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GCE Geography:

Feedback on June 2012 (Unit 1)

Presenter: David Holmes

Introduction to Unit 1

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AS Unit 1: Global Challenges *Unit code 6GE01

- Externally assessed
- Availability: January and June
- First assessment: January 2009

60% of the total AS marks | **30% of the total GCE marks**

Content summary:

The meaning, causes, impacts and management of global challenges. How we can influence global challenges through our own lives. There are two compulsory topics that form this unit:

- Topic 1: World at Risk
- Topic 2: Going Global

Assessment:

1-hour-and-30-minute examination in **two** sections.

Section A: objective items, data response and short-answer questions.

Section B: choice of *Going Global* or *World at Risk* longer/guided essay questions.

Structure of mark allocation

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	Marks / approx marks	Comments + Issues
Section A 1-3 Mark questions	**35**	Rushing, especially 1 mark questions which test basic knowledge
Section A 4-5 mark questions + 'explain'	**30**	Very important to overall grade, can score quite poorly. Weak knowledge exposed.
Section B 25 mark question	**25**	Candidates tend to tackle these very well and do better than they think……
	Total = 90	

Candidate Performance Summary June 2012 (Unit 6GE01 Section A)

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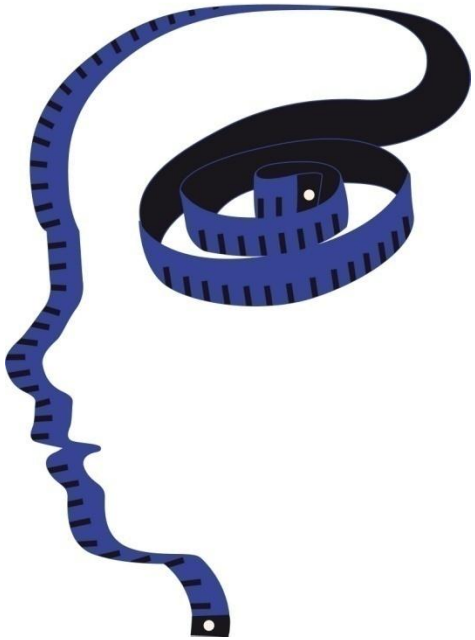
Overall candidate performance was on a par with previous series.

- Few candidates appeared to run out of time – this seems to be improving with each exam.

- There were some excellent answers from candidates who impressed the examiners with the breadth and depth of their knowledge.

- There was some good topical geography on show, e.g. “Arab Spring”.



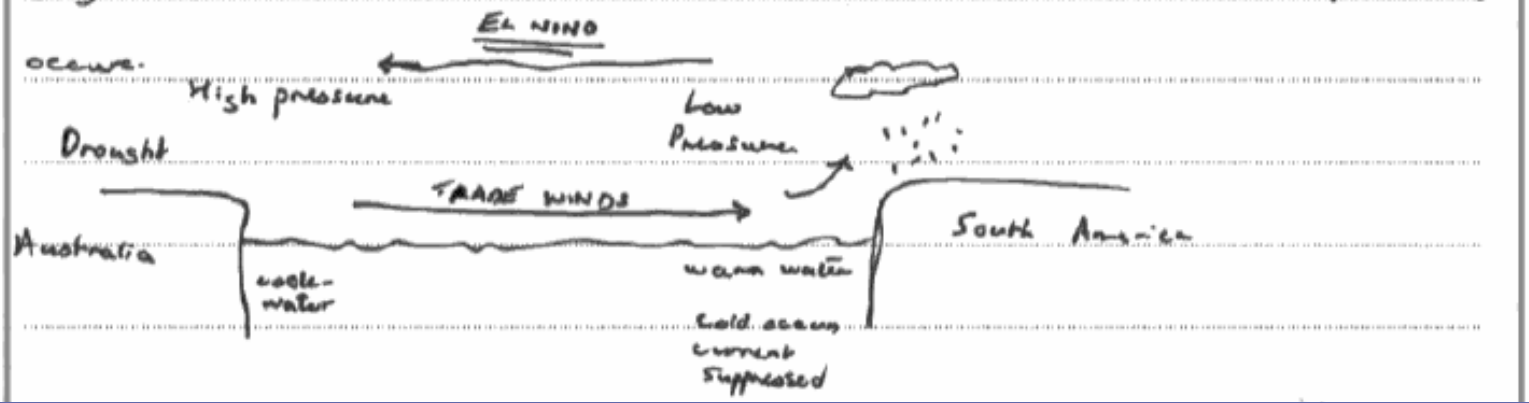
Candidates who did well
Student Response

(b) Explain how El Niño cycles can lead to drought.

(5)

(occurs every 7-10 years)

The El Niño Southern Oscillation associates itself with changes in oceanic & atmospheric conditions in the Pacific. During an El Niño year the walker circulation cell reverses and trade winds that would have blown east to west reverse and blow towards the Eastern pacific (South America). This leads to very dry conditions in Australia & South East Asia. With little rainfall drought occurs.



A nice (and rare) example of a candidate who used a diagram to support their answer (many mark scheme points are covered).

Candidates who did well
Student Response

(c) Explain how human activity has led to enhanced greenhouse gas emissions.

(5)

the burning of fossil fuels by human has increased the amount of water vapour and CO2 in the atmosphere. Also the farming of rice crops in nations in place such as Bangladesh has caused more methane being produced contributing to more greenhouse gas emissions as the population of these countries grow. MICs developing such as china and India open big industrial power stations which release great amounts of CO2 leading to enhanced greenhouse gas emissions. The aims in India they expect greenhouse gas emissions to increase 70% by 2020.

A clear and concise response – "idea rich" and was able to be awarded 5 marks.

Candidates who did well
Student Response

(b) Explain how increasing climate risk contributes to rising food insecurity at a global scale.

(5)

A decrease in rainfall in areas like North Africa will erode soil, decreasing crop supply. An increase in deaths in livestock due to dehydration, shown by droughts in Summer of 2011 in Sub-Saharan. Temperatures in the Artic are rising twice as fast than around the world. This reduces sea ice, increasing sea levels which will drain lakes & affect fish supply such as lake trout. Animals dependent on sea ice such as caribou & polar bears will decrease, reducing protein supply for Indigenous people such as Inuits.

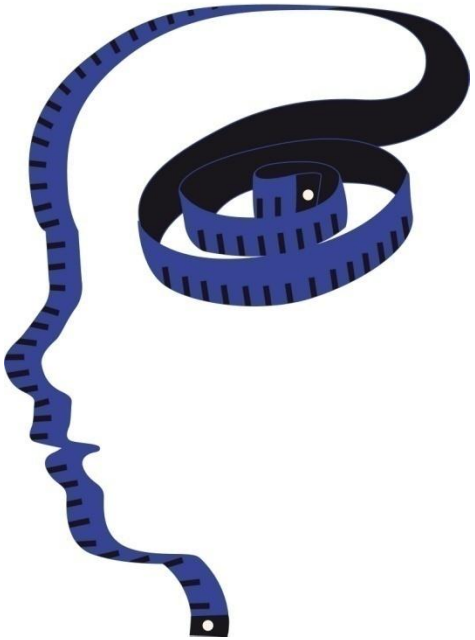
(Total for Question 3 = 13 marks)

A very well written response with a good range of ideas. Tries to do the global scale and make geographical linkages.

Candidate Performance Summary June 2012 (Unit 6GE01 – Section A)

- Some candidates struggled with El Nino, climate change and uncertainty, natural climate change, and globalisation, global consumption.

- 4-5 mark questions remain tricky for many, to respond appropriately to the command word (explain) which does require explanation and not merely description



Candidates who did not do so well
Student Response

(c) Explain how human activity has led to enhanced greenhouse gas emissions.

(5)

increase in the amount of CO_2 produced by cars that is absorbed into the atmosphere. Breeding of animals, particually cows, that give off a certain amount of methane which is absorbed into the atmosphere. Industrilasticn and emissions from facteries that is absorbed into the Earths atmosphere

2/5 response. Likely credit for methane and cars (1+1). But not thought about "enhanced" or done the explain.

More on explain…….

- **Q2c** (June 2011) was a question which directly asked for an explanation of how global warming might lead to rising sea levels.

(c) Explain how global warming leads to rising sea levels.

(4)

With this type of 4 or 5 mark 'explain' question:

- Bullets usually work against explanation – bulleted answers tend to be descriptive with separate, unlinked points

- A sequential explanation of a process works well

- Extended (detailed) points and examples will gain additional marks.

Two examples to compare

Example 1	Example 2
Global warming is when humans make the atmosphere much warmer by burning fossil fuels which releases carbon dioxide. As the atmosphere warms the Arctic ice melts. It is usually the Arctic ice which reflects the sun's rays which keeps the earth warm at a normal temperature. As the ice melts as a result of global warming more ice melts and the warmer the earth gets. As the ice melts the sea level rises which floods low lying land.	Global warming is leading to a rise in global temperatures of a predicted 2C by 2050. As the world heats, the ice stores in the world melt. The biggest stores are the ice sheets in and, although these are not melting yet. Valley glaciers in and Arctic permafrost are melting and this adds water volume to the oceans which rise in response. More important now is thermal expansion of the oceans which is causing rising sea levels.

Tricky Topic 1
Global groupings

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The 48 LDCs in 2011 (United Nations) – based on development level; they have chronic resource, human development, governance and institutional capacity weaknesses:
The 34 OECD members; the OECD is an IGO committed to a market economy and democracy. **The G8** members are underlined, and include (not a member of the OECD)
The 12 OPEC member states are all major oil exporting developing nations: Algeria, Angola, Ecuador, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, UAE, Venezuela.

Tricky Topic 1
Global groupings

The NICs are more of a moveable feast:

- and are now effectively MEDCs.
- is certainly an NIC, but is more difficult to classify due to poverty levels.
- Many Asian and Latin American countries not classed as OECD / LDC are NICs.

Some groupings are 'formal' in the sense that countries have to be members, or there is a strict definition e.g. by the UN.

Others, like MEDC, LEDC, NIC, RIC are less formally defined. The World Bank does define 4 country groups by income bands i.e. LICs, MICs (upper and lower), HICs.

Tricky Topic 2
Gases

Gas	Source	Global warming?
Oxygen	Photosynthesis	No
Carbon Dioxide	Respiration, vulcanism + burning fossil fuels	Major contributor
Sulphur Dioxide	Vulcanism + burning fossil fuels	No. Has a net cooling impact along with black carbon (soot) – global dimming.
Nitrogen Oxides	Vulcanism, nitrogen fixation, lightning + burning fossil fuels	Major contributor

Tricky Topic 2
Gases

Gas	Source	Global warming?
Methane	Animals / decomposition + farming, leaks, waste	Major contributor, powerful greenhouse gas
Ozone	Natural (stratosphere) + pollutant (troposphere)	Cooling in the stratosphere, localised warming in the troposphere (cities)
Carbon monoxide	Incomplete combustion.	Limited because it is short lived.

Tricky Topic 3
Sea Level Rise

Overall, sea level is not well understood with confusion over what is causing sea level rise ***now*** and how much it is rising by.

- Rising by 1.8mm per year
- 2007 IPCC estimates 20-60cm by 2100; scientific consensus of 0.5-1m by 2100.

- Largely driven by thermal expansion and mountain glacier retreat.
- Greenland / Antarctica currently contribute very little; partial melt of these ice sheets after 2100 would add 6-8m.
- Arctic sea ice and Antarctic ice shelf collapses do not contribute (ice is already in water).

Tricky Topic 4
Globalisation

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Causal factors (drivers)	Shifts and Flows	Outcomes / effects
➢ Communication technology ➢ Transport technology ➢ Global businesses (TNCs) ➢ Removal of trade barriers	➢ Global shift of industry to the developing world ➢ Increased connectivity ➢ Increased flows (people, money, goods) ➢ Shrinkage of space-time ➢ Glocalisation	➢ Increased consumer choice ➢ Gain in jobs and opportunity in some areas, losses in others ➢ Poverty reduction ➢ Exploitation / sweatshops ➢ Brain drains (and gains) ➢ Global brands (+ local adaptations)

Unpicking a typical question

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*7 Study Figure 7.

(a) Suggest why many countries find El Niño weather anomalies very challenging.

(10)

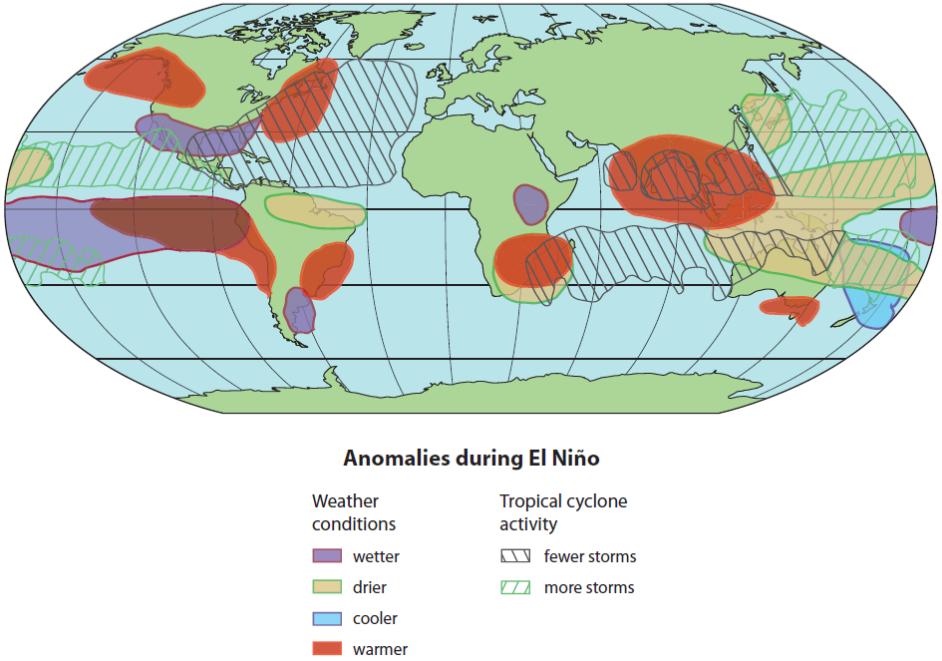
Reasons, not description of impacts

More than 1 place

Show understanding of these

Challenge = problem that is difficult to manage

Figure 7 **Weather anomalies (unusual events) attributed to El Niño**



From Figure 7?
Strong hints of places and El Nino changes that might be discussed.
Really an aide memoir

Reasons, explanations "because" "caused by" etc

A 'double', so balance needed.

(b) Explain why the human and economic costs of global hazards have increased rapidly over time. (15)

'rapidly' is subtle; needs to be a focus on trends – both human & economic

Specify the hazards; use examples

			Human & economic
		Range of reasons, details	
	Basic reasons for trends		
Describes trends			
L1	L2	L3	L4

Structure, balance, detail

Steps to success for essay (a) questions

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Selective use of significant / key information sifted from the resource and re-produced selectively (rather than copying *all* of the information out)

Supporting ideas volunteered by the candidates using their own knowledge about places, people or processes (clearly adding extra dimensions to what the resource has shown)

Sharply focused and only containing "need to know" information (rather than "nice to know" information such as lengthy definitions of text book terms)

Question Selection for Section B

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SECTION B

Answer ONE question in this section.
Use the evidence provided in the Resource Booklet and your own ideas.
You are advised to spend approximately 30 minutes on Section B.

***7** Study Figure 7.

(a) Suggest reasons why the strongest earthquakes are not always the most costly. **(10)**

(b) Explain how physical factors lead to a range of hazard risks in the Philippines. **(15)**

(Total for Question 7 = 25 marks)

***8** Study Figure 8.

(a) Suggest reasons why the populations of different countries vary in their attitudes towards climate change. **(10)**

(b) Explain why the impacts of global warming are predicted to be uneven and unfair. **(15)**

(Total for Question 8 = 25 marks)

***9** Study Figure 9.

(a) Suggest how globalisation increases migration flows towards megacities such as Shanghai. **(10)**

(b) Explain how technology and trade blocs have contributed to globalisation. **(15)**

(Total for Question 9 = 25 marks)

***10** Study Figure 10.

(a) Suggest how recent international migration has changed the structure and characteristics of the UK's population. **(10)**

(b) Examine the changing pattern of migration into the UK since the 1950s. **(15)**

(Total for Question 10 = 25 marks)

Figure 7 Earthquake strength and social costs

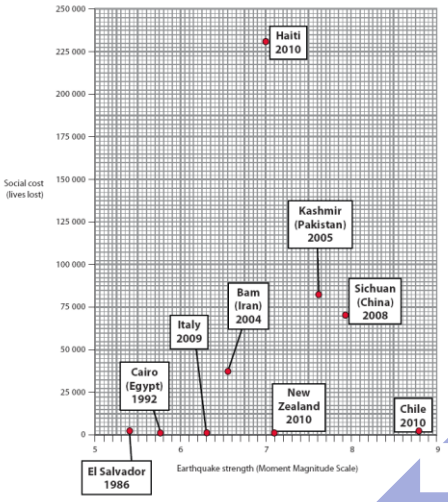


Figure 10 Population changes in the UK 2004-2008

	2004	2005	2006	2007	2008
Total live births, England and Wales	639,721	645,835	669,601	690,013	708,711
Births to mothers born overseas	124,563	134,189	146,956	160,340	170,834
% of births to mothers born overseas	19.5	20.8	21.9	23.2	24.1
Total UK Population	59.8m	60.2m	60.6m	60.9m	61.4m

(Source: Office for National Statistics)

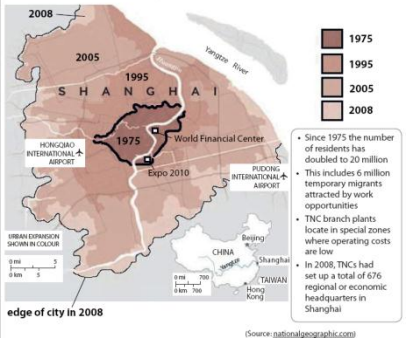
Figure 8 Results of a survey investigating whether people are prepared to "act loca
order to help tackle climate change

Country	Concern *Climate change and how we respond to it are among the biggest issues I worry about today.*	Commitment *I am personally making a significant effort to help reduce climate change through how I live my life today.*	Optimism *I believe we will stop climate change.*
UK	26%	26%	9%
Germany	33%	32%	9%
USA	26%	24%	12%
Brazil	52%	34%	25%
India	54%	32%	42%
China	52%	56%	47%

Percentage of people scoring 6–7 on a 1–7 scale of agreement
(1 being strongly disagree, 7 being strongly agree)

(Source: HSBC Climate Confidence Monitor 2008)

Figure 9 The growth of megacity Shanghai between 1975 and 2008



(Source: nationalgeographic.com)

Example extract Part B (a): Resource

Indicate which question you are answering by marking a cross in the box ☒. If you change your mind, put a line through the box ☒ and then indicate your new question with a cross ☒.

Chosen Question Number:

Question 7 ☒ Question 8 ☐

Question 9 ☐ Question 10 ☐

9 SecBa
14 SecBb

A) The strongest earthquakes are not always the most costly due to physical and human factors.

In terms of physical factors it depends upon which type of plate boundary the quake occurs on; destructive, constructive or conservative. Also it depends upon how deep the earthquake occured as the shallower the depth, the energy released will reach the surface quicker without dissipating. It is al dependent upon the time of day the quake occurs at as as the distance the epicentre is from a major populated area. For example, the New Zealand earthquake in 2010 was

L3 with a good opening...focused on the question

Example extract Part B (a): Resource

B) The phillippines is considered to be a hazard hotspot due to the fact they are exposed to numerous hazards. The hazards are both Geo-physical and hydro-meteorological.

The phillippines sits on a destructive plate boundary where the phillippine plate is subducting under the Eurasian plate. This has caused numerous earthquakes such the one on Luzon island in 1990 which was a magnitude 7.8 quake which killed more than 1500 people. Earthquakes also cause tsunamis when plates under the sea conver[illegible] one plate getting stuck, building up pressure until it [illegible] causing the large wave. This occured near mandanao [illegible] 7.9 quake caused a tsunami wave which killed [illegible] thousands and destroyed many houses. These plates h[illegible] caused violent volcano erruptions. This occurs when the [illegible]

L4 Response. Clear development of geographical ideas, depth, terminology and understanding

Example extract Part B (a): Candidate did less well

b) The Philippines is a disaster hotspot. This means it is ~~prence~~ or risk to a large number of disasters. It suffers from the El niño effect ~~meaning~~ due to air change that happens every 7 years. This can lead to heavy rainfall and therefore flooding. In ~~El niño~~ ~~for~~ la niña years there is too ~~lf~~ little rain that causes drought and forest fires. The El niño effect can also to result in land becoming saturated can cause land slides. The philippines less so Economically developed not cope well in the event of a disaster. The Phillapines is on ~~the edge~~ of the plate boundary where the errasion and pacific plates meet. This results in it being prone to Earthquakes as well as volcanoes as it is a ~~destructive~~ constructive plate boundary. Drought in the Philippines can lead to forest fires. High pressure ~~a~~ ~~a~~ also results in Philippines being susceptable to Hurricanes and Tornados. ~~Tornad~~

8/15, but issues is that the responses is too short. Lacks depth, range and structure for higher marks.

FINAL SUMMARY
Section A
Some key points:

- Candidates must always read the Figure carefully, if present
- There is no substitute for revision of key facts and terms
- Weak performance on all 'multiple choice' questions could cost a whole grade.

Other Spec terminology which can / could cause problems:

- ***Ecology / ecological***
- ***Vulnerability***
- ***Post-colonial***
- ***Infrastructure***
- ***Anthropogenic***
- ***Solar output*** ***etc. etc.***

Section B
Some key points:

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10 mark 'a's

- Must focus on the information provided in the Figure, and refer to it directly.
- These questions should **not** have a case study focus, but examples should be used to support the answer.
- Range is really the key to success.
- Reasons / explanations are always needed, not description.
- Most write 1 ½ sides.

Section B
Summary key points:

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15 mark 'b's

- Use of examples, some detail, support etc is required for L3 and L4.
- If the question is focussed on a compulsory case study then the detail 'bar' is a little higher than for a broader question.
- A focus on one big case study, especially in the hazard question usually does not work.

Section B
Summary key points continued

- Unbalanced answers are an issue especially in Q9 and Q10, and sometimes Q8 (global warming) often resulting from only seeing the negative in *impacts, consequences, effects* etc.

- A 4-5 line introduction (definitions) and a 4-5 line conclusion are a good idea (structure + evaluative style).

- Most write around 2 sides, perhaps a little more.

Statistics

If you would like to know more about examination statistics, you may find these links of interest to you.

Examination Results Statistics

www.edexcel.com/iwantto/Pages/stats.aspx

Results statistics summarise the overall grade outcomes of candidates sitting Edexcel examinations.

Grade Boundaries

http://www.edexcel.com/iwantto/Pages/grade-boundaries.aspx

This page shows the minimum marks needed to achieve a certain grade for all UK and international examinations.

Statistics continued

ResultsPlus

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- See your students' scores for every exam question
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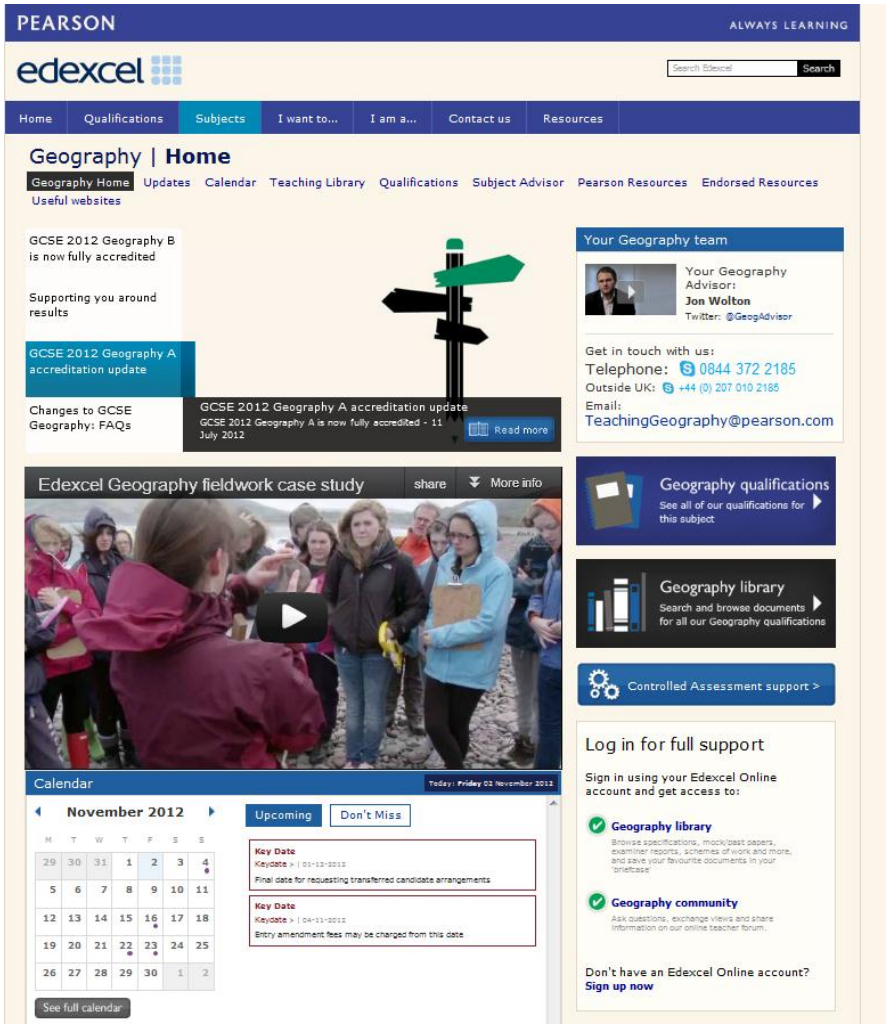
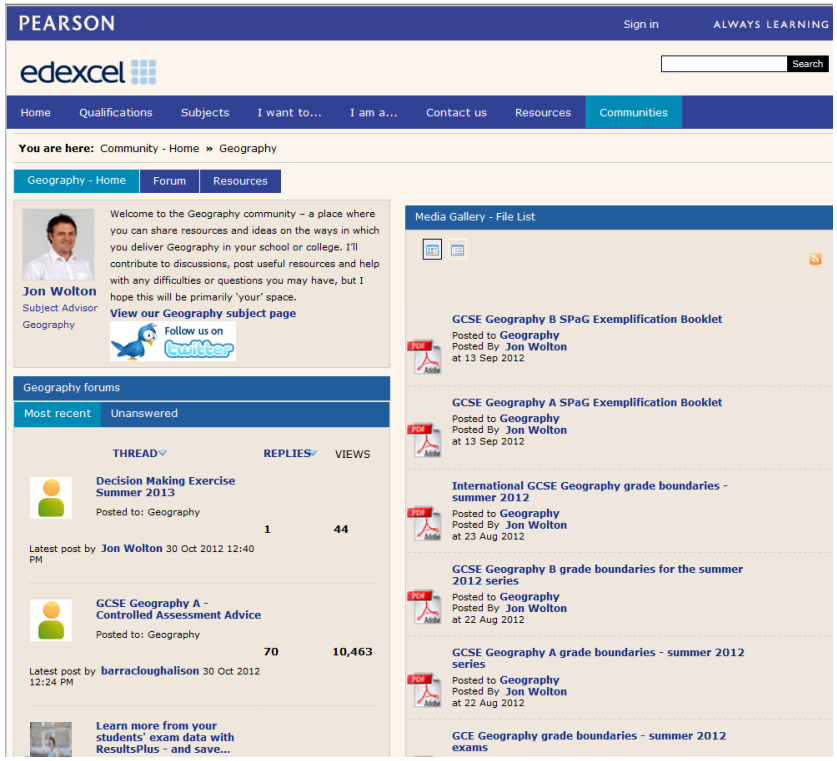
Additional Support





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