



KS4 Geography Human & Physical Geography Coastal Processes and their Effects



The Changing Coast at Blackgang Chine

Coastal landscapes are subject to change, and Blackgang is no exception.

Student Introduction

- Blackgang Chine has been affected by the impact of an ever-changing coastline for hundreds of years. In fact, the physical processes at the site have resulted in the discovery of dinosaur remains and other finds!
- Your task is to investigate the coastal landscape at Blackgang Chine and draw your conclusions from the



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- » Undertake some research on the coastal landscape of the Isle of Wight before you visit.
- » Make some notes on everything you can find out about the coastline at Blackgang and its geographical history. What will you expect to find there when you visit? You will be asked to find evidence to support your research when on-site.

ON-SITE INVESTIGATION IDEAS AND QUESTIONS

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The coast is shaped by weathering, erosion, mass movement, transportation and deposition.

Q. What evidence can you see of any of these processes at Blackgang Chine or the coast surrounding the park?

Take photographs for annotation, and make notes on what you see, using the table on page 2.

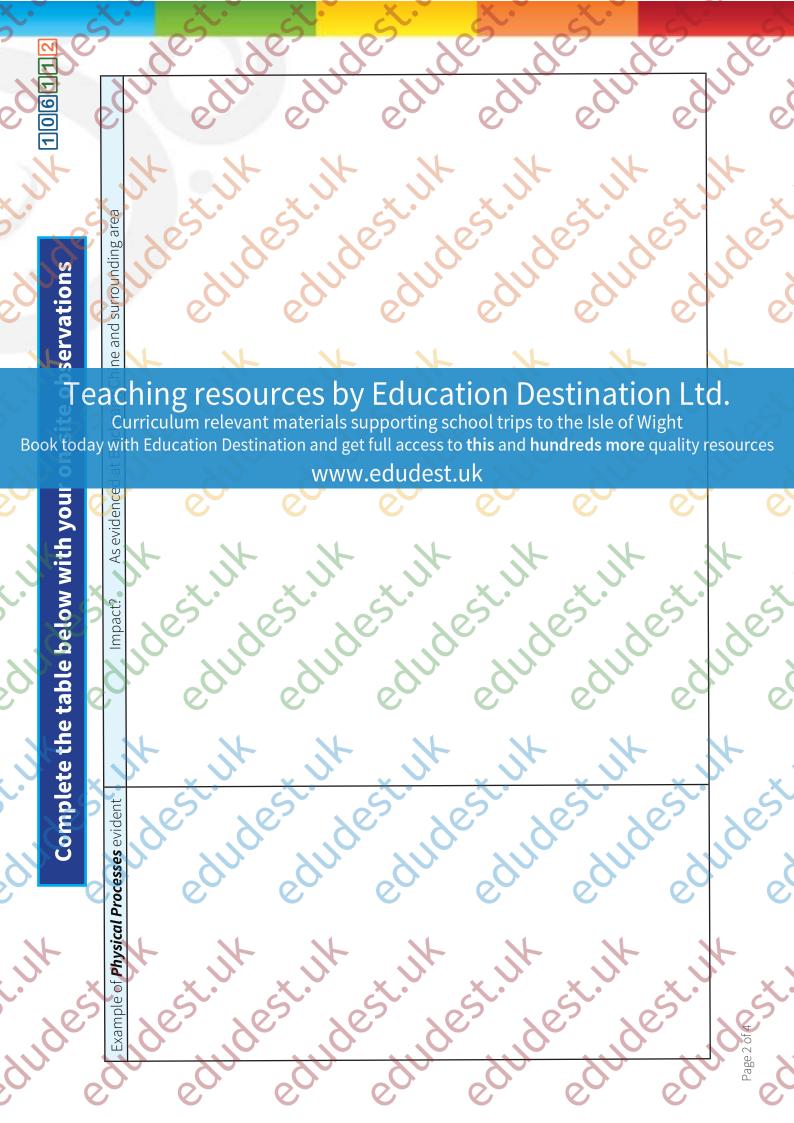
Coastal erosion can result in cliff collapse.

- Q. What information can you find out about previous cliff collapses at Blackgang?
- Q. What specifically causes this collapse to happen?
- Q. Can you still see evidence of the land movement and various collapses today?

Take photographs for annotation, and make notes on what you see.

A <u>Coastal Management</u> <u>Strategy</u> is often used to prevent land movement or collapse.

- Q. Do you see any evidence of coastal management strategies in place (either hard or soft)?
- Q. If not, why do you think this might be the case?



Summary of Findings



How would you describe the coastal environment at Blackgang Chine and its environs? edudest.ilk edudest.uk

What key processes were evident at Blackgang Chine?

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edudest.ilk How are these likely to affect the coastline here in the future? egng

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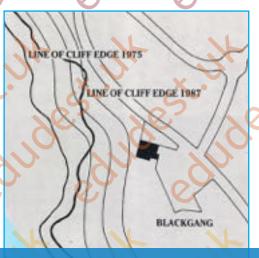
SUPPORTING INFORMATION (IF REQUIRED)

Blackgang Chine theme park is situated at the top of upper greensand and 'Blue Slipper' gault clay cliffs, a site of great coastal instability. The coast faces the south west, and feels the full force of waves from the Atlantic Ocean. During storms, these waves pound the foreshore and the toe of the soft cliff line.



The word 'chine' means 'a chasm or gorge that has been formed by the erosive action of wind and water'.

The interesting thing about these chines is that they are cut, not in hard rock, but in fairly soft sand and



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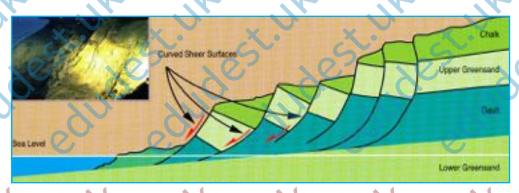
In 1799 a whole farm of 100 acres

fell into the sea, and in 1928 another large fall swept the Blackgang to Ventnor road away. Many houses and roads have been lost over the years.

Rainfall soaks into the downs behind Blackgang and reappears as springs in the cliff, causing washdown and mudflow onto the beach below Blackgang. Every year, Blackgang loses some land to the sea, and in the last seventy-five years 350 metres of land has been lost.

The most recent large landslip was in January 1994.

Erosion of the Island coast is rapid, and at Blackgang the cliffs are eroded by a combination of rotation slips, mud slides and flows.



The Council and the owners of the park have adopted a policy of 'managed retreat' for many years.

