Name: _____ Form: _____

Geography Teacher: _____

CHESTERTON
COMMUNITY COLLEGE

AQA(B) GCSE GEOGRAPHY

REVISION BOOKLET

UNIT 2 – LIVING WITH NATURAL HAZARDS

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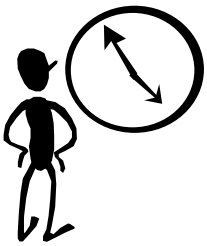
Exam technique - general hints and tips

You will take three exams in Geography. Each of them is worth 25% of your final mark. The final 25% is your controlled assessment.

Each exam will last 1 hour and will contain two questions. YOU ONLY ANSWER ONE OF THESE QUESTIONS. For Paper 2 you will only answer Section A on living with natural hazards. You will leave section B blank as we haven't studied it.



Within each section of the exam paper there will be a series of smaller questions. These will range in marks from 1 to 9. You will write your answers into the exam booklet. The paper will be marked out of 50, so you have a little over 1 minute for each mark.

Read the questions carefully

Every year, lots of candidates lose lots of marks because they misread the question, or answered the question they hoped the examiner would ask rather than the one that has been set. *Don't let this be you!*

Try underlining the exam command words to remind yourself of exactly what the examiner wants you to do. The most frequently used command words, and what they mean, can be found on pages 4-5.

Use the available resources

It costs the exam board a lot of money to produce maps, photographs and diagrams for the exams. They do it for a reason! Make sure that you use them to help you show what a good geographer you are. Look at the resources carefully and use the information from them in your answers - for example, *Photograph A shows that a series of groynes have been built along the seafront at Sheringham where the building density is high.*

Use your own background knowledge

The examiner will often ask you to write about places you have studied. You must write about real places - make sure you name and locate them (say where they are). If you can't remember the examples we have studied in lessons, then use your common sense... somewhere you've seen on TV, read about, visited on holidays etc. ***Still no ideas? Then make it up!*** It's far better to write something than to leave a question blank. No answer definitely means no marks. A well-made-up answer could get some marks (if it is believable!) and mean the difference between a lower and a higher grade.

If you are completely stuck...

Leave the question blank and come back to it later. But make sure that you do come back to it! Still unsure? Check the keywords in the question and write everything you can remember about them - you might get some marks for it. No answer definitely means no marks, so never leave a question blank!

How are the different types of question marked?

There are two different types of questions in terms of the way your exam is marked:

Questions worth 1-4 marks (note: some 4 mark questions may be level marked)

These are marked per correct point, so the more correct points you make the higher your mark will be.

Questions worth 5-9 marks (or occasionally some 4 mark questions)

Your answers to these questions will be longer! These answers are marked according to the **'level of response'** that you give to the question. The examiner must first decide which level your answer falls into and then award you a mark within this level. If you do not meet the requirements of the higher level, the examiner cannot award you those marks. The higher your level, the higher your mark will be. Questions worth 5-9 marks are treated differently at Foundation and Higher Tier. The maximum number of marks available for a single sub-question at Foundation Tier is 7.

Foundation Tier - levels of response

Level 1: Basic
Knowledge of basic information
Simple understanding
Few links; limited detail; uses a limited range of specialist terms
Limited evidence of sentence structure
Frequent spelling, punctuation and grammatical errors

Level 2: Clear
Knowledge of accurate information
Clear understanding
Answers have some linkages; occasional detail/exemplar; uses some specialist terms where appropriate
Clear evidence of sentence structure
Some spelling, punctuation and grammatical errors

Higher Tier - levels of response

Level 1 (Basic) and Level 2 (Clear) are marked in the same way as Foundation Tier answers.

Level 3: Detailed
Knowledge of accurate information appropriately contextualised and/or at correct scale
Detailed understanding, supported by relevant evidence and exemplars
Well organised, demonstrating detailed linkages and the interrelationships between factors
Range of ideas in logical form; uses a range of specialist terms where appropriate
Well structured response with effective use of sentences
Few spelling, punctuation and grammatical errors

Note: Your answer does not have to be perfect to score full marks. In fact, the mark scheme says that *'a perfect answer is not usually expected, even for full marks'*.

Exam command words

The following command words were used in the Specimen Exam Papers that AQA have published for this course. Make sure that you know what they mean and what they require you to do!

Study = look very carefully at the resource - this is not a question that you have to answer but an instruction that needs to be followed before you answer the following questions

Complete = this might be filling in a table, finishing off a graph using data you have been given, choosing words from a list to fill in the missing gaps in a paragraph, circling the correct answer from a range of options etc. Make sure that you circle / tick the correct number of items! Many candidates lose marks because they only circle one answer when they should have chosen two!

Name = just give the name - there is no need to write anything else
eg. Name the Oceans marked on the map at A and B.
Just write *'Pacific Ocean and Atlantic Ocean'* (or whatever they are!) not 'The ocean named on the map at A is the Pacific Ocean and the ocean named on the map at B is the Atlantic Ocean'.

Label = this kind of question often asks you to add a name, description or explanation to a text-box on a photograph or diagram. You might also be asked to label a sea or ocean on a map, or to add city names.
eg. Label the following cities on Figure 1 - Chicago (the northern inland city), New Orleans (on the Mississippi delta as it enters the Gulf of Mexico) and San Francisco (the west coast city)

Describe = say what you see (without giving reasons) - are there any patterns, outliers, trends? If you are describing a graph, make sure that you include figures in your answer.
eg. Describe the changes to the average number of tropical storms in the Atlantic Ocean 1900-2005.
Between 1900-1930 the average number of tropical storms was low (average of about 7 per year), dropping overall during the period. There was a sudden increase in 1930 and between 1930-1990 the average was approx 10 per year (although it fluctuated). The number of tropical storms per year since 1990 has risen considerably and by 2005 the average was 15 per year. This is double the 1900-1930 rate.

Describe the location = say where something is - try to include distance and direction from other places
eg. Describe the location of Southampton.
Southampton is a city in Hampshire, on the south-coast of England. It is 25km north-west of Portsmouth and 40 km north-east of Bournemouth.

Describe the distribution = say how something is spread out over space
eg. Describe the distribution of tropical storms.
Tropical storms occur in warm oceans between the Tropics of Cancer and Capricorn, for example in the Bay of Bengal, the Arafuna Sea the Arabian Sea and the Caribbean Sea.

Suggest the cause = give reasons for why something happened
eg. Suggest the cause of the earthquake in California.
The Pacific Plate and North American Plate are moving past each other at a conservative margin. As they move, they snag and tension builds. A sudden movement sends out shock waves, which causes an earthquake.

Explain / Give reasons / Suggest reasons = give reasons for why something happens and include all the specific detail as to why they lead to it happening; useful words to use in an 'explain' question include: therefore, so, because, as a result of, consequently, this means that
eg. Explain how Old Harry stack formed.
The base of the chalk headland was attacked by abrasion (stones being hurled at the cliff). This marine process attacked weaknesses in the rocks, expanding them to produce cracks. Over time, these cracks were widened by hydraulic action, abrasion and solution and, as a result, they became caves. Erosion continued, forming an arch when the sea caves broke through the headland. Because the roof of the arch was unsupported, it collapsed. When the roof of an arch collapsed, it left behind a stack - Old Harry. Over time, the stack will be attacked by marine and sub-aerial processes, leaving a stump.

Give effects / Suggest impacts = this type of question asks you to look into the future and write about the consequences of something happening
eg. Suggest some of the possible effects of pedestrianising the area shown in Figure 10.
If the area was pedestrianised it could be landscapes and seating could be built. This would make areas which are safer and cleaner and more sociable. This would bring in more business. However, it would be expensive and may create traffic problems elsewhere.

Use examples = you must use real-life examples to gain full marks! You have studied a wide variety of examples in lessons, and there are lots of detailed case studies on this website. You can use your own general knowledge too. Make sure you give specific detail and you include the name and location!
eg. Using an example, explain how conservation methods are protecting coastal environments.
Some coastal areas like Hurst Castle Spit in Hampshire and parts of Norfolk have been made into Nature Reserves. In these areas, the wildlife is protected and building is not allowed. There are strict conservation rules and the area is managed by nature wardens.

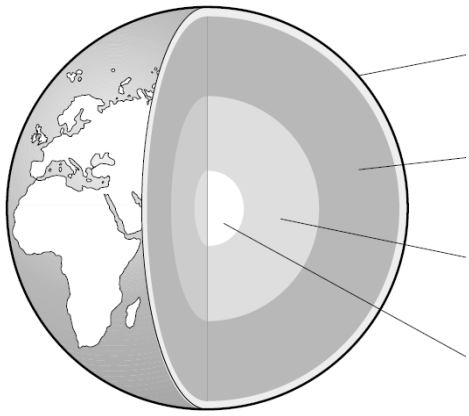
Identify evidence / Use map evidence = this means that you must include information taken from the resources that you have been provided with. Don't forget to interpret the evidence that you give!
eg. Use map evidence to suggest why the area is vulnerable to coastal flooding.
The land is very flat and wet so if the sea broke through large areas would be flooded. I can tell that the land is flat because the only contour line shown on the map extract is at 10 metres. The land in squares 4126 and 4127 is 'Hempstead Marshes'. Great Moss Fen is in 4225 and 4226. Marshes and Fens are flat.

Compare = describe the similarities and differences between things - words that will force you into a comparison are 'whereas' and 'in comparison to' 'alternatively' and 'on the other hand'; words ending in '-er' are also useful (eg. taller, richer, stronger); words such as 'less than' and 'more than' are also useful.

Annotate = this means add labels to a diagram, photograph or map. Annotate questions will also ask you to do something else eg. describe or explain. This additional command word tells you what type of statements to write in your annotations. When explaining, you will need to give detailed reasons.
eg. Annotate the photograph to explain some of the possible impacts on the natural environment of a large-scale tourist development in the area.
New buildings may be on vegetation and destroy habitats meaning animal species may leave the area.
Lots of sewage from new hotels may leak into the water, killing fish and coral reefs.
Large buildings may be an eyesore destroying the beauty of the area permanently.

Revision of subject materials for Unit 2

1. Label this diagram to show the structure of the earth.



2. Which layers of the earth do these statements refer to?

   I am dense, very hot, made mostly of solid iron and nickel. _____

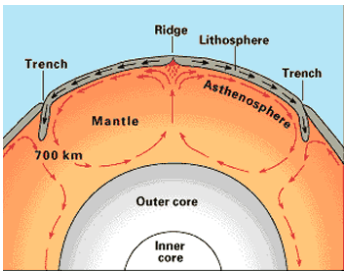
   I'm iron and nickel too, but I'm liquid. _____

   I'm really very thin and am mostly silicon, oxygen and aluminium. _____

   I'm a viscous semi-solid with convection currents circulating in me. _____

   I just hang around on the outside. _____

3. Explain why the tectonic plates move around. Use these words and the diagram to help you – mantle, crust, convection currents.



4. Where do most earthquakes and volcanoes occur?

Plate boundaries

5. Draw a diagram to show what happens at a conservative plate boundary. Label it fully.

6. Draw a diagram to show what happens at a destructive plate boundary. Label it fully.

7. Draw a diagram to show what happens at a constructive plate boundary. Label it fully.

8. Why do we get earthquakes at plate boundaries?

9. At which types of boundary do we get volcanoes? Why?

10. What does subduction mean?

<u>Earthquakes</u>

11. Define these key terms:

Earthquake _____

Magnitude _____

Focus _____

Epicentre _____

Seismic Waves _____

Seismometer _____

Aftershocks _____

12. What happens in an earthquake?

13. What do the Mercalli and Richter scales measure?

14. Define primary and secondary effects of earthquakes.

    Primary: _____

    Secondary: _____

15. Give 3 examples of primary effects of an earthquake.

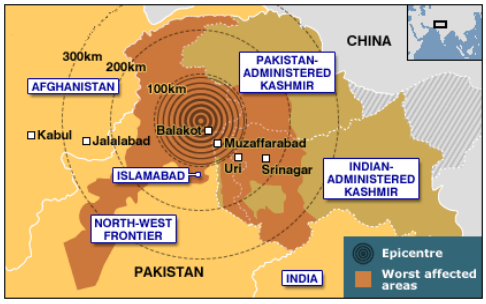
    1
    2
    3

16. Give 3 examples of secondary effects of an earthquake.

    1
    2
    3

<u>Earthquake case studies – Kashmir 2005</u>

17. Where is Kashmir? Where was the epicentre of the quake? Use the map to help you.



18. Why did the quake happen? Try to name the plates and write about the processes involved in causing the earthquake. Include a diagram if possible.

19. Give three primary effects of the Kashmir quake.

1
2
3

20. Give three secondary effects of the Kashmir quake.

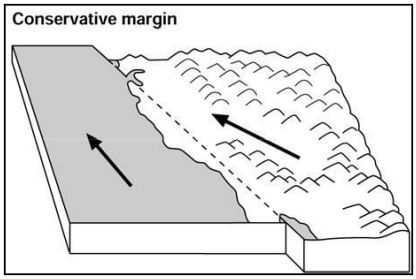
1
2
3

21. How did the authorities respond? Why were rescue operations so difficult?

<u>Earthquake case studies – Los Angeles 1994</u>

22. Where is Los Angeles?

23. Why did the LA quake happen? Label the diagram and then explain the cause of the4 quake in your own words. Make sure you include the names of the plates.



24. What were the primary effects of the LA quake?

25. What were the secondary effects of the LA quake?

26. Why did so few people die in the LA quake?

27. How did the government respond?

How does the wealth of a country affect the way it copes with earthquakes?

28. Why do the effects of earthquakes vary between countries with different levels of wealth? Try to give as many ideas as possible. For each one, extend your answer as far as you can.

29. How can buildings be designed to reduce the damage caused by earthquakes? For each point, explain how it reduces the likely damage.

30. Give an example of appropriate technology being used to build earthquake-resistant buildings in an LEDC.

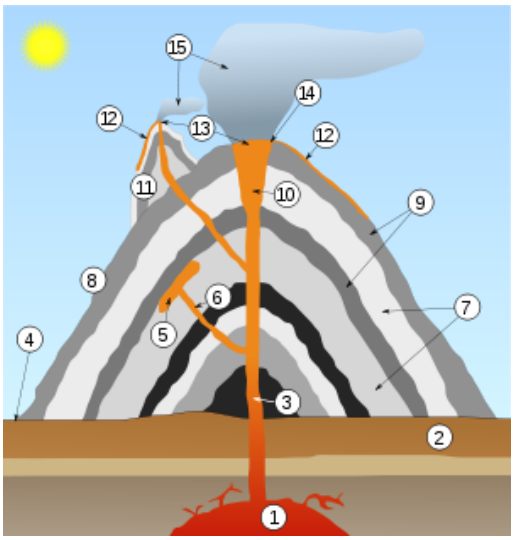
31. What can people do to prepare for an earthquake?

32. What should you do if you are driving when an earthquake strikes?

Volcanoes

33. What is the difference between lava and magma?

34. Label this diagram of a volcano.

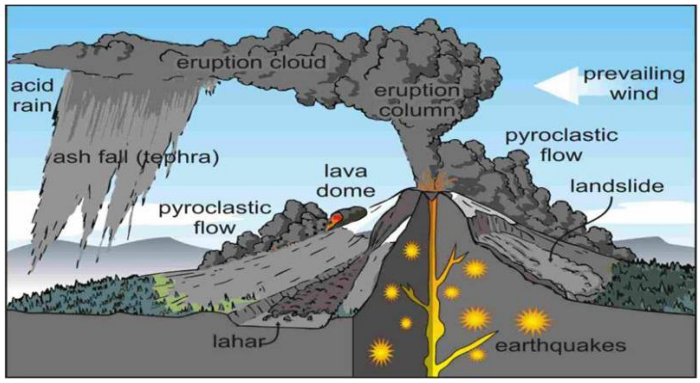


35. Why do volcanoes form at constructive margins

36. Why do volcanoes form at destructive margins?

37. What is the difference between a shield volcano and a composite volcano and why do they form?

38. What key words are being described? Choose from lahars, flooding, lava flows, tephra, volcanic gases, pyroclastic flows, landslides.



_____ All magma contains dissolved gases that are release during and between eruptions. These gases are mainly steam, carbon dioxide and compounds of sulphur and chlorine.

_____ These are streams of molten rock.

_____ These are high speed avalanches of hot ash, rock fragments and gas which move down the sides of a volcano. These flows occur when the vent area or ash column collapses.

_____ The explosive power of an eruption causes old lava to be blasted into tiny pieces and hurled into the air. The word describes these fragments.

_____ These are mixtures of water, rock, ash, sand and mud that originate from the slopes of a volcano. Lahars often happen because of heavy rainfall eroding volcanic deposits or heat from a volcanic vent suddenly melting snow and ice.

_____ Heat from cooling magma can cause hydrothermal alteration of the rocks, turning sections of them into clay. This weakens the rocks and increases the risk of slope failures.

_____ Explosive eruptions can change the surface areas around a volcano and disrupt drainage patterns, leading to long-term flooding.

39. List 3 primary effects of an eruption.

1

2

3

40. List 5 secondary effects of an eruption.

1
2
3

Volcano case studies

41. List 3 social effects of the eruption of Mount Pinatubo.

1
2
3

42. List 3 economic effects of the eruption of Mount Pinatubo.

1
2
3

43. List 3 environmental effects of the eruption of Mount Pinatubo.

1
2
3

44. What were the short term responses to the eruption of Mount Pinatubo?

45. What were the long term responses to the eruption of Mount Pinatubo?

Living with natural hazards

46. Give at least 4 reasons why people live in active zones. For each one, give the point, explain it and provide evidence (an example).

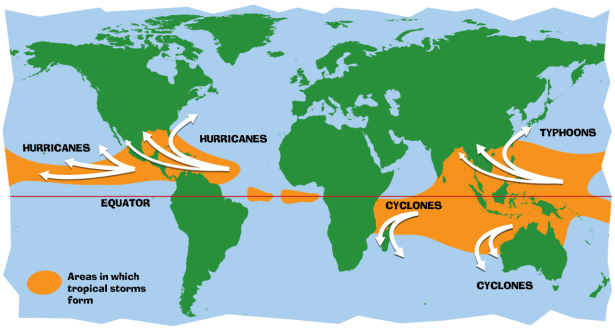
47. How do we monitor volcanoes?

48. How can zoning help to prepare for an eruption?

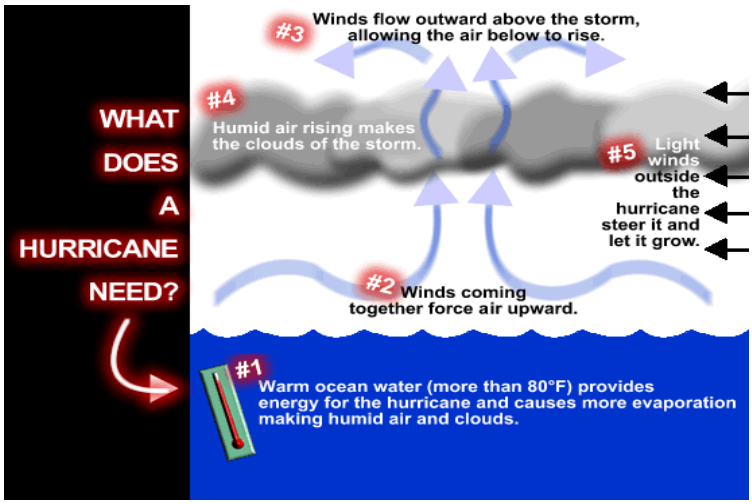
49. What can people do to reduce the damaging effects of a volcanic eruption?

Tropical storms

50. Where do we get tropical storms? Why? Use the map to help you.



51. Describe the processes taking place in a tropical storm. Use the diagram to help you.



52. Why do tropical storms die out when they reach land?

53. What scale is used to measure tropical storms?

54. List 3 primary effects of tropical storms.

1
2
3

55. List 5 secondary effects of tropical storms.

1
2
3
4
5

56. What is a storm surge?

57. What are the two causes of a storm surge?

<u>Tropical Storm case studies – Hurricane Katrina</u>

58. Where did Hurricane Katrina strike?

59. Why did Hurricane Katrina cause so much damage?

Tropical storm case studies – Cyclone Sidr

60. Where did Cyclone Sidr strike?

61. What effects did the storm have?

62. What did people in the area do to reduce the damaging effects of the storm?

Living with tropical storms

63. How are tropical storms monitored? How does this help to reduce their damaging effects?

64. What can people in MEDCs do to reduce the damage caused by storms?

65. What can people in LEDCs do to reduce the damage caused by storms?

66. Give at least 3 different reasons why scientists have said that the number of tropical storms has risen over the last 100 years.

67. Why might global warming lead to more tropical storms?

68. What is the AMO and how is it linked to tropical storms?

69. What is El Nino and how is it linked to tropical storms?

Wildfires

70. What is a wildfire?

71. List 3 natural causes of wildfires.

1

2

3

72. List 5 human causes of wildfires.

1
2
3
4
5

73. List 3 primary effects of wildfires.

1
2
3

74. List 5 secondary effects of wildfires.

1
2
3
4
5

75. List at least 5 effects of the California 2007 wildfires.

1
2
3
4
5

76. Why do Google own a herd of goats?

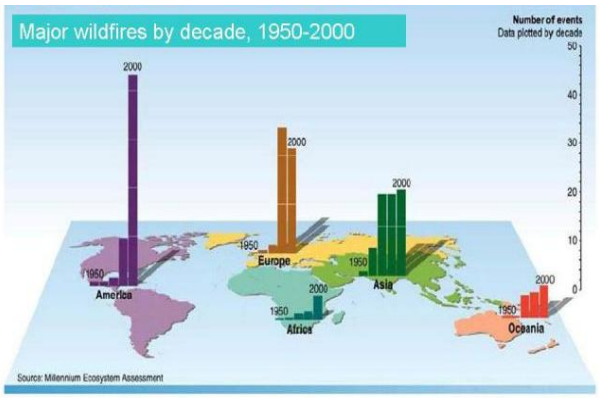
77. What can be done to prevent wildfires from happening?

78. What is backburning?

79. How do we tackle wildfires once they have started?

80. Describe the media campaign in the US to educate the public about wildfires.

81. What has happened to the number of major wildfires over the last 50 years? Try to include figures in your answer.



82. Why might the number of wildfires increase in the future?

83. Why might the damage caused by wildfires increase in the future?

84. Explain why areas in which wildfires occur should be protected.