Transition Tasks for GCSE Geography

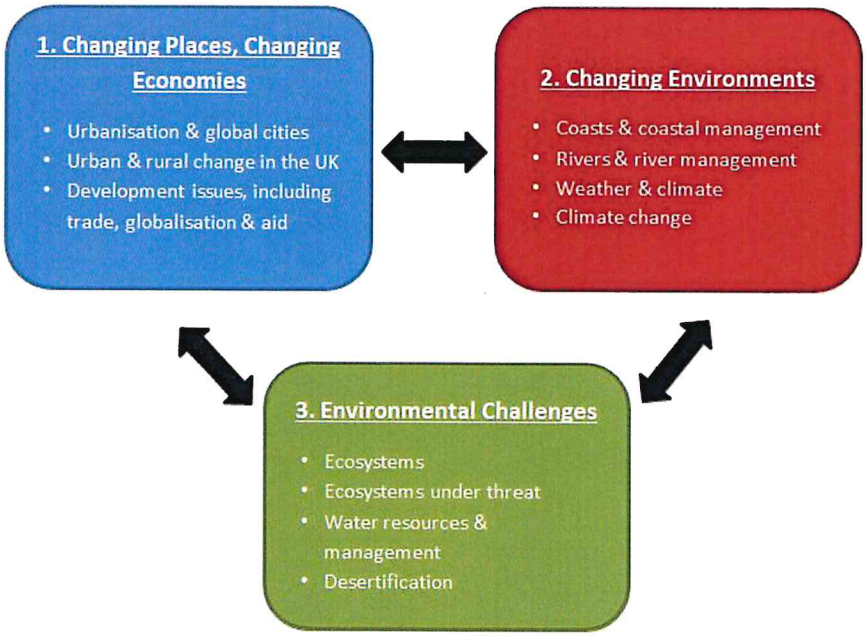
Welcome to Geography!

"The study of geography is about more than just memorising places on a map. It is about understanding the complexities of the world, appreciating the diversity of cultures that exist across continents. And in the end, it is about using all that knowledge to help bridge divides and bring people together."

Barack Obama

Welcome! It is fantastic that you are planning to take Geography GCSE in September. During the course you will explore a variety of geographical themes that have shaped the surface of our Earth, be it in the natural world or how we as humans interact.

We study the **Eduqas GCSE Geography B specification**, which can be found here: https://www.eduqas.co.uk/qualifications/geography-gcse-b/. A breakdown of the course will be covered in September but the topics you will study are broken down into the "human", "physical" and "environmental" themes:



The transition tasks and activities are linked to these topics, but will also help you to develop the knowledge and skills you have gained throughout KS3. By completing it to the very best of your ability, you will set yourself up for a successful transition and smoother start to your GCSE studies in September. Scroll down for further reading and links too!

If you have any questions, please do not hesitate to contact me at tpb@churchdownschool.com.

Good luck!
Mr Bouquet, Head of Geography

Overview of Tasks

Task:	Complete?
1. Skills and knowledge application (complete on paper)	
2. Decision making exercise (complete on paper)	
3. Place investigation and research (complete online)	
4. Optional further online exploration (see below)	

Further reading and links

Current affairs and the news are full of Geography day in day out. What we study will change constantly so we always recommend students to follow/subscribe to news outlets such as the BBC or the Guardian which have specific sections on the environment, etc. In addition, there is an abundance of films, books, documentaries, social media handles, websites, YouTube channels, dramas and some incredible immersive online experiences that will help you to explore the world of Geography.

As an optional task, browse the links below and let your mind expand! ☺

Story maps, online GIS that helps you to explore a variety of topics and issues: https://www.esri.com/en-us/arcgis/products/arcgis-storymaps/stories/

Online tours of famous landmarks: https://artsandculture.google.com/project/street-view

Can't go wrong with the articles and images in National Geographic: https://www.nationalgeographic.com/

Maps, glorious maps can be explored in a variety of ways; obviously Google Maps and Google Earth we use day in day out but here are some other useful sites:

- We are subscribed to Digimaps for Schools and you can log on at https://digimapforschools.edina.ac.uk using the username **GL32RB** and password **cryped2392**
- Similarly this is free to explore the UK also: https://maps.nls.uk/geo/explore/side-by-side/

NASA's Earth Observatory: https://earthobservatory.nasa.gov/

Everything weather and climate related: https://www.metoffice.gov.uk/

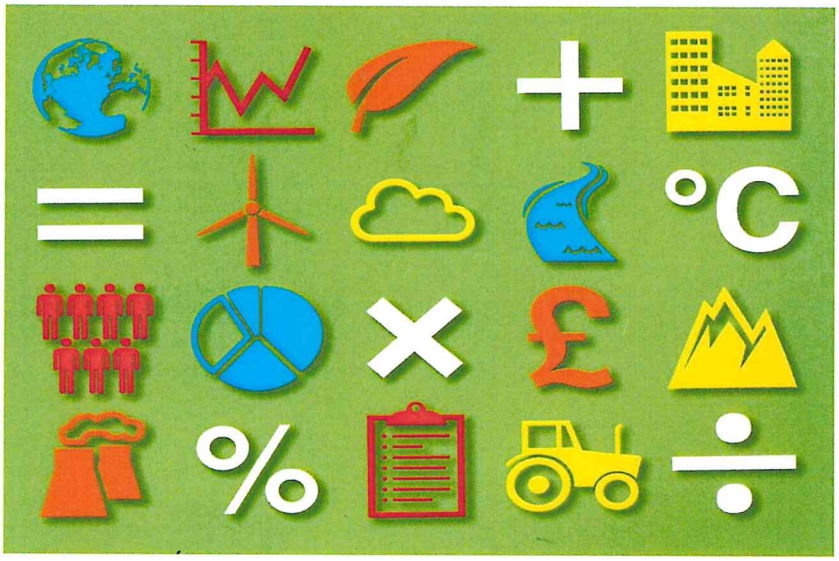
Discover more about geology and the world below our feet at the British Geological Survey (BGS) website https://www.bgs.ac.uk/ and in particular their 'Geology of Britain viewer': https://www.bgs.ac.uk/discoveringGeology/geologyOfBritain/viewer.html

You can also learn more about the world, expeditions and a host of opportunities for young people at the Royal Geographical Society: https://www.rgs.org/. You can also become a member.

Thinking beyond GCSE? Info about Geography at A Level or university and recommended reading/books can be found at the Geographical Association: https://www.geography.org.uk/Student-guidance. You can also become a member.

Still want more?! This is a specific link to how you can prepare further for A Level Geography - https://www.geography.org.uk/Preparing-for-A-level-geography

GCSE Geography
Transition Task 1
Skills and knowledge application



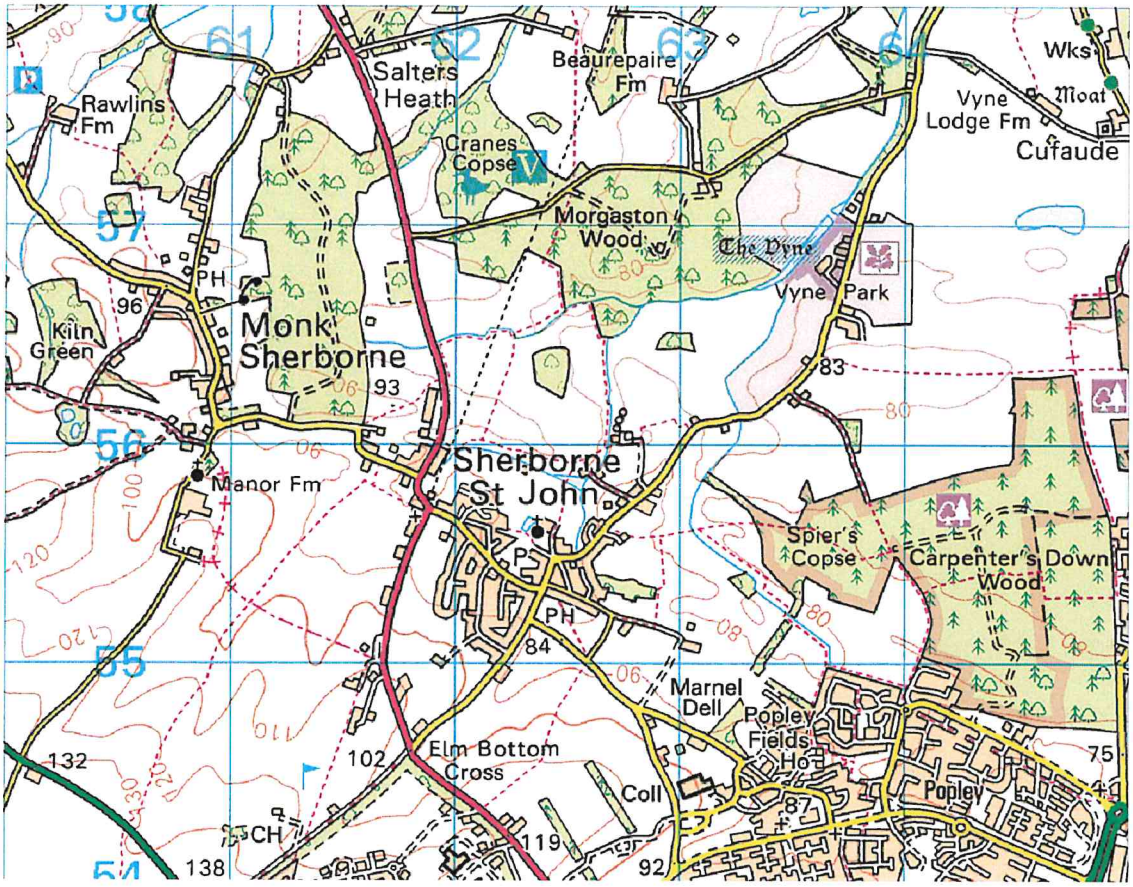
Overview of Task

This task is designed to test the skills and knowledge you have gained from KS3 and ensure you are ready for GCSE. Study each figure carefully and answer all the questions to the best of your ability.

The number of marks for each question is given in brackets. E.g. for written answers, [3] indicates you need to write three points or develop your answer in more detail.

There are a total of 40 marks.

1. Study the map extract below.



(a) State the **six-figure** grid reference for the church in Sherborne St John [1]

_____

(b) The scale of this map is 1:50,000 (i.e. 1 grid square = 1 km). How far is it between the church in Sherborne St John and the church at Manor Farm 608 558? [1]

_____

(c) What direction is Vyne Park (63 56) from Salters Heath (61 57)? [1]

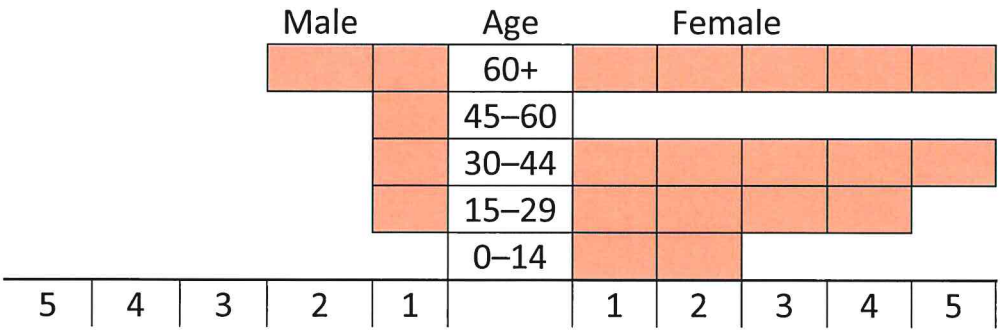
_____

(d) If you were standing at grid reference 627 567, what would you see all around you? [1]

_____

2. One Wednesday afternoon, a group of Year 10 students collected fieldwork data in their local shopping centre.

(a) Study the diagram below that shows the people surveyed by one group.



There were four women aged 45–60 surveyed. Plot this missing data on the diagram. [1]

Calculate the percentage of the whole sample who were male [2]

_____%

Explain one way this method of data collection could be improved. [2]

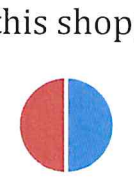
_____

_____

_____

_____

(b) The pie chart shows some of the data collected by the students. They asked the question 'Do you like this shopping centre?'



Explain one way this question could be improved. [2]

_____

_____

_____

_____

3. Study the data in the table below.

Indicator of development	**Country A**	**Country B**
GNP per capita	2200	38100
Employed in agriculture (%)	80	1.2
Life expectancy	55.34	84.74
Doctors per 1000 people	0.08	2.3
Birth rate per 1000	44.99	7.93

Source: Central Intelligence Agency World Fact book

(a) Complete the sentence below, using the data to determine which country is developed and which is developing [1]

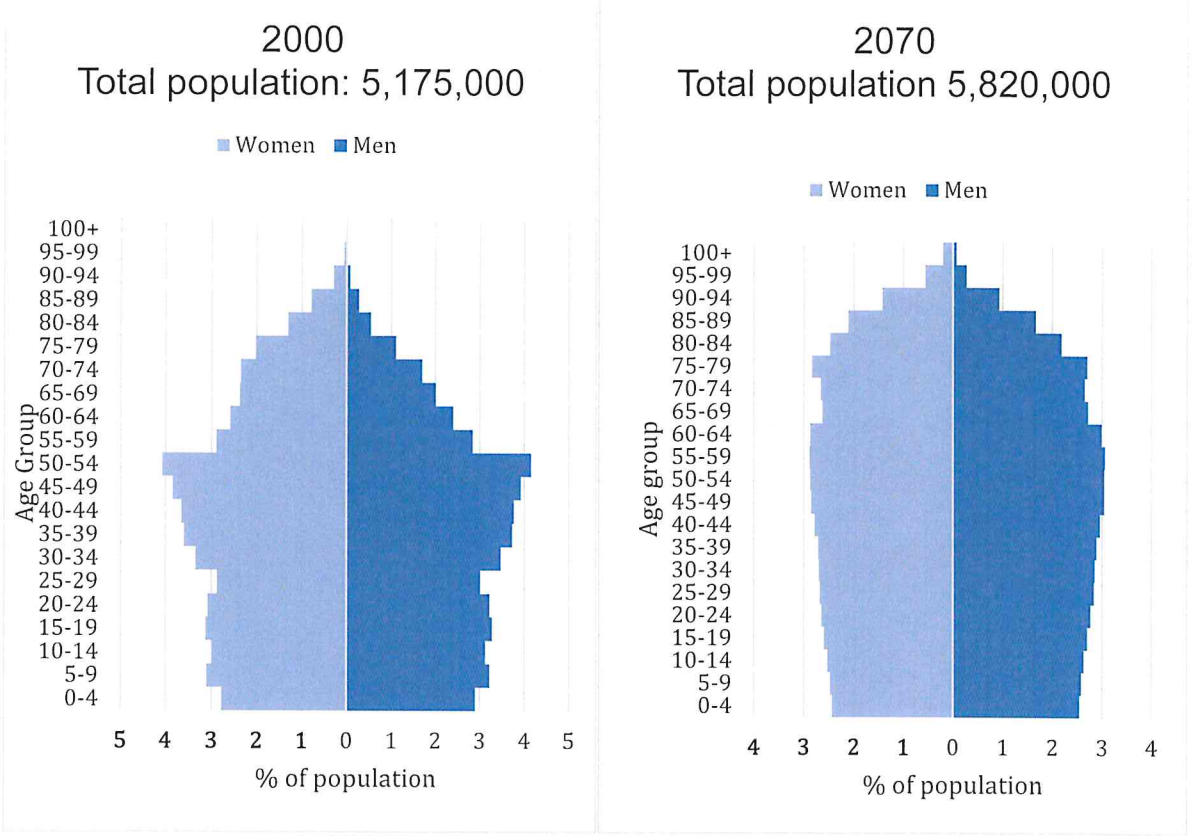
Country _____ is a developed country, country _____ is a developing country.

(b) Suggest which real country countries A and B could be. [2]

Country A: ..... Country B: .....

(c) Choose one of the indicators of development from the table and explain how it shows the development of a country. [3]

4. Study the population pyramids below. They show the population structure of Finland in 2000 and what is expected in 2070.



Source: United Nations, Department of Economic and Social Affairs, Population Division

(a) What is going to happen to the overall population total? [1]

(b) What is going to happen to the number of people who are between 15 and 65? [1]

(c) What is going to happen to the number of older people? [1]

(d) Explain how these changes could affect the country. [4]

5. Read the accounts of the two volcanoes that erupted in 2010.

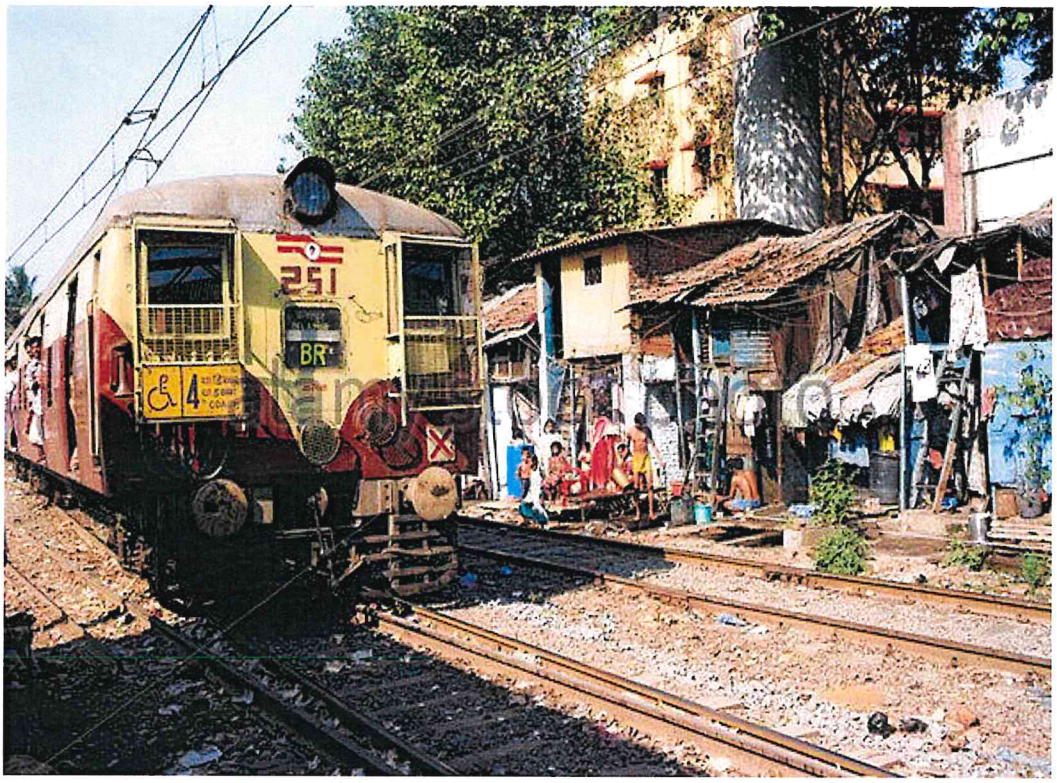
Mount Merapi, Indonesia	**Eyjafjallajökull, Iceland**
Villages 15 km away were covered in ash from the pyroclastic cloud. Around 280,000 people were evacuated but 350 still died. Emergency shelters were set up but the conditions in them were poor and disease spread easily. Water supplies were contaminated. The airport had to be closed. Crops were damaged and food prices increased. Some farmers lost their livelihoods. The estimated cost of the eruption as US$781 million.	A massive pyroclastic cloud rose 11 km into the air causing the cancellation of all flights using European air space for nearly a week. The eruption melted the ice on the volcano and caused flooding. Roads had to be blown up to let the flood water escape. Around 700 people were evacuated. Flood water destroyed roads and 20 farms. The worldwide cost of the eruption was US$5 billion; there were no fatalities.

(a) Compare the two events. [3]

(b) Using evidence from the accounts, explain which eruption had the greater impact. [4]

6. Mumbai, a city in India, is home to over 20 million people. Each day 1,000 more people arrive. By 2025, it is estimated the population will be over 26 million.

Study the photo, showing how many people live dangerously close to Mumbai's railways in informal housing (slums):



(a) Describe the buildings shown in the photo. [2]

(b) Suggest three ways here people are affected by their environment. [3]

(c) Explain why demolishing informal housing next to railway lines could:

a. Improve rail safety [2]

b. Improve train times. [2]

WELL DONE! ☺

GCSE Geography
Transition Task 2
Decision Making Exercise (DME)

Overview of Task

This task is designed to get you thinking like a Geographer!

Geography, like life, requires you to make lots of decisions based on evidence given to you. While there is not always a "right answer" it is important to analyse the evidence and justify your decision clearly. In Geography these activities are referred to as DMEs or "decision making exercises".

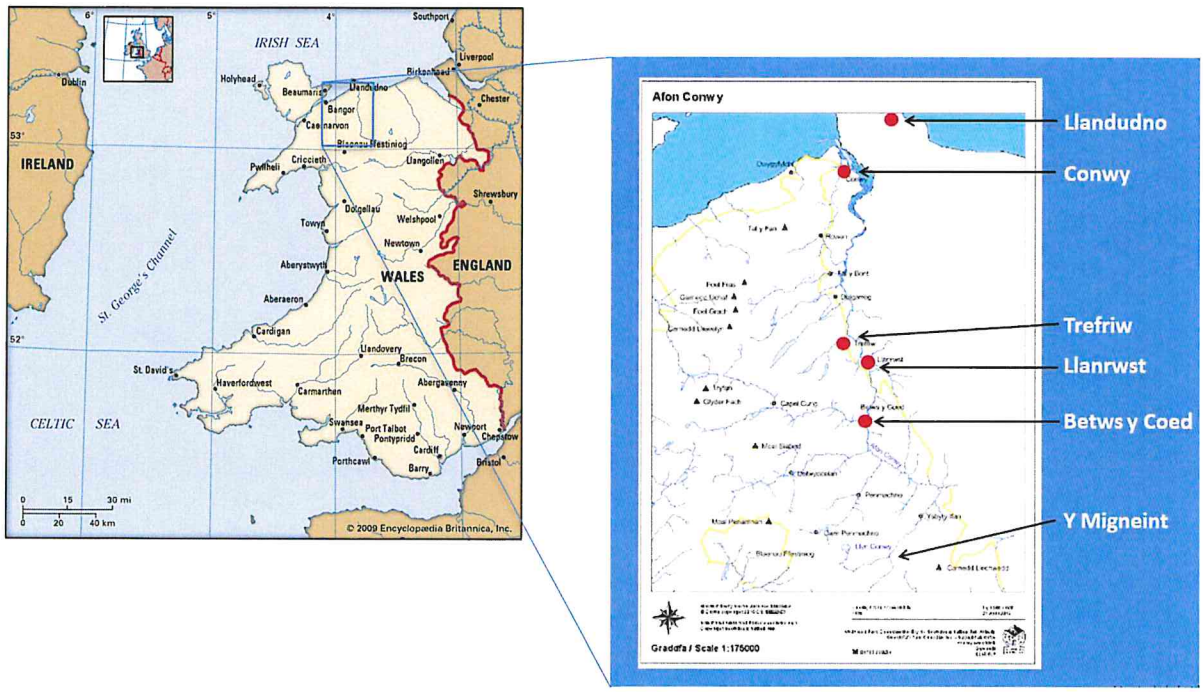
This DME focuses on a flood management scheme in the Conwy Valley in North Wales. It doesn't matter that you have never heard of it; it is about applying your geographical skills and knowledge to the scenario!

Write down your answers in full sentences on lined paper. Make sure you also organise your work clearly with titles, sub-titles and your answers next to the correct question number.

Task

1. Background information: read through the following information to familiarise yourself with the issue of **flooding in the Conwy Valley**. Use this and your own knowledge to answer the questions.

The River Conwy is located in Northern Wales and flows north from the Snowdonia Mountains, down through the valley passing several villages and towns.



Although known for its beauty, the river has also caused frequent flooding to properties at Llanrwst and Trefriw in the past. It is suggested that one in six buildings are at risk from flooding in Wales and the issue is taken seriously by local authorities. These photos show recent flooding in early 2020:

The local council recognise the problem and has put a "flood risk management strategy" in place. A quote from its report says:

"Floods are natural events and will continue to occur, regardless of any efforts to prevent them... it's important to focus on reducing the disruption that flooding causes as on measures to prevent it."

Conwy local risk management strategy 2013 – 17

a) What proportion of buildings are in danger of flooding in Wales?

b) What is the name of the mountains that the River Conwy flows from?

c) Name the town/village closest to the mouth of the river.

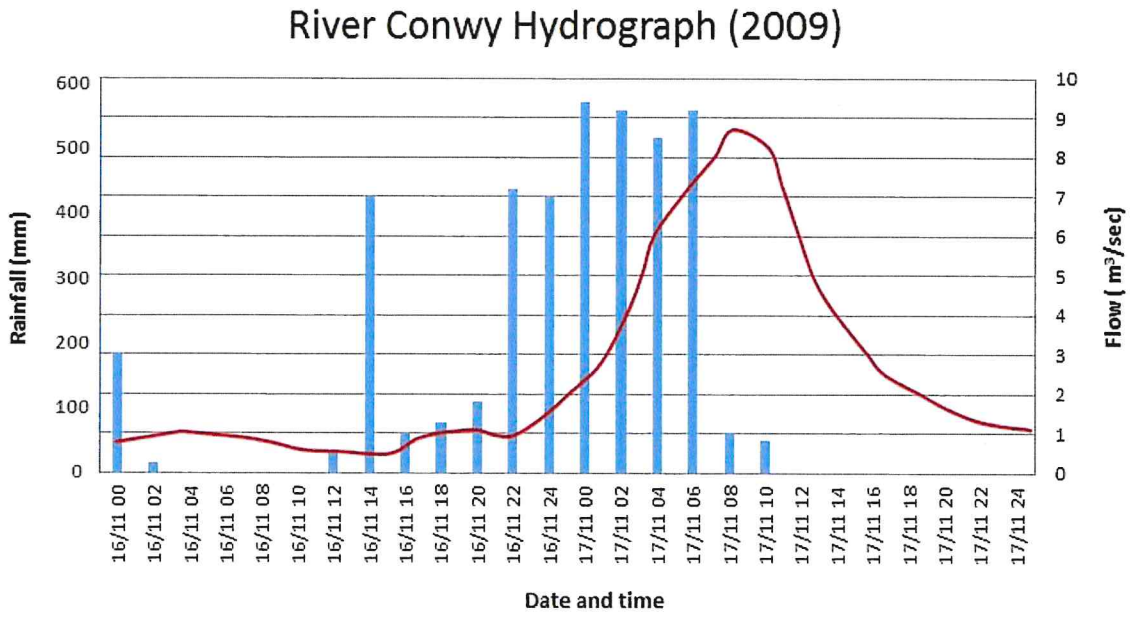
d) Locate the villages of Llanrwst and Trefriw on the map. Which part of the river do you think they are located in: the upper, middle or lower course?

e) Suggest why these villages are more likely to experience floods.

f) Using the photos and your own knowledge, describe how flooding can cause problems for people and places.

2. The graph below is a hydrograph, showing a flood event on the River Conwy during the 16th-17th November 2009. Hydrographs are very useful as they tell us how a river "responds" to rainfall and how it floods. Study the graph:

- The blue bars show the amount of rainfall (in mm) falling every two hours
- The red line shows the flow (or discharge) of the river in m^3/sec



a) 200mm of rain fell at midnight (00hrs) on the 16th of November. How much rainfall fell at midnight on the **17th** of November?

b) At what time on the 17th did the river reach its peak (maximum) flow? What was the flow of the river in m^3/sec?

c) The "lag time" is the time between the peak rainfall and peak flow. It basically tells us how quickly the river fills with rain! **What was the lag time, in hours, for this flood?**

d) The River Conwy flows through a largely rural area. Suggest how the hydrograph may be different if this was an urban area, e.g. a city instead of the countryside.

3. Heavy rainfall, steep hillsides and growing towns are often quoted as reasons for flooding in the Conwy Valley. Draw a table or colour-code the different causes into **human** or **physical (natural)** causes of flooding.

Heavy Rain: means there's more water going to the river.	**Snow Melt** puts more water into the river.	**Steep slopes** mean the water runs straight off the surface before infiltration can take place.
Hot dry weather – bakes the top of the soil, meaning water can't soak in when it rains. So it runs off the surface straight into rivers.	**Ploughing** up and down hills makes channels that get the rain-water to the river faster.	**Antecedent rainfall** – this means it has rained before, so the ground is already **saturated**. This means rain water flows straight to the river as surface run-off
Impermeable rock under the soil means the rain-water can't percolate into the groundwater, so it flows quickly into the river by throughflow and surface run-off.	**Deforestation** means that the soil can get washed into the river. Rivers may silt up so there is less space for water. Also means rain gets to the surface faster without the trees, so is more likely to get saturated.	**Building houses on greenfield sites** means that the water can't soak into the ground because the new surfaces (tarmac & concrete) are impermeable. So water goes straight into the river through surface run-off and through drains.

4. Conwy council have to consider different flood management options. Study the information below about nine different flood alleviation (reduction) methods and answer the questions that follow.

Storing water naturally in blanket bogs

Digging ditches on moorlands slows the rate of flow into streams and rivers. As moorlands are generally found in the uplands – the areas that receive most of the rainfall, storing the water there can be very cost effective. However in the summer months we rely on the moorlands to sustain our rivers and fill our reservoirs; these ditches may cause disruption to water supply and wildlife habitats in summer.

Using the floodplain as a natural store

This flood scheme allows the water to flow over man-made flood banks onto the natural flood plain of the valley floor. It is then stored and drains away over a few days. Schemes usually involve lowering flood embankments, creating spillways to provide an alternative route for flood flows thus reducing water levels in towns and villages upstream. Farmers lose land but are compensated for letting their fields become natural storage.

Build concrete embankments

One way to keep water out is to set up an embankment such as that along the Thames in London or the Seine in Paris. Often recreation facilities and walkways will be added as amenities on top of the embankment. These are effective in urban areas but many worry about the impact of large concrete structures on natural habitats in the countryside.

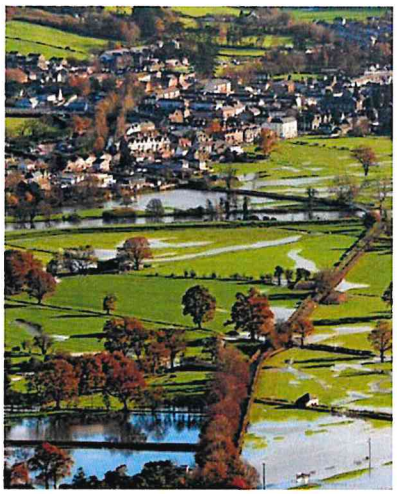
Use temporary flood defences

An alternative to permanent walls is a structure or barrier that is put in place in the event of a flood or raises automatically as the water level rises. These can involve a lot of labour and don't actually stop the flooding, but can be very effective in protecting properties in the short-term.

Build natural embankments or levees

One way to keep water out is to build up earth on the banks of the river to prevent water spilling over onto the land. The base and centre of the defence is often reinforced with concrete or stone to combat the flow of water, whilst it's often covered with soil and turfed to provide a natural looking defence.

Limit development on floodplains



Most rivers don't flood every year. In fact many rivers won't flood for years and flat land makes these areas cheaper to build on – and the country needs new housing. However, building on floodplains reduces their ability to be used as stores for river floods and any new buildings on the floodplain are prone to flooding. It is therefore suggested the easiest way to reduce flood risk to buildings on flood plains is to stop building on them.

Straighten and deepen channels

Straightening the river channel aims to get the water through the system, or the town, as quickly as possible. Often the fast moving water will impact on settlements lower downstream unless they also have protection. Deepening the channel removes sediment (by dredging) but often it will build up again over time.

Reduce river flow by planting trees

Planting more trees intercepts rainfall and helps take water from the soil - although large areas must be reforested to make a real difference. "Shelter belts" of trees along small streams can also slow down and reduce the flow of water into rivers or help to release water more slowly. Trees take time to grow, and any change must be well managed working in partnership with landowners.

Building dams

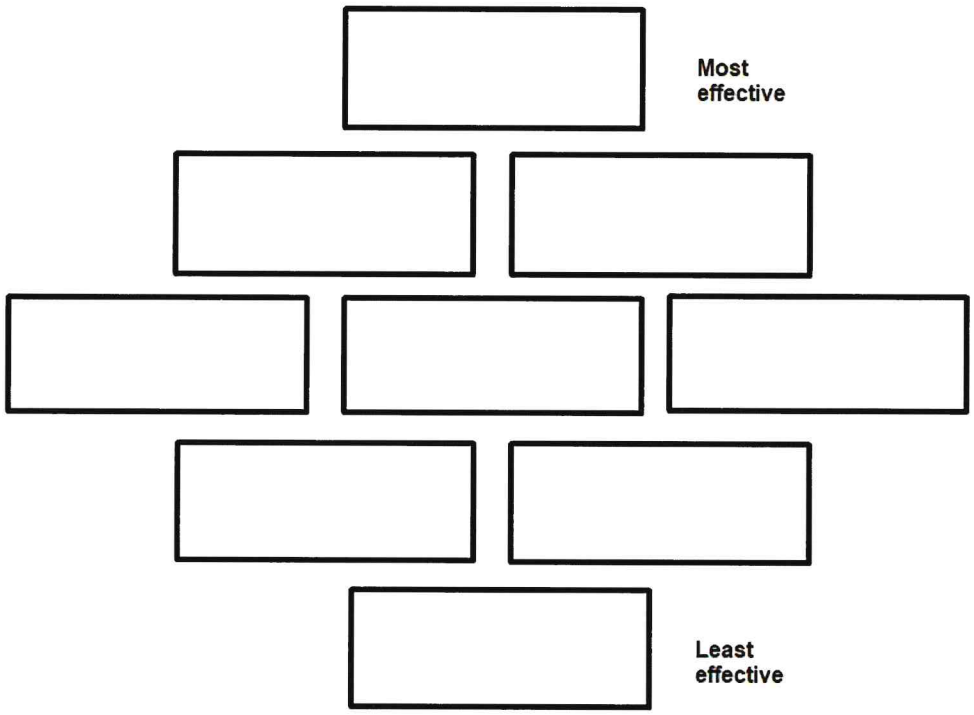
Dams are expensive to build but can hold back a huge amount of water, thus controlling river flow and flood risk. This water can be used to supply water to homes for drinking or to farms for irrigation. Reservoirs can also be used for recreation or even to generate electricity. However, they can cause huge disruption to natural processes and habitats, and need careful management to control the flow of water during different seasons.

a) Draw a table like the one below to summarise the information about each of the nine methods and its advantages and disadvantages. The first one has been done for you.

Flood alleviation scheme:	Hard or soft engineering?	Advantages?	Disadvantages?
Storing water naturally in blanket bogs	Both	Stores water in upland bogs and reduces winter river flow. Cost effective (not expensive and works well)	Reduces river flow in summer so could disrupt water supply and habitats
Using the floodplain as a natural store			
Build concrete embankments			
...			
...			

*You will need to look up and remind yourself what hard/soft engineering is! ☺

b) Sort the nine methods into a diamond rank like the one below. The top three should be the methods you think will work best to alleviate (reduce) flooding. The bottom three should be the methods you think will be the least effective with the remaining methods in the middle.



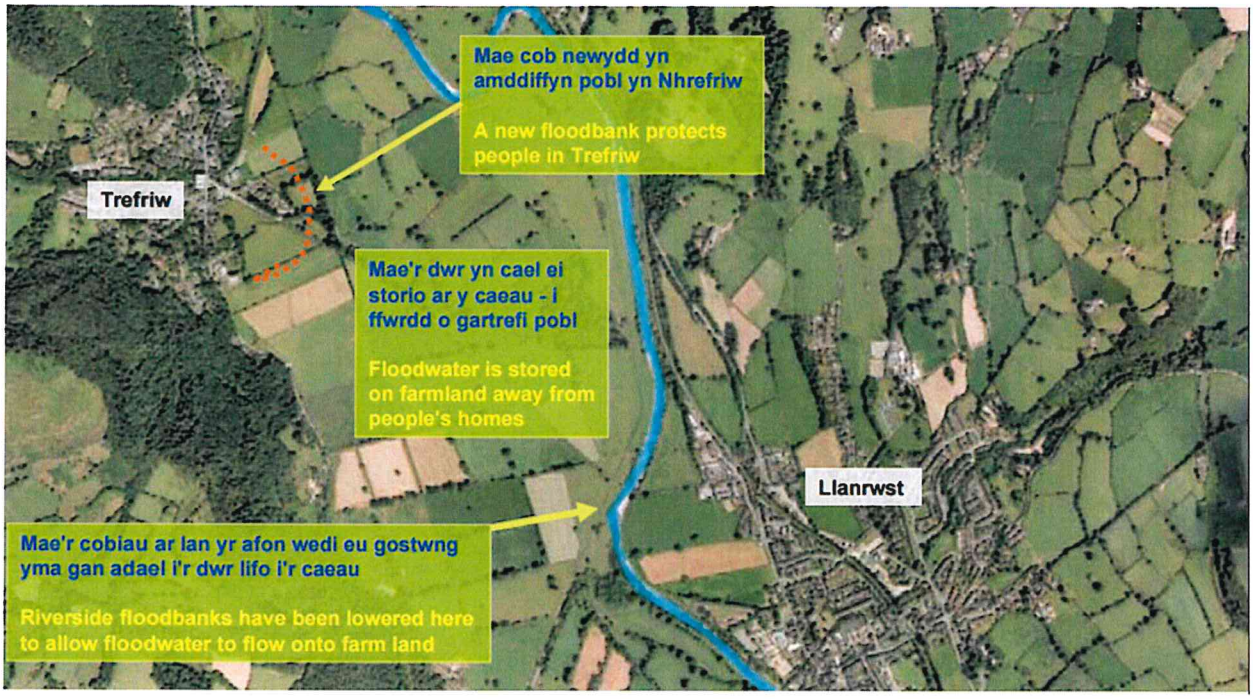
c) Write a paragraph to justify why you think the combination of your three preferred methods will work best. You might want to consider the impact of your preferred methods on people, the economy or the environment.

5. Here is some information about an actual flood management scheme created by the council and Environment Agency near the villages of Llanrwst and Tefriw:

"Working with nature we have created a scheme to provide better protection from flooding. We did this by lowering part of the flood bank which acted as a bottleneck, which caused houses in Llanrwst to be flooded. This makes more space for the water by storing it on the natural floodplain of the valley floor. People in Trefriw are protected from this water by a new flood bank."

Environment Agency Wales 2009

An aerial photo of the scheme with labels:



Click on these links to find out more about this scheme.

https://www.salixrw.com/solution/conwy-fas/
http://teamvanoord.com/downloads/MG023%20Conwy%20FAS.pdf

To what extent do you think that this was the best way to alleviate (reduce) flooding in the Conwy Valley?

Use the information and your own knowledge to **write three paragraphs** to answer this question. Your answers to the previous questions will also help you. Use the structure below to balance your arguments before making a conclusion – your decision!
Structure to follow for your three paragraphs:

1. **Firstly, construct an argument that supports this decision.** You should consider the **positive** aspects of the scheme including benefits to people, economy and environment.

2. **Construct a counter-argument.** You should consider any **negative** aspects of the scheme such as cost, or negative impacts further downstream. You could suggest an **alternative scheme**. If so, you must explain carefully why you think your flood alleviation scheme is better.

3. **Finally, state your overall opinion.** This means that you weigh up the positives against the negatives of the scheme. Conclude your decision by stating whether, based on the evidence, you agree or disagree with the scheme.

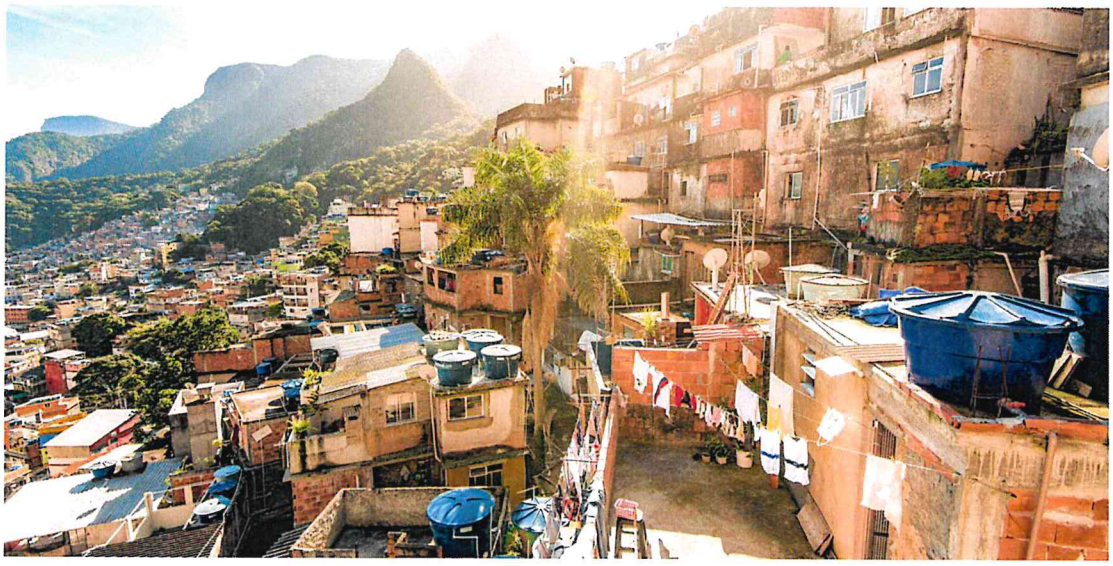
Well done for completing the task!

GCSE Geography
Transition Task 3
Place investigation and research

Overview of Task

Geography is about real places! These **online activities** will hopefully allow you to explore and remind you of how incredible different places can be! The first activity focuses on Rio de Janeiro whereas the second is closer to home: Gloucester.

Write down your answers in full sentences. Make sure you also organise your work clearly with titles, sub-titles and your answers next to the correct question number.



Activity 1: Virtual fieldtrip to Rio de Janeiro

Today, from the comfort of your home, you are going to take a trip to Rio in Brazil! Grab a cup of tea, plug in your headphones and explore…

1. What do you think of when you hear the word "slum"? Write down **five words/phrases** you would use to describe "slums".

2. For many, the word slum brings to mind words such as poverty, violence and informal homes. This is particularly seen in Rio de Janeiro, Brazil, where *favelas* have been linked to danger, violence and crime. Use the following link to answer these questions: https://www.nbcnews.com/storyline/2016-rio-summer-olympics/what-favela-five-things-know-about-rio-s-so-called-n622836

    a. Describe where *favelas* are located.
    b. Why are they known as *favela*?
    c. Why have *favelas* grown over time?

3. You are now ready for an interactive self-guided tour using Google Street View technology through Rio's favelas! The tour begins with a motorcycle ride through the narrow streets of a favela community. Throughout the tour, 360-degree video and photos will fully immerse you into favela life.

    Head to https://beyondthemap.withgoogle.com/en-us/ to start the tour. **Spend 30 minutes exploring the streets and videos.**

    During/at the end of the tour, answer the following questions:

    a. Describe the view on the top of São Carlos. (Stop 1)

    b. What is the *Christ the Redeemer?* How tall is it, who created it and why?

    c. List the businesses and charities which are run in the favelas.

    d. Choose 4 stories you hear on you tour and answer the following questions:
        i. Briefly outline their story.
        ii. How is their story different to how many outsiders see the favelas?

e. Revisit Stop 8. Why is mapping so important to this area of the favela?

f. Write 1-2 paragraphs to explain how this tour has changed the way that you view informal settlements (slums) such as the favelas in Rio or elsewhere in the world (e.g. India, Kenya).

Activity 2: How has Gloucester changed over time?

From the global to the local! Appreciating your local city as a "place" is also an important part of Geography. This activity uses online maps (GIS – "geographical information systems") to explore how Gloucester has changed over time.

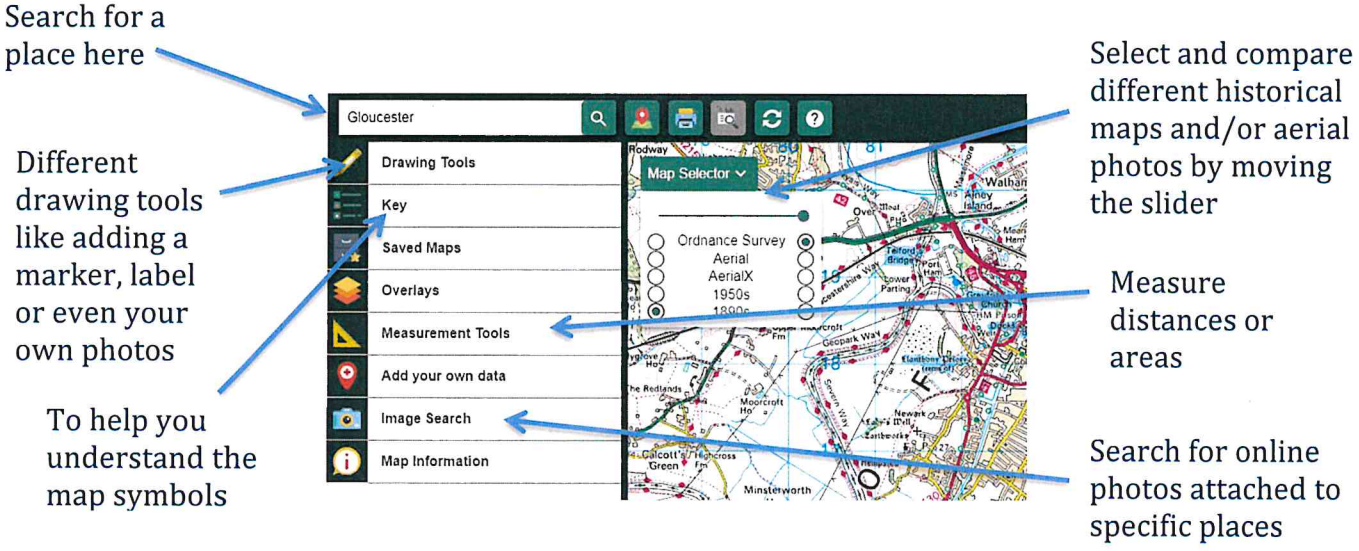
1. **Where is Gloucester?** Using an atlas, map of Google maps, describe the location of Gloucester in **as much detail as possible**.

   Tip: consider compass directions, distances from other cities/places, physical features like rivers, etc.

2. **Digimaps for Schools**
   Go to the Digimaps website: https://digimapforschools.edina.ac.uk/login
   Log in using the following login details (be exact, no spaces!):
   - Username: **GL32RB**
   - Password: **cryped2392**

   Search for Gloucester and find where you live! Spend a good 5-10 minutes having a play with the zoom, map selector and different tools!

   Here are some useful features to be aware of:



3. Identify **five local places that are important to you and explain why** (e.g. your house, relatives, favourite hangout, school☺, etc.)

   Use the drawing tools to add a marker and label for each on your map. You can choose which ones you want! Notice how they stay in place regardless of changing the map or zooming in/out. You can also move and edit them. Optional: add a photo, either your own or from the image search!

4. **Save your map!** The easiest way to do this is to click on the printer icon and generate a print file (pdf is best) that you can save somewhere safe with your other work. You can also give it a title and choose portrait or landscape.

5. Look at your map in the 1950s and/or 1890s. Were your important places there? How has the land use changed? Explore and record your ideas in a table like this one. An example has been done for you:

Place	Land use today	Land use in 1950s
E.g. Gloucester Quays	Large buildings for shopping, a college and lots of tourist attractions like museums	Train lines run to the docks suggesting they are still in use and cargo is being offloaded by boats
1.		
2.		
3.		
4.		
5.		

   Challenge/extension: save the two maps as jpegs and put into *Word* to compare them side by side and label the changes!

6. Compare the present day map of Gloucester to the historical maps in more detail... What are the main changes you see? **Write 1-2 paragraphs to describe how Gloucester has changed in the last 100 years.** Include real places in your answer and if possible, include some facts statistics to back your ideas up (e.g. population numbers, types of industry).