

Resource 10: Student Activities

1. Study Resource 1.

- (a) With the aid of a map (using online research), describe the location and geographical characteristics (such as coastal processes, physical landforms, human uses) of Christchurch Bay.
- (b) What is meant by the 'sustainable management' of the coast?

2. Study Resources 1 and 2.

- (a) What is meant by the term 'sediment cell'?
- (b) Using Resource 2, describe the general pattern of sediment transport in Christchurch Bay.
- (c) Identify inputs into the Christchurch Bay sediment cell.
- (d) Suggest locations of sediment sinks (stores) in Christchurch Bay.
- (e) Focusing on Naish Cliffs and Barton on Sea (SMZ4, on the map in Resource 1), describe in detail (using the key) the sediment transport along this stretch of coast. Suggest the potential management issues associated with the pattern of sediment transport.

3. Study Resource 3.

- (a) What is the difference between the Poole and Christchurch Bays Shoreline Management Plan (SMP) and the Christchurch Bay & Harbour Flood and Coastal Erosion Management (FCERM) Strategy?
- (b) Using internet research, consider the role of the structural engineering company AECOM is supporting the development of the strategy.
- (c) What are the broad aims of the strategy?
- (d) Use a timeline diagram to describe the engagement stages in the development of the strategy.
- (e) Assess the extent to which public engagement is an essential part of developing a strategy for coastal management.

4. Study Resource 3.

- (a) Use simple diagrams to describe the four policy options presented in the SMP2.
- (b) Suggest which of the Christchurch Bay FCERM strategic options could be appropriate in delivering a policy of 'hold the line'. Explain your choice(s) with reference to hypothetical coastal scenarios.

5. Study Resources 2, 4, 5 and 6.

Write a detailed report identifying the issues and challenges associated with coastal management at Naish Cliff and Barton on Sea (SMZ4). Consider the physical processes (such as mass movement, coastal erosion and sediment transport) and the human development of the coast. What are the existing coastal defences? Annotate the photos (Resource 5) and OS map extract (Resource 6) to support your report.

Decision-making exercise

6. Study Resources 4-8.

Suggest how Naish Cliff and Barton on Sea should be managed to deliver the SMP policy of managed realignment and to reduce the risk of coastal erosion over the next century. Select one or more options from the short list of measures (Resource 7) and suggest where and how it/they might be deployed at Naish Cliff and Barton on Sea. Consider annotating the photos (Resource 5) and OS map extract (Resource 6). Justify your suggestions with evidence from the resources.