Teaching notes

Using this issue

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These notes are intended for use with GEOGRAPHY REVIEW Vol. 29, No. 2. They suggest ways in which you might develop further some of the articles in the magazine with your A-level and IB Diploma students.

Where has our beach gone? The impacts of the UK’s 2014 storms (page 2)

This article provides A-level and IB diploma students with an in-depth account of coastal erosion in the UK. It will be a useful resource for the 2016 A-level course, given that the article focuses in particular on system dynamics over varying time scales. A broad mix of graphical techniques are included in the article. These could be a useful starting point for future cohorts planning an NEA (non-examined assessment) report on coastal landscapes.

Possible follow-up activities

1 The ‘before and after’ photographs provide an excellent opportunity for students to practise data analysis and build their qualitative skills. It would be useful for them to practise describing what is shown by:
   • outlining the overall ‘big picture’ changes
   • estimating the scale of any changes
   • analysing the photographs for evidence of how recent the changes are

In relation to the last point, note that the photo of the collapsed stack (Pom Pom Rock) on page 3 shows large blocks of rock with sharp edges. This suggests that the collapse is very recent or the edges would be more rounded by wave action, chemical weathering and attrition.

2 The article provides students with a good opportunity to analyse the dynamics of the coastal system, using concepts like store, input, output and equilibrium. Three outputs from the beach store are explained by the authors. One of the outputs (‘over the top’ removal) represents a permanent loss that brings long-term depletion of the beach store. Offshore removal may, in time, be reversed. Students can discuss whether they think movement by longshore drift (the third output) represents a permanent or temporary loss to the beach store.

Having thought about these different system outputs, students can discuss the following questions.

   • Will beach stores ever be restored to their size prior to the storms?
   • If so, what kind of time scale may be involved?
   • What relevance does the concept of ‘equilibrium’ have for the study of beaches and coastal systems?
Changing places  Manchester Ship Canal: a case study of floodplain development (page 14)

This useful contemporary case study takes a synoptic look at river management and urban redevelopment in the wider context of climate change.

Possible follow-up activities

1  The story of the High Court judgement may surprise many students. The way in which the Environment Agency assessment was overturned on a legal technicality gives A-level geography students an unusually detailed insight into governance and the way different players have resolved a dispute. It may be of particular interest to any members of the class who are considering a career in law. The discussion questions on page 16 are well worth exploring further.

2  Figure 2 (on page 16 and below) provides students with a good opportunity to practise their graphical skills. Ask them to:

- Describe the distribution of areas with a flood risk.
- Estimate the size of the total area potentially affected.
- Discuss possible economic and social impacts of the flooding of the area shown (Tip: Specific features are visible. The sewage works, if flooded, would become a source of short-term health risks to the area’s population. The economic costs of Salford Quays becoming flooding would be severe and extend well into the future, especially if large offices and tourist attractions such as the Lowry suffered permanent damage.)
Using GIS to map quality of life (page 22)

This article encourages critical thinking about the validity and reliability of the data we use to measure quality of life in societies at varying levels of development.

Possible follow-up activities

1. Introduce the concepts of validity and reliability to the class:
   - For a measure to be **valid**, there should be broad agreement that it has relevance (do the students agree that the criteria applied in Box 2 are valid ways of finding out about quality of life?).
   - To be **reliable**, a measure must use trustworthy data (do the students think that the data generated by the scoring system are as reliable as, say, measurements of wind strength?).

2. Figure 5 on page 25 is an interesting resource for students to describe and attempt to explain. To test their analytical skills (AO3) and ability to apply knowledge to unfamiliar contexts (AO2), set the following question for class discussion or written work:

   Suggest reasons why people of different ages vary in how safe they feel walking around their home area at night.

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