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## VISTAS

## CHAPTER - 3

JOURNEY TO THE END OF THE ~~WORLD~~

EARTH

~~WORLD~~

- TISHANI DOSHI

## ★ QUESTION- ANSWERS

- (Q1.) How do geological phenomena help us to know about the history of humankind?

Ans. Gondwana, a giant southern supercontinent was in existence six hundred and fifty million years ago. At that time, the climate was much warmer. It supported a great variety of flora and fauna. Human had not arrived on the scene. Then, the dinosaurs were wiped out. The age of mammals set in. The land mass was forced to separate into countries. The changes occurred over a million years ago. Geological phenomena resulted in the formation of the Himalayas. The opening up of the ~~drake~~ ~~passage~~ Drake Passage created a cold current. It keeps Antarctica very cold, desolate and at the bottom of the world.

- (Q2.) What are the indications for the future of humankind?

Ans. The rapid increase of population has resulted in pressure on other species for supplies. The burning of fossil fuels has created a blanket of carbon dioxide around the world. The average global temperature is increasing. Even little changes in environment can have big consequences. Scientists warn that a further depletion in the ozone layer will affect the activities of phytoplankton. This will affect the life of all marine animals and birds of the region.

Q3.) What are Geoff Green's reasons for including high school students in the Students on Ice expedition?

Ans. Students on Ice program aims to study and examine the Earth's past, present and future by organising expedition to Antarctica for high school students. The young students are provided inspiring educational opportunities which will help them to develop a new understanding and respect for our planet.

Q4.) "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?

Ans. Antarctica has simple ecosystem and it lacks biodiversity. Due to these two factors, it is a perfect place to study how little changes in the environment can have big consequences. The author gives the example of very small single celled plants called phytoplankton. These grasses of the sea nourish and sustain the entire southern ocean's food chain. The phytoplanktons use the Sun's energy to absorb carbon. They also synthesise various organic compounds through photosynthesis. So, if we want the world to go on properly, we must take care of the small things.

Q5.) Why is Antarctica the place to go to, to understand the Earth's present, past and future?

Ans. Antarctica is the only place in the world, which has never sustained a human population and therefore remains relatively 'pristine' in this respect. It holds in its ice-cores half-million-year-old carbon records trapped in its layer of ice. If we want to study and examine the Earth's past, present and future, Antarctica is the place to go.