

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 an ever-changing coastline for hundreds of years.
- ▶ 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 some conclusions from the evidence you gather.



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Blackgang Chine theme park is situated at the top of high soft cliffs overlooking the sea. The park faces the south west, and feels the full force of waves from the Atlantic Ocean. During intense storms, these waves pound the foreshore and the toe of the soft cliff line.



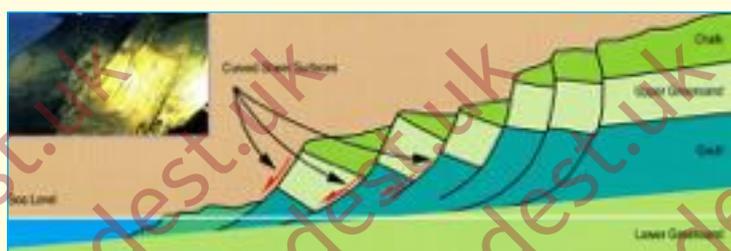
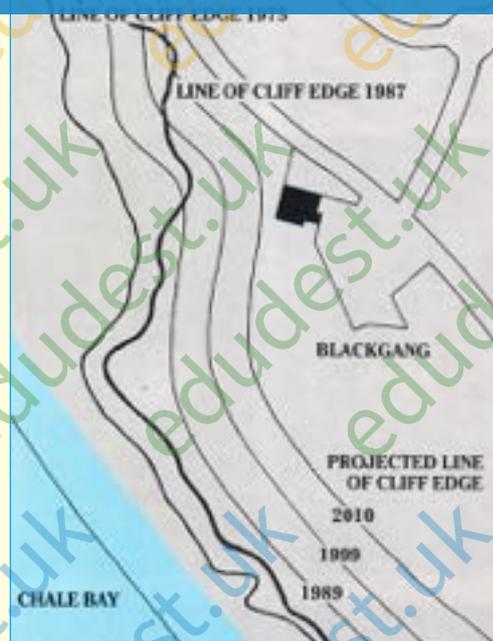
The word 'chine' means 'a chasm or gorge that has been formed by the erosive action of wind and water'. The coastline has suffered from erosion due to the high sea levels caused by the last Ice Age.

The land along this part of the coast is very unstable, particularly after periods of rainfall. 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.

Rainfall soaks into the downs behind Blackgang and reappears as springs in the cliff, causing 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 landslide was in January 1994.

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

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



PRE-VISIT RESEARCH

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

Coastal landscape features I expect to find at Blackgang when I visit:

✓

✓

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ON-SITE INVESTIGATION IDEAS AND QUESTIONS

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

Q. Which of these do you think might be seen on the south coast of the Isle of Wight?

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 3.

Coastal erosion can cause damage that results in cliff collapse.

Q. What information can you find out about previous cliff collapses at Blackgang?

Q. What 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 Coastal Management Strategy 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?

Example of Physical Processes evident	Impact? As evidenced at Blagden Mine and surrounding area

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Summary of Findings

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How would you describe the coastal environment at Blackgang Chine and its environs?

What key processes did you see evidence of at Blackgang Chine?

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What factors might cause the cliff recession?

What is likely to happen to the coastal landscape at Blackgang in the future?

What effects are there on the people or environment locally, if any?

