Geography Course overview:

Specification: AQA

Subject content:

The content for the ***AS course*** is split into these two components:

Component 1: Physical Geography	**Component 2: Human Geography**
• Glacial Systems and Landscapes • Hazards	• Changing places • Geography fieldwork investigation and geographical skills
Assessment: Written exam: 1 hour 30 minutes (50% of AS level) Question types: multiple-choice, short answer, levels of response and extended prose	Assessment: Written exam: 1 hour 30 minutes (50% of AS level) Question types: multiple-choice, short answer, levels of response and extended prose

AS exams will take place at the end of year 12, however do not count towards the overall A level. The content for the ***A level course*** is split into these three components:

Component 1: **Physical Geography**	**Component 2:** **Human Geography**	**Component 3:** **Geography fieldwork investigation**
• Water and carbon cycles • Glacial systems and landscapes • Hazards	• Global systems and global governance • Changing places • Contemporary urban environments	Students complete an individual investigation which must include data collected in the field. The individual investigation must be based on a question or issue defined and developed by the student relating to any part of the specification content.
Assessment: Written exam: 2 hours 30 minutes (40% of Alevel) Question types: multiple-choice, short answer, levels of response and extended prose	Assessment: Written exam: 2 hours 30 minutes (40% of A level) Question types: multiple-choice, short answer, levels of response and extended prose	Assessment: A written report between 3,000 - 4,000 words (20% of A level)

This course is linear therefore all A level exams will take place at the end of year 13.

Changing Places

From the 1000s of pictures of places on the Tate website select **one** that you can relate to. It may be that you are familiar with a landscape, can understand the human or physical processes that have worked to shape the place illustrated or see geographical interactions reflected in the work.

1. You will need to access the Tate website to complete this task.

http://www.tate.org.uk/art

2. Copy and paste the picture onto a powerpoint slide.

3. On a second powerpoint slide – past the picture and write a paragraph which describes why the picture speaks to you as a Geographer. Make sure you add your name to this one. These will form part of a display to raise awareness of geography within Tudor Grange!

I have modelled this for you by selecting and writing about one picture that appealed to me as a geog rapher.

In Fingal's Cave, Staffa
William Daniell's 'A Voyage Round Great Britain' (1814-25)

Fingal's cave is a sea-cave on the uninhabited island of Staffa, Inner Hebrides. Like its more famous relative, the Giant's Causeway, it is formed of hexagonally-jointed basalt and has been a popular tourist destination since the 19th Century. It appeals to me as a geographer because the painting resonates with many aspects of geography that are important to me: geology, coastal geomorphology and tourism. But more importantly it represents for me how 'place' can stimulate curiosity – 'looking outwards from within', creativity, awe and wonder in people. As well as paintings it has stimulated composers like Mendlessohn to compose the 'Hebrides Overture'and poets such as Wordsworth, Keats and Tennyson have all visited here and been inspired.

Now answer the following question:

Name **one** place that you have studied.

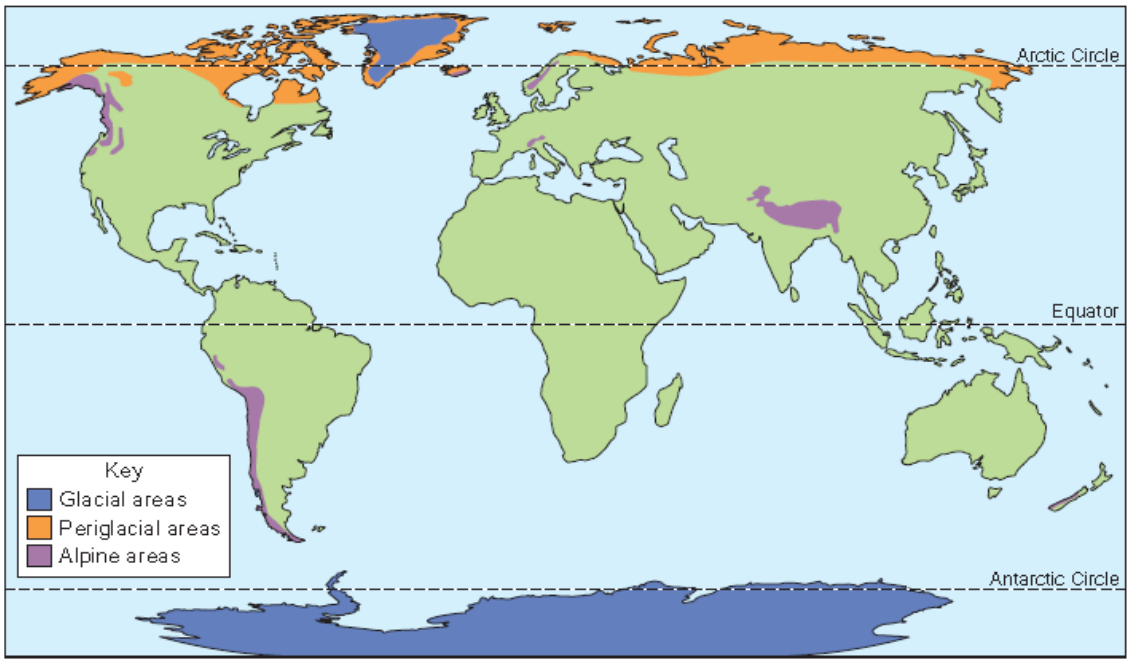
Name **one** artistic source (eg painting, song, text) and explain how it helped you to develop your knowledge and understanding of that place.

[3 marks]

Glacial Systems and Landscapes

2 (a) **Figure 3** shows the distribution of cold environments.

Figure 3



Describe the distribution of cold environments shown in **Figure 3**.

[4 marks]

Describe the distribution of cold environments shown in Figure 3 (4 marks)

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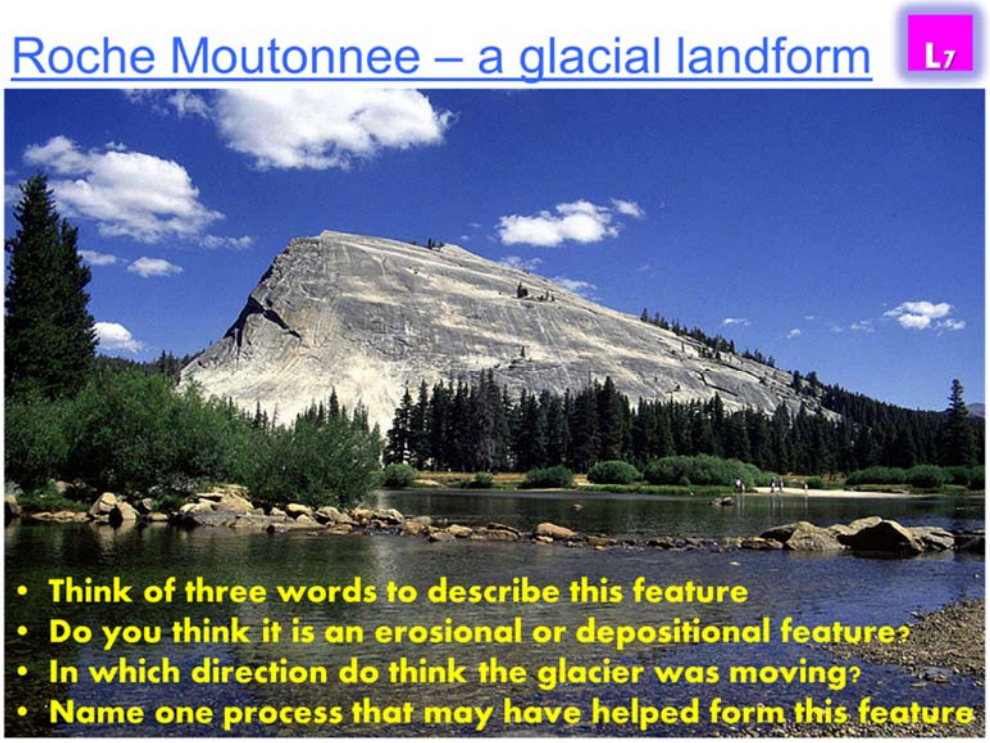
Match the terms to the correct definitions:

Number	Term	Definition	Number match
1	glacier	A small glacier, typically between 0.5 and 10km2 in area, that forms in shady, sheltered hollows high up on the sides of mountains.	
2	nivation	A phase during recent geological time when the world's climate is relatively warm and ice sheets are reduced in size and restricted to high latitudes.	
3	erratic	A very large glacier (over 50,000km2) that is dome shaped with ice flowing outward from the higher elevation centre.	
4	glacial plucking	Pertaining to non-glacial cold-climate processes and landforms; often, but not only, found near to glacial environments.	
5	till	A type of 'end moraine' that forms along the snout of a glacier and represents the furthest advance of that glacier.	
6	ice sheet	A mass of land ice derived mainly from snowfall that deforms under its own weight and flows down slope.	
7	frost action	An erosional process by which rock material frozen to the base of a glacier abrades underlying rock as the glacier moves.	
8	cirque glacier	Found where soil and rock have a temperature below $0^{o}C$ for at least two consecutive years.	
9	patterned ground	The formation and enlargement of a hollow on a hillside caused by the presence of a snow patch and the associated freeze- thaw weathering, mass movement, and meltwater erosion.	
10	glacial (*as a time period*)	An erosional process by which glaciers loosen, detach, and pick up pieces of rock from the bedrock they move over.	
11	moraine	A physical weathering process caused by alternating freezing and thawing of water in cracks and pore spaces in rock.	
12	glacial abrasion	A linear accumulation of till that forms and is deposited along the side of a glacier.	
13	scree slope	In a periglacial environment, an accumulation of frost-shattered stones and boulders on a flat or low angle slope.	

14	periglacial	Debris that is deposited by the direct action of a glacier. It is an 'unsorted', non-stratified, and unconsolidated deposit.	
15	solifluction	A result of periglacial processes in which stones on the surface become organised into patterns such as stripes, circles, and polygons.	
16	terminal moraine	A rock that has been moved by a glacier far from its origin and deposited in an area of contrasting geology.	
17	active layer	A phase during recent geological time when ice sheets are much more extensive than today and the world's climate is colder and drier.	
18	striations (striae)	An accumulation of debris transported or deposited by a glacier. Also refers to the landforms made of till that result from glacial deposition.	
19	lateral moraine	In a periglacial environment, the top layer of ground above permafrost that experiences seasonal freezing and thawing.	
20	interglacial	Scratches and grooves in rock caused by glacial abrasion and oriented parallel with the former direction of glacier flow.	
21	blockfield	A process of mass movement whereby surface material, saturated with water, moves slowly down slope. Commonly occurs on low angle slopes under periglacial conditions when the active layer thaws.	
22	permafrost	A sloping accumulation of angular rock fragments against a cliff caused by physical weathering and rockfall – formation favoured by frost-shattering under periglacial conditions.	



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Hazards

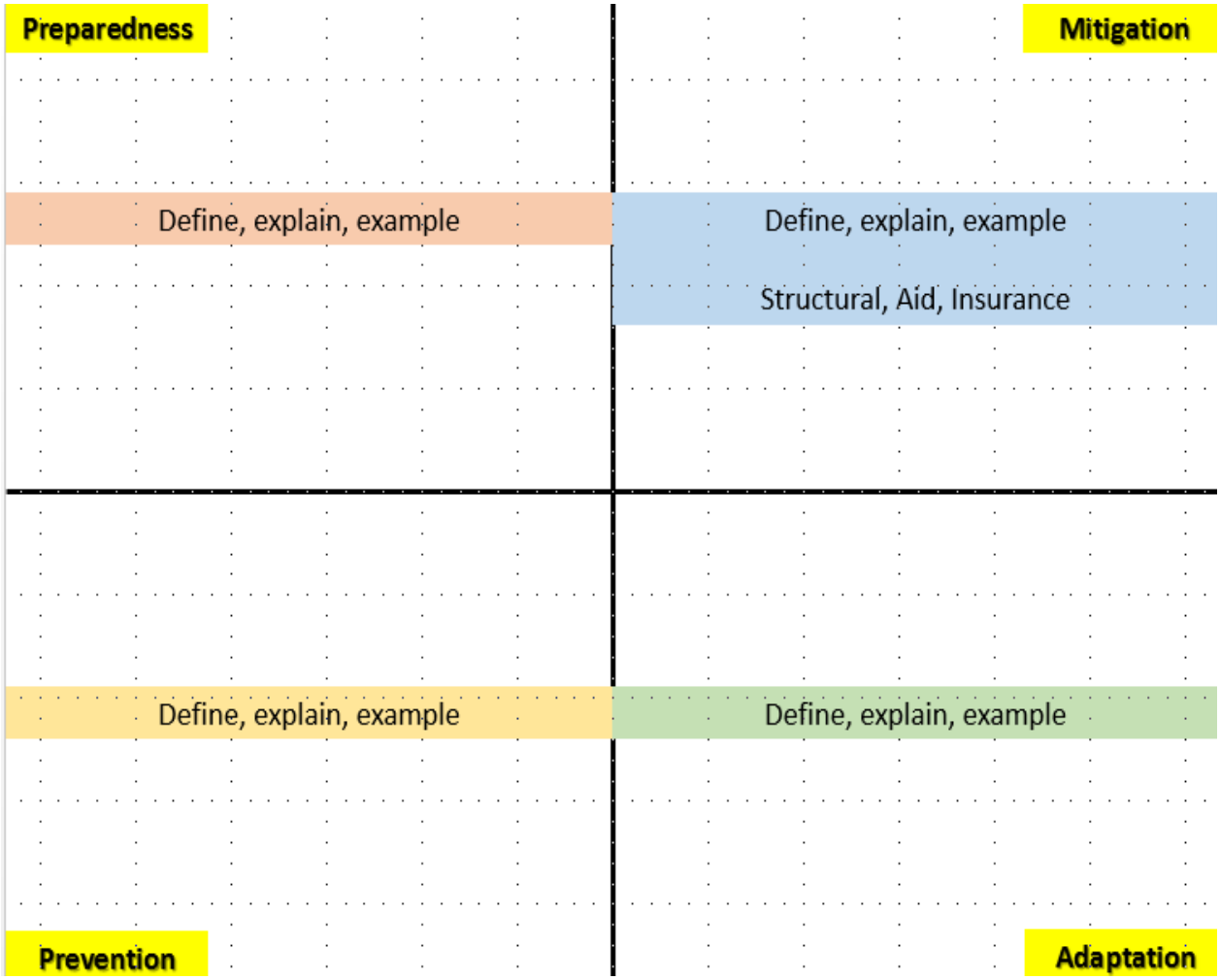
Research Task:

A key concept in tectonic hazards is that of plate tectonic theory. It is a complex, and yet to be fully understood, theory that was originally proposed by Alfred Wegener. Your task is to:

1. Describe plate tectonic theory
2. Describe and explain Wegener's evidence for plate tectonic theory
3. What is palaeomagnetism and sea floor spreading and how did they support Wegener's theory in later years?
4. Explain, with examples, the process of continental drift.

Risk Management of Hazards

For the four key corner stones of risk management (shown below), **define**, **explain** and give an **example** of how each one could be applied in tectonic, storm or wildfire hazards *(eg preparedness – people boarding up their windows to reduce the impact of a hurricane)*



This Smokey the bear!

Visit https://smokeybear.com/en and list five key ways in which Smokey advises how to prevent wildfires

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Geographical Skills and Fieldwork

Study Fig 2, an aerial photograph of an area where a geographical investigation is to be undertaken.

Using evidence from the photograph, explain why this area is suitable for a variety of geographical investigations. [4 marks]

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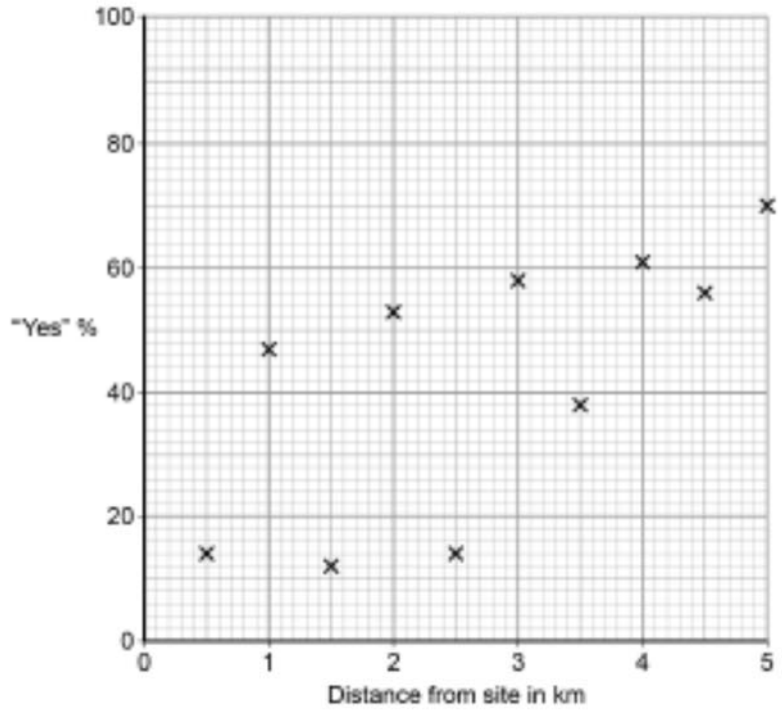
0 3 . 1 Explain why some form of sampling is almost always used when students are carrying out fieldwork to collect data for a geographical investigation.

[4 marks]

3 The student thought that using a scatter graph to show the data would help her analysis. She drew the graph shown in **Figure 7**.

Figure 7



Draw a best fit line on the graph, **Figure 7**.

[2 marks]

Final challenge! Statistics is one of the biggest challenges of the A Level. See if you can work this one out!

d = difference between ranks

One of the students tested for a correlation between the two sets of data in **Figure 3**, using a Spearman's rank correlation test. **Figure 5** shows how she set out the data and started her calculations.

Figure 5

Calculation of the Spearman's rank correlation coefficient (Rs).

Sample distance from site		Rank of distance	Yes %	Rank Yes %	d	d^2
Area	(km)	R1		R2	(R1–R2)	
1	4.5	9	56	7	2	4
2	3.5	7	38	4	3	9
3	2.5	5	14			
4	1.5	3	12	1	2	4
5	0.5	1	14	2.5	–1.5	2.25
6	1.0	2	47	5	–3	9
7	2.0	4	53	6	–2	4
8	3.0	6	58	8	–2	4
9	4.0	8	61	9	–1	2
10	5.0	10	70	10	0	0

$\sum d^2 =$ _____

$6 \times \sum d^2 =$ _____

$$Rs = 1 - \frac{6\sum d^2}{n^3 - n}$$

$$= 1 - \frac{\text{_____}}{990}$$

$= 1 -$ _____

$= Rs$ _____

1 Complete the calculation of Rs (show your working).

[4 marks]