

Unit 1: Living with the physical environment

Section A

Tectonic Hazards
Weather Hazards
Climate Change



Section B

Ecosystems
Tropical Rainforests
Hot Deserts
Cold environments



Section C

Coasts
Glaciers
Rivers



Where are the marks?

Section A	Tectonic Hazards Weather Hazards Climate Change	33 marks, including 1 9 mark question
Section B	Ecosystems Tropical Rainforests Hot Deserts Cold environments	25 marks, including 1 9 mark question
Section C	Coasts Glaciers Rivers	30 marks

Case studies

- Very specific examples of something that has happened
- Used as evidence, particularly in 6 and 9 mark questions
- Some questions will say “using figure 6 **and an example you have studied**” – if you don’t have an example, you will struggle to get beyond half marks on that question

Explain how hard engineering can protect the coastline. Use figure 8 and an example you have studied (6)



Figure 8 – sea defences in Scarborough

1) Talk about figure 8. What can you see? How does it protect the coast?

2) Talk about another example – what is there that is different to the picture that also protects the coast?

- Using figure 4 and your own knowledge, explain why the rainforest is being destroyed (6)



Figure 4 – cattle grazing in Uganda

9 markers

- Worth an additional 3 marks for spelling, punctuation and grammar, so actually 12 marks up for grabs!
- 2 per paper so 24 marks total on just these 2 questions – they are super important. Almost $\frac{1}{4}$ of the entire paper is those 2 questions.

How to answer 9 markers

1. Use key words –this will help with SPAG
2. Structure your answer – paragraphs help. Try not to just write everything you can possibly think of
3. Conclude – actually give an answer at the end

The questions have the same few command words:

- Assess (make an overall judgement on the topic by balancing the different parts of the issue)
- Evaluate (use or provide evidence to give a judgement on the topic)
- To what extent do you agree? (judge how important something is)

Judgement: look at both sides to make a choice

- Yes/no
- Good/bad
- Positive/negative
- Social/economic/environmental
- Primary/secondary
- Success/failure
- Option1/option 2
- Was effective/was not effective

The best arguments show balance

- If you can show that you understand both sides, but can still pick one, that makes you look a much better student than someone that just picks and answer and runs with it
- Task –
 1. read through the evidence. Organise it into points that support the view that Mr O'Mahoney is a good teacher, and the points that show he is not such a good teacher
 2. Using that evidence, what are you able to say about his ability to teach
 3. Explain in the box at the bottom how you were able to come to that final judgement

Putting the skills together: practice question

0 1 . 9 Choose **either** an earthquake or a volcanic eruption.

Assess the extent to which primary effects are more significant than secondary effects.

Use **Figure 5a** or **5b** and an example you have studied.

[9 marks]
[+ 3 SPaG marks]



What effects can you see?



Effects are often classified as primary and secondary impacts. Primary effects occur as a direct result of the ground shaking, eg buildings collapsing. Secondary effects occur as a result of the primary effects, eg tsunamis or fires due to ruptured gas mains.

Christchurch earthquake case study facts

Primary (caused directly by the earthquake)	Secondary (result from primary effects)
181 people were killed and around 2,000 people were injured	Business were put out of action for long periods causing losses of income and jobs
Hundreds of kilometres of water and sewage pipes were damaged	Schools had to share classrooms because of the damage to other school buildings
50% + of Central City buildings severely damaged including the city's cathedral which lost its spire	Damage to roads through liquefaction made it difficult for people and emergency services to move around
Liquefaction (where the ground gets saturated and loses strength) caused lots of damage to roads and buildings	People were affected mentally by the earthquakes and needed support
Part (size of 20 football fields) of the country's longest glacier was broken off creating a large iceberg	Christchurch could no longer host Rugby World Cup matches so lost the benefits, e.g. tourism and income, they would bring
80% of the city was without electricity	

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[9 marks]
[+ 3 SPaG marks]

- Let's think structure ... how would you put your paragraphs down?
- What do you need to remember to do?
- What should you do if you are running out of time?

0 3 . 2 Study **Figure 10**, a diagram showing features of coastal erosion.

Complete the diagram by using the following terms:

Arch

Cave

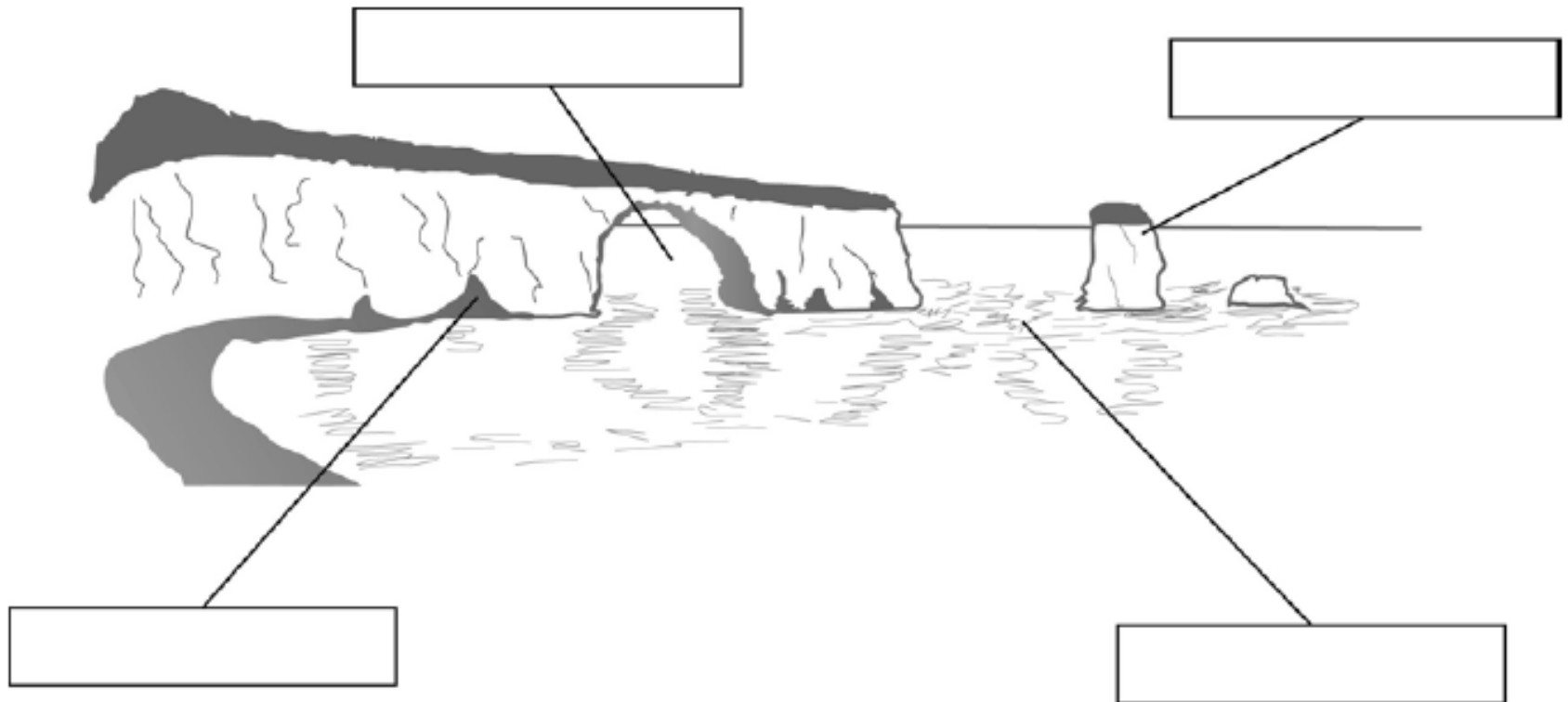
Stack

Wave-cut platform

[3 marks]

How do you get the marks on this question?

Figure 10

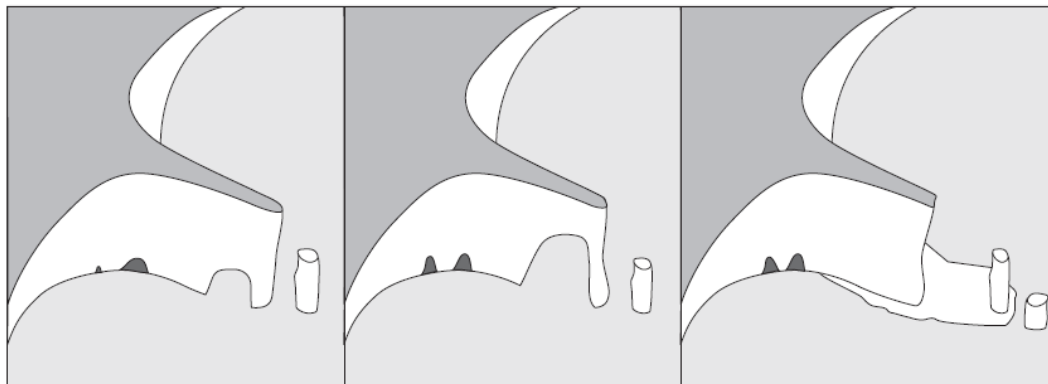


Task 1 – explain questions

- One of the most common question types is to ask you to explain how a landform is made
- They could ask you to recognise them from a figure in the book, they could also just name it.

1 (c) (iii) Study **Figure 3** which shows features of coastal erosion.

Figure 3



Explain how erosion has created the features shown in **Figure 3**.

What would it be a good idea to do to this question on the exam sheet?

Task 1 – explain questions

- There are 15 different landforms or processes on the card – in pairs you will be given one at random.
1. Write the number of the card you were given on the A3 sheet, along with your name
 2. Read through the information on how that landform was made or how that process works.
 3. Using the play dough, make a 3d model of that landform on the page
 4. Around your model(s), you must annotate the important features

DO NOT write the name of your landform anywhere on your sheet!!!!

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DO NOT write the name of your landform anywhere on your sheet!!!! Do not tell anyone which one you have!

Number	Name of landform	Number	Name of landform	Number	Name of landform
1		6		11	
2		7		12	
3		8		13	
4		9		14	
5		10		15	

Number	Name of landform	Number	Name of landform	Number	Name of landform
1		6		11	
2		7		12	
3		8		13	
4		9		14	
5		10		15	

On your post it notes:

- On one, write your name and the name of **AT** **LEAST** 3 of the landforms you would feel happy with if you were asked about them in the exam. Stick that note on the board.
- On the second post it note, write your name, and the name of the three landforms you really don't want to come up.
- Give that post it to me

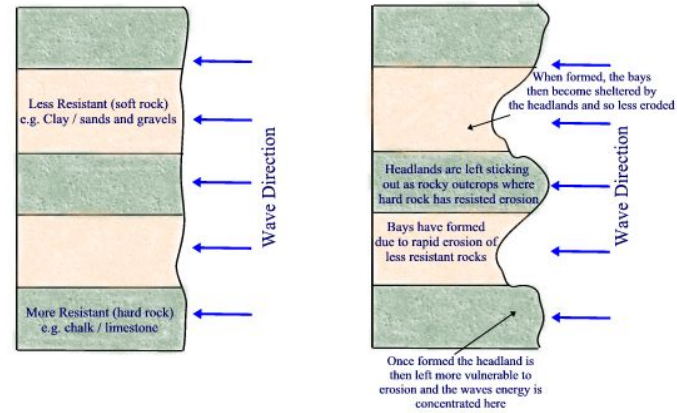
Exam practice

- Explain the formation of (6)
- Explain the processes occurring at ... (6)

Explain the formation of a headland and bay

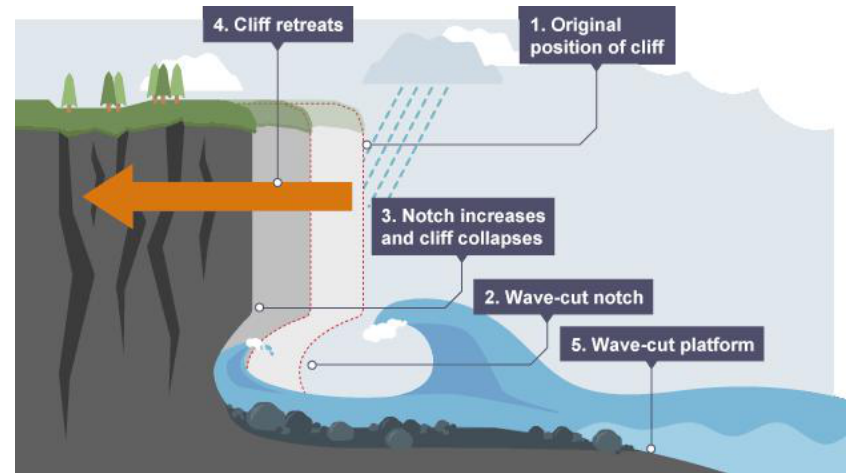
Key words: erosion, more resistant, less resistant,

The Formation of Headlands and Bays



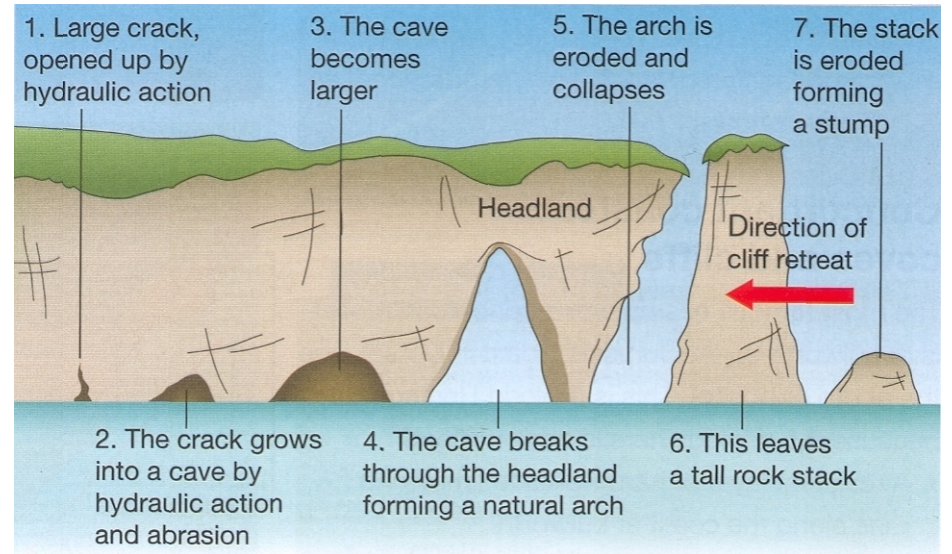
Explain the formation of a wave cut notch and platform

Key words: erosion, undercutting, retreat, abrasion, hydraulic action



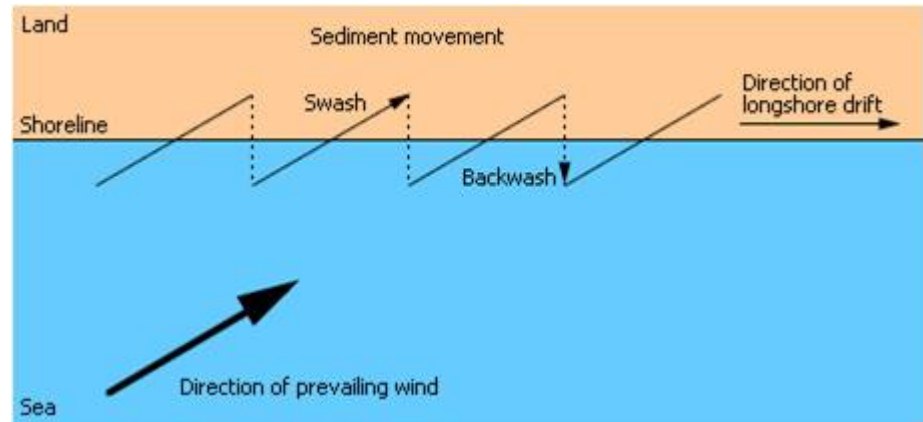
Explain how a headland becomes a cave, arch, stack and stump

Key words: undercutting, abrasion, hydraulic action, faults



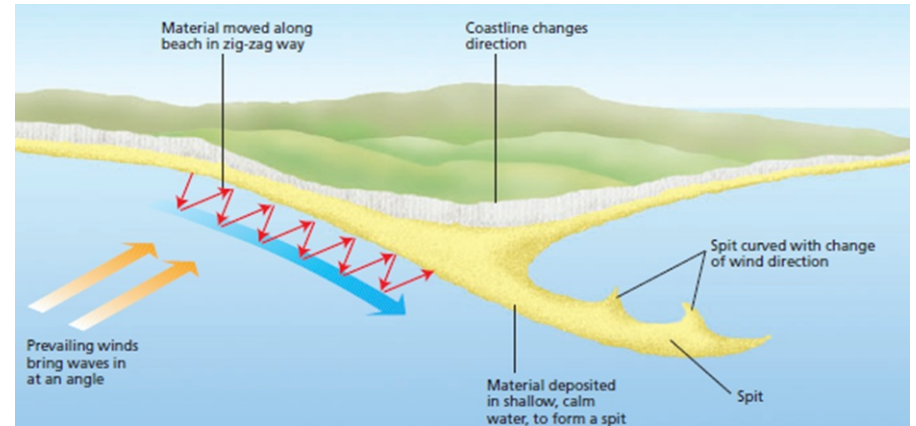
Explain how long shore drift works

Key words: swash, backwash, prevailing wind, transport



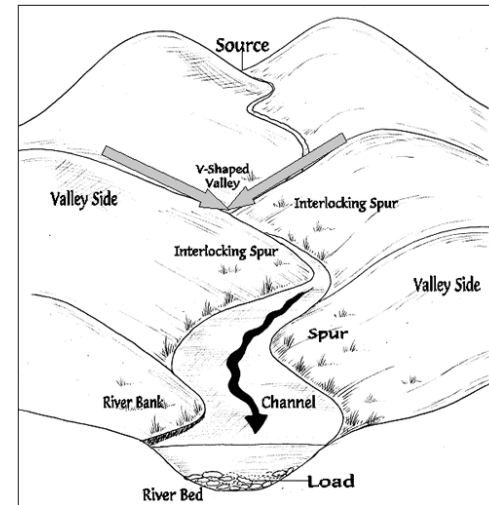
Explain how a spit is formed

Key words: longshore drift, headland, deposition, shallow, salt marsh, recurved end



Explain the formation of a v shaped valley with interlocking spurs

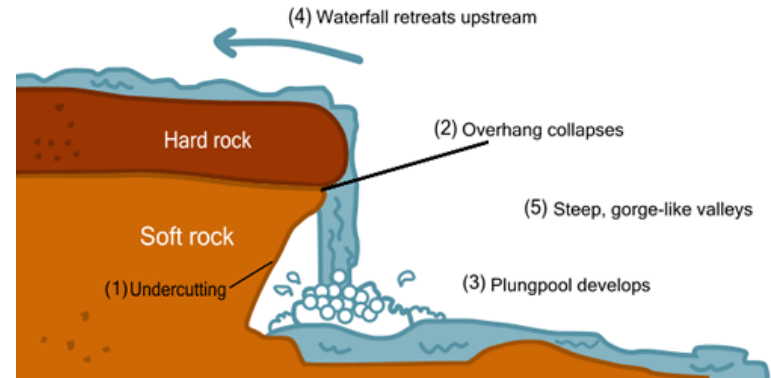
Key words: More resistant, steep, vertical erosion



Explain how a waterfall is formed

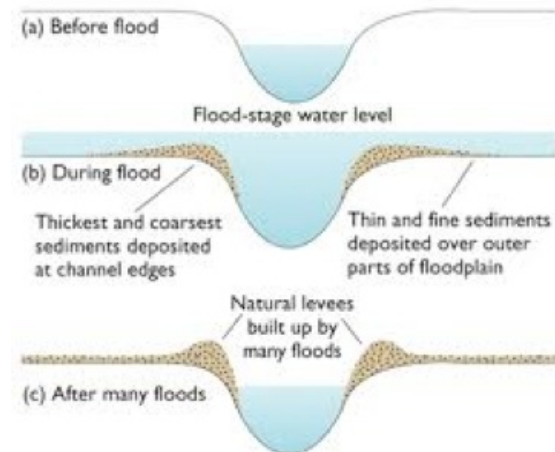
Key words:

More/less resistant, undercutting, plunge pool, retreat, gorge, abrasion, hydraulic action



Explain how a floodplain with levees is formed

Key words: flood, deposition, alluvium, small or large sediment



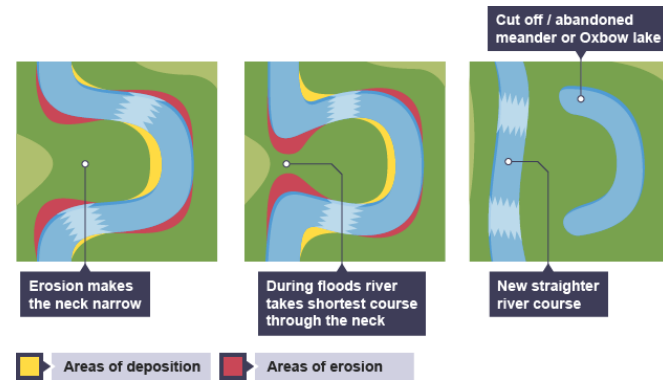
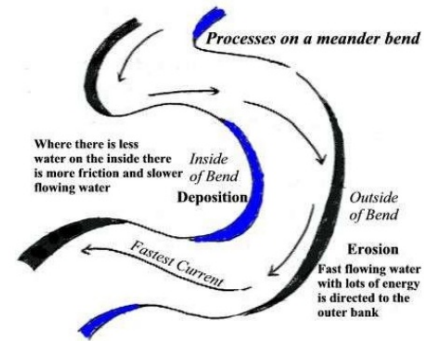
Explain how a meander is formed

Key words: riffle, velocity, inside, outside, lateral erosion, migrate, deposition, river cliff, slip off slope

Explain how an oxbow lake is formed

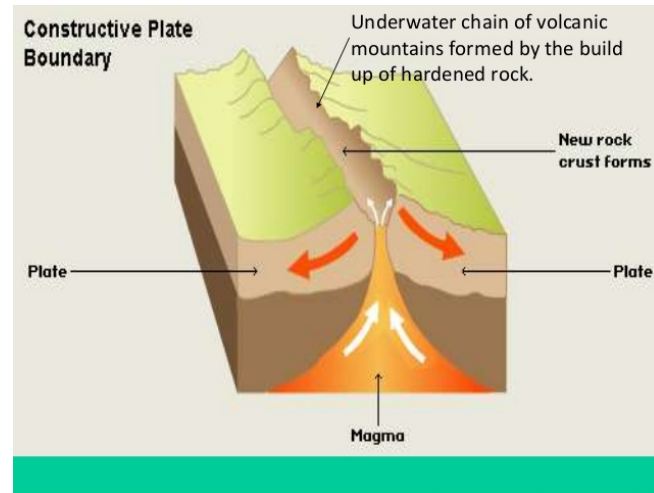
Key words: meander, neck, migrate, lateral erosion, deposition

Meander Formation



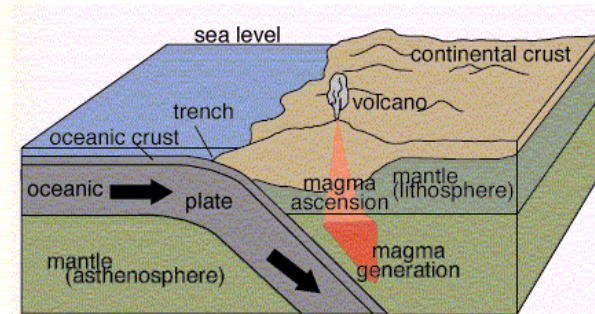
Explain the processes occurring at a constructive boundary

Key words: convection, magma, apart, shield volcano, small earthquake



Explain the processes occurring at a destructive boundary

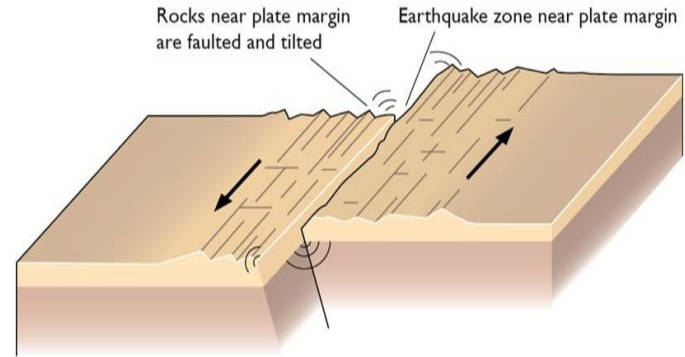
Key words: convection, magma, together, oceanic, continental, earthquake, strato volcano, subduction



Magma is generated at subduction zones where dense oceanic plates are pushed under lighter continental plates.

Explain the processes found at a conservative plate boundary

Key words: friction, side to side, locking, pressure, earthquake, no volcano



Two plates move past each other without converging or diverging. There are earthquakes but no volcanoes.

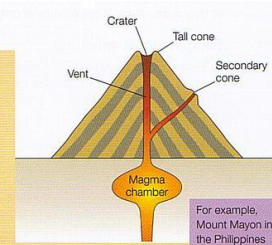
Explain the differences between a shield and composite volcano

Volcanoes

There are two main types of volcano.

Composite volcanoes

- ◆ They're found at destructive plate margins. When the oceanic plate sinks into the mantle and melts, it forms magma. Magma mixed with sea water then rises up through cracks in the Earth's crust and erupts at the surface – forming volcanoes (page 11).
- ◆ Composite volcanoes have steep sides, and are made up of alternate layers of ash and lava.
- ◆ The lava is sticky, so it doesn't flow far. It's also acidic.
- ◆ Eruptions can be violent – expelling steam, ash, lava and rock – but they don't happen very often.



Shield volcanoes

- ◆ They're found at constructive plate margins. As the two plates move apart, magma rises up from the mantle. Some magma is forced to the surface through a vent – forming a volcano.
- ◆ Shield volcanoes have a wide base and gently sloping sides.
- ◆ The lava is runny and flows a long way. It's also basic (that's the opposite of acidic).
- ◆ There can be frequent eruptions, but they're not violent.

