# 2.4 Cold Environments: 10-minute Pack

AQA 8035 · Calculator allowed · about 10 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

**Answer ALL questions. Show all your working.**

**1** This question is about the opportunities cold environments provide for economic development.

**(a)** Describe one opportunity for mineral or energy extraction in a cold environment. **(2)**

**(b)** Describe one opportunity for tourism in a cold environment. **(2)**

**(c)** Describe one opportunity for scientific research in a cold environment. **(2)**

**(Total for Question 1 is 6 marks)**

**2** Explain why cold environment ecosystems are described as fragile.

**(Total for Question 2 is 3 marks)**


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# Mark scheme · 2.4 Cold Environments: 10-minute Pack

## Question 1

(a) opportunity named, e.g. oil and gas extraction, oe **B1**

(a) linked detail, e.g. large reserves have been found beneath the Arctic and its surrounding land, which can be extracted and piped to markets, oe **B1**

**(a) Answer: For example, oil and gas extraction; large reserves have been found beneath the Arctic and its surrounding land, which can be extracted and piped to markets.**

(b) tourists are attracted by the distinctive landscape and wildlife, e.g. glaciers, polar bears, or the Northern Lights, oe **B1**

(b) this can create jobs and income for local people, e.g. as tour guides, or through hotels and cruise ships, oe **B1**

**(b) Answer: The distinctive landscape and wildlife, such as glaciers, polar bears or the Northern Lights, attract tourists, creating jobs and income for local people as guides or through hotels and cruise ships.**

(c) cold environments provide a unique setting to study climate change, ice, and species found nowhere else, oe **B1**

(c) international research stations are built to carry out this research, bringing scientists, jobs and funding to the area, oe **B1**

**(c) Answer: Cold environments provide a unique setting to study climate change, ice and species found nowhere else, so international research stations are built there, bringing scientists, jobs and funding to the area.**

## Question 2

the extreme cold means growth and decomposition happen very slowly, oe **B1**

so plants and animals affected by damage (e.g. pollution, vehicle tracks, an oil spill) take a very long time to recover, if they recover at all, oe **B1**

food webs are also relatively simple, with few species, so the loss of even one species can have a large knock-on effect on others, oe **B1**

**Answer: The extreme cold means growth and decomposition happen very slowly, so damage such as pollution or vehicle tracks takes a very long time to recover from; food webs are also relatively simple, with few species, so losing even one species can have a large knock-on effect.**


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