# Edexcel Geography GCSE

## Christchurch Bay

### Case Study Flashcards

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# What are the rates of coastal erosion at Barton-on-Sea?


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Up to 2 metres per year.



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What about the location of Christchurch Bay makes it particularly susceptible to erosion?


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## What about the location of Christchurch Bay makes it particularly susceptible to erosion?

The bay experiences the full force of powerful waves with a large fetch (3000 miles) pushed by prevailing southwesterly winds.



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# How does the rock type of Christchurch Bay influence coastal erosion?



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# How does the rock type of Christchurch Bay influence coastal erosion?

The cliffs are made of soft sandstones and clays, which are easily eroded and weathered. Water can also easily infiltrate in the cliffs and add weight, encouraging mass movement and collapse.


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What natural process causes instability within the cliffs surrounding Christchurch Bay?


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## What natural process causes instability within the cliffs surrounding Christchurch Bay?

Several rivers end their course at Christchurch Bay. They flow through the permeable rocks, saturating them with water and eroding them, causing instability.


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# How has building near the cliffs caused issues?



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Buildings add extra weight to cliff tops and cause them to collapse under their own weight. Several houses and a cafe have already been lost to cliff collapses.


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# How have coastal defences caused more issues in Christchurch Bay?



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The construction of groynes has led to terminal groyne syndrome, where the coast to the east of the groynes has been starved of sediment and rapid coastal erosion has taken place.



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# How have residential and industrial developments around the coast led to issues on the cliffs?


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Impermeable surfaces in these areas have altered the natural drainage system, causing more water to be drained into the cliffs and creating instability within them.



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