# Pearson/Edexcel B GCSE Geography: Fieldwork ideas and contexts for tasks for 2015 submission

This document provides a list of possible fieldwork and research ideas for the Edexcel B GCSE 2014-2015 tasks. These are intended as possible examples only – not in any way a 'must do' type list, nor do they represent approved titles/fieldwork. Centres are free to use the lists as a pick-and-mix, and to modify as they see fit. Some ideas may work well in some contexts/locations; in other instances they may be impractical due to the size of the cohort for example.

Two or three of the questions/statements/ideas provided may be sufficient in terms of range and depth to address all the particular elements of the task. Please note that if the question states 'landforms and processes' for instance, then both of these components must be studied at least in part, although the fieldwork may focus much more on one aspect than the other.

Students should be encouraged to think up their own ideas, whilst supported by teachers, as part of the initial Task Contextualisation and Data Decisions for which there is a suggested time allocation of 3 hours.

Remember that more support is available via the Ask the Expert free service and through the Edexcel Communities site (accessed via the Geography home page).



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# THEME: Coastal environments – physical processes

**Investigate how coastal landforms are influenced by a variety of physical factors.**

This particular investigation could be carried at two locations along one long(ish) region of coast or perhaps more likely at two closer, contrasting stretches. Candidates should be encouraged to research early on, the variety of landforms that are found at their coastal location. Examples of landforms are provided in the specification but centres can choose others if appropriate to their own locations. Marine processes need a clear definition/interpretation too. It makes sense to try and narrow the number of variables considered, but geology (rock type, joints faults) and orientation of coast will be important. In some areas, the physical geography of landforms may be overshadowed by management/human intervention – this may mean that landforms are the result of a number of more complex interactions. Candidates may well refer to morphology of the feature (scale, profile, angularity etc) as well as different features i.e. those found on concordant and discordant coastlines.

It may also be interesting to research some information about prevailing winds etc as this will have an influence on processes and therefore landform formation.

- An assessment of contrasting beach/shingle ridge profiles in two contrasting areas/locations.
- Exploring the link between sediment morphology (shape & size) and indicator of wave strength by looking at sediment characteristics in a beach/shingle ridge cross-section.
- A study into the importance of geology in controlling concordant and discordant stretches of coast and associated features/landforms. Is geology the main control?
- A study into wave frequency/strength and the resulting types of landforms in two different areas/stretches.
- To what extent does coastal orientation and geology influence landforms at two locations?
- How important is geology in determining cliff height, shape, profile and gradient?
- How does sediment transportation/transfer vary at two different locations and what is the influence on features and landforms.
- Using GIS/documentary evidence to determine historic rates of coastal erosion/deposition and linked landform change. A comparison of two different locations.
- An exploration of the possible relationship between beach gradient and wave type/strength.

# THEME: Coastal environments –conflict and management

**Investigate how physical processes at the coast can threaten people and the environment.**

Coastal management is always a topical and sometimes controversial area of physical geography. Management strategies are normally expensive and made with significant compromises. Although there is spectrum of hard to soft approaches, often, hard engineering is favoured combined with various realignment options. Important to this task will be a good definition/exploration of physical processes (especially which ones are important at the chosen location/environment). Threats may link to different users and stakeholders - this might possibly be explored as part of the task contextualisation, making links to a SMP (Shoreline Management Plan) for instance. Threats to the environment may be associated with loss of land, habitats, species diversity etc. Fieldwork needs to be linked to assessing the type, effectiveness and quality of different defences, together with some work looking at the physical processes that are actually operating.

- A study of contrasting hard and sustainable coastal management approaches at two different reaches/stretches of coast.
- Attitudes towards different/contrasting coastal management schemes by different users (visitors, local residents etc).
- Cost-benefit matrix to allow the analysis of contrasting coastal management schemes.
- How and why might geology influence the choice of coastal management in a particular area as well as the physical processes that are operating.
- An assessment of land-use, erosion risk and degree of protection for contrasting types of coastline.
- Comparing relative land values against a degree of protection in two different areas.
- An examination (interviews?) of the various stakeholders involved in coastal management. What are their particular views on the past, present and future, e.g. in relation to possible sea level rise.
- How has the rate of coastal erosion changed in area(s) X? What physical factors influence this?
- Photo/video-based evidence showing coasts most at risk from erosion – what are the possible solutions.
- An assessment of LSD through physical features - how does this link to processes operating?

# THEME: River environments – Physical processes

**Investigate to what extent the shape and form of a river channel change in different parts of its course.**

The key to this task is a clear understanding and initial determination of what shape and form actually mean. This could be interpreted as follows, (but schools/students can adapt if they feel the need):
"Shape": cross-section area (width, depth), hydraulic radius, nature of the bed substrate.
"Form": long profile, patterns of meanders, sinuosity, gradient.

The study will likely be a relatively straightforward measurement of these few stream characteristics with distance from source. A greater number of sites (e.g. 8-10) will make the results more reliable, but there could be just up-stream and down-stream locations. In this case, students would need to be prepared to share more of their group data and to accept the limitations arising from the nature of the investigation.

A key focus must be the idea of "to what extent" and "change". Any linkage to assumption or models may only work well at a catchment-based scale. Often, fieldwork involves looking at a limited number of sites over a relatively small area – this has an impact on the results and model's validity.

Some students may also wish to reflect upon the importance of other factors (which may not have been directly measured) in controlling the hydraulic system. Local geology for instance, can produce landforms which create disturbances in the pattern, such as knick points and small waterfalls.

# THEME: River environments – Physical processes

**Investigate to what extent human activities are making flooding worse in some areas.**

There are a range of human activities that may provide a sensible focus. Many of which fall under the umbrella of changes in land use, e.g. deforestation, development of housing on flood plains, new roads and infrastructure, new commercial development (especially airport expansions etc). Other human changes may be linked to modification of drainage, including channel straightening, dredging, land drainage for agriculture and changes to a river's hydraulic geometry.

Some areas could be taken as two separate, but linked areas within the same catchment, or two contrasting locations which are entirely separate. More than one area should be considered, but other areas can be researched so fieldwork is not necessary in multiple locations (although that is preferable).

Naturally, this type of enquiry will also be reliant on a high degree of research to accompany the fieldwork. See the accompanying document outlining the suggested websites which could be used to support the work. Research may also involve looking at the characteristics of the catchment (relief, topography, drainage etc) which would help inform ideas about the risks of flooding. The history of flood risks will also be important to assess "making flooding worse". There is also a good opportunity to support the work with GIS in terms of site selection, flood risk, management and displaying data.

- Researching into the history of floods in an area, through focus groups, video evidence, oral histories and other documented evidence, e.g. local newspaper research.
- Creating a flood risk map (based on land-use) for different parts of a town.
- Using a GPS to plot heights of land at risk.
- Creating a land-use map for an area, showing the proportions of different types of land use.
- Using GIS to explore catchment topography and past flood risk maps (sourced from the Environment Agency).
- An examination of the various stakeholders involved in flood management. What are the views on different approaches and their longevity and changes in risks?
- Which flood management solution(s) has the lowest environmental impact?
- Estimation of potential bankfull flood discharge in area X linked to managing the flood risk.
- Researching the flood regime of River X – how often do 'big' events occur, and what is the best approach to management?

# THEME: Rural/countryside environments – pressures including tourism

**Investigate to what extent tourist pressures bring advantages and disadvantages to a rural area.**

An obvious area for fieldwork investigation would be to look at concentrations of tourism, either in towns or the countryside. Honeypots are often associated with only having negative effects. In fact they are often designed to concentrate and focus tourism in one particular area, thereby reducing impact on other more ecological sensitive and valuable locations. The 'problems' of honeypots are normally obvious – congestion, lack of car-parking, unnatural landscape, noise, litter etc. They can bring significant advantages too.

This topic/task could also be interpreted through issues of rural unemployment, isolation, as well as second homes. These may well be legitimate ideas to follow if for instance, a questionnaire was being used. In the context of this study, it might be a good idea if possible, to contrast two areas, one which is a classic honeypot site, the other more remote and ecologically important location, but still popular for visitors.

National Parks provide a good range of places to carry out studies, although other areas might include woodlands/amenity forests, local and national Nature Reserves as well as villages and small settlements that attract visitors. Note – the study area must have a rural context, although it could be a small town in a rural area.

- An assessment of footpath erosion at two contrasting tourism hotspots /two areas within the same hotspot.
- Visitor profile surveys (age, catchment/sphere of influence, spend, visit duration, type of stay/accommodation) in different rural areas/honeypots.
- The view from different groups. Interviews to establish different opinions of the positive and negative impacts of visitors to an area(s).
- A study into the impacts of traffic/car parking problems/solutions in contrasting tourism hotspots, in terms of landscape quality.
- Using different environmental quality surveys to assess the recreational impact at visitor sites.
- A supporting desk-study of a visitor hotspot/attraction in terms of employment and effects on the economy.
- A study of landscape quality in different natural areas, e.g. using ACFOR scale.
- Using a questionnaire survey to assess attitudes towards visitors/ change over time – views from different user groups.
- A cost-benefit analysis/model of visitor effects in two contrasting sites: honeypot vs. remote rural.

# THEME: Rural/countryside environments – futures and management

**Investigate the extent to which development schemes or projects improve the quality and sustainability of a rural area.**

Schemes often involve local communities or stakeholders and try to address some of the issues of rural areas. These may include: cost of homes and housing, lack of services and amenities, poor transport infrastructure / declining services, closure of services (post-office, pubs etc). The schemes could be taken in relation to social, economic or environmental improvements, hereby providing a link to sustainability also. There would need to be a clear focus so that the task remains manageable in terms of context and scale.
Candidates should provide a clear definition of both “quality” and “sustainability” in the context of what they are doing.
The task implies a study of two or more strategies or schemes, most likely contrasting solutions in different areas. Ideally, one solution may be more successful/effective than others studied.

- An examination of how two different rural areas/attractions/ development schemes have succeeded in attracting new tourists.
- Why do people go there? An assessment of the ‘pull’ factors to a particular location or honeypot site.
- Mapping contrasting spheres of influences for different attractions/rural destinations.
- Interviews with different stakeholders involved in developing/ promoting rural area(s). How successful have they been?
- Investigating a local transport scheme which is community driven.
- Do initiatives to improve rural areas offer benefits for all? Who are the ‘winners’ and ‘losers’ in terms of groups and stakeholders? An assessment of the short and longer term benefits of the scheme.
- How and why are different schemes needed to improve the prosperity of rural areas inside and outside the national park?
- Are visitor numbers and tourist spending a reliable indicator of the success of rural initiatives?
- Is there a real case for opening a disused railway line/station and how might it lead to growth in an area?
- A cost-benefit analysis of the traffic management options for village X.
- Two contrasting studies of farm diversification/valorisation of the countryside.

# THEME: Town/city environments – sustainability and eco-footprints

**Investigate the potential opportunities for increasing sustainable transport provision in an urban area.**

This is quite a broad task and therefore the focus will need to be refined so that the "sustainable transport" idea is always manageable within the 2000 words. It seems reasonable that study areas could be drawn from a wide range of different urban contexts, i.e. from a single larger urban area (district). However, the task specifies a single urban area (although some research would allow for comparisons).
Candidates should have a clear idea of what is meant by sustainable transport in the context of their location and study area. It could include park and ride, cycling schemes, electric vehicles etc or other local initiatives to encourage less reliance on cars in urban areas. Mostly they will be linked to a reduction in eco-footprints.
The chosen location could be an urban area that already has scheme(s) installed so the study is part evaluation of these, or it may be an area where there is very little sustainable transport at present so there is great opportunity.
Remember the focus for the task is potential opportunities, so candidates will need to consider possible solutions and future options for the urban area visited. This may take the form of a mini-management plan for instance, but keep it short.

- A comparison of the facilities and attitudes towards, sustainable transport of two contrasting urban areas (successful vs. potential to improve).
- A study of the effectiveness (usage, occupancy etc) of park-and-ride schemes in town X.
- Video/photographic evidence to show how people are being encouraged to adopt greener attitudes to transport (public or individual).
- A comparison of two very different housing stocks in terms of energy efficiency.
- Do people of different ages/genders/cultures have different sized eco-footprints in terms of energy and transport?
- Should 'carrots' or 'sticks' be used to promote green transport? A comparison of different views from different areas.
- Mapping (GIS) the ways in which local authorities are encouraging individuals to manage their eco-footprint through more sustainable transport initiatives.
- An assessment of new green transport strategies in Town T as a part of managing urban development.

# THEME: Town/city environments – contemporary urban issues

**Investigate the extent to which rebranding strategies improve the economy and environment of an urban area.**

The economy and environment should be clearly explained in the introduction. Spider diagrams and annotated images for example, may help to set the scene. This is a broad area of study, so be prepared to reduce the range and depth of what is achievable and manageable, set against the backdrop of the new 2000 word limit. It is possible to undertake this task by doing one or two small scale studies in the urban area which might include one or more of the following types of approaches:

- Assessment of retail quality (range, diversity, types etc).
- General environmental condition of the area (various environmental quality aspects and bi-polar style surveys).
- Resident versus visitor perception of parts of an urban area in terms of deprivation/quality, and impacts of the rebranding.
- Aesthetic quality of the built environment, e.g. architecture and design aspects - qualitative images, video.
- Housing quality – size and upkeep etc. Comparison of new and old.
- Quality of routeways and footpaths, including width and possibly accessibility for users who are partially sighted or in wheelchairs in areas which have been rebranded.
- Use of trees, plants, shrubbery/green to improve the visual and environmental quality of an area.
- Transport ease/variety/quality/frequency.
- Comparing footfall in rebranding vs. other parts of the urban landscape.

The task has a clear temporal dimension – requiring some initial research to determine different, manageable areas set against a backdrop of what the place used to be like. Definitions / models of rebranding could be used to help with the understanding of the task, but they should not dominate the overall focus.
It would be a good idea to define the boundaries of the sampling areas according to census output areas so that geo-demographic data can be easily compared to primary field data. This would be very important in the context of economic data and perhaps looking at recent change, 2001-2011 for instance.