

### **Changes to fieldwork and the NEA 2020-2021**

The exams regulator OFQUAL has published the outcome of its consultation on how GCSEs and A-levels will be assessed in 2021. A-level geography students will still have to complete a non-exam assessment, but exam boards will be expected to be “flexible in their requirements for the use of primary data and, at all levels, to emphasise to centres that they should complete as much fieldwork as possible, including by remote or virtual means”. The requirement for centres to make a declaration confirming they provided all students with the opportunity to undertake a mandated number of days of fieldwork in GCSE, AS and A level geography is removed. GCSE and AS exam questions should not relate to students’ own fieldwork experiences, but questions relating to fieldwork in an unfamiliar context would still be set. In the AS exams students will not be required to cover both human and physical geography fieldwork. No decision has been made on one of the consultation’s key questions – whether to delay NEA deadlines or exams until later in the summer – with Ofqual saying it needs more time to “undertake a further analysis of the options, the risks and the mitigations”.

#### **What are the implications for A Level Geography teachers and students for assessment in 2021?**

The removal of the 4 day requirement for fieldwork means that it may not be essential for students to visit and study a range of environments or to carry out fieldwork in both physical and human geography contexts. However the exact requirements should be checked with the awarding body. In normal circumstances schools may spend one day or longer in a physical environment demonstrating field techniques and a similar amount of time considering human geography methods and themes. However this may not be possible for many schools and colleges this year, and it is perfectly feasible for students to use most of the available time working on their individual study, as long as the teacher is sure that the work is being carried out.

Of course, many centres started practical fieldwork before schools were closed in March, whereas others had done very little preparation for the NEA by that time. Normally a high percentage of schools use residential fieldwork centres either to collect data for independent investigations or to learn fieldwork skills and methodologies in different contexts. However, few schools are likely to participate in field courses during the autumn term 2021, and indeed many schools have forbidden organised fieldwork visits for the foreseeable future. Some fieldwork organisations and centres are offering day courses, digital and outreach courses where tutors visit the school or a site local to the school.

#### **Local and school-based fieldwork**

It is likely therefore that small scale investigations based in the local area will become more prevalent in 2021, although admittedly many schools take this approach already. Students may therefore focus more on the immediate locality as a context for their independent investigations. They will also need support as they undertake safe, socially distanced work for their NEAs, whilst maintaining the principles of independence.

There is some scope for students to engage in suitable fieldwork within the school grounds, in their homes and within the immediate local environment, although the topics might be more constrained than in a normal year. Much will depend on location of the school or college (rural, urban, coastal,

upland etc), but potential exists for a range of activities in all environments and an outcome that is geographically valid and achievable.

The immediate school grounds can also be used to demonstrate and practise fieldwork techniques in preparation for independent studies elsewhere. These include the use of digital probes, flowmeters, anemometers, GPS, and digital cameras. Field sketching skills can be developed and environmental quality (and other subjective) scoring systems can be practised. Standard field equipment such as compasses, ranging poles, quadrats, soil augers and clinometers can be demonstrated and used practically. There is also opportunity to try out other techniques such as questionnaires, extended interviews and videos.

### **Data collection and independence**

The final choice of title, question or issue being investigated must still be made by the student. Each student should be independently making decisions around their own data collection methodologies although students may work together in collecting primary data if their investigation topics are similar. Secondary data should be sourced individually.

Obviously one of the main principles of field research in geography is to interact with the environment and to collect relevant data ideally on-site at first hand. Primary data will still form a part of the investigation in 2020-2021. However, the proportion is not generally stated in the mark schemes of the awarding organisations, and this may form a smaller fraction of the total data this year. Primary data is defined as being original and unique, and obtained directly by the researcher(s) solely for the purpose of the investigation, such as such as river discharge measurements, interview responses and sensory maps. Secondary data is defined as data collected by someone other than the student doing the investigation, such as census results, records of rainfall or old photographs. It has been collected in the past by someone else but made available for others to use and was generally collected for another purpose originally.

It may acceptable for NEA work to be conducted without "going into the field", as long as there is an element of primary data collection. Technology is also now readily available to support investigations at the local level, for example making use of web cams or conducting online interviews and questionnaires. It may be necessary to conduct primary research using these types of methods this year where students are unable to visit fieldwork sites themselves for health or other reasons.

An investigation based purely on secondary data would not be considered appropriate in 2021 (or in any year) and the focus of study remains local. It is unlikely that broad or large-scale research "projects" would be suitable. Any data collected by previous cohorts or made available on the school extranet would be regarded as secondary data.

However the widespread availability of secondary data in the form of online data sets, including those relating to local river discharge and flood data, air quality and meteorological data, and socio-economic data at the neighbourhood level can be of advantage to students in supporting their enquiries and allows their findings to be set against the wider geographical context.

As indicated above, fieldwork doesn't need to be done in remote locations, and already many teachers and students have realised that by adjusting their titles to take social distancing into account, fieldwork can take place locally and safely. At A Level the process is an independent one, so students can collect their data individually or in small groups, and with planning and preparation,

can avoid unnecessary interaction. Good fieldwork need not be made any more problematic by public health restrictions than attending school.

Certain environments and topics may not be appropriate to study under present circumstances. Any activities that involve interaction with members of the public are not suitable, especially the use of questionnaires and interviews. Busy high streets, sea fronts and tourist honeypot sites are clearly to be avoided, and it may be more difficult to carry out footfall counts or urban land use surveys. This may steer some students towards geography enquiries where social distancing may not be an issue, or studies taking place in the immediate vicinity of the school, depending on the local environment. Students should be careful when sharing field equipment or working closely together, making sure they follow social distancing procedures.

### **Local fieldwork in the school grounds or immediate locality.**

A number of fieldwork themes could be considered in areas local to the school. Their applicability will depend on the location and extent of the school grounds, the nature of the surrounding area, whether urban or rural and how busy it is, as well as the physical setting.

For example:

- Calculating carbon content using clinometers and trigonometry either in the school grounds or in vegetated areas close to the school.
- Recording infiltration rates in order to investigate how the school's infrastructure disrupts or changes various hydrological processes. The extent to which the design of the school helps to mitigate against flooding.
- Investigating biodiversity in local ecosystems. Analysing soils, aspect and plant biodiversity. How and why there are variations around the grounds/local area.
- Investigating the link between vegetation type and variations in soil pH, or how different vegetation types affect organic matter content
- Investigating spatialities of urban air pollution close to school using PM2.5/5 and CO2 detectors. Lichens can also be used as bio-indicators of pollution.
- Investigating noise pollution variations using decibel mapping or transects
- Assessing environmental and housing quality in different neighbourhoods close to the school.
- Investigating economic, social and environmental differences between two local areas
- Clone town surveys. The extent to which the local high street is the same or different to other high streets in the country (Could be done with aid of Google Street View).
- Investigating why two/three local areas show differences in terms of their levels of deprivation
- Analysis of patterns of crime in the local area. Links between the level of crime and the social, economic and environmental characteristics of an area.
- How and why there are differences in formal and informal representations of local place(s). Investigation of contrasts between media representation of place(s) and local experience of place(s)
- Exploring variations in place perception. Mood mapping in areas local to the school. How the local place is perceived very differently by different age groups/ethnic groups/income groups
- Factors affecting house prices in contrasting local places.
- Investigation of differences in health or quality of life in two local areas

- Investigating transport choices and carbon emissions of two different groups of people

Some investigations need to make use of secondary data eg property values, crime, job types, qualifications, age structures. Investigations assessing change over time need baseline data eg historic maps, census, older photographs. A combination of primary and secondary data may be required to investigate the connection between two variables. For example:

- How are house prices affected by proximity of parks and recreational areas?
- Are fewer crimes recorded in areas that have more CCTV cameras?
- To what extent are residents living in an outer suburban area mainly in professional jobs?
- To what extent is health quality related to distance from the inner city?
- To what extent has urban regeneration affected retail footfall and economic activity?
- Are traffic volumes and pollution levels related to population density?

### **Using online tools for Data Collection**

Instead of face to face interviews and questionnaires, centres may advise students to use online methods to collect data directly. Google forms could be used to collect basic demographic information and ask open questions. SurveyMonkey is a quick and easy (and free for basic use) online survey tool. Online interviews can be done by mobile phone or through a laptop using audio-visual interfaces such as Skype or Zoom.

Some studies carried out in the past using a mix of primary and secondary sources could be undertaken as largely “desk based” investigations. For instance a research question which asks “To what extent does quality of life vary between two urban wards/areas?” might have included the following primary data sources: environmental quality index, quality decay index, questionnaire aimed at local residents, interview with local estate agent, photographs. Secondary data sources might have included: 2011 census information for the two areas studied, 2019 Index of Multiple Deprivation data, crime statistics from police.co.uk, latest property prices from newspapers/online sources (Zoopla and Rightmove). Clearly it would be possible to do the questionnaire online, which would count as primary data. Most students would still be able to carry out some surveys, perhaps even travelling to and from school, but The EQI and QDI might be carried out partially at least using Google Street view and web cams, and other online sources of photography.

### **Use of mobile apps.**

A wide range of apps are available that can support data collection in the field. These may be used safely by individual students in their independent investigations. Most are freely available, others for a charge. These apps may increase the accuracy of data collection and entry in the field. Some are suitable for collecting, geolocating and exporting fieldwork data. Some examples include:

- TopoProfiler enables students to do cross section profiles in the field on a mobile phone
- GeogIT is a Geography Fieldwork app. It enables electronic data collection of 35 different methods covering a range of physical and human geography investigations. It logs exact coordinates and locations. Files can be dragged directly into ArcGIS and data viewed spatially. <https://apps.apple.com/gb/app/geogit/id1468877344>
- Skitch is a free app that allows the student to take and annotate photos, or label maps and web pages and then share them with others.

- PollDaddy enables the student to make surveys and polls for free (up to 10 questions, more if you pay). You need to create the survey on a desktop and then you can then sync survey to an iPad in a Wifi zone and the survey will work offline whilst out in the field.
- Decibel10 is an app that makes use of a phone or iPad microphone to measure noise levels
- iGeology is the smartphone app that contains 500 maps of the geology of Britain. This app from the British Geological Survey could be used in a number of physical geography situations to show the solid geology locally.
- GPS location. Shows the users latitude longitude position, eg recording the position of a fieldwork location, altitude.
- Light meter. Measure light, usually in lux units. Has applications in ecology, e.g. a comparison of different vegetation types, woodlands etc.

### Additional sources for guidance on local fieldwork

- [Geography Fieldwork Academy](https://www.geographyfieldworkacademy.co.uk/classroom-resources)  
<https://www.geographyfieldworkacademy.co.uk/classroom-resources>. Six videos with practical suggestions taking students through the stages of the NEA.
- Virtual fieldwork example (urban change in Cardiff)  
[https://www.geography.org.uk/write/MediaUploads/Support%20and%20guidance/Virtual\\_fieldwork\\_AO.pdf](https://www.geography.org.uk/write/MediaUploads/Support%20and%20guidance/Virtual_fieldwork_AO.pdf)
- Teachit examples of virtual fieldwork-clone town and evaluation of coastal protection  
<https://www.teachitgeography.co.uk/ks5/fieldwork/tags/3634>
- Field Studies Council-Delivery of fieldwork skills and data collection techniques in preparation for the NEA. Eg Physical geography methods:  
[https://www.youtube.com/watch?v=LwL9MGYd2rE&list=PLajqSZfl8s4-OHAFZL7wYWZemu-4O\\_lkG&index=2](https://www.youtube.com/watch?v=LwL9MGYd2rE&list=PLajqSZfl8s4-OHAFZL7wYWZemu-4O_lkG&index=2)

### Sources of secondary data

- National archives are searchable in a variety of ways. For example the UK Data Service is the UK's largest collection of social, economic and population research data:  
<https://www.ukdataservice.ac.uk/> can be reviewed by theme: <https://www.ukdataservice.ac.uk/get-data/themes.aspx>. You can also browse by type of data such as: [quantitative](#) and [qualitative data collections](#).
- The Consumer Data Research Centre (CDRC) provides access to a range of data sets including IMD, some Census statistics and also a collection of other data sets about Urban places including house prices, travel to work, dwelling age, industry of employment. All of these are useful when investigating quality of life.  
<https://maps.cdrc.ac.uk/#/geodemographics/imde2019/default/BTTTTFF/10/-0.1500/51.5200/>
- Nomis is a service provided by the Office for National Statistics, ONS, to give free access to the most detailed and up-to-date UK statistics from official sources.  
<https://www.nomisweb.co.uk/>
- Streetcheck: [www.streetcheck.co.uk](http://www.streetcheck.co.uk). View the latest crime, house prices, population, housing, gender, marital status, ethnicity, religion, health and employment information in any area of the UK

- <https://datashine.org.uk/> is a GIS that uses choropleth mapping to represent census information
- [ESRI data ARCGIS https://www.arcgis.com/](https://www.arcgis.com/) includes general purpose basemaps and reference layers, such as imagery, streets, topography, and boundaries, as well as useful thematic layers, such as demographics.
- <https://parallel.co.uk/> Parallel.co.uk provides UK interactive maps representing deprivation, population density, age structure, air pollution, fuel poverty, life expectancy etc
- <https://www.bing.com/maps> Bing maps have a map view which allows a switch between aerial images and OS maps at scale of 1:25000. Useful for a virtual visit to a fieldwork site
- <http://www.geograph.org.uk/> has collected photos and information for every square kilometre of the UK
- <https://www.gaugemap.co.uk/> views the last 12 months river levels (river Level and or river Discharge) for any river that is monitored. This can give you an idea of the seasonal variation and any associated flood events.
- <https://www.checkmyfloodrisk.co.uk/> shows areas at risk of flooding in England
- <https://artuk.org/> has a collection of over 200000 images of artworks in the UK, searchable by geographical region and topic
- <http://extrium.co.uk/> has GIS maps that map noise levels and air quality for all parts of England and Wales

The impact of the Covid 19 pandemic on assessment in 2021 is uncertain. For Geography A Level the main change is likely to be the way that the NEA is planned and delivered. A flexible and realistic approach needs to be taken regarding the location of fieldwork, including permitting it to take place within a school's site and/or near it. In 2021 will we see shorter more focused investigation reports? This could be a positive change? There may be a higher proportion of locally- based investigations and a greater emphasis on secondary data and virtual fieldwork, with some studies largely dependent on online surveys for primary data. If schools are restricted in the sites that can be visited there may be a reduced range of themes and titles, although hopefully it would still be possible for some students to individually select their own locations and topics for conducting primary data collection.