

Candidate 4 evidence

ENTER NUMBER OF QUESTION		DO NOT WRITE IN THIS MARGIN
1.	<p>Snow accumulates in mountain hollows as more snow falls in winter than melts in summer. North/North East facing slopes are more shaded therefore the snow lasts longer and compresses to form neve and eventually ice. Plucking, where ice pulls loose rocks away from the backwall, steepening it. Abrasion, where angular rocks already embedded in the ice, grinds the hollow, deepening it. Frost-shattering, where water gets into cracks in rocks and freezes when the temperature drops below freezing, the ice contracts and expands weakening the rock and causing bits of rock to break off which steepens the sides. Rotational sliding deepens the central part of the hollow due to weight and gravity. Friction causes the z front of the glacier to slow down and deposit material, this creates a rock lip and when the glacier melts</p>	

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	a tarn is left. Freeze-thaw action continues	
	to deepen and steepen the corrie.	
	2. Longshore drift is the process of moving	
	material onto and off the coastline. Longshore	
	drift is in the direction of the prevailing	
	wind. Material is carried onto the beach by	
	Swash at an angle to the coastline. Backwash	
	brings the material ^{back} out in the direction of the	
	sea at a right angle to the coastline. When	
	the coast changes direction or or there is	
	a river estuary the longshore drift continues	
	out to sea. The material builds up forming	
	a long, thin line of sand called a spit.	
	When the ocean currents or the wind	
	changes direction the spit can be formed	
	into a hook shape. When this happens at a	

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river estuary the material can build up to form marshlands.

3. a) In the Atlantic ocean warm currents in the Northern hemisphere travel North ^{to the polar regions} and the cold currents travel ^{South} to the equatorial regions in order to be heated up. In the Atlantic ocean in the Southern hemisphere the warm currents move South to the polar regions from the equator whereas the cold currents move north from the polar regions to the equatorial regions.

b) The ocean is heated more slowly than land ~~though~~ but is heated to a greater depth. ~~This results in density differences in the ocean.~~ This means that ~~heat~~ ^{energy} is distributed due to the flow of ocean currents. Differential heating results in density differences as cold water is dense and sinks whereas

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4.a)	<p>The discharge level began at around 4 cumecs at 10:00 on the 8th of June, this then slowly increased to around 6 cumecs by 14:00. Between 14:00 and 18:00 the discharge started to increase more quickly as the rainfall increased increased. to 26 cumecs</p> <p>From 18:00 to 22:00 the discharge started to slowly increase again from 26 cumecs to about 34 cumecs. From this point the discharge increased rapidly until it increased peaked at 85 cumecs at 02:00 then the discharge decreased quickly.</p>
b)	<p>The slow increase in discharge at the beginning was a result of there not being much rainfall at these times. The steep rising limb between 22:00 and 02:00 was a result of the removal of vegetation meaning less water was being absorbed and transpired and</p>

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	<p>Therefore was a quick run-off. The short lag time was due to the removal of plants and there may be concrete resulting in less drainage and storage of water and less absorption resulting in the water reaching the river quicker</p>
5.	<p>A waterfall can be formed where there are alternating bands of hard and soft rock. The soft rock is eroded quicker and easier eg. clay whereas the hard rock is eroded slower eg. chalk. The soft rock is eroded and undercut through a few erosion processes.</p>
	<p>Hydraulic action where the sheer be power of the water smashes the rock breaking it off.</p>

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	<p>Corrasion, where the water picks up rocks and other material and flings it against the rock eroding it. Corrosion where As the soft rock is under cut the hard rock is left hanging, eventually it becomes unsupported and topples down into the plunge pool deepening it. This process is repeated as the water fall retreats upstream leaving behind a gorge.</p>
6.	<p>There is a black thin layer of soil humus which is a result of the breakdown of coniferous needles fallen from a coniferous forest. There are distinct layers due to the cold climate meaning the the soil biota are unable to survive so they can't mix up the soil. The A-horizon is</p>

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ash-grey in colour due to the high precipitation causing downward leaching of clay, humus etc. E-horizon is made of sand. The B-horizon is reddish brown due to the leaching of iron oxide which can form an iron pan, impeding drainage. The C-horizon is made of parent material, ~~not~~ weathered material rock and glacial material.

The consequences of these changes are that due to the decline in the birth rate there is less demand for schools and maternity hospitals. To make these ^{services} jobs efficient some may need to be closed leading to lost jobs in these sectors. More elderly people means there is more need for geriatric care resulting in increased strain for

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9.	<p>in the Rainforest</p> <p>The impacts are that there is a reduction in photosynthesis, this results in less CO₂ being absorbed by trees and less oxygen being released. This results in more CO₂ in the atmosphere and is worsened when the trees wood is burnt. The machinery used also emits more CO₂. Increased amounts of flooding will occur as the removal of vegetation results in more surface run-off therefore increasing water in rivers and therefore increasing chance of flooding. Loss of biodiversity as the is removal of vegetation and trees destroy habitats. Reduced rainfall as removing vegetation results in less water absorbed and transpired by plants. This increases risk of drought. Loss of indigenous homes, this can result in the death of tribal people as they aren't immune to things like the cold as they have been living in the rainforest.</p>

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for so long.

Glaciated .
10. When large amounts of people in cars are trying to enter honey pot sites at once like Bowness there is a lot of traffic congestion causing major noise and air pollution. Tourists parking on grass verges can erode the grass and ruin it. Speed boats create oil spillages which causes beach erosion eg. Lake Windmere. Quarrying is seen as an eye sore and ruins the landscape. Quarrying results in lots of dust being released into the atmosphere which can stunt the growth of trees and plants eg. Howister quarry. People parking on main roads increases

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	traffic congestion. When tourists walk off	
	foot path they increase foot path erosion.	
	People can damage stone walls when climbing	
	over them. Tourists may disturb cattle or	
	leave gates open resulting in cattle escaping.	
	When people drop litter farm animals	
	can eat it causing them damage and	
	could potentially kill them.	
	11. In Glasgow, new modern tenement-style	
	flats were built at ^{as part of the} crown street regeneration project	
	which looked much	
	nicer and appealing. High rised flats	
	were replaced by low density affordable	
	housing with this was the introduction of	
	the new 'high street' providing local shops,	
	doctors, landscaping and trees. The landscaping	

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removed leaving space to attract multinational companies to Glasgow which creates jobs.

This was helped along with the introduction of the M74 to transport goods easily.

* it is a toll road as Rio did not have the money to cover the whole road

12. Rio has introduced the 21km yellow line express way was used to connect the north of Rio where the airport is to the west (Barra de Tijuca). This road has had success in reducing 40% of Rio's traffic congestion problems. * The Complex de Alemão is a cable car across Rio.

It has 550 cars across 6 stations and can turn a 1 hour and 30 minute trudge into a 16 minute sky ride.

This was £74 million which caused controversy as this money could have been spent on improving

