

Revision and exam skills day

Edexcel GCE Geography  
**A2 Level – Unit 4 Geographical Research**



Cameron Dunn, Chief Examiner

Name: .....

## 1. Marks and Grades

As a **very rough** guide, this is what you need to be aiming for:

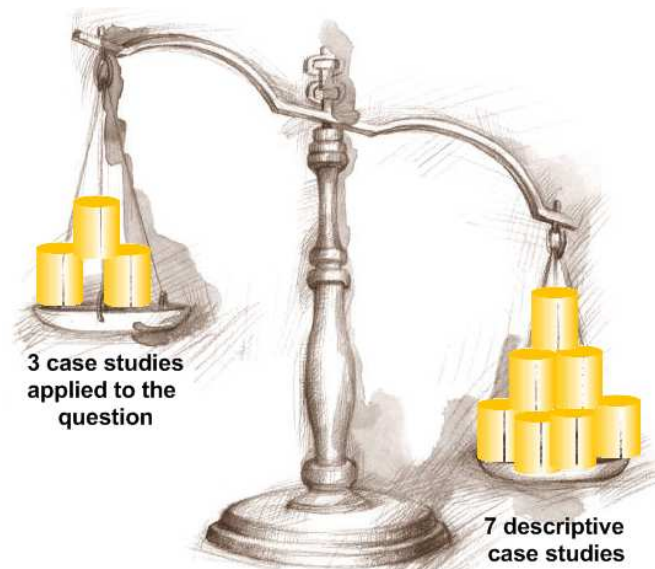


For an E	For an A	For and A*?
32-34	55-56	62+
70	70	70

This means, for an 'A' at least, hitting all of the areas in the mark scheme to a reasonable level and not slipping up. On this type of exam i.e. one BIG question the most common problem areas are:

- Not answering the question (answering a different one, perhaps that you have 'prepared')
- Skipping the introduction, or doing a very brief intro, in your rush to get to the 'main bit'
- Endlessly describing case studies *"Another case study is..... and another similar case study is....."*
- Running out of time so you don't have time to write a conclusion.

With this type of exam, less really is more:



The approach on the **LEFT**, where fewer case studies are applied (related to) the question will always **score more marks** than the approach on the right where endless case studies are churned out with no link to the actual question.

## 2. The pre-release

In 2010, the pre-release for Unit 4 will be available from 4<sup>th</sup> May. It takes the form of 2 statements:

- **Explore** the problems of managing a range of contemporary food insecurity issues.
- **Research** management strategies at a range of scales and locations.

The '**research**' bullet makes suggestions about the range of case studies and examples you need to have

The '**explore**' bullet gives you an idea of which concepts, ideas and theories you need to focus on.

Within the pre-release statement will be **key words**. These words can also be found if you look in the **specification**, so the pre-release statement is identifying the areas of the specification which the **examination question** will focus on; for instance:

<b>Pre-release research focus</b> ↓	<ul style="list-style-type: none"> <li>• <b>Explore</b> the physical causes of a range of tectonic hazards and human responses to them.</li> <li>• <b>Research</b> contrasting tectonic hazard events in a range of locations with different responses.</li> </ul>										
<b>Specification</b> ↓	<p><b>Section 1</b></p> <table border="1" style="width: 100%;"> <tr> <td style="width: 50%;"> <ul style="list-style-type: none"> <li>■ The causes of tectonic hazards, including the pattern of tectonic plates, their movements and possible causes of these movements.</li> </ul> </td> <td style="width: 50%;"> <ul style="list-style-type: none"> <li>■ Investigating the global pattern of plates and their movements and researching current theories explaining these movements, largely relating to convection currents in the asthenosphere.</li> </ul> </td> </tr> </table> <p><b>Section 2</b></p> <table border="1" style="width: 100%;"> <tr> <td style="width: 50%;"> <ul style="list-style-type: none"> <li>■ The range of hazards associated with different types of tectonic activity.</li> </ul> </td> <td style="width: 50%;"> <ul style="list-style-type: none"> <li>■ Weighing up a range of impacts that tectonic hazards have on people, including physical, economic and social impacts.</li> </ul> </td> </tr> <tr> <td> <ul style="list-style-type: none"> <li>■ The specific impacts of a range of tectonic hazards at a range of scales and at locations in countries at different stages of development.</li> </ul> </td> <td> <ul style="list-style-type: none"> <li>■ Researching the range of impacts of hazards in contrasting locations.</li> </ul> </td> </tr> </table> <p><b>Section 3:</b></p> <table border="1" style="width: 100%;"> <tr> <td style="width: 50%;"> <ul style="list-style-type: none"> <li>■ The varying approaches of individuals and governments to coping with tectonic hazards in countries at different stages of development.</li> </ul> </td> <td style="width: 50%;"> <ul style="list-style-type: none"> <li>■ Exploring the range of approaches that exist in attempting to cope with tectonic hazards, including do nothing, adjust and leave.</li> </ul> </td> </tr> <tr> <td> <ul style="list-style-type: none"> <li>■ Specific strategies involved in adjustment: modifying loss burden, modifying the event and modifying human vulnerability; and the range of approaches and strategies used in locations at different stages of development.</li> </ul> </td> <td> <ul style="list-style-type: none"> <li>■ Researching the different ways in which people attempt to cope, before, during and after events.</li> </ul> </td> </tr> </table>	<ul style="list-style-type: none"> <li>■ The causes of tectonic hazards, including the pattern of tectonic plates, their movements and possible causes of these movements.</li> </ul>	<ul style="list-style-type: none"> <li>■ Investigating the global pattern of plates and their movements and researching current theories explaining these movements, largely relating to convection currents in the asthenosphere.</li> </ul>	<ul style="list-style-type: none"> <li>■ The range of hazards associated with different types of tectonic activity.</li> </ul>	<ul style="list-style-type: none"> <li>■ Weighing up a range of impacts that tectonic hazards have on people, including physical, economic and social impacts.</li> </ul>	<ul style="list-style-type: none"> <li>■ The specific impacts of a range of tectonic hazards at a range of scales and at locations in countries at different stages of development.</li> </ul>	<ul style="list-style-type: none"> <li>■ Researching the range of impacts of hazards in contrasting locations.</li> </ul>	<ul style="list-style-type: none"> <li>■ The varying approaches of individuals and governments to coping with tectonic hazards in countries at different stages of development.</li> </ul>	<ul style="list-style-type: none"> <li>■ Exploring the range of approaches that exist in attempting to cope with tectonic hazards, including do nothing, adjust and leave.</li> </ul>	<ul style="list-style-type: none"> <li>■ Specific strategies involved in adjustment: modifying loss burden, modifying the event and modifying human vulnerability; and the range of approaches and strategies used in locations at different stages of development.</li> </ul>	<ul style="list-style-type: none"> <li>■ Researching the different ways in which people attempt to cope, before, during and after events.</li> </ul>
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<b>Exam Question</b>	<b>1. Discuss the relationship between the nature of tectonic hazards and</b>										

human responses to them.
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### 3. Question styles

Be prepared for a range of different questions styles and **command words** such as:

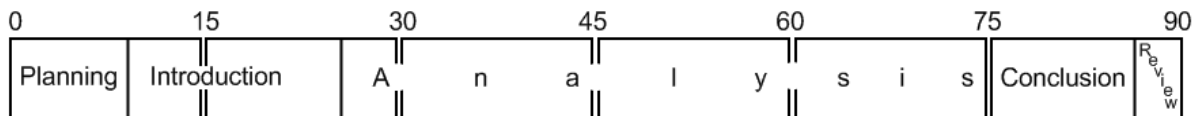
- **To what extent** does successful response to tectonic hazards depend on preparation and prediction?
- Tectonic hazard impacts are largely economic in the developed world and social in the developing world. **Discuss**
- **Evaluate** the response to a range of tectonic hazards in contrasting physical and socio-economic locations.

All questions are very open ended and are designed to be discursive i.e. you are supposed to engage in debate and argument, look at an issue from different perspectives, and then form a judgement / conclusion.

You basically have 1 ½ hours to do this. In Jan 2010 candidates getting 70/70 were writing 8-10 sides.

### 4. Planning

Dividing up your time is important; the **danger** is thinking you need to spend **most** of the 1 ½ hours on the 'main bit / middle bit' (analysis); in fact you need to spend quite a lot of time on the introduction and conclusion as together these account for 25 of the 70 marks (**35%**!).



Planning is important, as is leaving some time to review what you have written. Writing a plan is essential for a number of reasons:

- You need thinking time to digest and unpick the question
- You need to consider the case studies and examples that can (and can't) be used to support your answer
- You need to set out a structure for all parts of your answer
- Writing this down will save time later and make your work logical
- The examiner will look at your plan and consider it as part of your work – if you run out of time, they will look to see what you planned to put in your conclusion.

**Example of a plan; you have a planning page:**

You are advised to use this page to plan your answer and then begin your answer on page 4.

INTRO <sup>van sterck, 'e.T.V'</sup> EMOSI, 'POP DVD', Edithburg

case studies

LEDC - (manseerat) 1995  
 volcano - still recovering  
 today - billions of poor

MEDC - (sichuan) quake  
 china 2008 \$86bl  
 68,000 dead - long  
 recovery 2ndary effects  
 (Boxing day) tsunami  
 '04, still recovering  
 thousands dead

late NYOS - came on  
 80's CO2 silent kill  
 after build up earth quake  
 released. Early hours.

Hazard = mag x vuln  
 cap to cope

In this report I will... →

define tectonic activity - plate movements  
 LEDC, MEDC, challenge, communities

concepts/theories - that LEDCs have  
 larger degrees of challenge than MEDCs

using case studies from diff activity

using Parks model →

disaster cycle - Prepare, warn, evac, relief  
 recovery, mitigate

Analysis

look at LEDC'S - manseerat, boxing day

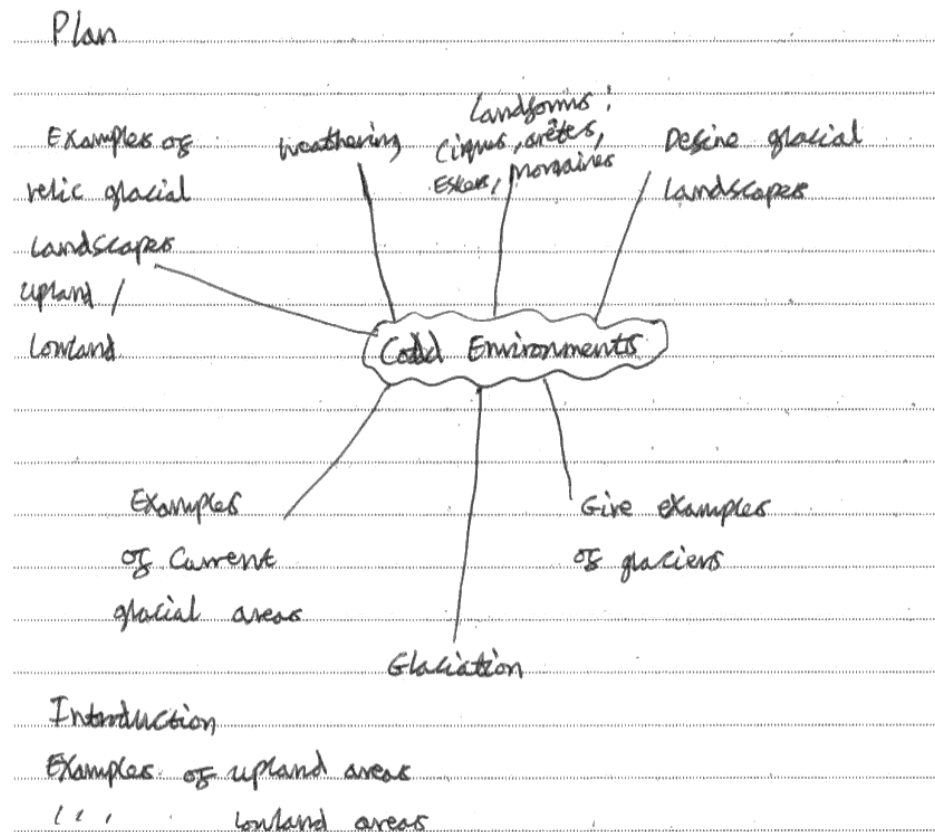
Parks - compare 10yrs apart - better over time?  
 ↳ cap to cope

MEDC'S - sichuan, NYOS  
 more economic damage - better infrastructure  
 (d/c)

conc - developed technology - MEDC/LEDC - suffer more  
 ✓ but worldwide better connections, quicker faster more efficient response

Note how this candidate has divided their plan into sections. It could be argued that it is top heavy and perhaps they could have spent more time planning the analysis and conclusion?

Another example, perhaps less successful?



### 5. The generic mark scheme and its importance

Your report will be marked using the a **generic mark scheme** that applies to all Unit 4 options, and a **question specific mark scheme** that only applies to your option e.g. Tectonic Hazards. The generic mark scheme is more important in many ways. It is divided into sections:

Mark scheme area	Marks
Introducing, defining and focusing on the question	10
Researching and Methodology	15
Analysis, application and understanding	20
Conclusions and evaluation	15
Quality of written communication and sourcing	10
<b>TOTAL</b>	<b>70</b>

We will examine each section in turn. It is also useful to be clear about what sort of 'product' we expect candidates to produce.

**What sort of ‘product’ do we expect?**

- A structured report, not an essay
- A plan
- Use of sub-headings / sectioning to organise
- Use of models and theories when relevant – possibly draw as diagrams
- Diagrams where appropriate
- Use of case studies and supporting examples
- Factual detail
- Correct geographical terminology
- Sourcing and referencing

Characteristics of weaker work	Characteristics of stronger work
<ul style="list-style-type: none"> <li>• Unstructured essays</li> <li>• Lack of focus on the question in the introduction</li> <li>• Random case studies, poorly related to question focus</li> <li>• Descriptive</li> <li>• ‘Another case study is...’</li> <li>• A presentation of knowledge, some of it incorrect</li> <li>• No referencing, sourcing or hint at research methods</li> </ul>	<ul style="list-style-type: none"> <li>• Well organised, sectioned reports</li> <li>• Direct reference to question, definitions</li> <li>• Justified case study choice</li> <li>• Links to concepts, theories and models</li> <li>• Explanatory, supported by factual detail</li> <li>• Supporting examples</li> <li>• Links between case studies and examples drawing out overall themes</li> <li>• A genuine discussions</li> <li>• A genuine attempt to source, reference and mention research</li> </ul>

**The next sections (6-10) are about different parts of the generic mark scheme. The box at the start of each section is the descriptor from the Top Level of the mark scheme i.e. what you are aiming for:**

## 6. Introduction

9-10	<ul style="list-style-type: none"><li>• Clear reference to title- develops a focus</li><li>• Indication of framework, either by concepts and/or case studies</li><li>• Accurate definitions of key terms</li></ul>
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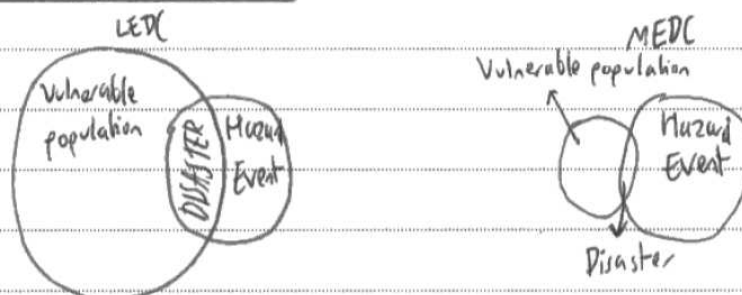
In this example the candidate:

- Defines tectonic activity
- Recognises that that 'challenges' the question asked about vary by location
- Defines a 'disaster'
- Introduces the concept that a disaster is different in the developed and developing world.

Intro  
Tectonic activity is "activity resulting from the movement of tectonic plates" (Science hub, 2010), and can be broadly classified as earthquakes or volcanoes. The two types of tectonic activity pose different challenges, and these vary with geographical location and development and also with the location on a tectonic plate boundary.

Less economically developed countries (LEDCs) have a larger vulnerable population and this means that more people are forced to live in higher risk zones. Risk is "the probability of a hazard event occurring and causing loss of lives and livelihoods" (Wynn et al, 2008). This greater exposure to risk means that the disaster ("a realisation a hazard" (Dunnet et al, 2009)) will be larger meaning that there will be a greater impact on the community experiencing the hazard than there would be in an MEDC, where there is a smaller vulnerable population due to mitigation and prevention of the hazard. (see figure 1 for pictorial exemplification)

Figure 1 - Dragg (1980) Model





Notice that they have also begun to **source** some of their information.

This next candidate develops a framework by stating, briefly, where the report is headed:

In this report I will ~~start~~ discuss the reasons behind varying ~~degrees~~ degrees of challenge for a variety of communities and from a variety of hazards, for example economic development, political stability and magnitude.

We might expect to find **sections**, later on in the report, that relate to:

- Level of economic development
- Political stability
- Magnitude

### 7. Researching & Methodology

<b>12-15</b>	<ul style="list-style-type: none"> <li>• Wide range of relevant case studies used (by scale and or location).</li> <li>• Relevant concepts, and/or theories used</li> <li>• Factual, topical evidence</li> <li>• Indication of methodology i.e. how evidence was sampled/selected</li> </ul>
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You will need to indicate **how** and **why** you used various sources for your research. This is quite a challenging part of the report.

An obvious option is to use some sort of **methodology table** or have a **method section**. In reality this is:

- Too time consuming
- Will tend to 'float' away from your report and lack integration

You can indicate your methods of research by commenting on:

<b>Selection</b>	Brief explanations of why particular material was used e.g. one website over another
<b>Range of research</b>	Commenting on the range of research sources uses i.e. to provide balance and avoid bias
<b>'Age' of resources</b>	Commenting on how up to date some materials are, compared to others
<b>Bias</b>	Commenting on the bias that might be present in some sources e.g. the Economist compared to New Internationalist
<b>Reliability</b>	Commenting on the authors e.g. academic researchers versus opinions in blogs or newspaper articles
<b>Comparison</b>	Comparing one source to another and identifying discrepancies e.g. earthquake death tolls of economic losses

Try to do this **at the same time** as stating your sources:

*The 2008 Sichuan earthquake in China was a devastating event. Details of its causes and impacts were researched in Geography Review (D Petley, 2009) which is a well respected, unbiased source. Prof Petley is director of the Landslides Research Centre at Durham Uni.*

*The 2004 Asian tsunami was a mega-hazard although there is some dispute over the exact magnitude of the earthquake. On the National Geographic website the magnitude is stated as 9.0 whereas the USGS website argues it may have been 9.3.*

You won't need to do much in the way of methodology because there are marks in this section for:

- A wide range of case studies
- Relevant concepts and theories
- Factual, topical evidence

<p style="text-align: center;"><b>Good choice</b> ☺</p>	<p style="text-align: center;"><b>Poor choice</b> ☹</p>
<p style="text-align: center;">Kashmir earthquake, 2005 Samoa tsunami, 2009 Mount Pinatubo, 1991 Kobe earthquake, 1995 Haiti earthquake, 2010</p>	<p style="text-align: center;">Kashmir earthquake, 2005 Bam earthquake, 2003 Sichuan earthquake, 2008 Tangshan earthquake, 1976 Great Kanto earthquake, 1923</p>
<p>Oldest case study is 1991, and it's a 'classic' Mix of developed and developing world, rural and urban. Range of tectonic settings (collision zone, subduction zone, transform fault etc). Range of responses and impacts. Range of hazard types (volc/EQ/tsun)</p>	<p>Two case studies are very old (very little is actually known about Tangshan in 1976); all are in Asia. Much worse, all are earthquakes which is likely to be a big mistake. The tectonic settings are similar for 4 of them. All are in the developing world (more or less).</p>

## 8. Breaking your product up into a report

<b>17-20</b>	<ul style="list-style-type: none"> <li>• All research applied directly to question set</li> <li>• High conceptual understanding</li> <li>• Cogent argument</li> <li>• Appreciation of different values/perspectives about the question</li> <li>• Any maps/diagrams are used to support answer</li> </ul>
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You will need to break your work up into a sectioned report rather than an essay. To some extent you can use the **pre-release information** to think about different sections. Writing a full plan will allow you to think about this in the exam.

Practically, you can use subheadings:

*Responses in developed countries*

...or numbers

*1. Responses*

..or get a bit more sophisticated!

*Section 2.1: Earthquake response*

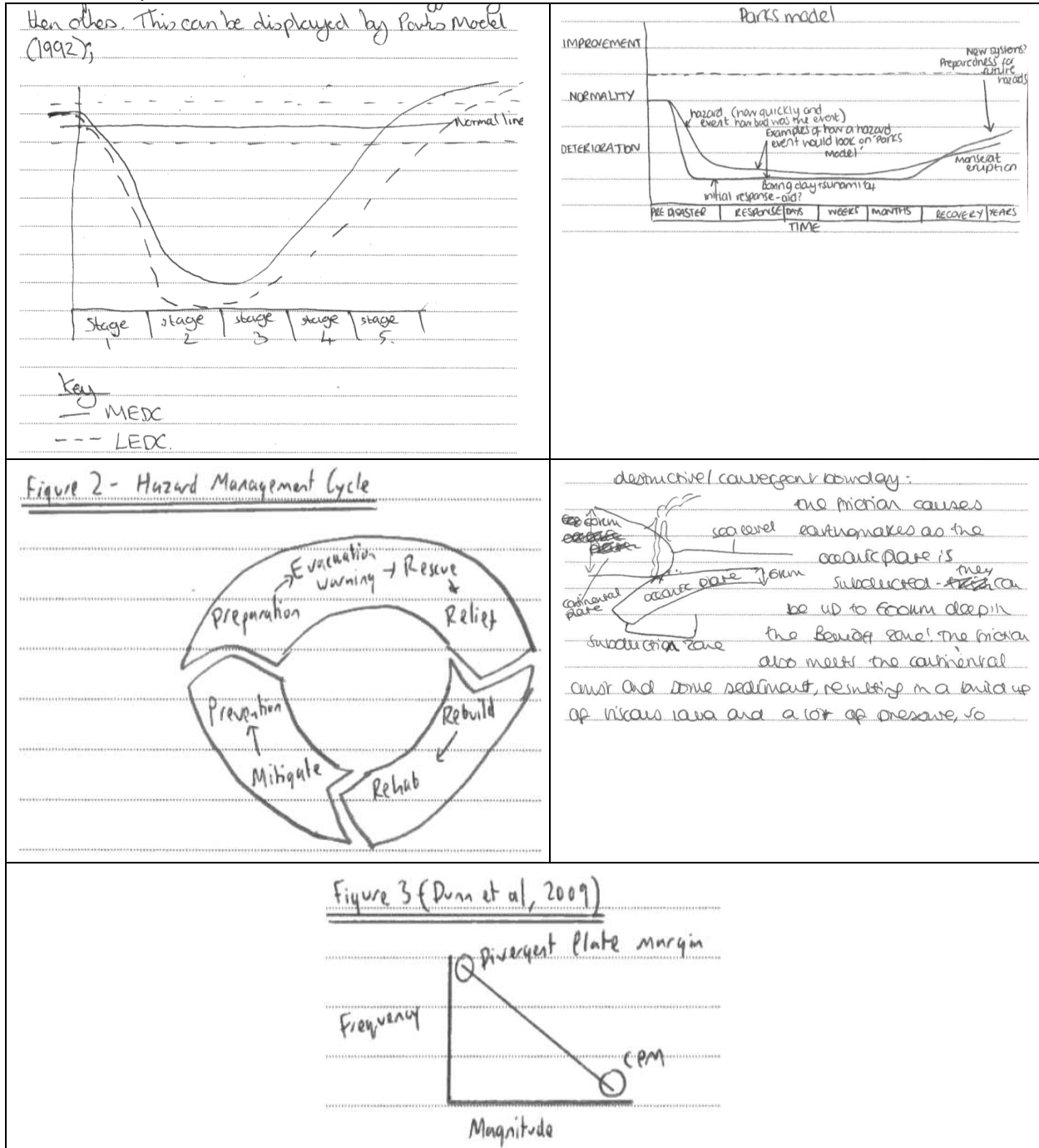
In Jan 2010 candidates organised their work in a number of different ways:

<b>By case study</b>	<b>By concept</b>	<b>By concept</b>
<ul style="list-style-type: none"> <li>• Introduction</li> <li>• The tsunami</li> <li>• China Earthquake</li> <li>• Haiti, 2001</li> <li>• Conclusion</li> </ul>	<ul style="list-style-type: none"> <li>• Introduction</li> <li>• Social challenges posed by tectonic activity</li> <li>• Economic challenges posed by tectonic activity</li> <li>• Environmental challenges posed by tectonic activity</li> <li>• Conclusion</li> </ul>	<ul style="list-style-type: none"> <li>• Introduction</li> <li>• Different tectonic disasters, different death tolls</li> <li>• Tectonic location of the hazard</li> <li>• Different wealth, different response to long-term challenges</li> <li>• Response from authorities</li> <li>• Conclusion</li> </ul>
Perhaps not surprisingly, three case studies described, no real link to the question 38/70	Better; some framework although less convincing on 'environment' and quite descriptive. 50/70	Notice how the sub-headings are comparative – not surprising that it got 70/70

Diagrams? – good idea, but:

- Can you draw them quickly?
- Are they quicker to draw than to write about the same thing?
- Can you remember it, including the labels?
- Have you integrated into the text?

Some examples:



## 9. Ongoing evaluation and conclusions

12-15	<ul style="list-style-type: none"> <li>Clearly stated</li> <li>Thorough recall of content/case studies used in essay</li> <li>Ongoing evaluation throughout report</li> <li>Understands the complexity of the question</li> </ul>
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The conclusion marks do not just come from the last few paragraphs you have labelled 'conclusion'; there is also the issue of ongoing evaluation which includes making comparisons and making summative statements within the main analysis. Look at how this candidate moves from one case study to another with an **evaluative summary**, followed by a **comparative link**:

Even of these 57 deaths, ~~the~~ David Rothery's book notes that 'until this eruption, directed blasts were not a recognised volcanic hazard', and attributes this as the main cause of death. Faced with an unknown hazard, the United States authorities did particularly well in limiting casualties.

The same cannot be said for the authorities in Nevado del Ruiz, Colombia, in 1985, where a staggering 23 000 people perished. A team of Italian volcanologists had monitored the volcano for months, and after

This candidate has taken a much more in-your-face approach, but it works quite well; it evaluates and summarises and because this is a report the heavily structured approach is fine:

4:2 → SUCCESS?

ADVANTAGES	DISADVANTAGES
✓ India became self-sufficient in rice by 1980	x Social polarisation
✓ 10 fold increase in traditional rice	x monocultures
✓ economic boost	x environmental concerns : - salinisation, eutrophication and deforestation.

4:3 → SUMMARY

The Green Revolution in India seemed very successful as it increased food production considerably and effected many people. However, it also caused serious consequences such as environmental concerns and social polarisation, causing a mixed view on the

Of course, you still have to face the daunting task of writing a conclusion. Look at the extract below. This candidate wrote a top level conclusion and you can learn a few tips from it:

- It uses words from the question i.e. challenges
- It's broken up into small chunks, each one making a concluding point
- Its language is evaluative e.g. *however, furthermore*.
- It refers back to key evidence from the main body of the report e.g. 'Figure 4'
- It clearly states that LEDCs and MEDCs face different levels of challenge
- If you were being picky, it might have been good to refer to case studies and examples used more directly.

### Conclusion

In conclusion, there are different types of challenges faced by different types of plate margins and tectonic events however the degree of which depends upon the development of the country.

CPM's have more destructive impacts and will pose challenges in both LEDCs and MEDCs but due to available capital and aid an MEDC is more likely to move through the Park model (figure 4) quicker than an LEDC, meaning that the degree of challenge is greater in an LEDC.

Furthermore the reliance of an LEDC on MEDC's for aid means that the initial delay in response can increase the number of secondary casualties and means that the community is more likely to suffer if there was a secondary hazard further exposing themselves to greater risk.

### 10. QWC

9-10	<ul style="list-style-type: none"><li>• Coherent structure and sequencing with obvious report style sub sections</li><li>• Excellent standards of spelling and punctuation</li><li>• Geographical vocabulary used correctly</li><li>• Diagrams/maps, if used, incorporated into text and support argument</li><li>• Referenced/acknowledged material :obvious evidencing/sourcing from wide range of sources (texts, journals, internet, DVDs etc)</li></ul>
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