
Antarctica: Land of Ice

Introducing Antarctica

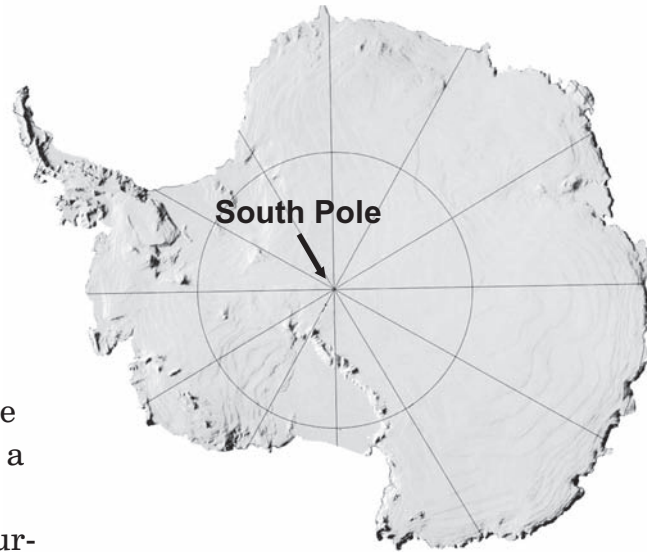
What is Antarctica?

Antarctica is a continent that is right at the south of the planet. (If you try to find it on a globe, you will see that it is at the bottom.)

It takes up one-tenth of the Earth's surface and is covered with a blanket of ice that can be as thick as 1,500 metres or more. The South Pole is right in the middle of Antarctica.

Antarctica is the coldest continent, as well as the driest, the highest and the windiest. Very few people live there all year round. Scientists stay there for short periods, living in specially built research stations.

Summer in Antarctica is between October and March. During this time there is non-stop daylight. In winter, April to September, the opposite happens and Antarctica is plunged into six months of constant darkness.



A Map of Antarctica



In Antarctica, it is colder than you can possibly imagine, even in the summer! The South Pole is the coldest part of Antarctica. The average temperature for January, the middle of the summer, is minus 28 degrees Celsius (written as -28°C). Minus means colder than the freezing point, which is 0°C .

In the winter, April to September, the average temperature at the South Pole can be as cold as -89°C . When it is that cold, a mug of boiling water thrown in the air would freeze before it hit the ice. Sometimes the scientists have to use fridges to keep their samples warm!



Penguins in Antarctica

There are more penguins in the Antarctic than any other bird.

They cannot fly but use their short wings as swimming flippers. They are superb swimmers. On land, they waddle upright or move in short hops.

Penguins have many feathers that overlap each other. These, together with woolly down feathers and a thick layer of fat, keep out the cold air, wind and water. For extra warmth, penguins huddle together in groups.

A Letter from Antarctica

Sara Wheeler is one of the scientists working in Antarctica. By reading her letter to her nephew Daniel, you can learn more about her Antarctic experience.



Antarctica

Friday, 9 December

Dear Daniel,

Here is the letter I promised to write to you from Antarctica, and a photograph. Imagine how excited I am to be here at last, following in the footsteps of so many famous explorers. It is very different from the world I am used to.

There is nothing fresh down here—and no supermarkets—so we have to eat a lot of dried, tinned or frozen food (it doesn't have to be put in the freezer—you can just leave it outside). We cook on small gas stoves, which take much longer than cookers at home. Yesterday I made noodles with tomato paste and vegetables out of a tin, followed by dried strawberries that tasted like cardboard.

I miss fresh apples and oranges—I wish you could send me some!

Love from Sara

Questions Antarctica: Land of Ice

1. Where can you find Antarctica on a globe?



2. Antarctica is the coldest place on Earth. What other records does it hold?

- (A) driest and cloudiest
(B) wettest and windiest
★ (C) windiest and driest
(D) cloudiest and highest

3. What is the coldest part of Antarctica?



★ Correct answer

4. Think about what the article says about Antarctica. Give **two** reasons why most people who visit Antarctica choose **not** to go there between April and September.



1.



2.

5. Why does the article tell you that ‘a mug of boiling water thrown in the air would freeze before it hit the ice’?

- (A) to tell you how hot the water is in Antarctica
- (B) to show you what they drink in Antarctica
- (C) to tell you about scientists’ jobs in Antarctica
- ★ (D) to show you how cold it is in Antarctica

6. According to the article, what do penguins use their wings for?

- (A) flying
- ★ (B) swimming
- (C) keeping chicks warm
- (D) walking upright

★ **Correct answer**



7. Give **three** ways penguins are able to keep warm in Antarctica.

 1. _____

 2. _____

 3. _____

8. What are **two** things you learn about food in Antarctica from Sara's letter?

 1. _____

 2. _____

9. Think about whether you would like to visit Antarctica. Use what you have read in both *Introducing Antarctica* and *A Letter from Antarctica* to explain why you would or would not like to visit.



10. Which section of the article tells you how thick the ice is in Antarctica?

- ★ (A) What is Antarctica?
- (B) The Weather in Antarctica
- (C) Penguins in Antarctica
- (D) A Letter from Antarctica

★ Correct answer



11. In this article, there are two different ways of finding out about Antarctica:

- *Introducing Antarctica*
- *A Letter from Antarctica*

Which of these kinds of information do you find more interesting, and why?



Antarctica, Item 1

Where can you find Antarctica on a globe?

Process: Focus on and retrieve explicitly stated information and ideas

1 – Acceptable Response

These responses identify the explicitly stated location of Antarctica. The response states that Antarctica is at the bottom of the globe, or describes it as being at the south of the planet.

Antarctica, Item 3

What is the coldest part of Antarctica?

Process: Focus on and retrieve explicitly stated information and ideas

1 – Acceptable Response

These responses identify the explicitly stated location of the coldest part of Antarctica. The response states that the South Pole is the coldest part. (“The middle part” is also acceptable.)

Antarctica, Item 4

Think about what the article says about Antarctica. Give two reasons why most people who visit Antarctica choose not to go there between April and September.

Process: Interpret and integrate ideas and information

2 – Complete Comprehension

These responses demonstrate complete comprehension by interpreting information about conditions in Antarctica during the winter. The response describes both of the winter conditions

mentioned in the article: 1) the extreme cold, and 2) the constant darkness. (Note: it is not correct to just say that it is winter; it is necessary for the response to include the extreme cold or darkness of winter.)

Example:

It is plunged into six months of constant darkness. A mug of boiling water thrown in the air would freeze before it hit the ice.

1 – Partial Comprehension

These responses demonstrate partial comprehension by interpreting information about one condition in Antarctica during the winter. The response describes one of the winter conditions mentioned in the article: 1) the extreme cold OR 2) the constant darkness. (Note: it is not correct to just say that it is winter; it is necessary for the response to include the extreme cold or darkness of winter.)

Example:

It is very cold that time of year.

Antarctica, Item 7

Give three ways penguins are able to keep warm in Antarctica.

Process: Make straightforward inferences

3 – Extensive Comprehension

These responses demonstrate extensive comprehension by identifying most of the ideas in the article from which penguins’ ability to stay warm can be inferred. The response describes at least three of the ways penguins are able to stay warm listed below.

2 – Satisfactory Comprehension

These responses demonstrate satisfactory comprehension by identifying some of the ideas in the article from which penguins’ ability to stay warm can be inferred. The response describes two of the ways penguins are able to stay warm listed below.

1 – Minimal Comprehension

These responses demonstrate limited comprehension by identifying one idea in the



article from which penguins' ability to stay warm can be inferred. The response describes only one of the ways penguins are able to stay warm listed below.

Ideas from Article Explaining how Penguins Stay Warm

They have many feathers which overlap each other.

They have woolly down feathers.

They have feathers (only counts as a separate idea if neither of the first two ideas about feathers is included in the response).

They have a thick layer of fat.

They huddle together in groups.

Antarctica, Item 8

What are two things you learn about food in Antarctica from Sara's letter?

Process: Focus on and retrieve explicitly stated information and ideas

2 – Complete Comprehension

These responses demonstrate complete comprehension by identifying two explicitly stated ideas related to food in Antarctica. The response identifies at least two of the ideas listed below.

1 – Partial Comprehension

These responses demonstrate partial comprehension by identifying one explicitly stated idea related to food in Antarctica. The response identifies only one of the ideas listed below.

Ideas from Sara's Letter About Food in Antarctica

There are no supermarkets.

There is a lot of dried, tinned, or frozen food (one or more of these adjectives is acceptable as an idea)/ Nothing is fresh.

Food doesn't have to be put in a freezer. /Food can be left outside.

They cook on gas stoves.

It takes longer to cook.

They eat noodles with tomato paste and vegetables.

Strawberries taste like cardboard.

They don't have apples and oranges.

Sara doesn't like the food in Antarctica. /It is not good.

Antarctica, Item 9

Think about whether you would like to visit Antarctica. Use what you have read in both **Introducing Antarctica** and **A Letter from Antarctica** to explain why you would or would not like to visit.

Process: Interpret and integrate ideas and information

2 – Complete Comprehension

These responses demonstrate complete comprehension by integrating information from across two different texts to fully support a personal opinion about text content. The response states or implies a personal opinion about visiting Antarctica and provides specific information from both texts—*Introducing Antarctica* and *A Letter from Antarctica*—to support the opinion. See chart below for appropriate ideas for each text.

Example:

No, because it is the coldest place on earth and there is nothing fresh to eat.

1 – Partial Comprehension

These responses demonstrate partial comprehension by supporting a personal opinion about text content with information from one text. The response states or implies a personal opinion about visiting Antarctica and provides specific information from one text—*Introducing Antarctica* OR *A Letter from Antarctica*—to support the opinion. See chart below for appropriate ideas for each text.

Example:

Yes, because many explorers have been there.



Topics/Ideas from Each Text that May be Used to Support Opinion

Introducing Antarctica

Extreme cold

Constant darkness

Penguins live there

Few people live there

Scientists stay there

A Letter from Antarctica

Food (freshness, tinned/dried, cooking, buying)

Cold

Famous explorers have gone there

Antarctica, Item 11

In this article, there are two different ways of finding out about Antarctica: Introducing Antarctica

A Letter from Antarctica

Which of these kinds of information do you find more interesting, and why?

Process: Examine and evaluate content, language, and textual elements

1 – Acceptable Response

These responses demonstrate understanding of the type of information presented in at least one of two texts. The response provides an opinion about which text is most interesting. In addition, it includes an explanation that accurately describes some element of the content, language, format, or tone of at least one of the texts.

Example:

Sara's letter because it makes you understand what it really feels like to be there.

