Exercise 5

Read the information. Then read the questions. Where can you find the information in the passage to answer the questions? Choose the correct paragraphs.

You should now have a general idea of what the Reading passage is about. Use the next couple of minutes to look at the questions and decide what information you need, and where you can find it in the passage. At this point, you do not need to answer the questions.

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The changing fortunes of Antarctic penguins

Robert Gates explains how climate change has started to affect the natural habitat of the Adélie penguin

A The effects of climate change are complex, with scientists constantly trying to understand how ecosystems are affected. Nowhere is this more so than in the Antarctic – a place where no humans live permanently, but which nevertheless is undergoing change due to human interference.

B Over the last five years, scientists have been examining the populations of different types of penguin that inhabit the Antarctic continent. In particular, they have been looking at penguins living on Ross Island – a huge island connected to the Antarctic mainland by a permanent sheet of ice, and formed from four large volcanoes, one of which is still active. On the western side of Ross Island is Cape Royds, home to a colony of Adélie penguins. In 2000, there were estimated to be about 4,000 Adélie nests, but a survey carried out in the last few months found that the number had fallen to 2,100.

C Scientists say there are two main reasons for the population decline in this part of Ross Island. Firstly, Adélies cannot lay their eggs directly onto ice or snow. However, the average winter air temperature of the area has risen in the past half century. This causes more snow to fall, which buries the rocks on which Adélie penguins would typically construct their nests. Secondly, after a female Adélie lays her egg, she walks to the sea in search of food, while the male remains behind to hatch the egg. As soon as the female reaches an area of open sea, she will dive into the water and start feeding. When the female returns with fish for the penguin chick to eat, the hungry male also hurries off to reach the sea. In previous centuries, the walk would have been relatively short, between 15 and 20 kilometres. But in 2000, a large iceberg blocked the mouth of McMurdo Sound, where many Adélie penguins went to find food. At the same time, the ice in the bay at Cape Royds failed to break up as it had done in the past. This meant the Adélies then had to walk much further over the ice – often up to 75 kilometres – before they could reach the ocean. The result was often that the parent waiting on the nest became too hungry to wait any longer, and the eggs were abandoned.

D Elsewhere on Ross Island, in contrast to McMurdo Sound, the situation is more encouraging. At Cape Crozier, Adélie penguins are thriving. The colony is now thought to have an estimated 230,000 breeding pairs, an upturn of 20% over the last three decades. Penguins nesting on this part of Ross Island may actually be benefitting from human activity, scientists suspect. In 1996, a fishing company opened near the area, and started fishing for vast quantities of Chilean sea bass – otherwise known as the Patagonian toothfish. As both the Adélies and the sea bass eat silverfish, competition for this food source has now been dramatically reduced, and this may partly explain why penguin numbers have risen at Cape Crozier.

1. What geographical features have created the land of Ross Island? A/B/C/D
2. How many Adélie penguin nests were counted at Cape Royds? A/B/C/D
3. On what type of surface do Adélie penguins usually choose to build their nests? A/B/C/D
4. What has, in the past, prevented penguins from reaching the open sea in the McMurdo Sound? A/B/C/D
5. Approximately, what distance did Adélie penguins then have to walk to reach the sea? A/B/C/D