



Global governance: Antarctica and the Southern Ocean

Watch the following videos to remind yourselves of the views on Antarctica:

<https://www.youtube.com/watch?v=pZ8Du0QbaOw> Future of Antarctica
<https://www.youtube.com/watch?v=s87KIX6owk0> Who Owns Antarctica?

Fact or Opinion task

- Read through the viewpoints on the next slide.
- On a blank piece of paper, make 2 columns – fact and opinion
- Look carefully through all the different viewpoints and record them under one of two headings ‘fact’ and ‘opinion’. You are allowed to split statements into two parts.
- There may be some facts which are essentially a statement of opinion, e.g. it may well be a fact that WWF believes that the minerals of Antarctica should not be exploited, but the core of the statement is an opinion.
- Some facts are based on reasonable evidence.
- How did you decide if something was a fact / opinion?

Our people have been fishing the Antarctic seas since the early twentieth century. No one owns these waters; they are here for anyone to use. We depend on fishing for our livelihood. What right have people to prevent us from making a living? Our country and our families benefit from our work. Don't stop us fishing; we will control our catches if everyone else does.

Fishermen



Environmentalists



Antarctica is the last wilderness on earth. Human activity in Antarctica should be banned, or at least carefully managed. The earth does not need to exploit this area for coal, oil, fish, etc. Antarctica is fragile—spoil it now and it will be lost forever. We must agree on how best to use the region. We support the idea of a World Wilderness Park.

The developed countries want to exploit the resources of Antarctica to keep their superiority over the rest of the world. What rights do they have to ravage the last area of true wilderness? Antarctica belongs to the world and not just to a group of rich and powerful countries. If the resources are to be used, they should benefit the whole world. The use of these resources should be carefully managed to prevent destruction of the Antarctic environment.

Politicians in the developing world



Scientists

Scientists have been studying Antarctica since 1830. Today, scientists from a number of countries are researching into biology, geology, ice and climate. Many projects are proving to be useful to humanity. Research into climate is helping us to understand the world's changing weather. Pollution studies are providing information on the effects of human activities on climate and new resources are being discovered.

Source: Waugh & Busbell: Foundations of Geography.

More viewpoints

Greenpeace

Greenpeace campaigns to protect Antarctica. It believes that there should not be any exploitation of the minerals in Antarctica. Greenpeace want a fifty-year ban on all mineral exploitation in Antarctica. Greenpeace supports the idea that Antarctica should be a 'World Park' that is protected.

Fact or Opinion?

Exemplar 1:
The future of Antarctica

Mining Companies

Many minerals have been discovered in Antarctica, and many areas still have to be explored. We believe that valuable resources will be found and that we should be allowed to mine them. We would try to be careful with the environment, and make the damage as little as possible. We think that politicians should make plans for Antarctica that allow minerals to be mined.

WWF

WWF believes that the minerals of Antarctica should not be exploited. They say that accidents often happen that cause pollution. For example, oil tankers can run aground, and spill their oil into the sea, killing a lot of wildlife, like birds and seals. All the pollution will also cause problems for whales, penguins, krill and fish. WWF supports the idea that Antarctica is made into a 'World Park'.

Oil Companies

Drilling in the 1970s found signs of oil off the Antarctic. Many oil companies are interested in the area. We understand the need to conserve the environment, but our industry has a good record of concern about the environment. The oil supplies we have now will not last forever, we need new ones. We should be allowed to drill for oil in Antarctica.

The future of Antarctica

Take the role / view of one of the following:

- A research scientist
- A tourist
- An activist for an Antarctic related NGO
- A chairperson for a mining company

Using the information so far and in your role:

- What are your concerns and considerations about Antarctica?
- How do you feel about other people and their role?

The future of Antarctica (see booklet page 18)

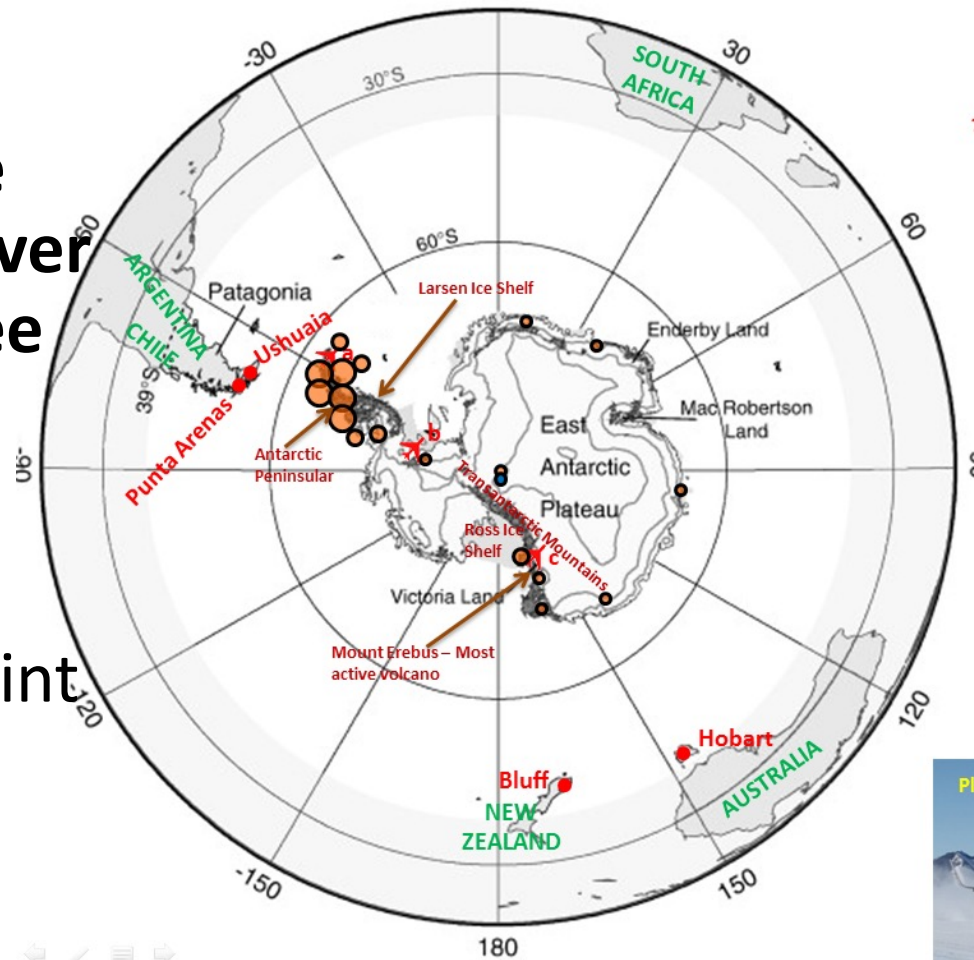
1. What do people think about the future of Antarctica? Answer this question by choosing a view you support and one you disagree with.
2. In your own opinion, what should happen in Antarctica after the ATS expires in 2048 (answer the following questions):
 - How successful has the Antarctic Treaty System been in protecting Antarctica from its many threats?
 - Should the Antarctic Treaty be extended post 2048? Make reference to the many viewpoints that you have explored so far. Highlight the areas of conflict based on the different value positions of interested parties. How does this make conservation a challenge?

Question		Answer			
		Person:	Role:	What are your concerns and considerations with this role?	How do you feel about the other people in this grid?
17	<p>Imagine you are each of the following persons:</p> <ul style="list-style-type: none"> • A research scientist • A tourist • An activist for an Antarctic-related NGO • A chairperson for a mining company <p>Use the grid to read how you are involved with Antarctica, and then write what your concerns and considerations may be with your role and how you may be concerned about the other persons listed in the grid.</p> <p><i>(Note: embrace each role writing your answers in first person as if you were actually the character)</i></p>	Research scientist	<p>A member of a European research group that is looking at the impacts of physical human activity on Antarctica. You are based in a research station on Antarctica itself.</p>	<p>As a scientist on the subject, I know a lot about how physical human impacts can degrade the environment of Antarctica. I would be concerned with my own physical impacts as I am based on Antarctica. I would consider making sure waste is disposed of properly. I would also limit my interactions with vulnerable areas of the environment.</p>	<p>I would argue with the mining chairperson as mining can lead to unnecessary overexploitation of the environment just for human wealth. I believe the tourist should do more research in how to properly interact with Antarctica and consider not disturbing penguins in their natural habitat. I feel the activist will agree with our research on Antarctica as we have similar interests.</p>
		Tourist	<p>A tourist from the UK who has done limited background research on Antarctica. Your main aim is to take photos of penguins.</p>	<p>Perhaps I should do some more research on penguins and see whether my actions would negatively affect them. I guess I could also consider looking into how not to damage the environment. I'm not used to severely cold weather so I would need to look up how to keep myself safe too. It's a long way to Antarctica from the UK, the travel involved will impact the environment. Maybe I could go to a local zoo or watch a documentary to see penguins instead.</p>	<p>If there are already people, such as the research scientists, on Antarctica then why can't I go too? The activist tells me too much tourism is damaging the environment. I know this is bad and I would be adding to it if I went there on holiday. The mining chairperson wants to mine for gold on the Antarctic Peninsula. I know lots of penguin species live there so this would damage their habitats - I don't want that!</p>

Question		Answer			
17	<p>Imagine you are each of the following persons:</p> <ul style="list-style-type: none"> • A research scientist • A tourist • An activist for an Antarctic-related NGO • A chairperson for a mining company <p>Use the grid to read how you are involved with Antarctica, and then write what your concerns and considerations may be with your role and how you may be concerned about the other persons listed in the grid.</p> <p><i>(Note: embrace each role writing your answers in first person as if you were actually the character)</i></p>	<p>Activist</p>	<p>An activist for an NGO that campaigns against human exploitation of Antarctica. You campaign mostly via the Internet or demonstrations in the UK.</p>	<p>I make sure that I limit my carbon footprint by using Internet-based activism or campaigning in my local area only. This is because I am aware of how my actions in the UK have an effect on the whole world, including Antarctica! I am concerned people will not listen to me so I make sure I only use verified facts about the Antarctic so people take me seriously.</p>	<p>I think the scientific research into human activity on Antarctica is great – I can use a lot of their findings in my activism. Although I think it is bad they are based on Antarctica, as this will inevitably impact on the environment, I understand it is necessary for the research. I think tourism is damaging Antarctica. There are other great ways to learn about the continent – such as watching a documentary on it. If you want to support penguins then you could donate to wildlife charities or specialist sanctuaries. Mining is human exploitation and will be severely damaging – I am thankful for the 1991 Treaty!</p>
		<p>Mining chairperson</p>	<p>A chairperson for a mining company that wants to mine for gold on the Antarctic Peninsula. Finding new sources of gold will make the company, and you, very rich.</p>	<p>I know the 1991 Protocol on Environmental Protection to the Antarctic Treaty prohibits mining but if we can prove it is economically viable, it will make us lots of money. We would probably have to approach the UNEP and get all countries from the Antarctic Treaty to reverse the decision on mining – this would be very difficult. We are also concerned about the negative backlash we would face from activists.</p>	<p>I know our company would get a lot of backlash from the activist, and this could cause problems for our image. The tourist is concerned about the penguins that would be affected by the mining, but if we make lots of money we could donate some of it to animal charities to make it even. The scientist thinks mining is exploitation, but gold is a valuable resource in scientific technology and could be used for innovation.</p>

Task

- ‘In a globalising world the use of the global common of Antarctica can never be sustainable.’ How far do you agree with this view? (20 marks)
- Read the two student answers in the Antarctica folder on GoL and use the essay grid at the end of this PowerPoint to mark them.



- KEY
- South Pole
 - Departure port for ship cruises
 - ✈ Airstrips;
 - a - Teniente Rodolfo Marsh Martin Aerodrome
 - b - Williams Field - Serves McMurdo Station and Scott Base.
 - c - Union Glacier Blue-Ice Runway
- Visitor Numbers 2011**
- 10,000+
 - 1,000 to 9,999
 - 100 to 999

Source of visitor numbers - <http://www.ouramazingplanet.com/3177-antarctica-faces-threats-from-warming-human-visitors-scientists-warn.html>



A01

K & U

Knowledge and understanding of Antarctica and the threats to it and how to sustainability manage. Students should use specific names, threats with data to support. Generic information should be avoided.

C & P

Knowledge and understanding of key concepts and processes related to globalisation, global commons, sustainability, etc.

S & T

Awareness of scale and temporal change to the issues faced by Antarctica. The notes for answers have some good information regarding change over time, eg by climate change etc.

A02

A & E

Showing an understanding of the complexity of the issue and how different uses pose different sustainability issues etc. Discussion surrounding how the interconnections of the impacts, role of management etc.

Links

This may include areas such as linking to their knowledge of the water and carbon cycle, when considering aspects like climate change. This is a synoptic element.

Conclusion

A clear decision is made that is based on the evidence presented. There is no correct conclusion students are expected to reach.

	Level 1 (1-5)	Level 2 (6-10)	Level 3 (11-15)	Level 4 (16-20)
K&U Definitions	Isolated knowledge and understanding of key concepts and processes.	Some knowledge and understanding of key concepts, processes and interactions and change (AO1).	Generally clear and accurate knowledge and understanding of key concepts and processes (AO1).	Full and accurate knowledge and understanding of key concepts and processes throughout (AO1).
S&T	Very limited awareness of scale and temporal change, which is rarely integrated where appropriate. There may be a number of inaccuracies. (AO1).	Some awareness of scale and temporal change which is sometimes integrated where appropriate. There may be a few inaccuracies (AO1).	Generally clear awareness of scale and temporal change which is integrated where appropriate (AO1).	Detailed awareness of scale and temporal change, which is well integrated where, appropriate (AO1).
K&U Places	Very limited relevant knowledge and understanding of place(s) and environments (AO1).	Some relevant knowledge and understanding of place(s) and environments which is partially relevant (AO1).	Generally clear and relevant knowledge and understanding of place(s) and environments (AO1).	Detailed, highly relevant and appropriate knowledge and understanding of place(s) and environments used throughout (AO1).
Links Examples & other views	Very limited and rarely logical evidence of links between knowledge and understanding to the application of knowledge and understanding in different contexts (AO2).	Some evidence of links between knowledge and understanding to the application of knowledge and understanding in different contexts (AO2).	Generally clear evidence of links between knowledge and understanding to the application of knowledge and understanding in different contexts (AO2).	Full evidence of links between knowledge and understanding to the application of knowledge and understanding in different contexts (AO2)
A&E Arguments & opinions	Very limited analysis and evaluation in the application of knowledge and understanding. This lacks clarity and coherence (AO2).	Some partially relevant analysis and evaluation in the application of knowledge and understanding (AO2).	Generally clear, coherent and relevant analysis and evaluation in the application of knowledge and understanding (AO2).	Detailed, coherent and relevant analysis and evaluation in the application of knowledge and understanding throughout (AO2).
Concl	Very limited and/or unsupported evaluative conclusion that is loosely based upon knowledge and understanding which is applied to the context of the question (AO2).	Some sense of an evaluative conclusion partially based upon knowledge and understanding which is applied to the context of the question (AO2).	Clear evaluative conclusion that is based on knowledge and understanding which is applied to the context of the question (AO2).	Detailed evaluative conclusion that is rational and firmly based on knowledge and understanding which is applied to the context of the question. (AO2)
Overall comment				
Target 1				
Target 2				