

Student tasks



Read the news item below:

Over the centuries, the small town of Happisburgh has always lost land to the sea. The rate of erosion has always varied – on occasions large areas have disappeared overnight but at other times, the cliff has remained virtually the same for some years. It has been estimated that more than 250 metres of land were lost to the sea between 1600 and 1850.

After a night of strong onshore winds and rough seas in December 2012, Bryony Nierop-Reading woke to find the corner of her garden and part of her garden path had fallen into the sea and that parts of her garden fence were left dangling over a sheer 20-metre drop to the North Sea below. She now fears that her house will follow her garden into the sea within a year as less than 10 metres of land remains between her bungalow and the edge of the cliff.

In 1959, the first sea defences were built at Happisburgh to stop the sea from eating away at the coast. The rate of erosion was slowed and since then the North Norfolk District Council carried out repairs to the defences on numerous occasions. More recently, however, changes in government policy have discontinued management of coastal erosion in North Norfolk. The sea defences are now no longer repaired or replaced as the Council regard it as too expensive.

A combination of predicted rise in sea level in the future and an increased frequency of storms, due to climate change are expected to increase coastal erosion.



Looking northwest from the end of Beach Road, Happisburgh
© 2006 Andrew Dunn http://commons.wikimedia.org/wiki/File:Happisburgh_coastal_erosion.jpg

1. Identify three **causes** of coastal erosion at Happisburgh.
2. Identify three **effects** of coastal erosion at Happisburgh.
3. Identify two **responses** to the problem of coastal erosion at Happisburgh.

Teaching notes

This resource asks students to identify causes, effects and responses which is a vital KS4 examination skill.

Questions asking students to distinguish between cause, effect and response are common in KS4 examinations. The feedback from senior examiners in the annual report on the examinations frequently states that candidates are unable to make these distinctions e.g.

'Effects invited students to describe impacts such as deaths, injuries, buildings and roads collapsing ... Yet the vast majority of students answered a different question, covering either the responses rather than the effects or giving reasons why the effects were more severe in a poorer area.'

One possible approach could be to ask the students to use three colours to highlight causes of, effects of, and responses to coastal erosion at Happisburgh.

Extension tasks could include the following questions and activities:

1. Separate the **effects** into immediate and long-term effects.
2. Separate the **responses** into immediate and long-term responses.
3. Write a sentence to link one **cause** and one **effect**.
4. Write a sentence to link one **effect** and one **response**.
5. Tweet a description (140 characters maximum) of the photograph of the beach at Happisburgh, Norfolk.
6. Write a letter to North Norfolk County Council explaining why the sea defences at Happisburgh need to be repaired.

The BBC Learning Zone video at <http://www.bbc.co.uk/learningzone/clips/living-with-coastal-erosion-in-happisburgh-east-anglia-pt-1-2/7361.html> could also be shown to the class.



The beach at Happisburgh, Norfolk © 2006 .Martin.
<http://www.flickr.com/photos/martinrp/2449221534>