



Geography: Year 8 Unit 1 – Antarctica: A case study of an extreme environment

Number of weeks	Content of the unit	Assumed prior learning (tested at the beginning of the unit)																								
12 lessons (8 weeks)	Location of Antarctica Climate of Antarctica and climate graphs Animals and adaptations to climate Discovery of Antarctica and the challenge of the journey Why people visit Antarctica Effects of tourism in Antarctica Managing tourism in Antarctica Introduction to glaciers.	Map skills e.g. compass directions, grid references, using a key. Vocabulary for describing weather and climate (though this is recapped) Basic world place knowledge e.g. continents and oceans.																								
Assessment points and tasks	Written feedback points	Learning Outcomes (tested at the end and related to subject competences)																								
Mid-unit assessment: test booklet focusing on drawing maps, charts and diagrams. End of unit assessment: Essay based questions to describe and explain features of the case study.	<ul style="list-style-type: none"> • After mid and end of unit tests. • After 'Is tourism good for Antarctica?' essay in books. • Every 4 lessons. • Peer assessment every lesson. 	<table border="1"> <tbody> <tr> <td rowspan="12" style="background-color: #d9ead3; vertical-align: middle;">Drawing maps, graphs and diagrams.</td> <td>I can add labels to sketches</td> </tr> <tr> <td>I can draw diagrams to explain a sequence</td> </tr> <tr> <td>I can plot data on to maps.</td> </tr> <tr> <td>I can add detailed annotations to sketches</td> </tr> <tr> <td>I can complete a graph using data given to me.</td> </tr> <tr> <td>I choose appropriate labels, keys and titles for my maps and graphs</td> </tr> <tr> <td>I can draw graphs accurately with data provided</td> </tr> <tr> <td>I can select which data to present on a map or chart</td> </tr> <tr> <td>I can choose appropriate types of graph / map to display my data</td> </tr> <tr> <td>I can identify and explain anomolous results</td> </tr> <tr> <td>I can evaluate data collection and presentation methods.</td> </tr> <tr> <td>I can suggest improvements to the data collection / presentation methods used.</td> </tr> <tr> <td rowspan="10" style="background-color: #f4cccc; vertical-align: middle;">Case studies</td> <td>I can identify and give facts about an event or place</td> </tr> <tr> <td>I can identify and describe an issue facing a place</td> </tr> <tr> <td>I can apply a case study to describe causes, impacts and responses</td> </tr> <tr> <td>I can apply a case study to explain causes, impacts and responses</td> </tr> <tr> <td>I can explain how management can reduce the impacts of a problem / challenge.</td> </tr> <tr> <td>I can explain different opinions towards an event or process.</td> </tr> <tr> <td>I can explain the justification for a particular management strategy.</td> </tr> <tr> <td>I can evaluate different opinions towards an event or process.</td> </tr> <tr> <td>I can evaluate the impacts of a process or event for different stakeholders.</td> </tr> <tr> <td>I can evaluate the sustainability of management choices and provide further suggestions.</td> </tr> </tbody> </table>	Drawing maps, graphs and diagrams.	I can add labels to sketches	I can draw diagrams to explain a sequence	I can plot data on to maps.	I can add detailed annotations to sketches	I can complete a graph using data given to me.	I choose appropriate labels, keys and titles for my maps and graphs	I can draw graphs accurately with data provided	I can select which data to present on a map or chart	I can choose appropriate types of graph / map to display my data	I can identify and explain anomolous results	I can evaluate data collection and presentation methods.	I can suggest improvements to the data collection / presentation methods used.	Case studies	I can identify and give facts about an event or place	I can identify and describe an issue facing a place	I can apply a case study to describe causes, impacts and responses	I can apply a case study to explain causes, impacts and responses	I can explain how management can reduce the impacts of a problem / challenge.	I can explain different opinions towards an event or process.	I can explain the justification for a particular management strategy.	I can evaluate different opinions towards an event or process.	I can evaluate the impacts of a process or event for different stakeholders.	I can evaluate the sustainability of management choices and provide further suggestions.
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Lesson	Clear learning intentions	Clear success criteria	Hook	Presentation of content	Guided practice	Independent practice (homework)	Closure
1	Where Antarctica and what is it like?	<p>BTEOL I will:</p> <p>Use photographs to describe the geographical features of Antarctica.</p> <p>Use a world map to locate Antarctica.</p> <p>Use a map to locate and describe the geographical features of Antarctica.</p> <p>Use specific figures and data, scale, longitude and latitude.</p>	<p>Students look at the image and describe what they can see, consider where it is (with evidence) and generate questions. There is a facility to cut out the picture, stick it in and label. (3 minutes) Feedback to class (2 minutes)</p>	<p>YouTube clips</p> <p>PowerPoint</p> <p>Wordbank</p>	<p>Activity 1: Watch Antarctica video and complete quiz sheet (5 minutes) then peer mark</p> <p>Activity2: Students look at images in pairs (SMSC Social) read facts and create a fact sheet, then write a paragraph to describe Antarctica. Word bank available.</p> <p>Activity 3: Peer feedback – students read out their answer and get a www/ebi using the success criteria.</p> <p>Activity4: Students complete the map using the atlas. There are 4 levels of differentiation.</p>	Antarctica factfile	Tell me 3,2,1 plenary. (5 minutes)



2	What is Antarctica's climate like?	<p>BTEOL I will: Know the definition of climate. Compare Antarctica's climate to the UK. Use a climate graph to describe Antarctica's climate in detail. Draw a climate graph for the UK and use it to compare the two climates.</p>	<p>Students complete the cryptogram to find the definition of climate. There is an example of how to do it and a picture clue. Stretch yourself question to use the definition to describe the UK's climate.</p>	<p>PowerPoint Climate graphs Comparisons worksheet</p>	<p>Activity 1: Students brainstorm which aspects of the weather contribute to climate. There are picture clues available and a help sheet for EAL students showing diagrams and names of different types of weather. Stretch yourself question to judge which kinds of weather it is most important to have data about and why. Students look at the weather forecast for the South Pole and London. They extract data and compare the weather. 3 levels of differentiated questions for this.</p> <p>Activity 2: Explain what a climate graph shows, and show an example for Antarctica. Students use the climate graph to extract data, answer questions about Antarctica's climate and describe how the climate varies through the year. Then students look at the climate graph for London and make comparisons. There are 3 levels of differentiation. Then students look at the climate graph for London and make comparisons.</p> <p>Activity 3: Show students a weather report for Antarctica. Ask them to discuss what month they think it is from and why. SMSC social.</p>	None	Hotseating on Antarctica factfile
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3	How have animals adapted to live in Antarctica?	<p>BTEOTL I will: Identify some animals which live in Antarctica. Know the definition of 'adaptation' and some ways to adapt. Describe and begin to explain how these animals are adapted to the environment. Evaluate the importance of different adaptations. Predict what will happen to these animals if the climate of Antarctica changes.</p>	Students look at the images and tick or cross which ones could live in the Antarctic. Students also try to name the animals (general knowledge.) Stretch yourself question to try to explain why this animal could/could not live in the Antarctic. Students can check and mark their own answers.	PowerPoint Adaptation cards Scaffolds	<p>Activity1: Students work in pairs or groups (SMSC Social) to read the adaptation cards and match them to the correct animal photograph. Stretch yourself question to see if the picture gives us any more clues about how it survives, and to think about how the adaptations will help the animal. There are also through scaffolds in the speech bubbles to prompt students. Students check answers and feedback from their discussion Activity 2: Students use this knowledge to answer one of 3 differentiated questions about animal adaptations. Stretch yourself question to draw food chains and consider what the impacts of climate change might be.</p>	Design an animal which would live in the Antarctic. Annotate it to describe and explain its adaptation. Revise	Think, Pair, Share, (SMSC Social) Which animal is best adapted and why? (5 minutes)
4	Mid Unit Assessment		Students create a brainstorm of all the things they have learnt about Antarctica so far. They can look in their books and talk to each other for this. Feedback to a collective diagram on the board.	Assessment booklet	<p>Activity 1: Demonstrate technique. Activity 2: Students complete the booklet. They will need Atlases to do this and possibly pencils, rulers and colours.</p>		Think, pair share: www/ebi
5	Mid Unit Test Run through	To create www and ebi for myself	Review your test – each tell your partner what you think is a www and ebi	Mid Unit tests Mid Unit Markschemes	Whole lesson. Run through test. Pupils to grade their work with www and ebi and run through occurs	Complete your most important ebi	Class discussion: What are our most important ebi?
6	Who won the race to the south pole?	<p>BTEOTL I will: Identify key facts about the discovery of the South Pole (5 Ws) Describe the journey to the South Pole and the difficulties faced on the way. Explain how the geography of Antarctica made the journey so difficult.</p>	List 5 facts about Antarctica, bounce ideas	PowerPoint YouTube clips Writing frame	<p>Activity 1: Video and info sheet. Thinking hats discussion exercise on preparing an expedition. Activity2: Writing frame. Preparing an expedition to Antarctica. Make sure pupils explain how the geog made it difficult</p>	None set	Take photos of pupils work. Peer assess as www ebi



7	Who won the race to the south pole? (Part 2)	BTEOTL I will: Tell the story of the first explorers Apply these case studies to explaining why the geog of Antarctica made it so hard to explore.	Roald Amundsen image. Does he look prepared?	PowerPoint Scott and Amundsen sheets and info packs	Activity 1: Amundsen's adventure worksheet Activity 2: Scott's adventure worksheet Activity 3: Write a report for the Norwegian/British gvts of one of the expeditions	Improve your reports based on the ones you've heard	Present reports, grade www and ebi
8	Why do tourists visit Antarctica?	BTEOTL I will: Identify reasons to visit Antarctica. Describe the Geographical attractions of Antarctica. Evaluate Antarctica as a tourist destination.	Images of Antarctica – why visit. Clip from Penguin Post Office	PowerPoint Penguin Post Office Antarctica info packs with pie charts	Activity 1: Pie chart and tourist website extracts. Pupils to create a travel guide to Antarctica. Writing frames given.	None set	Circulate class and select best reports. What makes a good report?
9	How does tourism affect Antarctica?	BTEOTL I will: Describe the effects of tourism on Antarctica. Categorise the effects of tourism into positive and negative and rank their severity. Suggest how to reduce the negative effects of Tourism in Antarctica.	Icebreaker image...what problems could this create?	PowerPoint Info packs	Activity 1: Table +/- of tourism without info pack. Take feedback Activity 2: Give info packs. Pupils to expand tables. Activity 3: Writing frame. Discursive writing, is tourism good.bad, what are the solutions?	Revise	Take photos of pupils work. Peer assess as www ebi
10	How can we protect the Antarctic?	BTEOTL I will: Define sustainable development. Describe ways in which Antarctica can be explored sustainably.	Glaciers case study...what problems do tourists cause?	Problems and solutions packs PowerPoint Solutions writing frame	Activity 1: Glaciers packs. Identify problems for first column of table. Take feedback Activity 2: Problems and solutions cards. Top to tail. Complete table. Activity 3: What are the best solutions writing frame.	Revise	Class discussion
11	Assessment	BTEOL I will: Be able to show off how great I am at Geography	How do I answer explain Qs...give me the structure	Exam Papers	Activity 1:P Pupils complete assessment	None set	Take feedback on how pupils thought it went
12	AssessmentRun through	To create www and ebi for myself	Review your test – each tell your partner what you think is a www and ebi	Mid Unit tests Mid Unit Markschemes	Whole lesson. Run through test. Pupils to grade their work with www and ebi and run through occurs	Complete your most important ebi	Class discussion: What are our most important ebi?