

GCSE

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Geography A (1312)

Geography Short Course (3320)

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Summer 2005

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Examiners' Report

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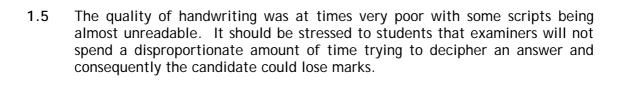
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CHIEF EXAMINER'S REPORT 2005

INTRODUCTION

- 1.1 A separate report has not been produced for the short course as the performance on this paper is very similar to the full course. Schools which follow the short course are encouraged to read the relevant reports on papers 2F, 4H and coursework which correspond to papers 1F, 2H and coursework.
- 1.2 This was the third year that specification 1312 was examined. Experience gained from the first two years was helpful to the extent that it was possible to review the 2003 and 2004 papers to try to ensure that the accessibility of the papers was maintained. The result of this was that candidates were able to answer the majority of questions and not leave blanks. There was also only a tiny number of candidates who failed to complete any of the papers.
- 1.2 No significant problems arose this year with any of the components, and indeed positive comments far exceeded negative comments. There were very few misinterpretations of any of the questions themselves, although in some cases on 2F and 4H there was a misunderstanding between LEDC and MEDC. There were some candidates who spent too much time on explaining answers when only descriptions were required. Data was invariably given when it was asked for. On 1F and 3H candidate responses to physical geography questions were not up to the standard of responses to questions on the rest of the paper. Centres may wish to address this problem. However candidates responded well to the fact that there was more map work than in 2004 and there were many high quality answers.
- 1.3 There was some evidence this year that candidates had been entered for the inappropriate tier. It became clear from reading the scripts of the poor performing candidates on the Higher paper that they might have benefited from the more structured and directed approach of the foundation tier. There were also several candidates this year who reached a standard well above that required for a C grade on the foundation paper who might have been better rewarded on the higher tier. This is possibly an example of some centres playing safe.
- 1.4 There was a great improvement in the quality of case study answers. However, this was most obvious where centres had used the Edexcel approved textbook or had used local examples with information often acquired during fieldwork. Responses from centres using other sources were often lacking in specific detail. Unfortunately for those this specification is not based on generalisations and marks were usually confined to level one.



GCSE Geography A 1312

Paper 1F

Foundation Tier

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QUESTION 1

1a i, ii, iii, iv Consistently answered accurately.

1av This seemed a straight forward question but it posed problems for many candidates who were unable to offer answers such as poor medical facilities.

1bi It was obvious that many candidates did not have rulers because lines were not accurately drawn. Many candidates lost marks on a relatively easy question.

1bii This question was generally answered well.

1biii Generally well answered.

1biv Candidates found this question more challenging. Some wrote about the needs of a youthful population rather than the advantages. A number of candidates discussed the wrong pyramid.

1c Candidates did not find this question easy. It seemed that they did not understand what was required. Few used the correct terminology. Many likened the shape to a variety of animals. One candidate thought it looked like 'an elephant with a man on its back'!

1di This question was generally answered correctly.

1dii Candidates found this question more challenging with a number choosing the wrong grid square.

1diii Candidates were generally able to identify some features to give a reason for their answer even if they had the previous question wrong.

QUESTION 2

2ai Well done. Some lost the mark due to sloppiness and inaccuracy rather than misunderstanding. Some did not use the key correctly and therefore lost a mark.

2aii Well done.

2aiii Generally answered correctly.

2b Very well answered with few candidates losing marks.

2ci Generally well answered although a number of candidates identified a farm as the main settlement.

2cii Few candidates got this question wrong.

2ciii This question posed more of a problem. Many candidates chose the wrong option.

2civ This part was well answered. It appears that the candidates knew that crops were being farmed but thought that this was pastoral farming hence the error in 2ciii.

This was the first question that required case study knowledge. The better candidates were able to quote factual detail about their chosen farm and give reasons for the diversification. Generally the quality of response to this case study was better than has been seen in past years. Example 1 shows a top level 1 answer. A number of ways that the farmer has diversified are mentioned but nothing is specific. Just the name of the airport would have been sufficient. The second example has specifics but no explanation therefore bottom of level 2.

Example 1

Diversification has happened at Home Farm. The owner has turned part of the farm into a caravan storage site. He has also turned the barn into a B & B for people to stay on their way to the airport. He also allows people to leave their cars there when they go on holiday as Home Farm is close to the airport.

Example 2

Mr Redfern has had to introduce diversification and therefore has converted his barn into a bed and breakfast. He has also charging £100 a month to keep ponys in a shed, he is also charging £3 to car park, these are all way of making money he also keeps bulls to fatten for meat. He also had problems like lack of labour and so now the whole family helps on the farm.

QUESTION 3

3ai Generally answered correctly.

3aii On the whole very well answered. The most common mistake was incorrect wind direction.

3aiii Well answered.

3bi, ii, iii, iv Very well answered.

3ci Candidates generally scored well on this answer although some were confused with tropical rainforests.

3cii Candidates found this question quite challenging and few were able to supply the necessary specific information. This was easier for those who had studied Papua New Guinea than the Amazon. Example 3 is typical of the general responses using the Amazon as the case study. Much of it is the Amazon but it is not place or fact specific. Example 4 shows knowledge of both exploitation and sustainable development in Papua New Guinea but it is confused hence scoring a low level 2.

The Amazon has been exploited in dramatic ways, a motorway has been built through it and has been deforested by ranchers etc. The government in Brazil have said for every tree cut down then another one should be put in its place. Only a certain amount of trees cut down per year so the deforestation is controlled. Only a certain amount of the rainforest is allowed to be exploited. Tribal areas should be left alone. Tours through it are run by specialised people. These points should be put in place for sustainable development.

Example 4

The forest has been exploited by having 5,000 hectares cut down for use as hardwood for furniture. People were also paid to cut down trees in the forest. The forest has been sustainably developed by the government as no logging licences are issued any more and they have also made it illegal for people to cut down trees.

Sustainable development by NGOs consists of Kikori aid 1995-2000 that land would be used as nature tourism and fish farming and butterfly farming would also be used to keep inhabitants alive. Another NGO is the Collingwood act from 2000-2003.

QUESTION 4

4ai Most answered this correctly.

4aii Generally answered accurately.

4aiii Many of candidates found this one tricky. They did not have a good understanding of what was primary employment or tertiary.

4aiv Well answered.

Very poorly answered. Very few candidates achieved full marks on this question. Example 5 shows a candidate who understands that it is a feature of glaciation. Many candidates wrote about waterfalls. Example 6 shows a candidate who has some understanding but uses river rather than glacier then puts both on the diagram so clearly isn't sure. Example 6 does illustrate an understanding of differential erosion and has the correct process terminology but doesn't achieve full marks because idea of height difference is not present.

Example 5

A hanging valley is formed by a glacier erodes the valley and then when the glacier melts it leaves hanging valley.

Example 6

A hanging valley is formed when the rate of abrasion or erosion is slower than the main river. The tributary holds less snow meaning less weight so it does not move as fast Therefore the faster eroding glacier is bigger and is taking more away when it melts it leaves a hanging valley.

- 4bi Almost all got this one correct.
- 4bii The majority of candidates scored well on this question.
- 4c Candidates found this question challenging although responses seen were better than for hanging valleys. Many of the candidates could describe longshore drift and had an idea about coastlines changing direction. But few were able to explain what was happening. Example 7 is typical of those scoring in level 1. Example 8 is a good response which achieved full marks due to having two explanatory points.

A spit is formed due to LSD (Longshore drift) as the swash and backwash occurs material is deposited along the way which causes the formation of a spit. The direction of a spit is dependable on the prevailing wind which determines the direction of LSD taking place. A spit is land which is attached at one end while the other tapers into the sea.

There was also a diagram showing LSD which added little.

Example 8

A spit is formed by longshore drift, which is when the waves pushed by a prevailing wind come at an angle on the beach. They have a weak swash and a strong backwash and are a destructive wave, they pick up sand and other material suspend it and carry it further down the beach then deposit it when this crosses a river estuary material is deposited and builds up, when the prevailing wind stops and a secondary wind comes from another direction waves also come the opposing way and this is what forms the curved end of the spit.

There was also a diagram with swash and backwash at correct angles and both winds marked.

GCSE Geography A 1312

Paper 2F

Foundation Tier

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QUESTION 1

- 1ai Most combinations were seen, but four marks was a common score.
- 1aii A high proportion gave the correct answer.

1aiii Most candidates gave the correct answer for the first statement. A higher proportion gave the incorrect answer for the second statement.

1aiv Well answered. Ugly, not natural, expensive were popular. Some talked about difficulty of access and danger to children.

This proved to be quite difficult. Even if they calculated the right area they often made the mark too big and therefore went outside the accepted area.

1bii Four was the most common response.

1biii Marks were lost due to inaccurate lifts, but three or four were still the most common scores.

1biv Mixed responses ranging from good detail on causes, with explanation, to the assumption that merely listing statements such as heavy rain fell or straightening a river course was enough to link to the flood in question. The Mississippi was overwhelmingly the best answered case study with some accurate and detailed recall. Example 1 gives a succinct answer worth full marks. Example 2 was typical of many who tried to link any causes to their example and was obviously only level one. This could be an example of Foundation candidates being taught too much and becoming confused.

Example 1

Chosen river flood: Mississippi 1993

Heavy rainfall in southern Lowa which happened on 4th and 5th July 1993 (160 mm) double its normal rainfall. Another reason was that 80% of wetlands had been drained previously in the 1950's. This lead to the flood plains to over flow and flooding to occour.

Example 2

Chosen river flood: Severn

In Bewdly the river severn flooded due to climate change which made it rain a lot this was due to a hole in the o-zone layer and icebergs melting. This broke down flood barriers and many peoples homes were damaged and destroyed.

Many failed to develop their answers writing about the causes rather than the effects of farming damage. Those using The Broads as their case study generally produced the best responses. The Sahel and The Amazon almost always had no specific information. A significant number of candidates did not attempt to answer this part.

1cii There seemed to be confusion over effects and the management of problems. Majority did not reach level two because of lack of specific examples. A significant number of candidates did not attempt to answer this part. Example 3 gives a good definition of eutrophication but only to a maximum of two marks. The second part is a top level two answer with both specific case study material and explanations.

Example 3

Chosen Study: Broads England

- (i)'The broads in England is only wetland area. Farms use nitrates but when it rains these are washed into rivers causing eutrefication. As a result algae bloom using up oxygen and fish die as they have no oxygen.'
- (ii) There has been a scheme running called the Clear Water 2000 Scheme. Speed limits have been place on boats to reduce evosion to he soil on the river side. Farmers are being encouraged to not use nitrates as they will be subsadised. The broads are to damaged to remove nitrate rich soil from river beds. New fish are being put in broads so they will breed. Embankments are being rebuilt so nitrates are prevented from reaching broads. Information centre built to educate people.

QUESTION 2

- 2ai Some lost marks due to sloppiness and inaccuracy. Many did not attempt it.
- 2aii 400 was the most common response.
- 2aiii Marks were lost due to inaccurate lifts, but three or four were still the most common scores.
- 2aiv Most were aware of some advantages of living in this area of an MEDC, but many failed to give sensible or acceptable answers, the terms nice and good figuring prominently.
- 2bi Most used the map to illustrate knowledge of distribution on plate boundaries, but many then continued to write about the formation of volcanoes, rather than distribution. Very few mentioned the anomaly.
- 2bii Divergent was just the most popular.
- 2biii First three answered correctly by the majority. The fourth statement caused confusion.
- 2biv Generally most showed an awareness of differences between MEDCs and LEDCs, but few could generate any specific examples. Where they did seismometers were the most common. A significant number of candidates focussed on particular volcanic eruptions and/or earthquakes without specific reference to predictions or precautions. Example 4 is just good enough for top of level two with its reference to seismometers and an understanding of the difference between MEDCs and LEDCs.

In MEDC'S it is easier to prepare for an earthquake by constructing buildings which are more able to resist earthquakes by making the foundation and the structure of the building out of concrete. In MEDC's there is better technology to predict earthquakes like seismographs and it would be easy to alert the public and evacuate through news reports. In LEDC's it is harder to predict an earthquake because there isn't that good technology which MEDC's have, it would be harder to alert people on a widescale and also would be hard to evacuate the people.

- 2ci Most answers showed some understanding of short term responses, even if these were very simple like panic or look for friends. Many wanted to write about effects which unfortunately gained no marks.
- 2cii Again many wrote about effects, but failed to develop their answers to show how these would bring long term problems. Turkey and Kobe were the most popular responses and these generally generated the most marks. Example 5 was given two marks for part i and five marks for part ii even though the explanation for the long term problem is weak.

Example 5

Name of Chosen Earthquake: Kobe

- (i) The people tried to evacuate if they could, as the earthquake was 7.2 on the richter scale. Many people were trapped under buildings as they had collapsed. The police and aid agencies had problems as many places were on fire.
- (ii) There were 20,000 homes destroyed which left 250,000 people homeless. A hundred hectares of land in Kobe was destroyed by catching on fire like peoples houses, farms and woodlands. The damage caused was over \$50 billion dollars and as Kobe is in an LEDC it would be hard to find this money without aid form other countries. It would take a long time to rebuild all the houses.

QUESTION 3

- 3ai Many disregarded scale and gave 50 not 50 000.
- 3aii Answered correctly by the majority.
- 3aiii Showed a lack of reasoning in relating increase in tourism to creation of farming jobs. Many recognised an increase in demand for food but could not then connect that to an increase in the number of agricultural jobs. Often wrote generally about increase in jobs in the tourist sector.
- 3aiv Many stated places eg hotels, beach or bar where activities took place rather than the activities. Some candidates did not read the instruction to use evidence from the photographs.

3av There were many varied responses to this question. Some answers were excellent and focused on location and site. Several candidates misunderstood the question and gave reasons why the site should not be developed.

3avi Probably the highest scoring question on the paper. The vast majority scored four.

3bi Most chose the correct answer

3bii Easy marks with lifts from the passage.

3biii Some good responses failed to achieve level two due to lack of specific examples. Malham and Yosemite tended to produce the best results. Those using Ayia Napa or Spain as their case studies tended to gain fewer marks as they focused on rowdiness / drunkenness and amenities available, rather than management strategies. A significant number used LEDCs such as Zanzibar and The Maldives and consequently remained in level one. Example 6 gives specific information relating to management and explanation of these strategies. It received full marks.

Example 6

Chosen case study: Yosemete, National Park, USA

Before the strategies were put in place cars could get into the park through many route but they turned the 'north side drive' one of the main routes into a path that could only be used by pedestrians or people riding bicycles. Motor vehicles were banned. This reduced pollution. Secondly they closed down 5 motels and turned them into lodges. They were made from local materials and fitted in with scenery very well, therefore not spoiling the views (landscape). They also banned camps from pitching near the river. This method meant the river wasn't being polluted.

3ci Zanzibar and Machu Picchu produced the best answers. There was often confusion shown between responses and effects.

Ouite a few general answers about good / bad aspects of tourism that did not score. Not many candidates mentioned named groups; even if they did they were usually not related specifically to the area. Example 7 is typical of answers that did mention groups but did not relate them specifically to the area. How do we know they are local people? These could be locals from many different areas.

Example 7

Chosen area: Machu Pitchu

- (i) Physical attractions is the Inca trail which is natural and amazing experience. People come from all over the world to go on it. It has orchids which are special to the area and wild life species which are rare. Human attractions such as the cafes on the route every two hours.
- (ii) Special effects have been felt by the local people who live there. They feel the area has become quite noisy and busy and is not as natural as before the growth. Some of the people have moved out of the area to

quieter places. The local people don't like the way the tourists wear there normal clothes and don't cohere the traditional dress of the area. They feel they are disrespectful to there traditions and cultural area. The next generation in this area are not continuing the traditional ways of the Inca and are taking on the ways of European tourists. Not doing things naturally but using new ideas and technology.

QUESTION 4

4ai Most gave 54%

4aii Most saw a general trend but only a small number saw changes within the trend. Data was often given but was not always correct. Unnecessary explanations were often given.

4aiii Well answered

4bi 25 was approx 3 times more popular than 75.

4bii Well answered although sometimes the type of pollution was written rather than the effect.

4biii A lot of time was often wasted on the effects of pollution rather than management. There were many general answers on Sao Paulo and Rio in particular. The London congestion charge was popular. Cairo tended to produce the best answers. Example 8 is an interesting example based on a local case study which easily scored full marks.

Example 8

Chosen urban area: Milton Keynes

Milton Keynes had a large amount of noise pollution in 2002 when Eminem came to the bowl. There were over 75 complaints 1 coming from Cranfield 8 miles away. This was a very high noise level and so now to manage events you need a strict licensing card to go ahead with the event. Also strict curfews were brought about to stop events going on after hours. Also noise pollution along the V6, V3 and H8 are quite bad. They have planted more trees near roads to absorb noise, and curbs have been raised higher to blackout noise. The waste pollution was also bad, in MK only 26% of rubbish was being recycled when 75% of it could be. MK therefore introduced a recycling scheme, including pink sacks for cardboard and paper and green house garden bins.

4ci A surprising number of wrong answers. This is obviously a difficult topic at Foundation level.

4cii Easy marks available for the candidates who actually looked at the photograph.

4ciii Candidates offered good reasons for and against expansion in the area and several understood the need for new housing in the UK. Arguments were stronger for expansion than against. Only the better candidates, like example 9, gave specific groups.

People for:

The government as they need to build 250,000 houses by the year 2012 due to the increase in population. Builders as it means they will have plenty of work lined up for the next year.

People against:

Residents as a lot of land is now been built on in the last few years leaving not much open land. Farmers as they don't want good land being built on. When it could be used for growing crops.

London Docklands and Reading produced the best answers. There were also some good local examples from Cardiff, Leicester and Norwich among others. This was however a poorly answered question with the vast majority of answers having no specific information. This was considerable confusion between Renewal and Redevelopment. Example 10 is a good example of the London Docklands gaining full marks for both sections.

Example 10

Name of the inner city area: London Docklands

- (i) Redevelopment on some industries have made new office blocks introducing 10,000 new jobs eg. Canary Wharf. Some places have been renewed, 17 new conservation areas, big tree planting scheme and new recreation park for sports has been produced
- (ii) As technology grew so did ships. The ships became so big that they were too big for the dockland area. Therefore dockland area was not useable and many lost there jobs. So new office blocks were built for 10,000 jobs for the people who became made redundant. Secondly houses were renewed because only 47% had there own toilet, 30% had a bath in the house. The houses were rebuilt with space and essentials. Lastly 17 new conservation areas, big tree planting schemes and new recreation parks for sports, with libraries and shops were built for the social part.

GCSE Geography A 1312

Paper 3H

Higher Tier

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QUESTION 1

1a i, ii, iii, iv Consistently answered accurately.

1av Many candidates failed to develop their answer, simply putting high birth rate and lower death rate. This received 1 mark. For the other mark they needed to give a reason.

1bi Generally accurately drawn although a surprising number of candidates failed to answer this question.

1bii An easy mark.

1biii Generally well answered. The majority of candidates used data accurately and achieved full marks.

1biv Candidates found this question more challenging. Some wrote about the needs of a youthful population rather than the advantages.

1c The majority of candidates scored well on this question.

1di, ii Few candidates had problems identifying the housing pattern. A number found identifying the square more challenging.

1diii The majority of candidates answered this accurately. However a few wrote about the correct features, having identified the wrong square in the previous question.

QUESTION 2

2ai Well done. Some lost the mark due to sloppiness and inaccuracy rather than misunderstanding.

2aii Well done.

2aiii Generally well answered.

This question was extremely well answered. The candidates were able to identify map evidence well. Some, however did forget to explain and simply quoted map evidence. A few candidates explained the location but did not use any map evidence which limited their mark to level 1 as shown in example 1. Example 2 is an example of a top level 2 answer.

Example 1

The science park is surrounded by transport routes. It has main roads and a railway track close. This means it is easy for labour to get to work and for materials and finished product to be transported to or from the science park. It has an electricity transmission line nearby to give the park energy. The nearby lakes could also be used for energy or testing of new products or ideas. It is also near to a lot of residential areas so the employees can live nearby.

The location of the science park is next to the A14 and A10 which would be good for transport of goods and materials. It also makes it easier for people to get to. It is located near colleges in Cambridge for skilled workers. On the other side of it is pleasant countryside. There is also parking located near (grid square - 4761) for workers and visitors to use.

2ci, ii Both questions were consistently answered accurately.

2ciii This question posed more of a problem especially with commercial / subsistence, a large number of candidates stating that subsistence farming is common near Cambridge.

2civ The majority of the candidates scored well on this question even if they did not achieve on the previous question. Some lost marks if they did not justify both arable and commercial. Answers were centred around the evidence of ploughing in the fields and the absence of animals for arable. For commercial they discussed the presence of local settlements and the nearby road / transport route.

This was the first question that required case study knowledge. The majority of candidates were able to quote factual detail about their chosen farm. The pupils who had studied the course text had plenty of factual detail as shown in example 4, a level 3 response. However, a number of candidates simply wrote about diversification in general which limited their mark to level 1. This is illustrated in example 3. Although there is specific information in this answer about climate it is not factual information relating to the question which is about changes. Others discussed in detail the common agricultural policy and this did not answer the question which had to be based on a farm or farming system.

Example 3

Nigel Redfern owns Home Farm in Hampton In Arden, close to Birmingham. It is 200 hectares in size, with fertile gently undulating soils. Its average temperature is 25°C, with annual rainfall of 700mm which makes it perfect for farming. However problems occurred when the EU subsidised Home Farm to produce less to keep costs down. The farm was unprofitable, so diversification was introduced. The cow sheds were turned into bed and breakfast. The land was rented out for pony grazing as were the sheds. Caravans were erected on the site only to have stealing attempts put on them and cars could be stored overnight. This has been done to ensure that Mr Redfern earns enough money to support his family, that also help out on the farm as farming is in decline.

Example 4

In 1999, Mr Redfern sustained a £40,000 loss in subsidies from CAP, an EU organisation and the price of milk also fell. He sold his herd of cows for meat and diversified the farm. Mr Redfern offers pony grazing facilities for £30 a month or £100 (with a shed). 20 caravans can be stored at a price of £250 a year. As he lives within 20km of the National Exhibition Centre he has started a Bed and Breakfast service at £30 a night single or

£45 a night double converting his old cow shed. He also offers car parking facilities at £3 a day and offers to drive people to Birmingham airport. Home farm is situated near Birmingham and Coventry.

There was also a simple location map drawn.

QUESTION 3

3ai Generally answered correctly.

3aii On the whole very well answered. The most common mistake was incorrect pressure.

3aiii Well answered.

3bi, ii, iii Easy marks very well answered.

3ci Candidates generally scored well on this answer although a few were clearly expecting tropical rainforests again! Some gave general tree adaptations rather than ones that are specific to coniferous trees. Very few candidates simply labelled the tree which is a vast improvement on previous years.

3cii This question caused candidates problems. Although many excellent answers were seen a large number of candidates did not have the specific detail to be able to answer the question. For example those who had been taught destruction of the Amazon with general comments about trees being cut down to build roads and HEP plants could not achieve higher than level 1, as illustrated in example 5, because they did not include specific detail such as the name of the road or where the HEP plant had been built. A large number of candidates wrote about Papua New Guinea with excellent factual detail as shown in example 6 which is a level 3 response. However some of these candidates did not explain their points on exploitation simply writing factual answers which again limited their marks.

Example 5

The trees have been cut down for cattle ranches so that people can graze animals. Also for mining minerals and for timber. Roads have also been built through the forest. In Brazil there are also a number of HEP plants been built. Sustainably its being developed by planting trees, also only cutting down trees in small sections and leaving the roots so that they can re-grow. When people want to clear land they normally burn the trees and slash them down which kills all the inhabitants of that section of the rainforests.

Example 6

Papua New Guinea is the third largest rainforest in the world. It is extremely biologically diverse however there are only four national parks and the forest is being exploited. In 1996 the Prime Minister legalised the sale of logging rights for areas of the forest to show that the rainforest was being managed however this step left the forest open to exploitation from TNCs. For example in Aitape, Wes Sepik in 1996 Pia-Damanasara a Malaysian company bought the logging rights to an area of

6000km2 which they aimed to clear to grow palm oil seed however when they cleared the rainforest the soil was leached of all its nutrients and therefore growth was poor. This coincided with a fall in the market for palm oil seed and as a result the land was left destroyed. A similar thing happened in Sissano Lagoon (a biologically diverse marine area) and the exploitation of the area is leading to the destruction of coral reef due to logging causing excess sediments. There have been sustainable development projects for example an oil company Chevron discovered oil in the rainforest and built a pipeline (1996-2000) but to maintain the biodiversity they encouraged ecotourism and alternative farming such as fish farming, butterfly sales as well as cottage trades such as making tapap cloth which Greenpeace helps to sell on the worldwide market. A similar project occurred in Collingwood Bay so that TNCs can benefit from the resources but so that future generations will still benefit from the rainforest (sustainable development).

QUESTION 4

- 4ai Most answered this correctly.
- 4aii Generally answered accurately.
- 4aiii The majority of candidates gave a correct answer.

4aiv The majority of candidates answered this correctly. However some did not read the question correctly and wrote about the formation of the valley rather than the shape of the valley which was a pity.

4av Very poorly answered. Very few candidates achieved full marks on this question. Many could state what a hanging valley was but did not know how it was formed. Many thought that it was formed by the glacier in the main valley. This style of answer is shown in example 7. The response in example 8 achieved full marks.

Example 7

As the glacier moved down the valley, a interlocking spur would have been eroded away forming a steep valley side. A small tributary river flowing down here would have cut off here and left to flow down into the valley forming a hanging valley.

Example 8

A hanging valley is the valley of a tributary which is suspended at a considerable height above the main valley after glaciation occurs. It is formed when a neve or snowfield fills a valley and after compression forms ice which due to mass movement forms a glacier which erodes the valley with considerable force. As the tributary contains less ice, the valley is eroded less by the glacier than the main valley glacier. It is eroded by plucking a process by which ice melts due to immense pressure from the glacier, immediately refreezes due to temperature and pulls the rock face away when the glacier moves. After glaciation the tributary glacier is suspended at a height of 325m above sea level (Glenn

Eason must reach the main River Chalmadale by means of a waterfall down the steep valley sides eroded by the main valley glacier).

4bi Almost all got this one correct.

4bii The majority of candidates scored highly on this question. A small minority misread the question and wrote about the stages of a river. A few others omitted data and therefore forfeited marks.

This was another physical geography question which was poorly answered. The majority of candidates did not seem to be able to describe or explain the formation of spits. Many just simply discussed swash and backwash without any explanation as shown in example 9. This example also mentions the coast changing direction but does not explain the effect that this has. A number of candidates discussed the waves being driven in the direction of the wind and then drew a diagram which showed the wind and waves going in different directions. Example 10 is a level 3 answer. It was also accompanied by a number of diagrams which showed longshore drift and a fully formed spit. The diagrams contain information omitted from the writing such as the explanation of backwash being pulled straight back by gravity. This answer which included explanation of how a spit forms due to change in velocity was indeed a rare bird!

Example 9

Longshore drift is a process in which sediment is transported along the beach, the waves attack the beach at an angle and pull the sediment back then this is attacked at an angle again thus carrying all the sediment along the beach, if there is a change in direction of the coastline then the sediment is transported but because it is not built up along the beach it creates its own landform out to the sea, eventually it is eroded at the end from the waves and bends slightly.

Example 10

A spit is formed by the processes of deposition and longshore drift. Longshore drift is the process by which material is moved along a coastline. The waves approach the beach (swash) at the angle of the prevailing wind but return at 90° to the beach. A spit is a long narrow landform with one end attached to the land and the other tapering out to sea made up of sand, shingle and coarse sediments. When the coastline ends or the sea meets a river estuary due to the change in velocity and / or depth the sea deposits its load. Over time a ridge of sand and shingle is formed. It is a dynamic landform and may curve due to a change in wind direction.

GCSE Geography A 1312

Paper 4H

Higher Tier

advancing learning, changing lives

Examiners' Report

QUESTION 1

1ai Many excellent answers were seen focussing on the factors shown on the drawing and on other factors such as the geology of the rocks. The two main problems were firstly a failure to fully explain problems eg statements such as 'narrow beach does not protect cliff', would not receive a mark; and secondly several candidates wrote generally about processes likely to be operative along a coastline rather than relating it to the rate of recession. Example 1 gained four marks and example 2 scored two.

Example 1

Because the beach is very narrow which means that there is less sand to cause friction and slow the waves down, dissipating their energy. The long fetch means that the waves will be bigger with more energy to erode and because the cliffs are made of clay and sands which are soft rocks and therefore erode quicker. On the cliff there is no vegetation which will also mean that it is eroded quicker because roots of vegetation would hold the soil together and stabilise the cliff face.

Example 2

Cliffs recede quickly mainly because of their geology. London clay is a soft rock which therefore erodes quickly. The lack of vegetation and management techniques mean that there is not anything to protect one cliff, so strong waves which will be destructive, cause a wave cut notch and eventually the cliff will collapse into the sea resulting in cliff recession.

1aii Not particularly well answered. Many candidates responded with the concept of soft engineering being natural, but this was credited in part iii.

1aiii The majority of candidates gained maximum marks with natural and cheap being the most common responses. The better candidates mentioned energy absorption by the beach.

1aiv Well answered. Ugly, not natural, expensive were popular. Some talked about difficulty of access and danger to children.

1bi The dam appeared almost everywhere! Some lost marks because their chosen symbol was too large, covering a huge area. Neatness and accuracy needs emphasising.

1bii An easy mark

1biii Generally well answered. Those not gaining four marks were usually not using evidence from the map.

1biv Mixed responses ranging from great detail on causes, fully explained, to the assumption that merely listing how much rain fell or straightening a river course was enough to link to the flood in question. The Mississippi was overwhelmingly the best answered case study with some very accurate and detailed recall. Good answers were seen on the Rhine and Lynmouth, although these also accounted for many general answers eg snow melt and impermeable rocks. Where and what type? There

were also several interesting local examples, one of which is reproduced as example 3. Example 4 is typical of a good level one answer with several causes but nothing specific to the Mississippi.

Example 3

In April 1998, the River Nene and its tributaries surrounding Northampton flooded due to a blocking anti cyclone in Scandinavia and a depression in Iceland. This led to rainfall falling over the Midlands of England and producing 3.2 times the average in two days. The ground reached saturation point so could not take any more water. The human factors that led to the flood were poorly maintained flood defences which had last been attended to in 1939. Bad forecasting also contributes as dams were not able to be used. The forecasters did not take into account that all the reservoirs upstream were also full, for example, Pitsford Reservoir. This all contributed to the Easter floods.

Example 4

Chosen river flood: Mississippi

During the months before the flood there was a long period of very heavy rainfall, This raised the water levels in rivers and because there was so much and droplets were too large it could not soak into the ground but ran away as surface run-off into rivers. Due to heavy urbanisation in the Mississippi drainage basin storm drains in cities were installed quickly taking water back to rivers rather than being absorbed by the ground. Wet floodplains had been built so water was not able to absorb into the ground, but levels stayed high. Also man-made flood control methods such as leaves and dams made the problem worse, with much water gathering in certain areas.

1c Very varied responses. The Broads was generally answered well with candidates able to cover all three parts of the question, although some good answers on eutrophication and biomanipulation scored poorly because they were not put in a case study context. Some good answers were seen on the Aral Sea. The Sahel was popular but mostly very general. The Amazon was poorly answered, quite often more related to logging or even oil exploration. Examples 5 and 6 give a comparison between level one and level three answers.

Example 5

Chosen Study: Norfolk Broads

Farmers around the Norfolk Broads region often add nitrates and other growth stimulating fertilisers into their crops that would get washed into a river by rain. Plants inside the river would eventually begin to grow at a fast rate and use up all the oxygen. They would eventually die and a thick bed of algae begins to decompose all the plants and use up all the oxygen as well which would end up killing wildlife within the river. This process is called eutrophication and farmers are starting to become aware of it. They have begun closely monitoring and controlling the amounts of chemicals which they add to their plants and making

sure that they set up a barrier which keeps rain from washing anything into the river, The Norfolk Broads has suffered from eutrophication but it's now recovering as everybody is beginning to take careful measures.

Example 6

Chosen study: Norfolk Broads, East UK

The environment in the Norfolk Broads has been damaged by farming mainly this is because of the excess use of fertilizers. These get washed from the soil into the 200 km of waterways which then causes eutrophication. This occurs when nitrogen + phosphorus gets into the rivers and cause algae to grow, this blocks sunlight out so agua plants cannot photosynthesise and grow therefore not oxygenating the water, this means fish and aquatic life die, meaning a decrease in the species of fish etc. Also because the hedges have been removed it means the rain is more likely to wash away the nutrient rich soil into the waterway. To try and prevent this the ESA scheme have provided 4 initiatives. Any arable land must have 6 m of grassland border between any rivers/waterways and land should be turned back to permanent pasture land which should only be grazed between 1st April and 21st October with only 1 cwt of hay. The government have introduced conservation grants for farmers to use less fertilizers and to plant hedges and construct dykes. The farmers have also needed to use the water to irrigate the land because of the low annual rainfall of 625 mm so putting nutrients back in the soil. They have put extra products in the sewage plant to remove the phosphorus and they are suction dredging 300 000 cu ms of nutrient rich mud from the area. Because the land is flat there tends to be a lot of deposition in the rivers because of the slow flowing water. An example where this is bad is the Limpenhoe Meadows in Lower Yare. So the water gets particularly full of fertilizers etc.

QUESTION 2

2ai Well done. Some lost mark due to sloppiness and inaccuracy rather than misunderstanding.

2aii Well done.

2aiii Generally well answered. Those not gaining four marks were usually not using evidence from the map.

2aiv Many answers, pleasingly, were clearly referring to an MEDC situation, with insurance, warnings and evacuation plans featuring.

- 2bi Poorly answered. Many candidates have, for some reason, great difficulty in describing general patterns and exceptions or anomalies. Easy marks were lost on this question, even by the higher performing candidates.
- 2bii Well answered. Most of the wrong answers offered converging or destructive.
- 2bii A high scoring question. Some confusion between the terms lava and magma.

2biv This question differentiated well. It proved to be difficult for several candidates, but also allowed the better candidates to show their knowledge. Specific details of predictions and precautions used by MEDCs were well documented. Level three proved to be difficult to achieve as specific information on LEDCs was often lacking. A significant number of candidates focussed on particular volcanic eruptions and/or earthquakes without specific reference to predictions or precautions. Example 7 is a good example of responses for both MEDCs and LEDCs. Example 8 is typical of a level one answer where predictions or precautions are mentioned but not in specific detail.

Example 7

In MEDCs such as Mount St Helens USA predictions via geostational satellites were used and heat radiation was measured. Scientists also kept an eye on the volcano for any change in appearance as well as computers to help forewarn people of the explosion that was to occur. As USA is an MEDC and has a wealthy government they also took precautions such as warning people evacuating people within a 10 km radius and sending out 30 000 flyers on advice and precautions to take. Unlike Mount St Helens areas in LEDCs where there is volcanic activity are less fortunate as their government is poor so does not have the money to pay for geostational satellites and temperature radiation monitors. However scientists in the Caribbean instead just monitor the size of the volcano and report any change. They raise flags to warn people of the explosion. White is used to warn people and when the red flag is put up it is telling people they must evacuate. The only precaution taken by LEDCs is to evacuate as they do not have the funds to build dams to divert the lave flow as has done in the case of Mount St Helens.

Example 8

Predictions and precautions for volcanic eruptions such as Mount St Helens in Washington USA and earthquakes such as the one of Tettori, Japan were well-organised as they occurred in MEDCs. Because Japan and USA have a stronger economy and more money they are able to spend capital on technology (advanced) which can predict these natural hazards. They can also build necessary precautions such as earthquake-withstanding buildings and they can hand out warnings. Unfortunately in LEDCs, where an earthquake occurred in Turkey and an eruption of Mt Pinatubo in the Philippines, as these countries did not have as much money, their precautions were of lower or no standard.

The most popular examples used were Turkey, Kobe, Montserrat, Pinatubo, St Helens and the recent tsunami. This question again raises the issue of how centres prepare their candidates for such case study questions where there is a need to learn specific detail rather than vague references to aid given or general long term problems. Turkey generally gave more specific information. Example 9 shows a full answer. Example 10 shows that great quantities do not need to be written to reach level three. Example 11 gives an interesting example on Afghanistan having specifics on short term and aid but no long term so therefore level 2.

Name of chosen earthquake: Turkey - LEDC earthquake

There was an immediate appeal from the government for bulldozers to deal with crumbled wreckage, body bags and makeshift shelters for thousands. Over 200 000 homeless and 80% of houses were damaged or destroyed meaning a long term problem for people in the area as they will have to wait for wreckage to be cleared and homes to be rebuilt. This leaves them with no electricity or access to running water. Red Crescent have been providing aerial surveys of the people. They provided relief workers and help with pulling survivors from wreckage. A 24 hour online disaster donation site was set up collecting over \$3000 000 with \$1 million from the luncy organisation. 2 field hospitals have been provided by Germany + Norway and they are setting up a field kitchen. Red Crescent have also supplied water purification tablets, high protein biscuits, 500 pieces of crockery, 5000 pieces of second hand clothing and 400 tarpaulins. The people are also at risk from health hazards when 700 000 tonnes of oil caught fire at a refinery releasing pollution into the air, land and sea. 'CARE' organisation also noted cracks in a Peskirn toxic waste dump which was exposing it risking a danger. Roads and bridges were badly damaged preventing people from travelling. With widespread destruction to the area and at makeshift shelters people are at risk from long epidemics of disease.

Example 10

Name of chosen earthquake: <u>Izmit</u>

The Turkish Government erected 3100 tents for the 200 000 homeless. Switzerland sent sniffer dogs. Britain sent thermal imaging cameras, the French sent heavy lifting machinery, to find survivors. The army did not come in to help for three days. 14 000 were killed and had to be buried and the hospitals could not cope with the injuries. Red Crescent sent 20 000 volunteers.

Long term problems is that 700 000 tonnes of oil were set ablaze, big set back. Toxic waste that was dumped underground was released and releasing fumes damaging lung tissues of local people/workers. Turkish Government still had 38000 people living in tents after a year and needed 18 billion to rebuild all the houses.

Example 11

Name of chosen earthquake: Afghanistan

Earthquake occurred in the North Takhar. Once reports had finally reached capital - Kabul - International Aid began. Bad weather conditions and landslides meant aid could not reach Takhar for 11 days. In this time the people of Takhar began to herd their goats with heavy bundles down the mud valley. 3 groups on horseback took aid to Takhar. Donations from inc. USA, UK \$160 000 and Canada provided money for aid. Aid included blankets, rice, water purification tablets and medical packs. Long term effects include several thousand people homeless and relying on international aid to be able to build again. Corrugated iron

and tarpaulin was distributed and £6.50 per family. New wells and water systems have to be built. Continuing earthquakes, bad earthquakes and civil wars hinder developments.

QUESTION 3

3ai The only common error was to write 50.

3aii Many candidates were able to offer the necessary logical progression and showed an obvious understanding of the multiplier concept.

3aiii Well answered. Errors included not relating the answer to an activity eg giving the answer beach holiday or ancient ruins. Also not giving an activity that could relate to the photographs eg skiing.

3aiv A range of points were given, but often candidates failed to develop them. The question was a good discriminator.

3av A well rehearsed answer by many centres although there was a tendency to include everything and ignore the difference between social and economic.

3bi A correct definition which had clearly been taught and learned was evident.

3bii Easy marks by taking lifts from the text.

3biii The most popular case studies used were Yosemite, Malham and Ayia Napa. Unfortunately quite a number of candidates used LEDC examples such as Maldives and Zanzibar and thus limited their marks. Really good specific detail was at a premium in this question; a great pity when it was clear that the candidate obviously had learnt the case study in general terms. Yosemite led to the best marks. There was evidence of local fieldwork in places such as Hadrian's Wall and Seven Sisters Country Park often giving good answers. Several candidates struggled with Studland and the National Parks especially the Lake District and the Peak District, usually giving no specific information. Example 12 was one of many successful answers seen relating to the Great Barrier Reef. Example 13 is a level one response on Yosemite. There are many strategies relating to campsites and buses but nothing specific such as which campsites or what river?

Example 12

Chosen case study: The Great Barrier Reef, Australia

The great barrier reef is managed by the Great Barrier Reef Marine Park Authority. It has been designated a world heritage area, meaning that it enjoys special protection privileges. Land zoning is used to protect the reef. The general use A zone is where shipping and fishing are allowed. Oil drilling and commercial spearfishing are illegal. The buffer zone is between the commercial use and the preservation zone. Nobody is allowed to enter the preservation zone except for scientific research and in the case of an emergency. The reef in this zone is left in its natural state. Also, a \$10 reef tax is charged, which goes to protecting and researching the reef. Tour guides must have a license in order to operate and visitors are educated.

Chosen area: Yosemite National Park, US

They are building more cycle and pedestrian tracks so less people drive around. This causes less pollution because less cars are driving around the park. They are stopping camping near important rivers, so less people drop rubbish in the river causing pollution and damage to the environment. They are encouraging camping because it is better for the environment. They are putting shuttle buses in which the tourists have to ride instead of using cars. This causes less pollution from car exhausts. They are encouraging tourists who go to the park to put litter in the bins.

Many very successful answers were seen on Machu Picchu and Zanzibar. The second part of the question proved to be more of a problem as many candidates found it difficult to express any really specific effects on people in the area. Example 14 has all three parts of the question answered in specific detail, although it has only a brief mention of the Quecha Indians so was awarded seven marks. Example 15 has enough for full marks.

Example 14

Chosen area: Machu Picchu, SW Peru

Machu Picchu is nestled between the Peruvian Andes. It is remote and isolated and between beautiful mountain scenery. The human attractions are the 18 Inca settlements along the Inca trail which is 48km long. Machu Picchu is 2,400m above sea level. Tourists are also attracted by the 800 year old stone railway and the Quecha Indians from Cusco. Along the trail there are 90 species of orchid. Tourism in the area has grown form 500 to 80,000 people in 4 years. This has led to soil erosion of the trail which has led to dangerous slumping and landslides for walkers. Litter has also increased dramatically and is dumped only 50m off the Inca trail. Human waste is also affecting the area and wildlife as it is hazardous and visually displeasing. The Quecha Indians culture has been diluted by westerners bringing food and clothes over.

Example 15

Chosen area: Machu Picchu and the Inca Trail

Machu Picchu experiences 10 different climatic zones. There is heavy rainfall between November to March. The highest temperature is 23 degrees in November, December and January and the lowest is 9 degrees in June, July and August. There are 400 species of vegetation including 90 species of orchids. There are also rare species of animals including puma, Miniature deer and river otter. In 1980, it was declared a National Park in order to conserve the area. The human attractions include the Inca settlements built by the original settlers of the area. The stonework of the road leading to Machu Picchu, built over 500 years ago, is a treat of engineering itself. The Pisac market where artefacts are sold and the Urubamba river where it is possible to do rafting are other human attractions.

The increase in tourism has been beneficial to many people. The Pisac market sells artefacts to tourists and jobs in shops in Cuzco and in related industries have developed. Also, porters are paid US \$10 a day to carry bags for the tourists. It is also a tradition that each tourist is expected to pay US\$12 in tips, which are then shared out.

QUESTION 4

4ai Most answered this correctly.

Some very good responses, with the majority of candidates giving some data. In some cases the data was inaccurate or not precise with statements like approx 50% being too common.

4aiii Disappointingly few gave a correct definition; too many confused it with migration to the city.

4bi The most frequent error was related to air pollution, car exhausts or water pollution, river dump.

4bii Almost all got this one correct.

4biii Cairo was clearly the most popular choice of case study. At least this one enabled candidates to offer specific management strategies. Again a lot of responses demonstrated effects rather than specific points about how pollution was managed. London, Mexico City and Los Angeles and particularly Sao Paulo tended to be much generalised in nature. Example 16 was typical of many good Cairo answers. Example 17 just manages to slip into level two with the specific fact on the underground.

Example 16

Chosen area: Cairo

There was an air improvement programme introduced in 1999, which was an undertaking by the CAID. It set up stations. 36 monitoring stations so the EEAA could show a reduction in pollution especially in really polluted area's such as Shoubra EI Kheima. The CAIPs VET policy tried to cut down on the poisonous emissions from the 120,000 vehicles in Cairo's streets. Also the lead smelters are having new equipment installed and the CAIP are trying to move settlement away from areas like Shoubra and Embaba. They are trying to convert as many cars to natural gas and the Cairo bus company has already converted 50 out of their 20,000 buses to gas. In 1997 leaded fuel was phased out but 605 of the car vehicles in Cairo are more than 10 years old and so this may prove to be difficult.

Chosen area: Sao Paulo, S.E Brazil

Pollution is being managed because there is a lot of pollution in this city, for instance in rush hour each day there is 260 km of gridlocked roads. Of all these vehicles many are old and need repairing and are therefore dangerous. The city has developed an underground train which has 46 stations, reaching right out into the shanty towns to try to encourage the use of it in comparison to cars as a form of cheap public transport. They have also set up a waste removal service and recycle much of the city's waste.

4ci A generally well understood concept. The vast majority gaining at least one mark.

4cii Often reasons were identified eg road, flat land but not developed enough for the mark.

4ciii This question still causes problems with many students. Too many still fail to identify specific groups. Surely centres have told their students that in these sorts of questions the groups involved must be identified. So many well written answers, with many points, were only able to be awarded two marks.

Reading, London Docklands and Glasgow were very popular and often received good marks. There were also several local centres used to extremely good effect. Many excellent answers were seen for Newcastle, Leicester, Northampton and Norwich, amongst others. Distinguishing between renewal and redevelopment was the major problem. Example 18 is a good example of a well constructed answer gaining maximum marks. Example 19 is a good example of a level three answer using a local example.

Example 18

Name of Inner city area: Reading

In 1969 the Inner Distribution Road (IDR) was opened because there was constant congestion in the city. Broad street was closed to all but essential traffic and Friar Street was pedestrianised, again because of congestion. The Oracle Project (1997-2000) saw derelict factories and the old bus garage demolished. The Oracle was built on both sides of the river Kennet, which was originally wasteland. This redevelopment took place to make use of unused land and to reduce urban sprawl. Renewal occurred in Friar and Broad Street as 40% of shops relocated to the Oracle shopping centre. Friar street is now mainly pubs and restaurants and Broad Street is now a financial area. The brownfield site in Rose Kiln Lane was used to build flats. Redevelopment took place because derelict factories were obsolete. Many more brownfield sites are to be used for redevelopment of houses in order to try and meet Berkshire's requirements of another 67,000 houses by 2016.

Name of Inner city area: St James, Southbridge, Northampton, E. Mids, UK

From the 1890 -1970 the gasworks in the area provided gas by burning coal for over 20,000 houses in the area but in 1960 the North Sea gas was discovered which was a cleaner and cheaper way of providing gas. The gas works became derelict and an eyesore. The area then had scrap yards move in to fill the area. The land was contaminated from the coal and gas with tar, arsenic and S02 gases this meant that the land wasn't suitable for residential so comet and toys R' us moved in in 1989. The land took 10 years to be decontaminated. This was on the east of the Towcester road and on the west B&Q moved in. The land by the river was also redeveloped with the single regeneration budget from 1995-2002. They built an access road and sold the area to Bellway homes for £20 million and the area had a planned 650 units of flats and semi detached housing. There were also plans for a wine bar and restaurant to be built. The granary was left and has been developed now into offices. The canal towpath and moorings were repaired also.

GCSE Geography A 1312

Short Course 3320

Coursework

advancing learning, changing lives

Examiners' Report

The standard of coursework in 2005 was consistently high. There was a splendid variety of topics studied by candidates ranging from urban studies to those of physical attributes of a river or coastline. This year there was an increase in the number of centres choosing to focus on tourism and the environment.

There were problems with some coursework that was based on data collected at residential centres and too many centres based their coursework on the results of just one questionnaire and frequently on an inadequate sample of respondents. Consequently their students found it difficult to access Levels 2 and 3 marks.

It is imperative that school staff plan and structure their own studies around a question or hypothesis and then facilitate their students' collection of relevant data directly to address this. Study centres provide a base for excellent learning opportunities for students but their staff are seldom aware of the assessment criteria set by examination boards for coursework.

Assessment Criterion 1

There was a pleasing fall in the numbers of candidates including large amounts of extraneous background material in their introductions this year. Almost all studies included location maps and many candidates deserved credit for annotating these and referring to them in their introductions. There had been good use of the internet as a source of maps this year.

Many candidates had been limited to Level 1 or 2 for C.1 as they had not made explicit the sequence of their investigation. Some needed clear guidance on relating their study to a question or hypothesis and to give a brief outline of the data they intended to collect.

Assessment Criterion 2

Methodology tables gained in popularity again in 2005. Weaker candidates frequently gained Level 2 marks where they had used a table since it had forced them to consider justifying their methods and to focus on problems and solutions connected with data collection.

Moderators commented that stronger candidates may have been constrained by the use of a table. I would urge such candidates to write about their data collection as well as producing a table in future, in order to gain high Level 3 marks on this criterion.

Some candidates used photographs to enhance their data collection sections to good effect. Photographs should be annotated in an explanatory way to replace text, to explain how data was collected. Examples of data collection sheets should also be included here, rather than in an appendix. They can also be annotated to justify use of particular questions or categories for collecting data.

Assessment Criterion 3

There was a very wide range of quality on this criterion. Some centres had included just bar charts, pie charts or line graphs. The latter had frequently been used inappropriately, to represent discrete data. Where the excel package had been used, candidates had included a range of graphs for the same set of data, without awareness of which type of graph would have been appropriate for each context. In other centres candidates had used an extensive range of graphical skills. These included located graphs and statistical mapping techniques such as proportional

circles. In other centres it was clear that candidates had used their imagination along with technical skill to construct appropriate visual representations of their data.

The use of overlays was also excellent this year and the use of radial graphs was more widespread. Some had plotted just five variables and others had included up to ten to good effect. These are particularly useful for comparisons of environmental quality in different areas.

Assessment Criterion 4

There has been a marked improvement in analyses and conclusions in 2005. Candidates had tried to relate their analyses to aims to come to a valid conclusion. Where candidates had worked from two or more unrelated hypotheses or questions, it had been very difficult for them to reach a logical conclusion.

In a few cases, weaker candidates had too much data to be able to grasp connections.

It is vital for candidates to practise referring to actual figures and data in their analyses in order to maximize their potential for reaching Level 3 on C.4.

Evaluation was very strong in many cases, being directed at a critical analysis of the investigative process. Weaker candidates usually referred to what they would do, given more time, different weather or more accurate results but many succeeded in reaching Level 2 for being aware of shortcomings in their work.

Assessment Criterion 5

There was a pleasing reduction in the number of over-long studies in 2005.

Where strong guidance had been given by teachers, this often meant that weaker candidates produced studies with a logical structure and frequently gained those Level 2 marks. However, several moderators commented that too much teacher-direction had stifled the originality of thought in very strong candidates.

It was worrying how some centres had based much of their work around statistical techniques, such as Spearman, for candidates with a wide range of ability. This meant that weaker students with poor numeracy skills could not really access the main thrust of their work, whereas their more able peers understood it well and expressed their findings coherently.

General comments relating to moderation

Centres had been very prompt this year in sending their samples to moderators. Generally these included the prescribed range of students' work. A minority of centres failed to send the work of candidates with the highest and lowest marks. One trend observed by moderators this year was that studies were unnecessarily heavy, reasons for these included using ring binders, plastic wallets and in a few cases including large rock and soil samples with the work.

1312 Statistics

Mark Ranges and Award of Grades

1312 Foundation Tier

Grade	Max. Mark	C	D	Е	Е	C
Graue	iviai K	C	U		Г	G
Raw boundary mark	100	59	50	41	32	23

1F	Max.		
Grade	Mark	С	F
Raw boundary mark	80	47	29

2F	Max.		
Grade	Mark	С	F
Raw boundary mark	60	39	19

1312 Higher Tier

Grade	Max. Mark	A*	А	В	С	D	E
Raw boundary mark	100	80	72	64	57	44	37

3H	Max.			
Grade	Mark	Α	С	D
Raw boundary mark	80	59	49	24

4H	Max.			
Grade	Mark	Α	С	D
Raw boundary mark	60	41	30	21

Coursework

Grade	Max. Mark	А	С	D	F
Raw boundary mark	63	45	36	29	16

3320 Statistics

Mark Ranges and Award of Grades

3320 Foundation Tier

	Max.					
Grade	Mark	С	D	Е	F	G
Raw boundary mark	100	55	46	38	30	22

1F	Max.		
Grade	Mark	С	F
Raw boundary mark	90	51	28

3320 Higher Tier

Grade	Max. Mark	A*	Α	В	С	D	Е
Raw boundary mark	100	70	64	58	52	38	31

2H	Max.			
Grade	Mark	Α	С	D
Raw boundary mark	90	56	46	32

Coursework

Grade	Max. Mark	А	С	D	F
Raw boundary mark	63	45	36	29	16

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