? • What resources are wasted? • How does movement use resources? • How is waste handled? • How is energy used in buildings? • How adaptable/resilient is this place? • How could this place make better use of resources?	

Evaluation of Non-participant observation method: note here any pros or cons we identify	
+	-
+	-

KS5 Investigating Place
LIVE LESSON

FSC

Fieldwork Method 3: Emotion mapping

For various sites around a Place, use the mood record sheet (on the next page) to pick a colour and number for the mood you feel in that place as a measure of your perception. Record your number (1-7) and colour (as r, g, b or y) in the exact point where you feel it. For example, if you feel relaxed in that place, put 'g 5'.

Your results	Colour	Strength
Emotion for 'Fieldwork Live' Site		
Emotion for another site		

Evaluation of Non-participant observation method: note here any pros or cons we identify	
+	-
+	-

If we were doing this in the field, what sampling strategy might be appropriate? Justify your answer.

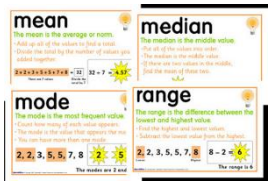
Now try submitting some further observations for the place you are working from now. We will use Survey 123 to do this, follow this link https://bit.ly/fieldworklivePlaceData . This will help us capture an extensive big-dataset for how people feel about their place right now.

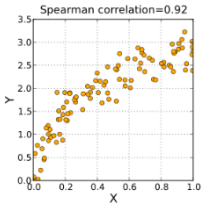
If we were doing this in the field, what sampling strategy might be appropriate? Justify your answer.

This is a method created by Yale University, USA. Researchers categorised all feelings into 64 descriptive words and organised them using two scales based on Energy and Positivity. This is now the most popular method of categorising feelings in science world wide

KS5 Investigating Place
LIVE LESSON

FSC





$$r_s = 1 - \frac{6\sum_{i=1}^{n} D_i^2}{n(n^2-1)}$$

A level Summer Independent Learning - Statistics

I can accurately use measures of central tendency – including mean, median and mode	
I am to identify patterns, trends and anomalies.	
I am able to manipulate data from sources.	
I can use non parametric measures of statistical dependence – Spearman's Rank Correlation Coefficient.	

As part of your A level you will be expected to undertake a variety of mathematical skills that will help you manipulate data in exam questions, alongside your exams you will be expected to undertake geographical fieldwork which is worth 20% where you will have the opportunity to analyse data.

What statistics do we need?

Mean = average
Median = middle
Mode = most common
Range = difference between highest and lowest
Interquartile range = UQ-LQ

Hot Hot…. The number of chillies represents the level of difficulty.

1

Seathwaite, in the Lake District, is one of the wettest places in England. It recorded these rainfall totals on consecutive days recently.

mm.	56	93	148	137	84	25	12	212	76

Calculate the total rainfall, the mean daily rainfall, and the median figure.

2

California has one of the largest water footprints in the USA. 4/8 its water needs go to environmental uses, 2/5 to agriculture and 2/20 to industry.

Calculate the percentage of water that goes to each of these 3 uses.

3

To enter beach material results into a database following a quadrat survey of a stretch of coastline, it was necessary to convert the estimated percentages of coverage by each material type into decimal values.

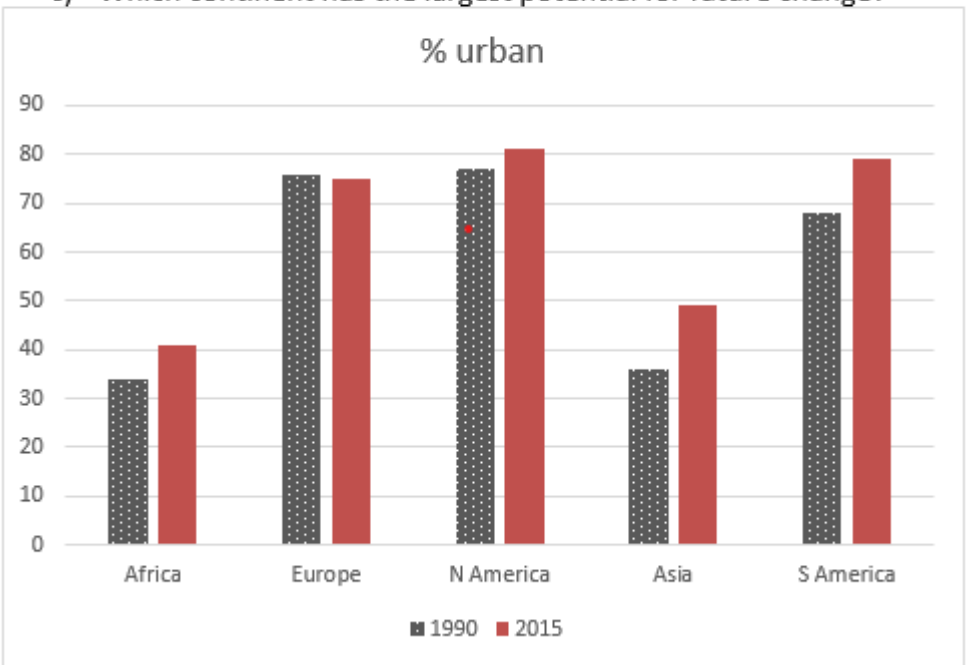
What percentage (%) did these material types cover in the quadrat? The remainder was obscured by seaweed. What percentage and decimal value was that?

Sand: 0.25 **Shingle: 0.08** **Pebbles: 0.44** **Rocks: 0.16**

4.

The chart shows the changing percentage of people living in urban areas between 1990 and 2015.

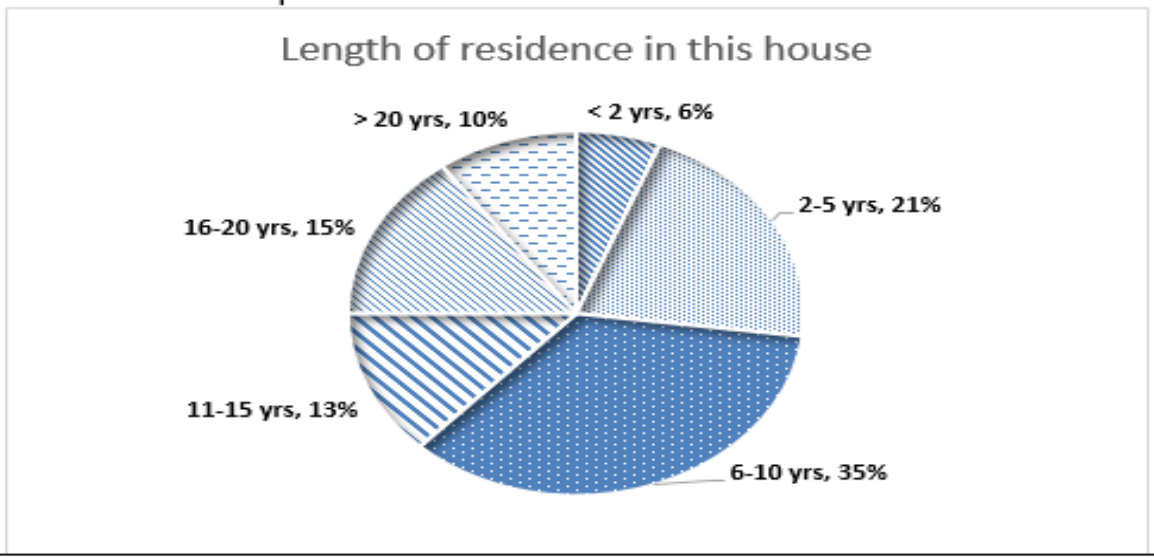
a) Which continent has shown the largest proportional change?
b) Which continent is an anomaly?
c) Which continent has the largest potential for future change?



5

As part of a Changing Place study, a total of 90 residents were surveyed asking how long they had lived in their current house. The results were rounded up to whole per cent.

a) Calculate the number of people who responded in each category. (Possibly not a whole number as the percentages have been rounded).
b) Approximately how many times greater is the largest response category compared with the smallest?
c) Why might you have anticipated the smallest category to have the lowest response number?



Below is secondary data regarding infiltration rates, in 3 distinctive regions of a river course.

Now complete this for all data sets:

1. Mean = average
2. Median = middle
3. Mode = most common
4. Range = difference between highest and lowest
5. Interquartile range = UQ-LQ

6.

Upper Course Distance	Infiltration in 5 mins in mm
0	5
5	6
10	5
15	7
20	7
25	8
30	9
35	10
40	12
45	12

Middle Course Distance	Infiltration in 5 mins in mm
0	8
5	9
10	9
15	12
20	14
25	13
30	15
35	18
40	18
45	17

Lower Course Distance	Infiltration in 5 mins in mm
0	10
5	10
10	12
15	11
20	15
25	18
30	17
35	19
40	18
45	21

See if you can work through a standard formula 'blind'. Apply the values provided below to the formula to calculate the value of r_s (to 2 dec. places)

$$r_s = 1 - \frac{6\,(\sum d^2)}{n^3 - n}$$

Where $\sum d^2$ is 13.8

And n is 11