GCSE Geography- Revision booklet

Component 2. UK Geographical Issues

Exam date – 5th June 2018. 90 mins

Topics

1. The UK’s Evolving Physical Landscape
2. Coastal Change and Conflict
   a. Fieldwork – Investigating Coastal Landscapes (Holderness)
3. River Processes and Pressures
4. The UK’s Evolving Human Landscape – Case Study Nottingham
   a. Fieldwork – Investigating Dynamic Urban Areas - Nottingham
How has geology and physical processes influenced the physical landscape of the UK?

<table>
<thead>
<tr>
<th>Type of Rock</th>
<th>Sedimentary Rocks</th>
<th>Igneous Rocks</th>
<th>Metamorphic Rocks</th>
</tr>
</thead>
<tbody>
<tr>
<td>How it is formed</td>
<td>Formed on the surface of the Earth in layers (sediment is compacted over time)</td>
<td>Formed by molten rock that has cooled and solidified</td>
<td>Formed when rocks are transformed under extreme heat and pressure</td>
</tr>
<tr>
<td>Where it formed</td>
<td>Formed where oceans, lakes or other bodies of water once existed</td>
<td>Formed where volcanoes are located</td>
<td>Formed deep within the earth</td>
</tr>
<tr>
<td>Properties</td>
<td>Soft and can contain fossils</td>
<td>Glossy, shiny rocks which are harder than Sedimentary rocks – contains small crystals</td>
<td>Hard rocks which contain large crystals</td>
</tr>
<tr>
<td>Examples</td>
<td>Shale, Sandstone, Limestone</td>
<td>Obsidian, Granite, Basalt</td>
<td>Slate, Marble, Gneiss</td>
</tr>
</tbody>
</table>

Physical Features in the UK

**Upland Glaciated Valley - NW Scotland**
Eroded by glaciers in the last ice age to create a distinctive U shaped feature

**Bowermans Nose – Dartmoor**
Formed 290 million years ago from igneous rock. Overtime these tor features are formed through processes such as erosion and freeze thaw weathering

**Limestone Pavement above Malham Cove**
Made of planes and cracks which rainwater can widen as its is made of carboniferous limestone (highly dissolved by acid in rain water)

How have humans created distinctive UK Landscapes? The South Downs National Park

**Agriculture**
Lots of arable (crop) farming in the area.

<table>
<thead>
<tr>
<th>Positives</th>
<th>Negatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income supports the local economy</td>
<td>Decline of arable farming has led to some habitats being lost</td>
</tr>
<tr>
<td>Arable farming supports local bird life in the area</td>
<td>Damage caused by increased use of chemicals in arable farming</td>
</tr>
<tr>
<td>Formation of hedgerows provides habitats for some animals</td>
<td></td>
</tr>
</tbody>
</table>

**Forestry**
Mix of deciduous and coniferous forests. Human activity has led to some deforestation.

<table>
<thead>
<tr>
<th>Positives</th>
<th>Negatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provides habitats for a range of animals</td>
<td>Some of the older tress are deforested losing habitats</td>
</tr>
<tr>
<td>Some of the forests are sustainable forestry – forests are grown to be logged.</td>
<td>Some of the forests are not managed so loss of biodiversity</td>
</tr>
</tbody>
</table>

**Settlements**
120,000 people live in the area. Many live in the local traditional villages although recent years has sen the building of new homes which do not fit the character of the area.
Coastal Change and Conflict

Wave Type Constructive v Destructive

**Constructive Waves**
- Found in calm conditions
- Usually small and weak
- Break infrequently – less than 10 per minute
- Swash is greater than backwash
- Generally leads to deposition creating a beach

**Destructive Waves**
- Found in windy conditions
- Break frequently – more than 10 per minute
- Backwash is greater than swash
- Generally leads to erosion

Concordant Coast

**Before**
The bands of rock run parallel to the coast.
Lulworth coast is an example of this where hard limestone is at the front, soft clays in the middle and hard chalk at the back.

**After**
The waves manage to eventually erode a small hole in the hard limestone. Once this has happened the sea can easily erode the soft clays until it reaches the hard chalk at the back of the bay.

Discordant Coast

**Before**
The coast is made up of hard rock and soft rock at right angles to the coast.
Swanage for example has hard rocks such as chalk and limestone and soft rock such as clay.

**After**
The soft rock has been eroded and formed a bay the harder rocks are more difficult to erode so they stand out as headlands.

Sub aerial processes at the coast

**Mass movement – movement under the force of gravity**
- Slumping and Rock fall

**Weathering – the breakdown of rock in situ**
- Mechanical, biological and physical

Processes of erosion

- Attrition
  - Materials carried by the waves bump into each other and so are smoothed and broken down into smaller particles.
- Hydraulic action
  - This process involves the force of water against the coast. The waves enter cracks (faults) in the coastline and compress the air within the crack. When the wave retreats, the air in the crack expands quickly causing a minor explosion. This process is repeated continuously.
- Corrosion
  - This is the chemical action of sea water. The acids in the salt water slowly dissolve rocks on the coast. Limestone and chalk are particularly prone to this process.
- Abrasion
  - This is the process by which the coast is worn down by material carried by the waves. Waves throw these particles against the rock, sometimes at high velocity.
Erosional Landforms at the Coast

1. Large crack, opened up by hydraulic action.
2. The crack grows into a cave by hydraulic action and abrasion.
3. The cave becomes larger.
4. The cave breaks through the headland forming a natural arch.
5. The arch is eroded and collapses.
6. This leaves a tall rock stack.
7. The stack is eroded forming a stump.

Transporting Sediment along the Coast

Waves approach beach at an angle controlled by prevailing wind. Material moved up the beach at an angle in the swash. Direction of Longshore Drift. Material carried directly down the beach in the backwash under gravity.

Depositional features at the Coast

Spit formed by Constructive Waves

The Formation of a Spit

Settlements – villages lost to coastal erosion.
Tourism – 13% of jobs in Dorset are in tourism.
Infrastructure – roads, railways and oil refinaries are all built along the coast. These are expensive and key to industry.
Agriculture – lots of farmland found on the edge of the coast. This is at threat from erosion and rising sea levels.

Human Impacts at the Coast

Swanage Bay – Dorset

Over 2 million people live in this area alone. Humans have big impacts on UK Coastlines.
**Coastal Management**

### Coastal Management (Hard)

**Hard engineering** options tend to be expensive, short-term options. They may have a high impact on the landscape or environment and be unsustainable.

#### Groynes
Wooden or concrete extensions which stick out into the sea stopping sand from moving down the coast and creating beaches which are a natural defence to the sea.

**ADVANTAGES** – relatively cheap in comparison to some methods and helps to create a beach which could be useful for tourism.

**DISADVANTAGES** – stops longshore drift from occurring meaning that places further down the coast get no sand, therefore no beach and thus greater erosion. Some people also think that groynes are ugly.

#### Sea Walls
Concrete walls built along the coast to absorb the energy of the waves.

**ADVANTAGES** – this form of defence is very strong and easily absorbs the energy of the sea and concrete lasts a long time meaning that once built this is an excellent long term option.

**DISADVANTAGES** – many people argue that concrete walls make the coast look ugly and also that concrete walls are too expensive and time consuming to build.

#### Rip-rap (rock armour)
Boulders placed in front of the coastline to absorb the energy of the waves.

**ADVANTAGES** – boulders don’t cost much so it’s a cheap form of coastal defence and resistant rocks are excellent at absorbing the seas energy.

**DISADVANTAGES** – many people say that a line of rocks along the coast is unattractive. Also this is a short term solution as the sea will eventually move rocks around over time.

### Coastal Management (Soft)

**Soft engineering** options are often less expensive than hard engineering options. They are usually more long-term and sustainable, with less impact on the environment.

#### Beach Replenishment
Adding sand to an area – often the sand is taken from offshore areas.

**ADVANTAGES** – looks completely natural and provides a beach for tourists. It is relatively cheap to do and the beaches absorb wave energy to protect buildings and land behind the beach.

**DISADVANTAGES** – the sea will keep eroding it away and longshore drift will move the sediment along the coast so extra sand will have to be added each year.

#### Managed Retreat
People and activities are gradually moved back from the vulnerable areas of the coastline.

**ADVANTAGES** – by simply moving people away from the problem natural processes are allowed to continue.

**DISADVANTAGES** – compensation has to be paid to people who have had homes and businesses disrupted.

#### Cliff Regrading
Making the cliff face longer so it is less steep.

**ADVANTAGES** – relatively cheap and if the angle of the cliff is reduced then mass movement is less likely.

**DISADVANTAGES** – other methods are needed to be used along with this to make sure that the cliff is not steepened again by erosion.

### Shoreline Management Plan (SMP)

The Environment Agency and local authorities are then responsible for deciding how coastal erosion and flood risk should be managed in each one. Together, they develop a Shoreline Management Plan (SMP) in order to:

- reduce the threat of flooding and erosion to people and the environment
- benefit the environment, society and economy, in line with the government’s sustainable development principles.
Investigating Coastal Landscapes – Fieldwork. ‘Holderness Coast’

We went to the Holderness Coast to complete our coastal investigation and answered two key questions.

1) How do coastal management methods affect coastal process and people?

2) Do groynes affect changes in sediment size and shape further along the beach?

3) How do beach profiles vary on the Holderness Coast?

We completed the study on the Holderness Coast and visited three locations – Flamborough Head, Mappleton and Withernsea.

You will have to use your notes from the fieldwork to develop this but you can expect exam questions such as –

(a) (i) Explain one reason why the method you used to measure the gradient of the beach was appropriate to the task

Name of method used ...........................................................................................................

(2)
(ii) Explain **one** possible source of error when you measured the beach gradient. (2)

(b) You have used a geology map in your investigation. Explain **one** way using a geology map supported your investigation. (2)

c) Using an annotated diagram, explain **one** impact of coastal management on the coastal processes you studied. (4)

(d) A group of 20 students chose to investigate the relationship between coastal management and coastal processes along the stretch of coastline shown on Figure 8.
Study Figure 8 which shows part of the Sussex coast.

Assess the suitability of the student’s choice of sites to investigate the relationship between coastal management and coastal processes. (8)

Below are three overviews of each question. You can be asked about each in the exam
The Enquiry Question
How do coastal management methods affect coastal process and people?
There is a variety of coastal management on the Holderness Coast including hard and soft engineering. The aim of this question is to establish if these management methods affect natural processes such as longshore drift, erosion etc and how they impact on humans.

Locating the Study
We conducted the study on the Holderness Coast and investigated Flamborough Head, Mappleton and Withernsea.

Methodology – How did you collect data for this?

Data Presentation
• annotated photographs/field sketches – for example, to show coastal management techniques and the impact on local people
• line graphs to represent continuous data – for example, beach profiles showing a cross section of the beach on each side of a groyne, from the shoreline to the top of the beach
• bar graphs to represent group values – for example, to show the number of pebbles of different sizes along a beach
• pie charts, also to represent group values – for example, to show frequency of roundness of sediment
• GIS maps to present spatial data; these can be used with located photographs and data for different sites – for example, to show coastal conflicts, erosion and flood risk.

Which methods could you use for this question and why?

Analysis and Conclusion – For this question, in three bullet points summarise your findings.

Evaluation
The Enquiry Question
Do groynes affect changes in sediment size and shape further along the beach?
You might expect to find that sediment size decreases and roundness increases from north to south on the Holderness Coast because of longshore drift. However groynes can affect this.

Locating the Study
We conducted the study on the Holderness Coast but specifically at Mappleton – north and south of the groyne

Methodology

<table>
<thead>
<tr>
<th>Method</th>
<th>Outline of method</th>
<th>Purpose of method</th>
<th>Recording</th>
</tr>
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<tbody>
<tr>
<td>Measuring the size and shape of beach sediment.</td>
<td>At each site, we placed the quadrant down and randomly selected (open closed) 10 particles of sediment. Using the ruler, we measured the longest axis of each piece of sediment. We then decided what shape each piece was by comparing it to the Power’s scale of roundness.</td>
<td>We measured sediment size and shape at five points along the beach so we could see if there was a difference between them. We used random sampling to allow an equal chance of each size of particle being selected.</td>
<td>We had drawn up a table in class and entered the data at the beach. We also sketched some of the sediment particles to show the different shapes.</td>
</tr>
</tbody>
</table>

Figure 22 Sediment shape using the Power’s scale of roundness

Data Presentation - How did you present the data that you collected?

Analysis and Conclusion

Analysis and conclusions
The next stage of the enquiry is to analyse the data collected to begin answering your key questions. When analysing your data, it is important to:

- **describe** the general trends from your data – for example, ‘The mean sediment size is greatest at Site 9’
- **make comparisons** using data – for example, ‘Site 1 has a mean sediment size of 42.25 mm whereas at Site 5 the mean sediment size is 87.25 mm’
- **explain** the patterns of your data with links to geographical theory – for example, ‘The sediment has increased in size along the beach and become more angular, which we did not expect as the direction of longshore drift is from west (Site 1) to east (Site 5). We would need to carry out another investigation to see if the groynes are affecting the results’.

What were your findings here?
**The Enquiry Question**
How does beach profile vary along the Holderness Coast?
This question will help you understand the geology, erosion, management methods etc along the coast and how these factors affect the beach profile.

**Locating the Study**
We conducted the study on the Holderness Coast and investigated Flamborough Head, Mappleton and Withernsea.

**Methodology**
Firstly you select systematic sampling points for beach profiles across the width of the beach at 5 metre intervals. At each sample point in turn, place a ranging pole at the start and finish (at A and H on the diagram). Point A was as close to a low tide mark as was considered safe. For each change in slope use the clinometer to take a bearing to record the slope angle.

**Data Presentation – Beach Profiles**
You drew three of your own profiles – sketch these below

**Analysis and Conclusion** summarise your findings here

**Evaluation**

The final part of the enquiry is to evaluate your investigation. Here you think about how well you answered the task question or theory, and how you could improve or develop the process. The key questions below will help you review your data collection methods, results and conclusions.

- How successful and useful were your methods for sampling and collecting data? Could they be improved?
- How accurate were your results? Did your data collection methods affect the results?
- Did missing or inaccurate data make the investigation unreliable or affect your conclusions?
River Processes and Pressures

Physical processes on river landscapes
Rivers are subjected to the same processes as coasts.
Erosion – Hydraulic Action, Abrasion and Attrition
Mass movement – slumping and soil creep
Weathering – physical, chemical and biological
(See coasts revision notes for more details)

Methods of river load transport
Traction
Saltation
Suspension
Solution

River Storm Hydrographs
A variety of factors affect the shape of a river storm hydrograph.
Flashy will be – large rainfall, impermeable geology, steep slopes, deforested, highly urbanised.
Flat will be small amounts of rain spread over time, permeable rocks, gentle slopes and more vegetation to intercept rainfall.
How do river processes form distinctive features?

V shaped valley and interlocking spurs

Cross section of a meander bend – middle course of a river

Formation of a waterfall – upper course of the river

Formation of an oxbow lake – middle course of the river

Formation of a flood plain and levees – lower course of the river
Why is river flooding becoming more frequent in the UK?

An increasing population, so more people are affected by flooding. For example, building on flood plains has put over 2.3 million properties at risk of flooding. Changes to land use. In particular, urban development creates more impermeable surfaces and increases surface runoff rates. Even small-scale changes within settlements can have an impact, for example paving over suburban front gardens. Changes to weather patterns, particularly linked to climate change. Although no specific flood event can be linked to climate change, most scientists think that a warmer climate is making extreme weather more likely.

Case study of UK River Flooding – River Severn

High periods of heavy rainfall through May led to very wet antecedant conditions.

June and July saw the heaviest rainfall in the area for over 100 years – on one day there was over 140mm of rain in 24 hours – the most on record!
How has migration influence the UK?

**National migration** – the movement of people within the same country.

**Retirement migration** – the movement of older people to retire in a different part of the same country.

**Rural to urban migration** – the movement of people from the countryside into towns and cities.

**International migration** – the movement of people to a different country.

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Exam Question: Explain the main differences in terms of employment between two contrasting UK regions. (8 marks)
What are the effects of globalisation, trade and investment?

Globalisation is the process by which people, their cultures, money, goods and information can be transferred between countries with few or no barriers.

Free trade - This is trade between countries that takes place without tariffs or quotas.

TNCs - Trans national companies - These are large companies that operate in a range of countries.

There are three main parts to a functioning global economy –

- Networks – these link nations together, for example transport networks, internet and phone use.
- Flows – things that move between these networks such as raw materials, manufactured goods, migrants and money
- Global Players – the organisations that have a huge influence on the process such as The World Bank, TNC’s and The World Trade Organisation.

FDI - Foreign Direct Investment - This is flows of capital (money) from business or government into another. E.g Nissan building a car factory in the North East.

Privatisation

Another trend has been the privatisation of many UK industries, such as steel, transport and distribution, computers, airports, docks, petroleum, electricity, water, gas and postal services.

The effects of privatisation on UK firms include:

- increased foreign direct investment (FDI) from businesses wanting to invest in the UK
- increased awareness of global markets and increased competition
- increased foreign ownership of UK firms
- dividends and profits from some UK-based firms going abroad
- a drive to be more efficient, with a loss of jobs in the UK.
Key Terms

Site – the land on which the settlement was constructed.

Situation – the position of the settlement in relation to its surroundings.

CBD (Central Business District) – the central area of a city, where land use is dominated by department stores, specialist and variety goods stores, offices, cinemas, theatres and hotels.

CDAs (Comprehensive Development Areas) – areas, usually in the inner city, where the whole urban landscape was demolished before being rebuilt on a planned basis.

How is Migration Changing Nottingham?

- High levels of tertiary level employment in Nottingham.
- High youth unemployment rate in Poland 18% almost double Nottingham’s.
- Fastest growing economy in the East Midlands 0.7% annually.
- 2 large universities providing higher level education.

What are the Causes of Migration?

- Economic and population change has been rapid, so cities find it hard to keep pace with providing what the population needs, hence the high deprivation in places.
- Globalisation and de-industrialisation have taken jobs out of the city. There are fewer factories in central areas and therefore few jobs locally, so people have to travel to find work, which adds to their expenses.
- People with few qualifications find it harder to get jobs; in Nottingham many of the better jobs are taken by people commuting into the city.
- Older houses in deprived areas are often damp and hard to heat, and this can lead to health issues. Central areas of Nottingham tend to have poor air quality.
<table>
<thead>
<tr>
<th><strong>Key Terms</strong></th>
<th><strong>Reasons for the economic decline of inner city Nottingham</strong></th>
</tr>
</thead>
</table>
| **De-industrialisation** – the decline of industrial activity in a region or in an economy. | • Lack of room for expansion  
• Outdated buildings in a poor state of repair  
• Derelict and unattractive environment, so new firms avoided the inner city preferring the rural to urban fringe  
• Cramped over crowded road network  
• Large number of 19th century manufacturing industries were declining nationally  
• Nottingham firms struggled to compete with cheaper imports  
• As factories close unemployment rose, reducing peoples spending power  
• Manufacturing made up 48% of the UK workforce however this figure has now fallen to 12%. |
| **Decentralisation** – the movement of people, factories, offices and shops away from city centres to suburban and edge-of-city locations. | |
| **Regeneration** – reviving the economy or environment of a run-down area. | |
| **Rebranding** – the strategies used to re-develop and advertise an area to create a new image. | |
| **Gentrification** – The changing characteristics of an area due to middle class residents moving in. | |
| **Studentification** – The changing characteristics of an area due to students moving in. | |
| **Rural diversification** – is when a rural industry branches out from traditional farming by adding new money making activities. This can be in place of or in addition to its traditional farming pursuits. | |

| **Key Objective- What has been done to regenerate and rebrand Nottingham and have been the effects?** |
|-----------------|----------------------------------------------------------|
| **Skills Hub** | Nottingham Trent University has 28,000 students.  
Skills hubs in the lace quarter provide skills and employment training. |
| **Broadmarsh** | 100 million pounds worth of investment to regenerate the old shopping facilities. |
| **Green Transport** | 2030 Nottingham will have train and tram links that link into the new high speed rail east midlands hub reducing train times to London and Europe.  
East Midlands airport invested 12 million improving passenger services.  
EMA handles 25 million passengers annually. |
| **Nottingham Castle** | The castle was development through a 24 million pound refurbishment project making it a major UK tourist attraction. |

**How Nottingham interacts with the surrounding rural areas Ravenshead**  
• High levels of congestion into Nottingham city centre- Commute times increasing by 20 minutes in the last 10 years  
• Increases in the demand for housing pushing house prices up  
• Opportunities for local business taking advantage of people moving out of the city  
• Pressure on local amenities as population rapidly increases 2000 more people in 2016 compared to 2011  
• Can cause social tensions with local residents
We went to the Nottingham to complete our urban investigation and answered three key questions.

1) Why are there more accidents at some points in Nottingham than others?
2) How does the environmental quality vary between locations in Nottingham?
3) How do employment and income levels vary throughout the city?

We completed the study in Nottingham and visited three locations – the CBD, The Meadows and West Bridgford.
You will have to use your notes from the fieldwork to develop this but you can expect exam questions such as –

(i) Explain one disadvantage of using the 2010 Index of Multiple Deprivation as a source of secondary data to investigate urban quality of life.  

(ii) Explain one weakness of using the choropleth map, Figure 10, to show urban deprivation.  

(iii) State two ways students could improve the presentation of the 2010 Index of Multiple Deprivation data to be more useful.  

(iv) Identify two wards from Figure 10 that would be appropriate places to carry out the student’s fieldwork. 

   For each area explain one reason why it would be an appropriate place to carry out fieldwork.

(b) You have carried out your own fieldwork investigating variations in the quality of life within urban areas. 

Name your urban environment fieldwork location:

Evaluate the relative importance of primary and secondary data in your investigation.

On the next pages are three overviews of each question. You can be asked about each in the exam
The Enquiry Question
Why are there more accidents at some points in Nottingham than others?

Locating the Study
We conducted the study in Nottingham in the CBD, The Meadows and West Bridgford.

Methodology – How did you conduct data for this?

| Table 6 Counting traffic for one hour on the A38 at the Smallbrook Queensway junction, Birmingham |
|---|---|---|---|
| Method | Outline of method | Purpose of method | Recording |
| Carry out a traffic census on both sides of the A38 and on the adjoining Smallbrook Queensway and Holloway Head roads in Birmingham. | I chose these sites based on my analysis of the secondary data showing high levels of accidents in this area. I collected data on weather conditions, quality of light and type of vehicle and recorded numbers in each case. | The reason for using this method was to identify what factors affect the possibility of accidents along a busy stretch of main road. | For both northbound and southbound carriageways, record the number of cars, vans and lorries, buses, and motorcycles and cycles passing in one hour. |

Data Presentation

- Data presentation
  - Using a variety of graphs and tables is an effective way to present data. The use of maps can also be very effective in showing the spatial distribution of data.
  - Use tables to present data in a clear and concise manner. Tables can be used to compare data across different categories or to show trends over time.

How did you present the data?

- Use graphs to show trends or patterns in the data. This can include line graphs, bar charts, and pie charts.
- Use tables to summarize the data in a clear and concise manner. Tables can be used to compare data across different categories or to show trends over time.
- Use maps to show the spatial distribution of data. Maps can be used to show the location of accidents or to show the distribution of traffic volume.

Analysis and Conclusion – For this question, in three bullet points summarise your findings.

- Analysis and conclusions
  - The most effective way to present the data collected is to use a combination of graphs, tables, and written descriptions. The use of maps can also be very effective in showing the spatial distribution of data.
  - Use tables to present data in a clear and concise manner. Tables can be used to compare data across different categories or to show trends over time.

Evaluation

- Evaluation
  - The final part of the enquiry is to evaluate the success of your study. You should review the data collection methods and data presentation techniques, as well as the validity of the overall study.
  - When writing your evaluation you should follow the structure below for reviewing the data collection methods and data presentation techniques.
    - A description of how successful the method/technique was overall.
    - The value of the method/technique in providing/presenting appropriate data.
    - How the method/technique could have been improved.
    - How the method/technique has impacted on the study as a whole.
The Enquiry Question
How does the environmental quality vary between locations in Nottingham?

Locating the Study
We conducted the study in Nottingham in the CBD, The Meadows and West Bridgford.

Methodology

Sampling
Sometimes the most accurate way to investigate an issue is to take a sample; in this case, of roads in central Birmingham. There are three main types of sampling:

- **Random sampling** – is used where the area is the same throughout, for example, a field of crops. It does not matter where in the field you take the samples. Random sampling is achieved by generating random numbers and using them as co-ordinates, such as co-ordinates to generate Ordnance Survey grid references.
- **Systematic sampling** – is used in places where things change in a regular fashion, such as traffic along a road. You could sample at ten equally spaced points along a road to investigate changes in traffic density and flow. Every point should be evenly spaced or distributed.
- **Stratified sampling** – is used in places with several different parts. You need to make sure that the number of samples taken is representative of the total area. An example might be identifying different types of land use in a town (such as retail and residential) and making sure each area is surveyed.

For this question we used both primary and secondary data.

**Primary data** – traffic counts, EOI, annotated photographs.

**Secondary data** – census data and house price data.

Data Presentation - How did you present the data that you collected?

Analysis and Conclusion – Summarise your findings here

Evaluation

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- How the method/technique has impacted on the study as a whole.
The Enquiry Question
How do employment and income levels vary throughout the city?

Locating the Study
We conducted the study in Nottingham in the CBD, The Meadows and West Bridgford

Methodology
For this question we relied solely on secondary data from the Census.

Data Presentation
By using census data we were able to analyse GIS maps. These are extremely useful because GIS maps allow use to create a ‘choropleth layer’ which can then be analysed and compared.

GIS maps allow Geographers to use complex data to create maps and graphs that can be located.

Analysis and Conclusion - summarise your findings here

Evaluation

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