

Meaningful Learning Experiences

Strategic Commitment	✓	Part of a regional, ESF-funded 'Careers Local' programme
Curriculum Provision	✓	Enriching a Geography topic that seems 'far removed'
Employer Partnerships	✓	Involving major organisations without the need for visits
Reflective Young People	✓	Self-assessment included the Skills Builder framework
Informed Career Choices	✓	Creating awareness about very unusual job roles

'Cold climates' comes to life in year 7 Geography with BAM and the British Antarctic Survey

The teacher brief for this project at Joseph Whittaker School near Mansfield explained, *'It would be good to get some enrichment with the threats to cold environments and why they need protecting'*, adding, *'... it is often hard for students to engage as they are so far removed from the area'*.

Website investigations revealed that the British Antarctic Survey were embarking on a major redevelopment of Rothera Research, a centre for biological research and deep-field science. Students were challenged to: 1. Write a short report advising British Antarctic Survey how you think they should complete this building project and minimise damage to Antarctica and 2. Find out about the many people who work for British Antarctic Survey. In one paragraph, explain which job looks interesting – and why?

The contractor for the project, BAM Nuttall, added information to the students' brief, including a message and photograph from the Project Manager: *'It was a major logistical undertaking to get every single thing needed to build a wharf in freezing Antarctic waters loaded onto one ship. One month and 11,000km later, it is very good to see all that hard work paying off.'*

Examples of the students' work were sent to BAM Nuttall for feedback. Their recommendations included using double-hull ships to reduce the risk of pollution, less drilling to minimise disturbance to wildlife and possibility of earthquakes and increasing the amount of construction carried out in the UK. The students expressed interest in job roles including site photographer, marine mammal ecologist and being part of the air operation team.

Benefits for the Students

- Impact assessment showed the project generated a high level of motivation among the group of year 7 students about a topic where it is normally *'... hard for students to engage ...'*
- Students were proud about:
 - *'Making the report about how not to cause as much damage to the environment'*
 - *'Learning about what other people do that I have never heard of before'*
 - *'To know that they are finding more about Antarctica'*
 - *'Thinking about risks people are taking to save our lives, even though they don't know us'*
 - *'I learnt about some of the peculiar jobs in the world'*

Benefits for the School

- The original teacher's brief stated: *'It would be good to get some enrichment with the threats to cold environments and why it needs protecting'*
- The teacher feedback stated: *'Students were really interested in completing the project as it was something that they knew was actually happening in Antarctica. It made the subject and the content relevant to them. The work that they completed is going to be sent to BAS and this made them feel that it was worthwhile'*

Benefits for the Employer

- The BAS website states: *'Engaging young people in science is important to British Antarctic Survey'* and that *'Our scientists and support staff visit schools within a 50-mile radius of Cambridge ...'*
- The division of BAM Nuttall managing the engineering project is based in Glasgow.
- This project shows how employer engagement can enrich classroom learning even when they are hundreds (or thousands) of miles away



Year 7 students applied their learning about cold climates in the Arctic and Antarctic to a major engineering project to improve a BAS research centre. They received information from contractor BAM, including an update from the project manager in the Antarctic, and made suggestions about safeguarding the fragile environment, as well as finding out about some unusual job roles.

