

ENGLISH

CHAPTER 3: JOURNEY TO THE END OF THE EARTH



JOURNEY TO THE END OF THE EARTH

~Summary~

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The Story Retold

The Journey to Antarctica Begins

The narrator heads towards Antarctica aboard 'Akademic Shokalskiy, a Russian research vessel with a group of high school students. She reveals that Antarctica is the coldest, driest and windiest continent in the world. She commences her journey from Madras, crosses nine time zones, six checkpoints, three water bodies and many ecospheres to reach her destination. Travelling over hundred hours, she feels relief and wonders about the isolation of the continent and the historic time when India and Antarctica were a part of the same landmass.

Gondwana and the Shaping of the Modern World

The narrator takes the reader back to six hundred and fifty million years. At that time, Antarctica was a part of a giant amalgamated Southern supercontinent called Gondwana.

At that time humans had not arrived. The climate was warm and there was a huge variety of flora and fauna. For around 500 million years Gondwana existed. Eventually the landmass broke up and was forced to separate into countries. This shaped our present globe.

Narrator Wonders at Antarctica; Finds It Blissful

Belonging to a relatively warm country, the narrator who is a South Indian is shocked to be in place where 90% of the Earth's total ice volumes are stored! She feels she's walking into a giant ping-pong ball. There is no human life there and nothing to show that human life exists on this planet. She is surrounded by midges, mites, blue whales and limitless expanse of huge icebergs. The surreal twenty four-hour summer lights and eerie silence that is interrupted only by the breaking of an iceberg, is mind-boggling.

Human Impact on the Environment

Human beings have been on the Earth for about 12000 years. In this short span of time we have changed the face of our environment for worse. We have dominated the Earth by establishing cities and megacities. This has led to encroachment of Mother Nature. We are limiting resources

on the planet for other creatures. Burgeoning population has added to our woes. The average global temperature is rising and the blanket of carbon dioxide around the world is increasing.

The Paradox of Climate Change

There are many unanswered questions about climate change and the narrator is alarmed by them.

Will the West Antarctic ice sheet melt entirely?

Will the gulf stream ocean current be disrupted?

Will the world come to an end?

In this debate, Antarctica has a major role to play. This is because as compared to other places it remains relatively 'pristine' and contains half-million-years-old carbon records trapped in its layers of ice. The Earth's past, present and future lies hidden in Antarctica.

'Students on Ice' Programme

This programme aims at studying the ecological processes in Antarctica. The narrator works on this project on board Akademik Shokolskiy, It takes school students on the trip of Antarctica. The visit aims at generating a new awareness and respect for our planet in young, impressionable minds.

The programme has been in operation for six years. It is headed by a Canadian, Geoff Green. Earlier he used to take celebrities, retired rich and curiosity seekers to Antarctica for money. Gradually he got sick of those people who gave nothing to the Earth in return. So, he decided to take school students there. It was his firm belief that young minds could learn and act better about the potential hazards regarding the environment which our Earth faces.

The programme was a success because children could see with their own eyes collapsing ice shelves and retreating glaciers. They realised that the threat of global warming was real.

Lessons to be Learnt

The greatest lesson to be learnt is little changes in the environment can have big repercussions. The microscopic phytoplankton are nourishment for marine animals and birds in the region. Any more depletion in the ozone layer will affect the activities of these grasses. This will in turn affect the lives of others in this region and the global carbon cycle. The phytoplankton leads us to conclude that if we take care of small things, the big things can be saved.

A Memorable Walk on the Ocean

The narrator says that the experience of strolling on the ocean at Antarctica was a never-to-be-forgotten incident for all. At 65.55 degrees South of equator, the narrator and the students were told to get down. They put on Gore-Tex ice shoes and Sun glasses. On over 180 metres of salt water, there was one metre thick layer of ice. It was a breathtaking experience to see crabeater seals sitting in the periphery. It was truly a memorable experience for all.

The Difference the Antarctic Trip Made

The author is overwhelmed with the beauty of balance in play on our planet. She has many questions in her mind for e.g., what would happen if Antarctica becomes a warm place? Will human beings survive on Earth? Whatever be the answers to these questions, she is full of optimism about the teenagers who are full of idealism to save the Earth after having made the trip of Antarctica.

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NCERT SOLUTIONS

Questions (Page No. 23)

(Reading with Insight)

Question 1. 'The world's geological history is trapped in Antarctica.' How is the study of this region useful to us?

Answer: The world's geological history is indeed trapped in Antarctica. The study of the region of Antarctica gives us insight into the world's geological history. This is because the current world is battling with the growing population and the extreme burning of fossil fuels has formed a blanket of carbon dioxide around the earth, which is the main cause of global temperature or warming. Antarctica is a crucial element in the debate on climate change because it is relatively 'pristine'. It is because 650 million years ago Gondwana land existed in the south part of the earth where Antarctica is currently situated. It contains a rich variety of flora and fauna. For 500 million years Gondwana flourished, later landmass was forced to separate into countries, shaping the globe, much as we know it today. All secrets are embedded in the layers of the ice in the form of 500-million-year-old carbon records. Hence, to study about earth's past Antarctica is the best place.

Question 2. What are Geoff Green's reasons for including high school students in the Students on Ice expedition?

Answer: Geoff Green took the high school students to one end of the world, to give them the chance to develop respect and knowledge for the earth. He included high school students in the ice expedition because with students on the ice expedition he offered the future policymakers to experience how difficult it would have been for the earth to sustain life by raising its warmth. At a younger age when the process of good values develops in their life, it will also assist them in knowing more about their planet.

Question 3. 'Take care of the small things and the big things will take care of themselves.' What is the relevance of this statement in the context of the Antarctic environment?

Answer: 'Take care of the small things and the big things will take care of themselves.' is a relevant statement to the Antarctic environment. A small environmental change can give rise to dramatic developments. Because of the small biodiversity and simple ecosystem, Antarctica is the best place to study the small changes in the environment that give big consequences. For example, consider the microscopic phytoplankton — these grasses of the sea that feed and

support the entire Southern Ocean's food chain. These single-celled plants use the sun's energy to absorb carbon dioxide and manufacture organic compounds and the most important of processes is called photosynthesis. Scientists caution that more depletion in the ozone layer will affect the activities of phytoplankton, which in turn affect the marine life's food chain. From this example of the phytoplankton, there is a great metaphor for existence: take care of the small things and the big things will fall into place.

Question 4. Why is Antarctica the place to go to, to understand the earth's present, past and future?

Answer: Antarctica is the best place to understand the earth's present, past, future because it holds in its ice cores, half a million-year-old carbon records trapped in its layers of ice. Antarctica gives an idea of how the earth would have been like millions of years ago and how it formed into different masses of earth. Antarctica has a vibrant diversity of flora and fauna is a rich heritage of the past. Therefore, Antarctica is a place to understand the earth's present, past and future.

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