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Examiners' Report

June 2009

GCE Geography 6GE01/6GE02

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Overview

Some of the human and physical Geography questions set in May 2009's Unit 1 would have been fully accessible to previous generations of A-level Geographer – for instance, topics such as the causes of urban growth in emerging economies, boundary hazard distributions, rising flood risks, fair trade and population structure change. In addition to these familiar themes, many new areas were also examined - including past causes of climate change, global warming predictions, internet networks and our "shrinking world". In short, the first summer sitting for the paper mirrored the new Edexcel Specification as a whole – there is plenty of brand-new, topical content, yet important classic elements of the Curriculum 2000 A-level(s) have been retained. In line with the national Action Plan for Geography, the Edexcel A-level has taken a big step forwards into the 21st century. The considerable enthusiasm students are reported to have for their new course was certainly evident in their keenness to employ all of the new concepts, frameworks and viewpoints they had learned about – such as global networks and disaster hotspots - at virtually any opportunity!

Teachers will know that Unit 1 builds an interconnected framework for geographical inquiry to help students grasp the big picture of current global changes and challenges – helping students to gain a "different view" of the world they live in (to quote the new Geographical Association manifesto). The scripts seen this summer showed the overwhelming majority of candidates to be quite at ease working across a wide –ranging set of global (and some new local) themes – and to frequently be able to *synthesise* this knowledge. Thus, the growth of megacities was picked up by many as an important factor helping explain why flood risks are rising (in Question 2); while others intelligently applied knowledge of their (compulsory) Mediterranean migration case study to Question 10's examination of the challenges of an ageing population.

Some excellent teaching by Edexcel centres seems to be delivering a sense of "joined-up geography" for many Year 12 students – who are, in large numbers, already thinking synoptically and developing a sharp-edged geographical imagination.

Section A

As was the case for January 2009's paper, the highest-scoring candidates were not necessarily those who wrote the most words. Section A questions are designed to be easily accessible, succinctly answered and ultimately to be point-marked, rather than level-marked. Thus, a question such as 3(d) – which asked candidates to "identify some natural causes that have led to past climate change" – did not require a detailed analysis of why past orbital changes may have occurred – merely a simple acknowledgement that there have been axial and orbital movement over time, and that these, alongside sunspot activity and volcanic dust clouds, have caused mean planetary temperatures to sometimes vary.

Sadly, some candidates still do not appear to understand that Section A is not testing their depth of knowledge – instead that is the purpose of Section B. As a result, a proportion of entries spent far too long writing quite exhaustive responses to the short tasks set in Section A – and as a result found themselves with insufficient time left to complete their Section B essay satisfactorily.

It is vitally important that future candidates are continually reminded *that they are not expected to fill all of the answer space provided* – and they should certainly not need ever to exceed the space provided, unless their handwriting is unusually large.

Section B

Some excellent essays were seen by the marking team. Candidates made good use of their case studies – both the compulsory ones (some applied their knowledge of the Philippines hazard hotspot in Question 7, or of Mediterranean society in Question 10) and centre-led choices. Other highlights for those of us marking the candidates' work were seeing: sophisticated understanding on display of the complexities of

player-network-building (Question 8); mature, critical thinking focused on Fair Trade (Question 9) and the challenges of a greying population (Question 10).
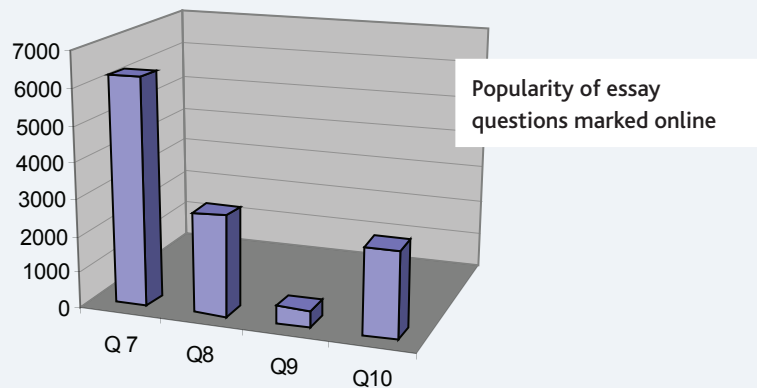
Following a trend set earlier in the year, the natural hazards essay (Question 7) was incredibly popular. Unlike January's question, which focused on changes in disaster frequency, the title on this occasion directed candidates away from disasters and instead towards *hazard* distribution – thereby ideally requiring an answer that could show a good understanding of the physical processes that drive plate boundary movements (in order to explain the distribution of boundary hazards).

However, significant numbers lacked the depth of understanding of physical geography required to proceed much beyond Level 2 – and perhaps might have enjoyed greater success applying themselves to the issues-led Fair Trade essay (Question 9).

Patterns have quickly been established for many previous Geography Syllabi and Specifications whereby "the hazard question" becomes the "default setting" for too many candidates – irrespective of whatever particular slant the question has been given (meaning that people attempt it even when they have hazard knowledge gaps that will clearly be shown up). Over time, we would prefer to see increasing numbers tackling the other themes. Indeed, with such a wide-ranging and diverse course to give question-paper coverage to in the years ahead, there can be no actual guarantee that a relatively straight-forward essay on natural hazards will appear each and every session!

Some candidates struggled to complete part (b) of their essay – but in the vast majority of cases this was due to poor use of time and un-necessary overspill appearing in Section A. It is good practice for teachers and candidates to "standardise" themselves – through the process of testing and mock examinations – in order to make sure that responses in Section A are kept short and are appropriate to the task set and the time allowed . Some candidates currently produce mini-essays for the longer parts of Section A questions. To do so is a mistake.

Comments on individual questions

Question 1

Parts (a) and (b) were entirely straight-forward, although some candidates mistakenly thought that "famine" is a type of natural hazard. The Specification clearly describes six major hazard types - but some candidates appeared to have a knowledge gap. Part (c) examined the third strand of "World at Risk." This requires candidates to assess the hazard risk "on people, property and the environment in their local area". The teaching suggestion that is given in the Specification is for candidates to "explore the local area." This would clearly seem to be directing them towards taking a look at their own locality. Some centres had, for instance, delivered excellent teaching of flooding and other climatic or minor geophysical risks found in Oxford, Essex or elsewhere (the first of the following examples scored full marks).

(c) Identify the natural hazard risks in a named **local** area.

(5)

Named **local** area ..Oxford..

Flooding and drought affect Oxford. In 2007, flooding was a major problem due to surface-run-off into the Thames and Cherwell rivers. It has been a risk exaccelbated by human development as poor land-use planning has led to development on floodplains and there is no space for rivers to expand as buildings are positioned on the very edge of banks. Hot summers can lead to drought if blocking highs prevent the usual source of precipitation which is from coastal rain moving across England.

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Examiner Comments

The first example is detailed, precise and uses excellent terminology –it scored full marks. The second example scored just 2 marks. The river is certainly a risk but the links with climate change are not explained correctly until the final point about irregular weather appears. Note that the first response left two lines un-filled and still got full marks.

(c) Identify the natural hazard risks in a named **local** area.

(5)

Named **local** area Stoke-on-Trent - river trent.

The natural hazard of this area is the risk of flooding to the river. The flood ~~and the~~ Climate change could be one major problem to this because as the globe warms, the greenland ice caps are melting, increasing sea level, resulting in ~~the~~ more water been passed through the river. Another reason why climate change could affect the flooding is that weather patterns are irregular these days meaning heavy rain falls could overflow the river.

Some candidates interpreted part (c) as directing them to discuss the risk found in *any* locality – and this was deemed as an acceptable approach by the marking team. Thus on this instance many candidates performed well by delivering an account of risks found in either California or the Philippines.

Question 2

Taken as a whole, Question 2 produced rather polarised outcomes. The strongest answers rightly took the African continent to be a *diverse* mixture of environments, nations and people - and those candidates had no difficulty whatsoever in tackling part (b) by quickly outlining potential coastal agricultural losses (some even mentioned losses to aquaculture) as well as flood plain losses. The same people also knew that famine can hit both commercial and subsistence farms - and in numerous ways according to whether the system is arable or pastoral. Well-prepared candidates also made focused statements that dealt explicitly with actual examples of farming in part (c) also. The Specification makes economic impacts of climate change in Africa a compulsory case study; thus it was not unrealistic to assume that candidates should have some specific knowledge about the risks for African farming.

Surprisingly, a significant number (perhaps as many as one in six) either did not know what "famine" meant or misread part (b). Typically, these candidates wrote instead about the spread of disease by flood water – and often provided highly detailed information to support their answers. However, disease could only be credited if it could be shown to lead to famine (for instance, some answers discussed water-borne disease killing cattle thus causing food shortages for people).

Some very good explanation appeared in responses to part (d). The question gave candidates an opportunity to offer a range of reasons why more people are affected by flooding than in the past - such as urbanisation, population growth and deforestation. Many scored well here although few accessed the idea of increasing hurricanes / tropical storms driving water inland (as seen with Burma's Cyclone Nargis in 2008). However it was good to see a sizeable minority talking about the importance of mangrove removal.

(d) Suggest reasons why increasing numbers of the world's people are affected by floods.

(4)

This is because global warming has created a warmer world. The added temperature has caused rapid melting of ice sheets in the Arctic, and as ice melts, methane gas is released, adding to the warming effect. If the Greenland ice sheet was to totally melt, there would be a global sea rise of 7m; this shows that melting ice raises sea levels and would cause floods. The warmer climate also has increased the amount of storms and storm surges, such as Hurricane Katrina in New Orleans. This created a storm surge of 5m which caused wide spread flooding and defied the dyanse

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Examiner Comments

Answers in Section A are 'point marked'. Each reason given is worth a mark, or tick, but so too is any example used or extended argument that helps to develop the initial point made. So this answer gets full marks by developing two ideas – that of sea-level rises (developed by mentioning the Greenland ice sheet) and storm surges (developed by mentioning New Orleans) . The point about methane is not quite right – it actually escapes when permafrost on the *land* melts – but this does not mean marks should be deducted from what is otherwise very good. Therefore this answer still receives 4 marks overall.

Question 3

The descriptive task was tackled fine by most, although a minority of candidates read the graph wrongly and confused increasing loss of ice with an improving situation (they thought there was less loss of ice).

Some struggled to answer part (c) directly. As the resource clearly reminds us, climate change has actually been known about and indeed anticipated for some time now – and the first predictions of ice loss are shown in Figure 3 to have been made several decades ago. Thus the expected answer to the question was not "because climate change is happening" but instead: "because climate change is happening faster than we expected" – a statement which then opens up the way for a quick discussion of "runaway" emissions, linked perhaps with stellar economic growth for the world's emerging economies – or with positive feedback effects such as albedo changes.

Part (d) has already been referred in the opening section of this report and was answered well by most - although a common misconception that crept into students' work was that volcanoes emit carbon dioxide and cause global warming. The correct link between ash/dust emissions and global dimming was not always well articulated.

(d) Identify some **natural** causes that have led to past climate change.

(4)

Change in solar output gives out different levels of heat into our atmosphere and so causes climate change variations in the orbit also lead to climate change depending on how close to the sun we are and what side of the world is receiving the most solar energy. Another natural cause of climate change is meteor impact which adds dust and heat into the atmosphere causing climate change.

(Total for Question 3 = 12 marks)

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Examiner Comments

Three points are made – solar output, orbital changes and possible meteor impacts. Another idea is needed for full marks – such as a volcano erupting and causing global dimming – or alternatively an extension or example is needed to support one of the points already made (such as distinguishing explicitly between orbital changes and the axial tilt of the Earth).

Question 4

Part (a) was well-attempted by the majority but part (b) was a surprising hurdle for lots. Demographic driving of urbanisation (correctly defined as an increased percentage of people living in towns and cities) is a cornerstone of human geography, a fact that appeared to have gone unappreciated by a great number of candidates. In too many cases, answers focused solely on industrial development in China with little mention of how this leads to urbanisation. It had of course been hoped that candidates would mention TNCs and out-sourcing but to help support an account of push-pull factors for rural migrants.

The strongest answers simply checked off the key ideas quickly, by mentioning in turn rural-urban migration, agricultural modernisation, the bright lights of city life and – in cases like China – major investment by TNCs providing plenty of work opportunities.

(b) Suggest reasons why rapid urbanisation is taking place in countries such as China.

(4)

> Rapid Urbanisation is happening in countries such as China, as China is just going through it's industrial revolution, and it needs to expand it's urban areas to make way for new factories and power stations. It also needs new workers, and people will be moving to the urban areas, looking for jobs and for better wages. Their Accomodation will have to be provided/will be set up for them/by then.

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Examiner Comments

The first example here is typical of many student answers that only scored 1 or 2 marks because they wrote about industrialisation yet said very little about the root cause of urbanisation: rural-urban migration

(b) Suggest reasons why rapid urbanisation is taking place in countries such as China.

(4)

Rapid Urbanisation is occuring in China due to high investment in China by Transnational Coorporations (TNC'S). TNCs are building factories in China which creates jobs for the people of China. This makes people move from rural China into urban areas. This happens because of improved communications such as internet and television which allows people in rural china to see the oppourtunities available in urban areas.

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Examiner Comments

The second answer is better. It is clear about the nature of the rural-urban migration underway, has details of pull factors and also mentions the role that communications play. This scored 3 marks and would have received full marks if push factors in rural areas had also been mentioned.

Part (c) responses varied in quality quite notably. There were some very weak answers from a significant minority that were banal, assertive and lacking in specifics ("because the migrants have no money"). The best answers – and there were a good number of these, as Results Plus can show – had made the leap from GCSE to AS level and could grasp the bigger picture of governance. They knew that the sheer speed at which changes are occurring in consolidating and maturing megacities makes it an impossibility for any kind of city governance structure to be able to deliver a rapid response to the housing crisis – and to be able to solve the slum problem.

Question 5

This question was clearly tied to one of the new Specification's more novel strands – taking a look at connectivity, network growth and what human geographers have for many years called time-space compression (a complex term which many candidates actually knew and could apply). Responses to part (a)(ii) tended to be polarised – either they simple asserted that some places are rich and have better technology (or are not and do not) or else they could say far, far more.

In the stronger answers, the "bigger picture" was clearly grasped; good candidates understood the diverse technological needs of global hubs – places where TNCs want to remain in constant contact with suppliers and markets overseas; or where affluent citizens make their own online financial investments or are at least able to afford broadband subscriptions that allow them to use *Facebook* or *Twitter*.

Part (b) was generally well-attempted. Some students were able to provide a good range of ideas connected to the idea of a "shrinking world", and could make nice, sometimes personalised, points about the perception of a "global village" that online social networking gives – or alluded to the global strategies of TNCs, such as McDonald's making far-away places actual feel more proximate to one another due to the converging similarities of High Streets in London and New York.

(b) In what ways do transport and communications technology create a 'shrinking world'?

(4)

Because of new technology we are able to send E-mail instantly all the way across the world when 100 years ago this was not possible. In 1700 it would take at least 7 months to travel to Australia from the UK now it takes a Day. and new Air buses can carry up to 600 people at a time. Better communication allows companies and TNC's to place factories abroad and keep in touch everyday due to cheapening long distance calls, internet and budget airlines. "Easy jet"

1700 Boats   1930 Air planes   1990 internet

(Total for Question 5 = 9 marks)

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Examiner Comments

This answer is full of facts that explicitly relate to the idea of reducing travel times and a sense of instantaneous connectivity. Unusually, it even volunteers suggestions as to who is experiencing a shrinking world – TNCs, ordinary people, etc.

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Examiner Tip

This response shows that a diagram can usefully convey understanding in Section A. If this candidate had been running out of time, (s)he might have gained a couple of marks from the sketch alone. Remember to always use a dark pen though *as scripts are later scanned for online marking*.

Question 6

Part (b) was poorly answered by a great many who chose to ignore the question set and instead answer the imagined question "why do migrants want to come to the UK?". The correct answer – for the actual question that appeared on the paper – required students to show clear understanding of a very important idea in human geography, namely that there are always two different processes contributing to population changes in places: migration and natural increase. Thus the wording "is most likely to come from" ideally prompted candidates to *discount natural increase as a cause* (due to falling fertility) in addition to writing about migration as a cause (supported by their knowledge of changes in EU membership).

(b) Suggest reasons why the increase shown is most likely to come from economic migration.

(4)

> Economic Migration is likely to be the main factor to the increase. This is because the U.K is a MDC (More Developed Country) and there are many jobs and riches to be made in the economic Side of life. As well as this economic migration is an advantage for the government as they get more money from taxes etc therefore they may let economic migrants in easier rather than other migrants.

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Examiner Comments

The first response is a not a good answer to the question set. It scored just 1 mark - all it consists of is a couple of generalised assertions telling us that migration into the UK takes place and brings benefits. The second response is far, far better. It answers the question directly by firstly ruling out natural increase as a cause – before discussing rates of migration with a specific EU focus. It scored full marks.

(b) Suggest reasons why the increase shown is most likely to come from economic migration.

(4)

> The increase is likley to come from economic migration as the birth rate in th UK has fallen to almost below the death rate so, due to increased cost of living and an increase in the number of women working, this causes a very very slow natural increase. However due to the EU people within the EU can work freely in the Uk from other countries, mainly poland. These economic migrants are usualy under 34 so, are likley to start families of their own in the UK so, increasing the population.

Part (c) was poorly answered by a great many who, despite the fact that this question was examining one of their compulsory case studies, could not come up with any specifics that clearly related to "some areas of the UK". However, some could manage to do so - and typically mentioned agricultural needs found in rural areas as well as job opportunities in cities such as London.

Part (d) was in contrast usually done very well. By instinct, the best candidates knew to compare positive and negative impacts. The majority of students were able to discuss issues such as source countries losing skilled workers, population being reduced as a result and thus less money spent in local area (negative multiplier). The stronger answers also included benefits such as remittances and easing unemployment.

Question 7

In part (a) many candidates effectively used the table to structure and support their answers, with the best using pretty much the full range of data supplied in addition to their own examples. Level 3 answers typically discussed a good range of causes not given in Figure 7, such as the magnitude of earthquakes and time of day. The best answers also mentioned places such as San Francisco and Japan having better technology and buildings that can withstand earthquakes. The stronger answers also discussed locations such as Bam in Iran, where the buildings are poorly built, resulting in more deaths.

Weaker answers simply focused on fatalities and gave a few general reasons why people died - such as not been prepared, or poorly built buildings. A commonly recurring mistake that was seen consisted of students reporting that "LEDCs" lack any technology to predict the earthquakes whereas "MEDCs" do have some sort of predictive technology – and of course they sadly have nothing of the sort.

Problems for weaker candidates in part (b) centred around the adoption of a descriptive approach to the question, a tendency to introduce a discussion of the possible consequences of earthquakes; a lack of specific detail and a tendency to write about hydro-meteorological hazards in addition to geophysical ones.

The majority of the better quality responses were able to explain the distribution of two types of geographical hazard but few were able to construct and produce a wide ranging account. The most popular locations quoted were California and the Philippines. The very best answers showed excellent understanding of the mechanisms of plate movements, attempted to tackle the idea of a mass movement distribution (perhaps linking it with coastlines) and wanted to discuss the idea that the greatest hazards exist where the greatest number of people are also found.

Landslides are becoming more common as people build on steep slopes such as the Brazillian slums This means they are becoming more vulnerable as rainfall can wash away whole villages. Also increased ploughing of hillsides means they are more vulnerable to erosion

Geophysical hazards occur at plate boundaries where two plates meet. They [earthquakes] also occur at fractures, where the intense pressure has caused the ground to crack. They occur all over the world however the majority of [geophysical] hazards occur on the plate margins putting the poor vulnerable populations most at risk. The recent Chinese earthquakes shows that [different] locations are becoming more affected suggesting that the distribution of major hazards is changing and becoming greater.

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This is an extract from the end of a good Level 3 response to part (b). On previous pages, the candidate had already delivered a fine account of tectonic hazard distributions. Here on the final page we are additionally given some insight into where landslides are found (although the idea of an overall distribution pattern is lacking). In closing, the human aspect of hazard mapping – the idea that the greatest hazard risks are found where there are also high densities of vulnerable people – is also touched on.

Question 8

There was a tendency for candidates to just describe a range of impacts of global warming rather than address the "increasing severity" element in part (a). This was achieved most effectively when answers were structured around key temperature increases. There was usually a grasp of rate, with many candidates showing a clear grasp of the principles of systems and the role of positive feedback, combined with good levels of specificity in relation to specific environments, often Tundra or Boreal Forest. Good use was also made of the Sahel as an exemplar.

Question 9 ☒   **Question 10** ☒

a) The warmer the temperature and the larger the temperature rise, the more severe the environmental impact are likely to be.
This is because, partly, to the positive feedback systems that occur. For example, the warmer the temperature, the more ice is melted at the poles → the lower the albedo (reflectivity) of the Earth's surface – black seas → less radiation from the sun reflected back to space → the warmer the Earth becomes.
The higher temperatures, caused by the enhanced greenhouse effect

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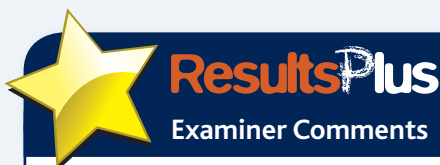
From the outset, it is clear this candidate grasps the key idea that larger temperature rises create much more severe impacts. Positive feedback is dealt with straight away – showing this student was right on track for full marks in part (a).

The marking team reported that responses to part (b) showed knowledge of this new curriculum area to be improving rapidly. Many candidates wrote confidently about carbon sequestration, trading or off-setting. Details of animal methane management even also appeared in some accounts. The term "players" was also clearly understood and a wide range of examples were provided, from individuals through to international organisations. The very best answers showed how players – or actors / stakeholders – can form durable networks and work together.

On a more global scale, the organisation EUETS which stands for European Union Emissions Trade system regulates how much pollution different industries all over the world can emit. This has been done by introducing 'carbon caps' which limit how much pollution a company can create. This limit allows companies to change their behavior towards green energy and green schemes. The IPCC which stands for intergovernmental panel for climate change has created some guidelines that it hopes the world will adopt. This includes changing people's and companie's behaviour towards reducing green house gas emissions (GHG's). They also try to promote research into creating new technologies to reduce GHG emissions. I believe that without the

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This is an extract from an answer written by a student who has clearly done a lot of homework on this topic! The details are excellent, as is the overall focus on players and agency. This gained a high level 4 mark overall.

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Examiner Tip

Remember that marks are set aside in the essay question to assess each candidate's quality of written communication. This is an example of a good – though not perfect - standard being reached.

Question 9

This was not a popular choice of question and produced polarised results. Weaker candidates stuck like glue to the resource in part (a) and even the most able did not always introduce sufficient numbers of their own ideas, or extended thoughts, to warrant a Level 3 mark. Typically, very few actually referred to Christmas in their answers - which instead became a general account of different groups' likely views. The few who did appreciate the seasonal slant of the question wrote excellent and quite thought-provoking accounts.

Although the majority could offer ideas about Fair Trade in part (b) these were always not well-developed. A wider interpretation of ethical purchasing did not feature in many answers, although there was some mention of the Co-operative Society, Waitrose Foundation and generic "buy local" ideas.

Question 10

Most candidates managed to develop their responses to go well beyond what was provided for them by the resource, with very mature analysis emerging in some cases - for instance, commenting on how our employment has changed (using the sector growth model to support the idea of employment changes); or mentioning a range of reasons for fertility decline; or acknowledging the relationship between ethnic diversity and the UK's position as an ex-Empire global hub

Part (b) was generally well done although many examiners were rightly concerned that unfair and unrealistic stereotypes abounded. Far too many Year 12 students appear to think that the grey population do not pay taxes *en masse* and are quite the burden to society.

Most answers correctly focused on the need to raise future funds from a dwindling workforce, although not many looked at impacts on named localities like Eastbourne or Bournemouth. There was intelligent use of the compulsory case study documenting OAPs retiring to the Mediterranean. The best answers intelligently saw that the challenges were socially and spatially differentiated – not all old people lack savings and not all places have the same local tax burden to support the very old and frail (people in their 90s and over).

> The greying population will, however, have large amounts of disposable income in which they can spend. This will boost local economies.
>
> When some people reach retirement age, they tend to move abroad, for example to the Costa del Sol. 750000 Britons live there permanently, with 60% of them being retired. They are therefore spending their the 'grey pound' in other areas that will have no benefit to the UK

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Examiner Comments

This is a great example of a candidate intelligently giving the right 'spin' to case study knowledge in order to answer the particular question that had been set. Here we learn that the decision of retired Brits to take their savings overseas is bad news – and thus a challenge - for the UK. The student also brilliantly avoids repeating the misleading cliché that ALL retired people need supporting by the state. In fact, they have plenty of money to spend – the trouble is that they are spending it somewhere else, which hurts British businesses! Level 4.

Unit 6GE02 Geographical Investigations – June 2009

General Comments On Performance

One again this paper proved generally accessible to candidates across the ability range. As in January 2009 Question 2 ('Coasts') and Question 4 ('Rebranding') were the most popular and Question 3 ('Unequal Spaces') the least. The popularity of this series is shown on the graph below:

Question popularity (%) 6GE02 June 2009
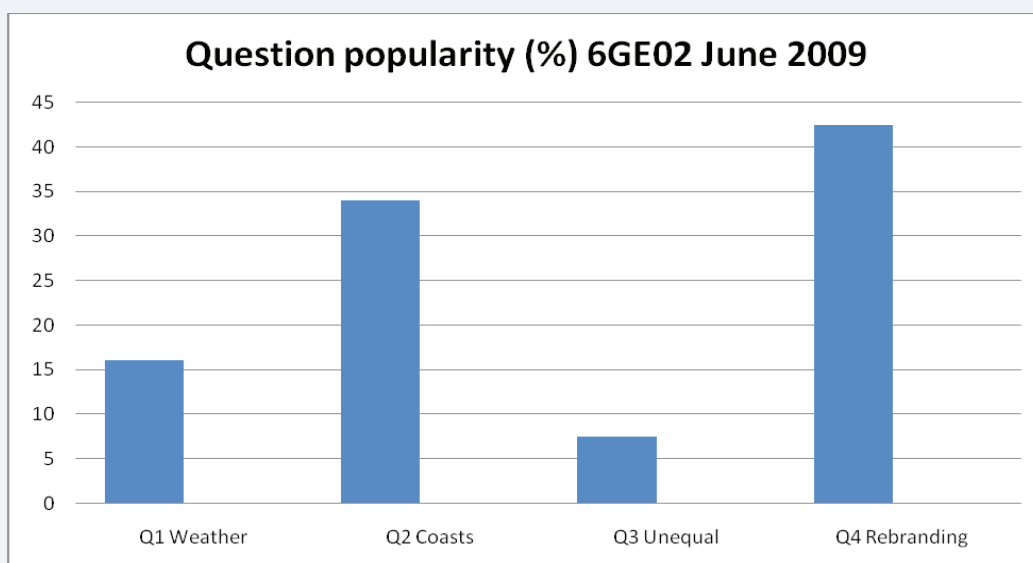
The total entry for this summer series 6GE01 was approximately 11,200 candidates. Generally performance was good (seemingly improved from January) with very few examples of candidates committing rubric offences, e.g. two questions from either Q1+2, or using the wrong resource to answer a question.

As with all new examinations there is a period of bedding-in, but most candidates seemed to time their performance well. There were **some timing issues** evident as we might expect (this was found to be the case with the introduction of the legacy specification as part of Curriculum 2000), and examiners found evidence of some candidates having **difficulty in completing all questions in the time set**.

Due to this, we are pleased to inform you that we have now gained approval from QCDA to extend the time allowed for this paper. Starting in January 2010, the duration of the examination will be 75 minutes, giving candidates an extra fifteen minutes to complete this paper.

There are some simple **strategies** (also recommended in the January 2009 report) that can be shared with candidates to help improve efficiency

* There is no need to expect candidates to fill all the **white space** available. There were some exemplary full-mark responses where candidates had only used 60-70% of the available page space. Their responses had been thoughtful, accurate and concise. Writing using a crisp style paid significant dividends to candidates as they were able to manage their time effectively.

* In many instances, the simple difference between **describe and explain** needs reinforcing. Many candidates spent too much time giving processes or causes, not linked to the question. Candidates should be helped to interpret **command words** effectively.

* **Bullets** and **numbered lists** can be used as part of an answer (especially useful if short of time), but candidates should avoid only using a list. Bear in mind that bullets work well for describe type answers but can be less good for the explain responses.

- Again it was common for some candidates just to **provide a narrative of all the fieldwork / research** they had done, rather than appreciating the need to link their answer more fully to the question set, especially in questions 1+2, the physical options. Again, tighter focus would have saved time more effectively.

- The number of candidates who used **additional sheets** (<1% of cohort) were much lower in this summer series compared to January. It is important for candidates to recognise that they were sometimes self-penalising. In the time allowed for particular questions they had a tendency to repeat comments that they had made earlier and then found themselves short on time for other questions (see comments on 'maxed-out' below).

Other general comments relating to the exam performance include:

- Questions which require discussion of **fieldwork and research** were sometimes lacking balance between what was done 'in the field' and additional research. Weaker candidates just indicated they had 'used the internet' which lacked convincing depth of detail or evidence of real research. Linked to this is the absence in many answers of any real reference to **sampling** or details of how a programme of fieldwork could be developed.

- Some candidates devoted too much time to one particular question, recognising the question and then went into overdrive. This can lead to far too much time being spent on one question and then running out of time.

- The **use of language**, particularly the precision which **terminology** is used and the **structure** of individual responses, remains a barrier to success for many students. If figures contain data, students need to be coached to use this data **directly** in their answer, particularly when commenting on possible limitations (Q3+ Q4). Some candidates would do well if they did not do too much 'rambling' at the beginning of questions, merely repeating the question and giving too much irrelevant information before embarking on the answer to the question. Best advice is to get straight to the point!

- The **use of examples** is often sketchy. Some questions ask for examples, whereas others do not. Candidates should remember that using examples in **any** question will gain credit if they are accurate and appropriate.

Comments On Individual Questions

Question 1

1a For the majority of candidates, the accessibility of the resource allowed the opportunity to show their implied understanding of GIS by linking areas of flood risk from the top map to the impact that flood risk would have on housing and infrastructure etc in the bottom map. At the top end there were some outstanding answers that not only showed the candidates good understanding of GIS (and idea of 'layers') but also allowed them to show their own knowledge and understanding linked to case study material.

Example 1 – understands the idea of GIS and selectable layers

GIS can have special features which allow you to take certain layers off, with this you could show where flood defenses are at the moment. Like those built in 2005 in Shrewsbury we would expect the area behind the defences to be less effected by a flood than those areas without defences. This different delayering can also help us establish what will actually be affected if there was a flood. It can show translations, schools, Power lines, water supplies and other communication methods that all could be damaged from a flood. These

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Examiner Comments

This candidate has shown clear understanding of GIS principles by making reference to 'layers' and then linking it to the question set.

A few candidates, however, went off the point and included a discussion of fieldwork and how they might go out and collect data, rather than using the resource provided. A small minority were confused by the key. They were unsure whether Shrewsbury was coastal or built next to a river.

Examiners reported how it was apparent from reading some answers how basic GIS and digital maps such as Google Earth and Google maps had been into the teaching and learning of this topic by some centres. These candidates in particular were much better able to tackle this style of question.

1a A very important part of this question was the linking of **both fieldwork and research** to some element of **flood risk**. Many candidates were able to discuss a good range of fieldwork, often based on channel geometry, catchment hydrology, land use changes and meteorological / weather data as well as the use of bi-polar scoring to evaluate risks and flood defences. Any mention of sampling designs / frameworks and good use of technical language was well rewarded by examiners.

One of the main reasons for some weaker responses was that some candidates **failed to mention any research** that was linked to changing weather conditions. If this was the case then they were restricted to

Level 3 and a maximum 10 mark reward. However, examiners reported that there was more evidence of higher quality web research compared to in January.

Example 2 of a very detailed account of possible secondary data and additional sources

> been put into place. Local newspapers would also give us a good idea whether the risk is increasing. The National River Flow Archive can give us data on the river (e.g. discharge, velocity), and we can use the ~~numbers~~ data and compare it over time to see if the discharge has increased, which could increase the risk of flooding.

ResultsPlus
Examiner Comments

The explicit use of a range of types of research information has been well linked to the question, i.e. flood risk.

However the idea of "increased risk" of flooding proved challenging for some candidates and as a result their answers tended to be too much about research into the impacts of flooding generally (as a case study), often with an imbalance between primary and secondary research.

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Examiner Tip

Candidates should avoid the generalised 'we did this' narrative and instead link their own fieldwork experience to the question. Selection may be important here.

1c This question generated a very wide variety in terms of quality of responses. The word "value" in the question proved to be a stumbling block for many students who wrote about new technology and how it could forecast extreme events but they were unable to comment on the *usefulness* (or not) of the technology. Some students seemed to get confused with their studies related to World at Risk, and lots wrote about forecasting earthquakes and volcanoes rather than extreme weather events. Several students linked in case study material of the New Orleans floods.

Examiners were open-minded in their interpretation of 'new technology' and allowed a range of ideas including dam building etc. To access the top band it was important for candidates to mention both forecasting and management.

Example 3 – no credit for this – tectonic hazards

(c) Examine the value of **new technology** in the forecasting and management of extreme weather events.

(10)

New technology has greatly helped peoples safety such as in Japan and now California where they are given a 3 second warning prior to an earthquake and in Japan they have foundations that wibble but won't fall down unless the earthquake

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Examiner Comments

This is not linked to management of hazard *weather* events so this part of the response would not be worth any credit.

Example 3 – Very competent, exemplified response extract

Firstly, the NOAA use doppler radar and conventional radar to detect and track hurricanes, and and this helps to see predict the track of the hurricanes and to give appropriate warnings for evacuation. This was used in the case of Hurricane Katrina in 2005, where warnings led to 80% of the city being evacuated. However, hard engineering techniques, such as levées led to a storm surge leaving most of New Orleans flooded. Thus new technology has not always helped in management but sometimes worsened the impacts.

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Examiner Comments

Clearly discussing new technology; factual. Evaluative and reflective – looks at 'value' towards end. Liberal interpretation of new technology to include levees.

ResultsPlus
Examiner Tip

Too often it was always "brilliant" and "will save the world" so did not really know how (or any) limitations of the technology. In this respect 'the idea of value in respect of technology was not really considered.

Question 2

2a As with 1a, levels of understanding of GIS varied considerably by individual and centre. However the resources seemed accessible to the majority of candidates and on the whole were used effectively. Some answers showed an excellent grasp of GIS and digital map (an excellent resource to use here is the Geopacks Coastal Manager http://www.geopacks.com/Coastal_Manager.aspx).   A particular aspect which differentiated at the top end was whether or not answers fully addressed the different "types" of coastal management as opposed to general discussions on protection. Also some candidates struggled to achieve Level 3 as they failed to recognise the idea of "layers" of GIS even though it was specifically mentioned on Figure 2.

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Examiner Tip

Skills of using photos and other resources should be practised under timed conditions before the exam. The 'a' part questions for this Unit are normally resource based – it is very important for candidates to be able to link answers to the source.

Example 4 – clear understanding of GIS layers

(a) Suggest how geographic information systems (GIS) help us understand the need for **different types** of coastal management strategies.

(10)

GIS is a computerised system which allows different content to be layered eg: maps layered to show population , the areas at risk ect. With GIS old maps can be used and layered to display rate of erosion overtime or to display the geology of the rock and what areas are most at risk. With the technology of GIS we can deitermine the type management to be used for a certain litteral cell, they are broke into two groups, they are hard enineering, this is where intrusive enlimeering work is involved and soft enimeery which either embrace , adopt or supplement natural processes. With chosen the method GIS can help to see the value of the land and what areas are in need of protecting the most. for example the

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Examiner Comments

Good start to Q2a – shows understanding of GIS and layers, also provides examples of how it can help. Knowledge of coastal defences / management is also shown.

At the bottom end some answers were very narrow and just simply descriptive of coastal processes. Some candidates failed to appreciate the need to refer to the resource. A very small minority used Figure 1 rather than Figure 2 for this question.

2b A parallel question to 1b, there were a mixture of focused and highly relevant responses interspersed with answers that were vague and with only limited reference **effectiveness of coastal management schemes**. The mark scheme seemed to accurately describe how the candidates dealt with this question. Only the most able commented on effectiveness but the majority were able to use their knowledge and real place references to achieve level 3. A lot of work seen on Holderness but also excellent work from North Wales and other parts of the coast, including overseas.

Typically, beach transects, sediment analysis and bi-polar assessments of existing defences were linked to secondary sources such as the use of old photographs and maps as well as direct references to SMP's and local council web sites. It was pleasing to see many centres had carried out a good range of both primary and secondary investigations and the results of these were often used in support of the candidates responses. Detail of fieldwork (see Example 6) and good use of technical language was also often apparent.

A normally unwise tactic was to just describe all of the fieldwork / research that had been undertaken during the field visit. Some of this was likely relevant, but was poorly selected in relation to the coastal management. Candidates also wasted time writing comments that were not credit-worthy. Again some candidates were restricted to a maximum of 10 marks out of 15 if **they did not mention research**. For this topic there are lots of examples of additional research including historic maps, newspaper blogs, internet forums, old photographs / postcards etc.

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Examiner Tip

Candidates should be helped to **prepare an audit of fieldwork and research techniques** prior to the exam that they can the tie into the focus of the question.

Example 5 – good qualitative research technique

... research which could we be carried out included looking opencoding old newspaper and seeing if damage costs were reduced since the coastal management was put into place. we also looked at ...

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Examiner Comments

It is pleasing to see suggestions of how qualitative sources such as old newspapers might be tackled using 'open-coding' techniques.

Example 6 – good detail of fieldwork approaches

> For fieldwork, you could do a beach profile. By placing two ranging poles at the different berms of the beach you will be able to see what type of protection the beach offers the land, you may also be able to detect the effectiveness of groynes and beach nourishment programmes.
>
> You could also complete a bi-polar survey along the beach. Although this type of fieldwork is subjective and may change depending on time and the tide, a bi-polar analysis will give an overall impression of the state of the coastal area and wether the coastal

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Examiner Comments

A good level of specific information about how to collect primary data (beach profile). The discussion about bi-polar is also evaluative, but details of what was being monitored would have helped.

2c The majority of candidates had a clear understanding of sustainable management and a good range of sustainable techniques such as managed retreat and sand dune management were often examined in some detail. Integrated defences were not so well understood. Although some candidates wrote convincingly using case studies drawn from the Holderness and Jurassic coastlines, for many others the word integrated became synonymous with 'hard' defences. Although there can be both vertical and integrated defences, candidates need to be reminded that coastal defences work best when they work together, either vertically as one strategy aids another (i.e. rip-rap placed in front of a sea wall to stop basal scouring) or horizontally (i.e. sediment sources are not protected to allow the longshore drift to supply sediment sinks).

Example 7 – very limited linkage to question

(c) Examine the value of **sustainable** and **integrated** approaches to coastal management.

(10)

> Cost benefit analysis is always used before having the go ahead with a coastal management scheme. This allows us to see if the cost of the scheme is worth it, as how effective it will be. For example sea wall is looked upon being most effective of coastal erosion but is one of most expensive, although has longest lifespan.

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Examiner Comments

There is no mention of either sustainable or integrated management approaches in the response. Cost benefit *may* be part of the answer but it has not been linked to any specific types of management.

Question 3

Whilst question 3 was the least popular in terms of candidate choice (the majority had opted for rebranding), there is a fair degree of overlap between fieldwork and research techniques for both topics. Many of the comments raised in relation to question 3 are also relevant to question 4.

3a Many of those that answered Q3a showed good awareness of not only how the data showed inequality but also linked the inequalities to named locations from the map in the resource. The concepts of mobility, educational and technological inequalities were often well explained with relation to the data in the table. The data seemed to give plenty of opportunities to examine patterns of inequality.

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Examiner Tip

Candidates need to be taught how to do a quick assimilation of resources so that they can get down to the writing almost straight away.

The very best candidates linked the inequalities with their own case studies to show the inequalities that existed in remote rural areas.

Weaker responses just involved the usual lifting of the data although very few failed even to notice the notice the rural/urban divide. However L1 and bottom L2 responses were characterised by a lack of appreciation regarding the 'sparse rural'/ 'rural-urban fringe' inequalities. A great number drift into giving detailed reasons for these inequalities.

Example 8 good use of resource and reasoning

> Also from figure 3, it shows that all service
> provisions are better in urban areas (by a
> considerable amount).
>   Services such as an NHS dentist or second-
> ary school are shown to be around 30-50
> amount less in a sparse rural area, compared
> to a rural-urban fringe area. This displays
> the inequalities that exist within healthcare
> and education between rural and urban areas.

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Examiner Comments

This extract shows a competent response making use of the data provided. There is also a real attempt to link comments to inequality which was the focus of the question.

3b On the whole candidates tackled this question well and some had clearly undertaken fieldwork on inequalities in urban areas. Distinctions between fieldwork and research were generally clear and the very best answers included specific detail of techniques used in the field. At a higher level, some were able to describe a wide range of techniques and link their answers to patterns of inequality. Central to looking at patterns in an area was an appreciation that different or contrasting areas should be studied (see example 9)

Example 9 – good setting up of project

> **(b)** Describe the **fieldwork** and **research** you would undertake to investigate the pattern of inequality of a named **urban** area.
>
> (15)
>
> Named urban area London
>
> - To investigate the pattern of inequality in london I would first select two different areas. For example St katherine docks and Hackney. I would first look at the enviromental inequality in the two areas. I would use an environmental survey, look at the distribution of green space and use questionnaires for the people to have there opinion on the inequality in the two areas. This will allow me to compare the two areas. The investigate the pattern

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Examiner Comments

This extract shows a competent response making use of the idea of data collection into two areas – these are also located, adding depth to the answer

Regrettably a small minority of students were unable to interpret the word "urban" and still attempted to write about a rural area (see Examiner Tip).

3c Some excellent answers here, including detailed knowledge of sustainable initiatives and their funding sources. Others used examples from LEDCs to great effect, although MEDC exemplification was far more commonplace. Many candidates have learnt their case studies well and were able to 'examine success' effectively with their answers including good levels of detail.

Weaker candidates answers tended to lack detail and variety of specific rural schemes and there was a lack of examples which could be linked to reducing inequalities. There were again a few candidates who committed a rubric by using urban based examples, rather than rural – see examiners tip box opposite.

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Examiner Tip

Urban vs rural? Examiners tend to be reasonably open-minded in their interpretation of which places are urban and which are rural. A more formal definition of rural is a settlement under 10,000. However classifying somewhere the size of 'Bath' for example, (170,000 2001 census) as rural isn't going to work!

Example 10 – not a very well chosen sustainable solution

(c) Using examples, examine the success of **sustainable solutions** in reducing **rural** inequalities.

(10)

One example of a project that aimed to reduce rural inequalities significantly is SnOasis, & proposed to be situated 4 miles north east of the rural town of Ipswich Suffolk. The proposition includes creating a giant ski slope (longest in Europe) as well as a arena, hotels, restaurants and numerous other leisure facilities The main aim of the scheme is to improve the quality of life for the teenagers and commuters who live in nearby settlements and in Ipswich itself, there are currently no major leisure

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Examiner Comments

"Snoasis" (http://www.snoasis.co.uk/snoasis/?q=intro) is an example that was accepted to 'rural'. Certainly not a classic example, and questionable sustainability. It is also very difficult to examine success since the project is just in its planning stages. The best examples for this type of question must be clearly rural and actually developed in order to look at 'success'

Question 4

4a In general, the resource was well used and candidates were able to link the information to the concept of rebranding, often realising some people were happy with Wem as it is. The most balanced answers pointing out that there are some good characteristics of the town. Some of the very best answers linked the information to both *need* and also the *potential* of Wem. On the whole, there seemed to be more direct reference to resource here than either in Q1a or Qa.

As in Q1a, Q2a and Q3a L1 answers were limited to restricted lift-offs of very limited amounts of information, not picking-up on the mixed views. A few candidates misinterpreted the question as 'what strategies could Wem use to rebrand'.

Example 11 – a 'punchy' start

(a) What evidence is there to suggest that Wem needs **rebranding**?

(10)

Economically Wem does need rebranded. It is likely lost some retailing to out of town shopping resulting in 35% of shop floor space vacant in 2006 and 11% of units vacant. Here there is obviously a lack of demand causing shops to reduce supply.

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Examiner Comments

A clear start which gets straight to the point. Focused on the question, makes a statement in the beginning; uses data also

4b Again this session produced a rich variety of relevant, interesting and innovative fieldwork (see Example 12) supported by some detailed methods of research. As in January, some of the best answers made reference to real places where the fieldwork / research had been carried out. Some candidates, however mentioned too many fieldwork and research techniques that were not relevant to rebranding – it became 'this is what we did', rather than being more selective in terms of what they chosen to discuss. This again reinforces the need for careful auditing and review of fieldwork and research techniques before the exam so that students can match approaches to particular question types. This again would be a help with improving time management. Regrettably however, and as in January, some candidates became sidetracked into just describing places which had been rebranded such as Canary Wharf, Cardiff Docks, Hull etc without making any reference to fieldwork and research which was the question set. Their answers tend to be more in the style of type 'c' which is looking at successes etc.

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Examiner Tip

Review the findings of any group fieldwork with all groups. Get individual groups to write up methods, findings etc as mini-fact files and then all share the outcomes .

The table below provides some examples of types of fieldwork and research that could be used for 4b:

Primary data:	Field notes, field sketches, photographs, extended interviews, focus groups, customised 'placecheck form'. Also questionnaires (including the use of a 'pilot'), retail / shopping quality, retail diversity, footfall / pedestrian count and other personalised environmental quality assessments, litter survey, graffiti assessment etc. Determining the 'image' of places.
Secondary research:	Use the internet to research 'geo-demographic' data (e.g. Acorn and Cameo profiles), socio-economic profiles from census (National Statistics etc). Also geo-located pictures to help with place identity e.g. Flickr, Panoramio, Geograph etc. May also use VOA website to further pursue shopping quality etc. Published visitor profiles, published footfalls etc.

Example 12 – innovative fieldwork using participant observation

I would also carry out a participant observation. This is where you look at the people around and see what type of clothes they where, what age they are, what ethnic background they are from how they talk etc. From this you can see what type of people are living and/or visiting Plymouth so you can see who they have attempted to rebrand to. The problems with this stratigy is that you could miss some people out or you could be extreamily sterotypical. Also at different times of day and year different people are around, for
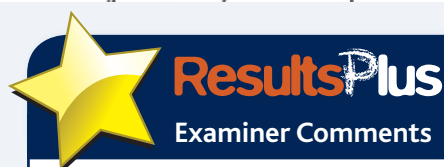
ResultsPlus

Examiner Comments

Good to see some innovative fieldwork being discussed, including description of how to do it. Later is some evaluation of the process

4c There were many different case studies that students used to examine the success of a rural rebranding scheme; however the most popular was related to Cornwall and the variety of strategies that are there. This variety meant that students were easily able to assess the success of the schemes as they had the Eden project which has costs and benefits, as well as the Film Studios which were a failure. It was good to see many candidates used considerable detail especially in terms of statistics (unemployment figures, visitor numbers and facts relating to the wider economy) . Most also tried to balance their answers by explaining how there had been disadvantages brought by the 'success' of the Eden Project.

Other examples related to farm diversification, and it was clear in many cases that students had visited the farms. A common problem, however, was that many students only wrote about one example *strategy* and so were unable to access the higher marks.

Example 13 – some good exemplification of rural rebranding

The Eden project, in Cornwall near St Agnes, has been a very successful rebranding scheme. Its biodomes which contain over 5000 plant species attract about 750000 tourists every year. This project employs directly and indirectly over 1000 people which are said to be 'sourced' locally. However, even though the benefits outweigh the costs, there are a number of disadvantages. The noise level in the area has risen and the journey for lorry drivers has increased by 30 minutes. Also, ironically, the biodomes (biomes) are the main source of CO₂ emissions in the local area.

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Examiner Comments

Good to see some innovative fieldwork being discussed, including description of how to do it. Later is some evaluation of the process

Statistics

Unit 6GE01 – Global Challenges

	Max. Mark	A	B	C	D	E
Raw boundary mark	90	64	58	53	48	43
Uniform mark	120	96	84	72	60	48

Unit 6GE02 – Geographical Investigations

	Max. Mark	A	B	C	D	E
Raw boundary mark	90	47	43	39	36	33
Uniform mark	80	64	56	48	40	32

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