



GCE EXAMINERS' REPORTS

**GCE (NEW)
GEOGRAPHY
AS/Advanced**

SUMMER 2019

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GCE GEOGRAPHY
General Certificate of Education (New)
Summer 2019
Advanced Subsidiary/Advanced
UNIT 1: CHANGING LANDSCAPES

General Comments

- The performance of candidates could be improved by attention to command words and their meaning. There needs to be more focus on the requirements of the question, especially in the 8 mark questions where there is a 5:3 split of marks between AO1 and AO2. Answers must direct knowledge and understanding towards the requirements of the question and not just a regurgitation of learned material.
- The use and integration of case studies was inconsistent.
- Time management was an issue for some candidates as they spent too much time on the initial questions. There was evidence of rushed answers towards the end of the examination, especially when dealing with question 7b.
- There was some good use of resources in the Tectonic Hazards section. Many were able to use the resources to integrate knowledge and understanding of specification content to address the focus of questions.

Comments on individual questions/sections

Section A: Changing Landscapes

Coastal Landscapes

Slightly more candidates attempted Q1 than Q2 but the facility factors were comparable (Q1 had a facility factor of 57% while Q2 had a facility factor of 55%)

- Q.1 (a) (i)** The best answers were those that identified overall trends and differences between the two locations and used data from the resource to support their comments. Those that scored well addressed the command word directly and these answers were built on a series of comparative comments, usually tracing change over time. However, the question did cause problems for some candidates who ignored the comparative element and instead described changes to each location in isolation. There were some inaccuracies in the use of data that tended to show that candidates weren't fully confident in what was being shown on the graph. Some candidates did not understand the meaning of the 1941 base level whilst others were inaccurate in their use of the axes.
- (ii)** This was generally answered very well where candidates recognised the importance of destructive waves. Most answers could link these waves to energy and sediment removal.

- (b)** Most candidates chose a spit as their landform of coastal deposition and could explain how longshore drift played a part in its formation. There was certainly a basic understanding of the process of longshore drift, but few candidates expanded this past the basic premise of waves approaching at an angle etc. However, there was quite often a lack of detail to show knowledge and understanding of how the chosen spit was formed, with quite basic statements being made. Links to processes of transportation or the role of other factors were sometimes limited and descriptive rather than an examination of their role in production of the selected landform. Some answers were structured around knowledge of a series of landforms such as bars, tombolos and cusped forelands which built up AO1 marks for knowledge and understanding but did not examine the role of coastal transport. Good answers that addressed this aspect of the question were often based on a specific location where other processes were also at work. These often addressed a named spit in its regional coastal context and examined the importance of erosion, aeolian processes and river sediment.

- Q.2 (a) (i)** The resource was based upon a challenging element of the specification – temporal variations and their influence on coastal environments – and it is pleasing to report that candidates coped well. The diagram itself was, at first sight, complicated but most candidates were able to identify linkages. Many did this by outlining vertical linkages based on individual time scales but a significant number addressed horizontal linkages outlined how spatial scale and process changed over time.
- (ii)** Most candidates were able to access this question and explained the isostatic or eustatic processes that resulted in sea level change. A significant number were also able to comment on the time scale element of the question and remarked on the timeframe required to complete large scale geomorphic processes. Some did focus on seasonal changes and therefore gained limited credit.
- (b)** The best answers referred to concordant and discordant coastlines and discussed ‘hard’ and ‘soft’ rocks and how they eroded at different rates to produce headlands, bays and coves. Few however gave any detail of the geological characteristics that made them hard or soft. Only a minority related structure and lithology to the resistance to erosion or had any detail of the geological characteristics of the landforms they examined. The best answers came from those candidates who used the Isle of Purbeck as their case study, although there were some who used Pembrokeshire to good effect. Again, choice of landform proved to be crucial in determining the amount of explanation that could be given. Those candidates that chose cliffs or even wave cut platforms tended to not have enough to discuss, whereas those that had chosen coves or the cave, arch, stack, stump sequence tended to have more detail in their answers. These were variable in quality but at least there was some reference to geology in the instigation of caves along faults or well jointed rock. Too often answers were simply a description of the processes that led to the landform rather than an analysis stimulated by the question. AO2 marks tended to be quite limited but some candidates compare the role of geology with weathering and erosion.

Glaciated Landscapes

Slightly more candidates attempted Q1 than Q2 but the facility factors were comparable (Q3 had a facility factor of 55% whilst Q4 had a facility factor of 52%)

- Q.3 (a) (i)** The question demanded the candidates to identify and describe variations in the area of Wales covered by ice during the last ice age. Most candidates were able to identify variations and often backed their answers with data from the graph. Such points included an overall increase over time, or a steep decline between 21-19 thousand years BP. As a result, they gained either near or full marks for this question. One or two candidates answered this question at length and, often, to the detriment of other questions towards the end of the paper.
- (ii)** This question required candidates to give reason(s) why there was an increase in ice cover at certain points over the life of the ice cap. This question was not done well as candidates failed to interpret the element of change over a long period in time (periodic). Many talked of seasonal change between summer and winter which failed to meet the requirements of the question (change in ice cover over a period of time). Better answers focused on 1 possible reason (1 mark) for the increase e.g., increase in volcanic activity, changes in sunspot activity etc., and then went on to explain how this led to increase ice cover (up to 2 further marks). Although, a number correctly identified a possible reason, they failed to develop and to link the chosen reason to the increase in ice cover.
- (b)** This question required the candidate to identify 1 macro-scale landform and discuss and examine the role of plucking and abrasion in its formation. Many candidates correctly identify a macro-scale landform such as corrie, pyramidal peaks, glacial troughs/valleys etc. Others failed to do so and chose landforms which did not fit the bill such as roches moutonnee, erratics (deposition) etc. Choosing such a landform limited their answers as a consequence. Many candidates had in depth knowledge and understanding of the formation of their landform and/or plucking and abrasion. However, a number of candidates failed to gain very high marks for AO1 as their answers were slightly unbalanced between the formation of the landform itself and role of abrasion and plucking in its formation. A number wrote at length about the 2 processes without linking their role in the formation of their chosen landform. It was pleasing to see a number of candidates had well drawn and annotated sketches of landforms which greatly added to their answers. Such a tool should be greatly encouraged as a way of answering such questions and as a way of gaining high/very high marks for AO1. It was also pleasing to see better candidates using real landforms to illustrate the answers such as the Cwm Idwal corrie. As regards the examination element of the question, many candidates recognised the importance of both processes in the role of landform development. Some recognised the interrelationship at play here e.g. plucking partly producing the material for abrasion to occur, while others recognised the relative importance of the role of other factors as well e.g., role of geology, freeze-thaw weathering etc.

- Q.4 (a) (i)** This question appeared somewhat difficult for candidates as they either failed to understand the needs of the question and/or use the information given in Resource 4a. Some answers were generic in tone with no real linkages and references to the given example in Resource 4a. Answers could have referred to the high amount of rainfall which would have greatly added water to the river, thus increasing its erosive power to erode the base of the slope. This would then undermine the slope itself, making it unstable and leading in the end to its collapse. Other possible answers could have referred to the layers of unconsolidated sand and silt laid down by glaciers and their possible role in the undermining of the slope.
- (ii)** This question was quite well done by most candidates as they were able to easily recognise one possible economic consequence of the landslide. Many correctly identified the destruction of houses/building, road etc. The best candidates went on to discuss how this impacted Steelhead Haven economically such as the cost of rebuilding the road/houses/buildings/etc. Some candidates, however, failed either to develop their answers to gain full marks or at worst identified a possible effect which was not in fact an economic one e.g., deaths of residents (social – talking about bereavement etc.).
- (b)** There was a clear choice for candidates either to examine the success of one strategy that has been used to control the effects of glacial processes and landforms on human activities or vice versa. Most candidate opted for the former and chose examples such as avalanches etc., and their effects on communities in the Alps and often the examples of GLOF in the Himalayas were used. Candidates who chose the effects of human activities on glacial processes and landforms faired far worse when answering this question. Their answers lacked real knowledge and understanding of possible strategies that could be/are used control human activities and the way that impacted on chosen glacial landscape. Some referred to a strategy to control path erosion and the way it impacted the landscape, but their answers were often vague and lacking real examples of location etc. However, those who chose impacts of glacial processes and landscapes on human activities were far more successful in their attempts to identify a strategy to control these effects. Many discussed GLOFS with identified real examples in various parts of Tibet/Himalayas usually. They had good or very knowledge of their examples as well as good knowledge and understanding of the strategy used to control effects. However, a number failed to utilise this knowledge to discuss the way their chosen strategy is/was able to control/lessen the effects on human activities in that area and, as a result, failed to gain full marks for AO1. Many candidates examined the success of the strategy at length here so gaining good or very good marks for AO2. On an important note, while it is pleasing to see candidates giving more time and emphasis on the AO2 element of a question, it must be said that it should not come at the expense of the AO1 part of the question as well. A balance needs to be struck between both parts of the question to gain the fullest marks possible.

Section B: Tectonic Hazards

Facility factors for these questions were generally slightly lower than for the questions associated with landscapes. Question 7, which was associated with volcanic hazards, had the lowest facility factor at only 44% which may have been associated with timing issues and the lack of application of AO2 marks in 7a.

- Q.5 (a) (i)** This question tended to polarise candidates. Those that scored well clearly described the distribution with good geographical knowledge. Terminology was sometimes good with reference to linear patterns or clusters. Many did not distinguish between the different strengths of earthquake and examined the overall distribution using countries, plate boundaries, or coasts as descriptions. A significant number also referred to anomalies to the general patterns described. A lot of responses divided the earthquakes by strength and made comments on their relative distribution. However, quite a lot of candidates didn't have good locational knowledge leading to vague answers such as 'there are more earthquakes to the south of the map' or 'there are some earthquakes in oceans'.
- (ii)** The better responses based their answers on the elements of risk identified in the specification that could be easily identified on the two maps i.e. magnitude and population density. These responses usually compared the distributions shown on the maps to highlight global variation of risk e.g. high risk where there are high magnitude earthquakes and cities with high populations. Some applied knowledge and understanding of risk to the maps and commented on high risk areas being high magnitude areas with megacities in LICs. This was acceptable where information could be extracted from the maps but some answers went too far by examining case study material that could not be derived from the resource. There was a lot of misinterpretation of what Figure 5b was actually showing, with reference to population of countries rather than identifying that they were cities. A lot of candidates also thought that a city population of 1-5 million meant that the area was sparsely populated and didn't seem to make the link that there was still risk. Some candidates also focused on variation in the impacts of earthquakes rather than explaining the variation in tectonic risk.
- (b)** Knowledge of the characteristics of P and S waves was generally good but not as convincing for the focus and epicentre with a number of candidates getting them the wrong way round. Candidates should be aware that double credit is not allowed for a repeat of the same point such as P waves are faster/S waves are slower.
- Q.6 (a)** Many candidates identified this as a skills based question and made good use of the resource in their comparisons. The better responses tried to organise their answers around the elements of devastation suggested by the resource. As such their comparisons were structured around mortality, magnitude and economic loss. Most candidates were able to access the table and many made good use of the data using figures to support their ideas. The majority used the elements of devastation but some tried to compare the earthquakes holistically, with differing levels of success. Some answers did not make full use of the resource and failed to address the command word of compare giving answers that were just a description of the contents of the table. There were too many answers that included extended explanation of why there were differences in the level of devastation and so limited the marks they could gain.
- (b) (i)** This was generally answered well although there were too many candidates who simply missed it out.

- (ii) Candidates generally got one mark here most either described the relationship or commented on the significance. It would seem that the demands of the question were not understood by many candidates.
- (c) The better answers made good use of the resources to explain why it was difficult to respond to the earthquake. Many referred to the destruction of roads shown in 6d which meant distribution of aid to remote areas was hard. From the same resource many picked out the demographic information and explained how this impacted on rescue. A significant number explained how the magnitude of the event and the scale of impacts made response difficult. The common feature of all good responses was the selection of evidence from the resources and a clear link to response. Some answers were only partial as they described each of the resources but then didn't go on suggest why this meant it was difficult to respond to the earthquake. Others could not resist the temptation to discuss other case studies which was usually done in an isolated fashion with no reference to Ecuador.
- Q.7** (a) There were some very good answers that gave clear descriptions of the characteristics of shield and cinder volcanoes and effectively linked them to process. This was usually done with reference to the viscosity and gas content of the original magmas but some answers also referred to different composition of the volcanoes or the tectonic setting. There were some really strong candidates that made good use of the correct geographical terminology and picked up AO2 marks for an explanation of the differences linking lava type in particular to the type of eruption. Many candidates however did not go any further than a description, albeit detailed, of the characteristics of each type of volcano which only allowed credit for knowledge and understanding and not their contextual application. There was some confusion concerning the viscosity of lava in a number of responses which incorrectly stated that low viscosity lava was sticky and high viscosity lava was runny. Some candidates conflated cinder and composite volcanoes.
- (b) There were some very good answers that tackled the instruction to explain variations in the impacts in terms of local, regional and global. The other main strategy used to explain variations came as a focus on social, economic and demographic impacts. The best responses tended to use Eyjafjallajökull as their case study. However there were other good answers that used Mount St Helens and Pinatubo, but it is always disappointing that candidates can't use more contemporary examples. There were a number of answers that simply described the impacts of the named eruption without developing an explanation of why the impacts varied. Quite a few of these answers were very vague in terms of the evidence used to support the points, or the figures given were very obviously inaccurate - particularly when it came to the number of deaths! A number resorted to simple statements such as 'there were lots of deaths and injuries', 'many people were made homeless' and 'infrastructure was destroyed' and these could have been about any volcanic eruption, not necessarily the one that they had named.

Summary of key points

- Candidates should be encouraged to be as familiar with the specification as possible as the wording of questions will always be grounded firmly in it.
- Answers must direct knowledge and understanding towards the requirements of the question and should not be a regurgitation of learned material.
- Specific knowledge of contemporary case studies serves candidates well on this paper.
- Time management is an issue for some candidates as they spend too much time on the initial questions on the paper.

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UNIT 2: CHANGING PLACES

General Comments

On the whole, candidates responded well to the paper this year. This was reflected by an increase of 1.2 marks in the paper mean. Candidates generally found the resources accessible and were able to respond to the different command words set. However, performance remains inconsistent. Candidates are able to score well on the resource-based questions but many find it a challenge to engage confidently with the AO2 command words. It is interesting to note that for questions 4 and 5, the combined mean score was 9/18 (50%) which is less than the mean score for the paper 28.4/ 46 (62%). This lower mean on higher tariff questions will result in a lower overall standard deviation. Therefore, if performance is to continue to improve then candidates must respond more directly to the command words used in questions based on their own fieldwork.

The overall mean mark for question 3 has improved once again this year, showing that centres and candidates are continuing to focus on full coverage of the geographical skills set out in Appendix A during the teaching of the specification. One area where further improvement could be made is the evaluative element of some of the skills questions set. While candidates were familiar with the command to 'assess the strengths and weaknesses' and were comfortable describing the outcomes and purpose of the Environmental Quality Survey, few were able to address the 'assess' command successfully and thus limited their AO2 marks on this particular question.

Comments on individual questions/sections

Q.1 Question 1a (i) was generally well answered with most candidates able to identify the main patterns shown on the map using supporting evidence. Better candidates were secure when using locational evidence from the resource e.g. making use of the settlements noted on the map or being specific in their use of compass directions.

Similarly, question 2a (ii) was well answered by most candidates. Many managed to identify two consequences and a good number managed to develop their answers to gain the full 4 marks. Popular approaches included identifying a loss of sense of community and rising house prices. However, in a minority of cases both consequences were similar in nature and significant overlap meant that candidates were unable to secure the full 4 marks.

Responses to question 1b) were generally weaker. Directly focusing on 2.1.3 in the specification, better answers were effectively linked to the Clark-Fisher Model and examined the importance of technology and other factors such as globalisation in the decline of primary employment. However, some of the alternative reasons identified showed a lack of understanding of what constitutes a primary industry with many answers focused on secondary industries. Other candidates failed to focus on the primary sector and presented an overview of how technology has impacted general employment in rural areas.

Q.2 Question 2 a (i) and a (ii) were generally well answered. Most candidates did compare in (i) and in (ii) a reason was identified and developed. Where candidates were unable to gain the full 5 marks in (i), it was often because they did not manipulate the data lifted from the resource in any way. 2(b) produced stronger responses. Drawing from section 2.1.5 of the specification, most candidates identified changes to retail pattern successfully. Popular approaches included examinations of a loss of income due to the closure of many shops or people having more spare time due to the ease and convenience of internet shopping. However, some candidates did not focus sufficiently on the impacts on people with many drifting into impacts upon the built environment in the CBD.

Q.3 In part (a) most candidates managed to identify a method of sampling. Many managed to justify it to a degree with some good points made regarding overcoming bias. Whilst some candidates managed to effectively link their answer to the resource by e.g. referencing the number of wards, these candidates were in the minority. Few candidates were able to fully justify their choice of sampling method and many tended to simply describe how they would carry it out.

Most candidates managed to extract information from the EQS and better answers picked some good overall points such as the fact that the majority were positive statements or that the data for traffic was more positive than the data for housing. The question clearly asked candidates to identify the *main outcomes* of the survey. Some candidates, disappointingly, merely listed the results of 4 of the indicators.

When asked to assess the strengths and weaknesses of EQS most candidates noted both strengths and weakness. However the assessment element was weaker. It would have been encouraging to see some candidates make judgments as to how suitable the method was for its purpose.

Q.4 Most candidates were able to identify two decisions made during the planning stage of their physical geography enquiry. Higher scoring candidates focused on decisions that would allow them to evaluate fully such as the choice of data collection methods; detailed considerations for the site or sampling considerations. Some candidates found it hard to evaluate decisions made during the planning stage as it was evident that they had not been involved in the decisions taken. Centres should ensure that pupils are fully involved in each of the six stages of the enquiry process when planning for their AS fieldwork. In some cases, the evaluation was unbalanced as there were significantly more positive points made and candidates found it hard to critically evaluate what they had done. In other cases, candidates did not fully focus on the demands of the question and answers drifted into an evaluation of their data collection rather than an evaluation of the decisions taken while planning it.

Q.5 Similarly, most candidates managed to identify two data presentation techniques used in their human geography enquiry. The highest-scoring answers chose techniques that allowed candidates to use more rigorous statements of justification. Such techniques included scatter graphs or located bar/ pie charts. The highest-scoring answers linked their method to their study effectively and some drew diagrams to aid their answers. Greater care could be taken with the naming of techniques – these were often erroneous and had an impact on the mark awarded. A significant minority drifted into evaluation thus impacting on the quality of justification. A small minority focused on their data collection techniques – candidates need to be reminded of the six stages of the enquiry process to ensure that they are able to distinguish effectively between them.

Summary of key points

- Centres should stress the importance of being specific when identifying trends or patterns on a map. Simply noting 'North' or 'South' will not be enough to gain the highest marks.
- Candidates should be encouraged to manipulate rather than simply lift data from resources.
- When answering extended questions, pupils should be reminded to re-read the question whilst answering. This will help them to keep focused on the demands of the question.
- When answering fieldwork questions, candidates should be aware that 'justify' and 'evaluate' are two different commands. Candidates often struggle to differentiate between them. A complete glossary of command words used within WJEC GCE Geography examination papers is printed within the Guidance for Teaching documents, available on the website.

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UNIT 3: GLOBAL SYSTEMS AND GLOBAL GOVERNANCE

General Comments

This paper was accessible to the vast majority of candidates who were able to engage with the widely different subject matter demanded by Sections A and B as well as the final demand to think synoptically across the specification for the 21st Century Challenges element.

Most candidates answered questions in all sections and rubric errors were uncommon. Some candidates were fully conversant with all elements of the specification and demonstrated detailed knowledge and understanding as well as the ability to apply and evaluate this knowledge and understanding. Candidates were able to make good use of the unfamiliar context provided by the resources in order to synthesise and apply their understanding.

As with previous examination series, handwriting remains a significant issue for a minority of candidates and schools / colleges are encouraged to seek alternative arrangements for such candidates to produce their work.

Comments on individual questions/sections

Section A: Global Systems

Q.1 (a) (i) and (ii)

Most, but not all candidates were able to extract the figure for rainfall intensity from the graph. It is worth going through the list of expected graphical skills (Appendix A pages 54-55) to ensure that candidates (particularly those who may not have done Geography at GCSE) are familiar with each type of graph; at A-level standard, students are expected to provide units as part of their answer. Part (ii) of this question revealed that the vast majority of candidates were not familiar with the purpose of a logarithmic scale and could not identify a reason why such a scale would be used, given the data contained in the graph.

- (b)** Many candidates were able to clearly communicate their understanding of two causes of overland flow in a drainage basin system and thus scored well on this question with higher end Band 2 or Band 3; however, many were unfamiliar with the association between overland flow and saturation and infiltration excess, relying instead on human factors such as deforestation and urbanisation.

Many candidates were relying on GCSE-level understanding of drainage basins and explored reasons relating to geology or slope steepness; whilst candidates were indeed credited for this, it is worth ensuring that candidates are familiar with the ideas outlined specifically in the specification.

- Q.2 (a)** In this question, the graph was included as a stimulus and weaker candidates approached this question by describing the relative size of vegetation stores (numbers of trees) or even numbers of animals in the tropical rainforest and the tundra biomes. The expectation of this question was that candidates would refer to temperature, precipitation and sunlight as the reasons for the variations in size of the carbon store as these are referred to in the specification and therefore it is assumed that this is what candidates have been taught. It was apparent that where candidates were familiar with climate or temperature, they were unable to explain how temperature affects plant growth. In some cases, candidates discussed the fact that there was more biomass/greater variety of species but failed to discuss *why* this happened. It is worth reminding candidates that when the question does not specifically require use of a resource, they should not be tempted to merely describe the resource as this will not enable them to access higher marks.
- (b)** Most candidates were able to outline two ways in which human activity leads to changes in the size of the carbon store of the tropical rain forest, however, there were too many occasions when candidates outlined one way in detail and failed to develop their answer with a second reason. Where the question specifically requests two ways, candidates will not be able to access full marks with only one way. Similarly, many candidates discussed effects (or causes) as well as the effect on the carbon store which wasn't required in this instance and therefore wasted valuable examination time.
- Q.3** Just over half of this year's cohort answered this question; where it was well answered, answers were very good with candidates having a confident grasp of the specification content. Weaker candidates tended to opt for this question and therefore the full range of marks were awarded with a significant number of candidates having a superficial understanding of the role of human factors in the generation of excess runoff; indeed some based their answer almost entirely around excess water in a river channel, thereby mis-using knowledge from outside this specification. A significant number of candidates used Boscastle to illustrate their answers, without really having a grasp on the scale of place or rainfall, while it is appreciated that candidates have supporting evidence, it needs to be more than a 'bolt on e.g.' Many candidates referred only to human factors in their answers, while stronger their stronger contemporaries were able to evaluate both physical and human factors. The best answers were able to display their knowledge and understanding with confident reference to changing land use and river management combined with exemplification at a range of scales and clear examination of the interactions between human and physical factors using a number of criteria to do so. Furthermore, some candidates were able to integrate some of the specialised concepts (such as adaptation, feedback, mitigation and sustainability) in to their answers by making the link between humans increasing the amount of rainfall due to climate change: this was representative of good assessment at this level and such answers scored Band 3 marks for AO2.
- Q.4** While this question was the less popular of the two choices there were many candidates who scored very high marks; such candidates were able to confidently discuss the three transfers (earth-atmosphere, atmosphere-ocean and earth to ocean) and the importance of time within these transfers, i.e daily or seasonally.

Some candidates struggled with to access AO2 marks because they did not go beyond the obvious 'it changes over time' and thus not developing their answer in terms of the scale of time. There were several vague responses which focused on the transfer between earth and atmosphere as a result of human-induced climate change, with no real grasp of carbon pathways or processes.

Section B: Global Governance: Change and Challenges

- Q.5 (a)** This question was answered poorly on the whole with most candidates simply listing the data for different countries. Few candidates were able to recognise the spatial distribution; those who did, identified the spread across the globe and/or in the Northern Hemisphere. The very crux of geography is recognising spatial patterns and it is worth exploring this skill with students as this form of data interpretation is of value beyond this forum.
- (b)** Some candidates were very successful at developing *one* way but many candidates simply listed a range of ways in which superpowers influence migration. It was particularly pleasing to see candidates exploring issues related to 'soft power' as well as those focusing on economic power. Weaker candidates confused migrants with asylum seekers, assuming that the reason for the journey was to reach a place of safety. The majority of candidates focused on the USA and the UK as superpowers with a few candidates using China as an example. It is worth discussing with students which countries are recognised as superpowers (or regional powers) as some geographers would argue that following the break-up of the Soviet Union, there is only one superpower remaining: the USA. The specification does however, refer to superpowers in the plural.
- Q.6 (a)** This question, like 2b, asked candidates for two consequences; better candidates structured their answer around 'the first consequence... and the second consequence'. This structure has the advantage of reminding candidates of the need to have two distinct consequences, albeit in some cases the consequences were linked to one another. In some cases, candidates were descriptive of the resource before going into discuss the effects, this wasted time and therefore such answers neglected to fully develop their answer. It was pleasing to note that the majority of candidates recognised two ways and had some development, thus accessing Band 2 and beyond.
- (b)** This question was answered similarly to 2b, with many candidates discussing the effects here which was not needed. The majority of candidates recognised at least one form of ocean pollution with lots of candidates scoring highly with development. Some candidates developed 'oil spills' with just a named example this did not enable them to access marks for 'outlining', it is worth pointing out to candidates that they do need to engage fully with supporting examples.
- Q.7** The focus of this question was on management of refugees. Many candidates discussed the causes of migration/refugees which wasn't required here and subsequently they were unable to access mark for either AO1 or AO2. Too many candidates had limited knowledge of specific examples of strategies but were able to evaluate these strategies generally in spite of this; this did allow them to access some AO2 marks. Case studies used were typically Syrian refugees, Germany accepting refugees and the Calais Jungle with little reference to scale of refugee movements.

It was disappointing that candidates were unfamiliar with either actions at different scales (e.g. local, national, and supra-national) or different intent (e.g. NGOs vs. government). In many cases, answers drifted into managing economic migration including lengthy answers about the Australian points system, such confusion between economic migrants and refugees must be addressed at this level.

- Q.8** Most of the candidates who addressed this question were able to describe, for example, events in the South China Sea or the Falklands conflict. Some used understanding of landlocked countries to address the demands of the question and showed good coverage of this element of the specification. Many, however, failed to address *why* ocean resources lead to conflict well and as a result few candidates reached Band 3 for AO2. Few candidates recognised that conflict over ocean resources is relatively rare due to UNCLOS / lack of economic gain. Candidates must engage with the command of the question (in this case, 'examine why') in order to steer their argument. It is worth encouraging students to bolt command words associated with AO2 onto specification statements when they are preparing for exams, and to use these as practice essay questions.

Section C: 21st Century Challenges

- Q.9** The majority of candidates discussed several positive changes as a result of migration; they used a range of resources to uphold their arguments and better candidates were able to identify places where such changes were evident. Weaker candidates struggled to answer the question by referring only to tentative, unsupported positive changes, ignoring the opportunity to bring in negative changes whilst focusing on people rather than places. Similarly, many referred only to impacts on host countries, when in many ways, the impacts on source countries are even more acute than those experienced by host countries. Good use was made of the resources, in particular, Figures 5, 6 and 8 for this question. Most candidates referred to migrants from Poland to the UK, although it was pleasing to see some range of exemplification, for example, China. Some candidates did not follow the instruction to discuss / apply their knowledge and understanding from across the specification; students need to practice questions of this nature in order to appreciate how to discuss knowledge and understanding from across the specification.
- Q.10** The majority of candidates who attempted this question were able to discuss human causes better than physical causes, with most candidates focussing on Figures 5 and 7 to help support or refute their arguments. Whilst many candidates used examples from Figure 7, they were frequently unable to develop their answers using such examples. Candidates relying heavily on Figure 7 often failed to grasp that unlike the other three resources which involved international migration, this resource referred to internally displaced people, some of whom migrate only temporarily whilst clean-up operations take place. Some of the better candidates had a confident grasp of issues such as climate refugees, thus recognising that weather events such as storms might well be triggered by climate change which is caused by humans. This enabled such candidates to include reference to the specialised concepts outlined in the specification; for instance, recognising the notion of interconnected world as a result of globalisation and how that has made it easier for migration, whilst also discussing the opportunities that arise as a result of globalisation. In a few cases, weaker responses described the consequences of migration in detail; candidates are to be encouraged to read each word of the question with forensic attention to detail.

Summary of key points

- It is pleasing to witness, via the candidates answers that there is greater confidence in the way students are answering questions containing the 'new' content of the A level specification, in particular, the carbon cycle and ocean governance.
- Candidates are to be reminded to pay particular attention to command words as these will give the steer for the way in which they should approach organising their knowledge on the particular topic into an answer. Similarly, the number of marks available should be a guide to the amount candidates should include in their answer.
- Candidates are encouraged to use the specification to help them to structure their revision and in doing so, make use of each bullet points to support identifying the detailed content that they should learn.

GCE GEOGRAPHY

General Certificate of Education (New)

Summer 2019

Advanced Subsidiary/Advanced

UNIT 4: CONTEMPORARY THEMES IN GEOGRAPHY

General Comments

The paper was accessible across the ability range and it differentiated well, providing the opportunity for candidates to appropriately demonstrate their knowledge and understanding of the specification content.

The following points are made for the benefit of both teachers and future candidates:

- In general, it was pleasing to see that candidates had performed more effectively this year. This is highlighted by the fact that the average marks on the Unit 4 paper increased by 1.9 marks in 2019. It is hoped that the observations made during this report will lead to further improvements in the 2020 examination.
- Most responses were well-structured, with many candidates completing three essays in the time frame provided.
- There were very few rubric errors and timing was an issue for only a very small number of candidates.
- Answers to the tectonics questions, especially question 2, were much improved this year. Some good quality analysis was seen and specialised concepts were used more readily.
- Well-integrated diagrams, graphs and sketches were seen more frequently this year.
- A failure to address the question set was an issue for the Ecosystems, China and India themes. Candidates should be encouraged to read the questions thoroughly, before putting pen to paper.
- The use of case studies needs to be developed. Examples are introduced, however, in many cases, they are not used fully or effectively. The generic use of case studies prevented many candidates from entering Band 3 for A01 and A02, as their application of knowledge and understanding was not developed successfully.
- Discussion and evaluation skills need to be developed by a fair number of candidates, in order to access the higher band marks for A02. Too many answers have a descriptive approach, which is self-penalising.
- A range of annotated Unit 4 scripts will be made available on the WJEC OER website in the autumn. It would be useful if these scripts could be shared with candidates and discussed in class, in a bid to enhance examination technique.

Comments on individual questions/sections

Theme 1: Tectonic Hazards

- Q.1** Very few candidates attempted this question. However, those who answered it were able to discuss a range of hazards associated with converging, diverging and conservative plate margins in an effective fashion. The best responses were able to discuss the severity of the tectonic hazards introduced. For example: “... *convergent plate margins are more dangerous because they have more of an impact at a local, regional and global scale, compared to conservative margins, which have mainly local impacts ...*” The most frequently cited case studies were Eyjafjallajökull (2010), Mount Pinatubo (1991), Nevado Del Ruiz (1985) and the San Andreas Fault (Loma Prieta, 1989 and Northridge, 1994). However, in weaker responses, the use of case studies was variable. In addition, inaccuracies and misconceptions regarding the processes that operate at plate margins were common in weaker responses.
- Q.2** This was a very popular question and some very good answers were seen. The most successful responses compared the impacts of the 2010 Haitian earthquake to events that had occurred in locations such as Japan (Kobe, 1995 and Tohoku, 2011), New Zealand (Christchurch, 2011) and the USA (Loma Prieta, 1989 and Northridge, 1994). The best answers included detailed case study support, which served to supplement and support the arguments advanced. These tended to centre on an examination of the short term and long term responses to earthquake activity and their effectiveness. In addition, better answers made frequent reference to relevant specialised concepts throughout. For example: “... *Japan is a wealthy country, with stable governance. Over time, several planning measures have been introduced, which have reduced the vulnerability of the general population to earthquakes ...*” Weaker responses were characterised by descriptive content, lacking development and sophisticated analysis.

Theme 2: Ecosystems

- Q.3** This was the most popular option for the Ecosystems theme and some very good answers were seen. The best answers examined the threats to biodiversity in a wide variety of locations. Predominantly, these were the Amazon rainforest, the Arctic Tundra, Borneo and the Great Barrier Reef. These answers were well balanced, clear and benefited from comprehensive case study support. Good responses examined direct and indirect threats in an analytical fashion and came to a logical conclusion. Weaker answers commonly failed to make the distinction between direct and indirect threats. In addition, weaker responses lacked balance, clarity and well-developed case study support.
- Q.4** Very few candidates attempted this question and sadly, it was answered very poorly indeed. Only a handful of candidates addressed the question set appropriately. The rest failed to examine the “local scale” element and produced answers on the Arctic Tundra and Tropical Rainforest biomes. This type of response was self-penalising. Better responses examined the influence of physical factors on ecosystem succession at a local scale. Such answers often examined succession in local psammoseres and were able to critically assess the relative role of physical and human factors on the development of their chosen ecosystem.

Theme 3: Economic Growth and Challenge: India or China or Development in Sub-Saharan Africa

India

- Q.5** Overall, this question was not tackled effectively by candidates, as they had a limited knowledge and understanding of the physical environment of India. Most answers were rather generic, lacking in depth and detail. Case study support was needed here and there were ample opportunities to include simple climate graphs, quantification and sketch maps. In addition, the “*to what extent do you agree?*” element was not pursued vigorously, with candidates making observations that were not developed in an effective fashion. E.g. “... *India is hot and wet during monsoon season and the people of India are very thankful for it ...*”
- Q.6** Sadly, this question produced a multitude of poor responses, with many candidates failing to attain a mark, which attained double figures. Candidates tended to invert the question and proceeded to write about how industrial pollution threatened economic growth in India. For example: “... *this reduces the amount of money spent into the economy, therefore hindering economic growth ... industrial pollution continues to hinder economic growth on a large scale ...*” These arguments are pursuing a different issue entirely and clearly lack focus on the question set and on the focus of this part of the specification. It is vital that candidates engage in question analysis before completing their answers.

China

- Q.7** This question was the most popular option for the China theme and some good responses were seen. Better responses were able to examine the relative importance of physical factors in the economic development of China. Such responses contained plenty of supporting evidence, with candidates referring to climatic data, the location of ports, the influence of relief and soil type etc. Good answers often included annotated, well integrated sketch maps and attempted to weigh up the evidence provided on a consistent basis. For example: “... *the drainage patterns of China have provided more opportunities than constraints ... the Yangtze transports alluvium rich sediment, which promotes rice production ...*” Weaker responses were rather bland and made sweeping assertions, which lacked support. Such answers also lacked detailed and erudite analysis: E.g. “... *China’s west has many physical constraints, meaning that it is not suitable for farming ...*”
- Q.8** Similarly to question 6, this option was addressed rather poorly. Answers to question 8 were much weaker than those seen for Question 7. This Question presented similar issues to the problems that have already been highlighted for Question 6 on India. Once again, candidates failed to address the question set appropriately and proceeded to invert the question. Weak responses made points like: “... *I think that pollution is the biggest threat to economic growth in China ...*” Better answers were balanced and examined a range of threats in a considered fashion. For example: “... *industrial pollution is certainly a major threat, causing problems such as water and air pollution to become prevalent in China ... yet, other problems have arisen from China’s economic growth, such as food, water and energy security, waste disposal, soil erosion and desertification ... thus undermining the statement that industrial pollution is the biggest threat associated with economic growth ...*”

Development in Sub-Saharan Africa

- Q.9** Question 9 was the least popular option for the Development in Sub-Saharan African theme. The vast majority of candidates had a weak grasp of quantitative and qualitative indicators of development.

In particular, qualitative indicators of development were poorly understood and inaccuracies and misconceptions were commonplace. As a result, answers lacked balance, with candidates primarily addressing quantitative indicators of development. In addition, a large number of generic responses were seen, which failed to make any reference to Sub-Saharan African countries. For example: *“Quantitative measures include GNP, which measures the economic development of a country. Ultimately, this measures economic issues only and doesn’t take into account other areas of development.”*

- Q.10** This was a very popular question and some very good answers were seen. The best answers introduced strategies used to promote development at local, regional and national scales and evaluated them in a robust fashion. Case studies that were utilised effectively for this question included Farm Africa projects in Uganda, the Multi-Facility Economic Zone (MFEZ) policy adopted in Zambia, the role of Chinese FDI in Tanzania and the work undertaken by CAFOD in Mozambique. Weaker responses were more generic, lacking depth and detail. Consequently, this prevented this type of answer from reaching the top bands for A01 and A02.

Theme 4: Energy Challenges and Dilemmas

- Q.11** Overall, this question was dealt with effectively. Candidates were able to examine the relative importance of economic problems in comparison to environmental, political and technological concerns. The most popular case studies used by candidates centred on fuel poverty in the UK, the Exxon Valdez (1989) and Gulf of Mexico (2010) oil spills, issues surrounding OPEC and relations between Russia and the wider global community. Good answers examined economic problems before advancing to discuss alternative problems associated with the use of fossil fuels. For example: *“ ... there are, however, many political complications associated with fossil fuels as well. As demand increases, there is more strain on OPEC, which may lead to political tensions ...”* *“ ... I believe that economic problems are not the most important. Environmental problems are the most significant issue associated with the continued use of fossil fuels, as they will have detrimental impacts at a global scale ...”* Weaker responses tended to provide a superficial discussion of the economic problems associated with fossil fuels and preferred to focus solely on the environmental issues.
- Q.12** Generally, there was a poor grasp of the term “energy efficiency”. Many candidates discussed promoting energy efficiency in brief detail, with a fleeting examination of the sustainability of such methods. E.g. *“... energy efficiency revolves around using the least amount of energy possible ... for example, insulating our lofts and walls in our homes ... this allows for less heat to be lost, saving energy and reducing our bills. This is a sustainable method ...”* The bulk of the answers seen were keen to discuss alternative energy sources, “clean” technologies for fossil fuels (E.g. carbon capture and coal gasification), demand reduction policies and changing transport technologies in more detail. Candidates seemed more confident examining the sustainability of these methods. Better responses discussed the merits and drawbacks of examples such as energy saving LED bulbs, energy labels on white goods (A+ A++ A+++ ratings) the EU Energy Efficiency Directive, Walney Wind Farm off the coast of Cumbria, geothermal power in Iceland and demand reduction policies. These answers benefited from detailed case study support and a thorough examination of the sustainability of these approaches. Specialised concepts were applied and used adeptly to construct effective arguments. Weaker responses tended to lack balance, with a focus on alternative energy sources to the detriment of other approaches. The analysis provided in weaker responses tended to be rather bland and didn’t move beyond the simple assertion that *“this is sustainable / unsustainable”*.

Theme 5: Weather and Climate

- Q.13** Disappointingly, a large volume of answers were overly descriptive. In addition, the lack of good quality case study support was an issue too, with many candidates making vague references to “*Hurricane Katrina*”, “*Hurricane Sandy*” and “*drought in Africa*”. Good responses discussed the “limited consequences” component in an analytical manner, with extensive support. Such answers weighed up the demographic, economic, environmental and social impacts of extreme weather events in a spatial and temporal sense and arrived at a well-reasoned conclusion. Weaker responses provided a generic overview of the impacts of extreme weather events in “*Africa*” and “*the USA*”. Little or no attempt was made to discuss the implications of extreme weather events in weaker responses, apart from the occasional “off-the-cuff” comment.
- Q.14** Sadly, most of the answers seen lacked breadth and depth in terms of knowledge and understanding. As a result, this hindered the evaluation component of the response, as candidates were unable to draw upon real strategies to underpin their discussions. Better responses introduced and examined approaches such as BedZED, congestion charges, Masdar City, the Santander Cycles scheme and the introduction of the Ultra-Low Emission Zone (ULEZ) in London. Weaker answers tended to drift from the question set and focus on the causes and impacts of urban microclimates and poor air quality.

Summary of key points

- It was pleasing to see the greater use of specialised concepts in responses this year.
- Diagrams were also used in a more effective fashion and served to supplement and support answers effectively.
- Case studies need to be used on a more consistent basis, if candidates are to reach Band 3 for A01.
- More attention needs to be paid to the command words and the question set. At present, this predominantly seems to be an issue with the Ecosystems, China and India themes.
- Discussion and evaluation skills need to be developed, if candidates wish to access Band 3 for A02. The best answers contained sustained analysis from start to finish. Answers from the 2019 examination series will be made available on the WJEC OER site. Please use these examples in conjunction with your existing teaching and learning resources, in a bid to further enhance examination technique.

GCE GEOGRAPHY

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UNIT 5: INDEPENDENT INVESTIGATION

General Comments

It was very pleasing to see a wide variety of interesting and appropriate investigations being undertaken by candidates, the majority of which were clearly linked to the specification. Most centres coped well with the administration and work arrived on time.

The continued success of the NEA depends very much upon careful planning and preparation before candidates finalise titles and embark on data collection. This was not always evident, with some centres still prescribing a narrow range of titles. This tends to limit student engagement with the topic and goes very much against the ethos of this task. Additionally, a significant number of candidates continue to attempt tasks that are unmanageable and, at times, unachievable.

Candidates should structure their investigations carefully, with appropriate sub-questions/aims that are related to the investigation and clearly linked to the specification. Identifying relevant bullet points within the specification could help candidates plan appropriate questions, which then become the driving force behind the data collection and allow relevant conclusions to be reached. It is recommended that candidates have three or four sub-questions. In some instances this year, candidates had as many as eight, which lead to a lack of focus and conciseness.

Centre declaration forms were completed in all but a minority of cases, however, candidate proposal forms still appear to be an issue and it was worrying to note that many were still poorly completed with some carrying a title and teacher signature only. It is vital that due time is spent working through this form with candidates. Each centre has a responsibility to ensure that candidates embark on a piece of work that is appropriate and manageable. Centres are reminded that WJEC offers an advisory service for teachers to submit proposals to check their appropriateness. If use is made of this advisory service centres must attach the principal moderator's comments to the completed work. Centres are also reminded that they must use the most up to date forms for this purpose, which are available on the web site. Please do not photocopy forms from the specification.

Some candidates continue to have titles that are too long and not linked to a specific location, such as "*Does the type of woodland (such as semi natural ancient woodlands) effect the rate at which carbon is removed from the atmosphere and stored and will this amount stored help contribute to the reduction of GCC on a local scale*". Others seen were very brief but broad in nature, "*An investigation of coral reefs*" or "*How management effects biodiversity*". Although fewer investigations related to the Bradshaw model were seen this year, there continue to be issues with studies rooted in this part of the specification. "How does river discharge change along the course of the River ...?" is an example that is not applicable to the specification as river discharge must be investigated in relation to change over time, rather than change over place. With this in mind candidates need to plan how they will collect the relevant data to meet the temporal element of their investigation.

Similarly words such as; assess, change, impact, success, sustainable and effective often appear in the titles of candidates' work, but often candidates do not collect data that will allow them to reach conclusions relating to this aspect of their question. Clear indicators to measure success or sustainability must be identified at the outset.

Although the situation has improved considerably, it was noted that many investigations were still significantly longer than the recommended word guidance. Centres are reminded that the recommended word count of 3–4000 words is sufficient for study at A level. Word counts significantly in excess of this become self-penalising, as they can lack focus and coherence. The experience over the past two years has shown that a tightly structured report of 3-4000 words, clearly focused on the investigation in hand, allows candidates to explain and evaluate succinctly. As noted earlier in this report, securing manageable and focussed investigation titles for each candidate, through detailed discussion at the outset, could greatly assist this process.

While annotation of the work sometimes did not match what was seen and was often patchy in nature, it was pleasing to note that in the majority of cases it was helpful and objective with strengths and weaknesses being clearly and concisely identified. It would, however, greatly aid the moderation process if the mark sheets were annotated or highlighted to identify the assessment criteria being rewarded. A number of centres made errors in addition and transference of marks onto IAMIS, care needs to be taken in this respect.

It was pleasing to note that most candidates followed the prescribed structure, with clear sections, as outlined in the specification. Many pieces of work came in plastic wallets and were loose leaf. This can easily become muddled and disordered. It would be preferable for work to be fixed in the top left hand corner with a treasury tag, or similar.

Comments on individual questions/sections

Context

Most candidates clearly identified a title for their investigation and linked it to the specification, either in the text or on the proposal form. While sub-questions were usually on the proposal form, in some instances they did not relate well to the topic or appear to have any relationship to the data being collected.

Theory appears to be an aspect of Geography that many candidates do not engage with effectively. There are still a number of centres that are allowing candidates to pursue investigations based upon theory that is not in the specification, such as Bradshaw's Model, or theories such as Burgess' Concentric Zone Model that have limited relevance in the 21st century.

While some candidates made excellent use of relevant literary sources, clearly identified in the text using a recognised system such as Harvard, it is clear that many candidates did little if any background reading before embarking on their investigation and have a limited understanding of how to use literature sources.

Most candidates made some attempt to discuss risk although it was often generic with little reference to their actual situation. Understanding of ethical issues continues to be patchy, with it often being omitted completely, while risk assessment was often being seen as synonymous with ethical issues. Candidates need to be fully prepared for these elements at the planning stage of their investigation. It should be noted that Band 5 requires a 'confident and informed understanding of risk/ethical issues'.

Only a few candidates identified and displayed a clear and detailed study location. Maps in general were often very poorly presented. Many candidates simply copied Google/OS images and did not use or engage with the map in any way. In future years, it would be pleasing to see an improvement in the way candidates present and use maps in their investigations.

Methods of Field Investigation

Marking still tended to be on the generous side for this assessment criterion, with many centres awarding Band 5 marks for work that did not meet the assessment criteria at this high level. To reach Band 5, work must show strong evidence of wide ranging and good quality data collection relevant to the research question.

There were some interesting approaches to this section. Some approached this discussion one research sub-question at a time and identified the methods linked to each question. Alternatively, many candidates created a comprehensive table, which ensured all elements of the marking criteria were addressed.

Stronger investigations had a good range of varied methods that were clearly aimed at collecting data to allow them to answer their sub-questions. These methods were well described, replicable and clearly justified. Weaker investigations had a limited range, often only two, that did little to answer their questions and tended to reflect attempts by centres to shoehorn their standard fieldwork days into the NEA.

In describing methods such as questionnaires, bi-polar surveys or environmental quality surveys, many omitted to either include a blank copy in the appendix or identify the sort of questions being asked, or factors/indicators that were being investigated. Candidates need to be made aware of the significance of sample sizes when conducting questionnaires, five or ten responses is insufficient to give a true cross-section of the population under consideration. Candidates should also be encouraged to edit questionnaires carefully, asking only questions that are relevant to their aims. Questions about age, gender and residence are often left unused in the analysis.

Very few candidates mentioned photography as a means of collecting primary data, even though photographs were commonly used in their write-ups. In many instances there was an overreliance on secondary data, and many candidates struggled to show awareness of the limitations of secondary data or the possible bias or reliability of sources.

The understanding of sampling processes and their role in collecting reliable data is an area where much improvement could be made. In most human geography investigations candidates used 'random sampling' for collecting all their data, particularly when carrying out questionnaires. To access Band 5 candidates are required to have a "*sampling strategy that is well designed, explained and justified. The strategy is wholly appropriate to the investigation.*"

For example, when completing pedestrian and traffic counts, many just counted pedestrians/vehicles passing one place at one time. There was no concept of direction of flow or the impact that time of day might have. Well-designed group activities here could be very useful and would allow opportunities for sophisticated data presentation.

Data Presentation and Findings

Some interesting and innovative approaches were seen once again this year with some candidates making excellent use of GIS to present data. The use of located symbols on maps was also encouraging to see.

However, in general the quality of data presentation is rather disappointing with many candidates over reliant on poorly presented Excel generated maps and graphs, many of which added little meaning or value to the data collected. Graphs must have their axes clearly labelled and maps should have a scale, north point and where appropriate, a key.

Some candidates used inappropriate methods of data presentation, often using bar graphs to show changes over time rather than comparing sets of data between different groups. There was some use of scatter graphs, which is more sophisticated, however, these frequently lacked a line of best fit and were not always appropriate to the data under consideration. Centres should continue to embed discussion of maps, graphs and alternative data presentation techniques into lessons so that candidates become more familiar with different options available to them in order to present their data in the most appropriate and effective manner.

In many instances, centres over credited this section.

Analysis and Interpretation of Findings

To achieve marks in Band 5, candidates are required to give a sophisticated analysis and interpretation of findings, clearly showing why they were appropriate and relevant to the research question. Ideally they should show some individuality and/or links between the study and other aspects of Geography. The strongest investigations were also able to reflect on their theory, secondary data and literary review.

In general, little sophistication was seen in analysis with many candidates being unable to look beyond their own data to identify insights into other areas of Geography; furthermore, many were unable to suggest how their data might generate different results in different places. It appeared that too many candidates approached their investigations with pre-determined conclusions which they were committed to upholding – data notwithstanding.

The go to position was often to describe the findings; the even more basic position was to methodically describe each graph, with some placing the data presentation in the Appendix, where if not referred to it could not be credited. This in turn might impact upon marks awarded for structure. In these cases candidates were unable to develop analysis that supported their sub-questions and overall investigation. The strongest investigations were those where data presentation and analysis sections were integrated.

While the use of statistical techniques is not a requirement, it is to be applauded when attempted by candidates. However, the techniques used must be appropriate and include sufficient data sets to be acceptable. For example, when using Spearman's Rank Correlation Coefficient, candidates often had less than the minimum number of ten data sets, which made the test inappropriate. If using this technique, candidates should be prepared to use a hypotheses and null hypotheses, and the results of the test should be correctly concluded with the use of significance tables. This was often not the case and frequently there was no data or working shown. Many candidates also had difficulty relating the results of their analysis to their investigation.

Conclusions and Presentation requirements

Many candidates drew clear and detailed conclusions in an overall summary linked directly to the investigation, with the strongest investigations summarising the conclusions under each sub-question. Some were able to make meaningful and objective statements about what their data had shown. Candidates should beware the temptation to repeat their findings.

As noted earlier in this report, work rewarded in Bands 4 and 5 must be concise. Many candidates and centres that continue to present work way beyond the guided word limit fail to meet this requirement.

Further attention should be paid to the quality of spelling, punctuation and grammar, which in some cases – despite the work being word processed – was poor. Candidates in Wales may be penalised where the overall quality of language and grammar detracts from the readability or coherence of the investigation.

Evaluation

To achieve marks in Band 5, candidates must produce a perceptive evaluation of each stage of the fieldwork investigation, to include the ethical dimensions of the field research. A successful evaluation should also contain perceptive and well-considered reflections on further research and extension of their geographical understanding.

The strongest investigations made good use of the marking criteria in order to ensure that all elements of the investigation had been evaluated. Most candidates referred only to their methods and results (yet were often awarded marks in Band 5), and omitted elements such as planning, literature, choice of study location and conclusions.

Similarly, ethical issues were largely ignored by all except the strongest candidates, and very few could make meaningful suggestions as to further study; where this was addressed it usually involved repeating the data collection, collecting more data or avoiding rainy days and 'if I had more time'. It would be hoped that candidates can be encouraged in future to actively engage with a meaningful evaluation of the successes and challenges of their investigation. Where candidates had truly engaged and been inspired by their choice of topic and field of research, the quality of evaluation was far stronger.

We would wish to take this opportunity to remind centres that the submission date for NEA samples in 2020 is **Friday, March 20th, 2020**.



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