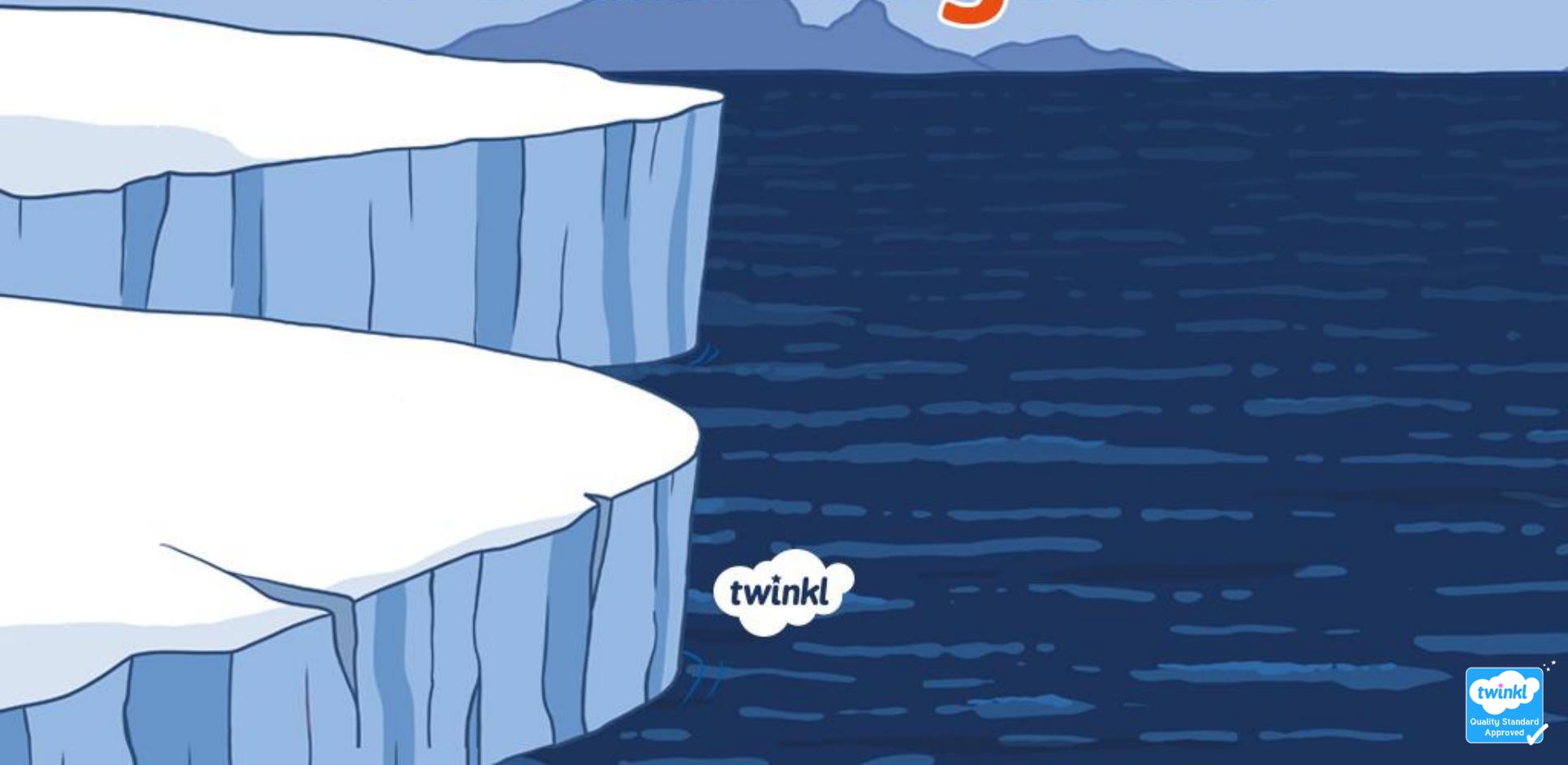
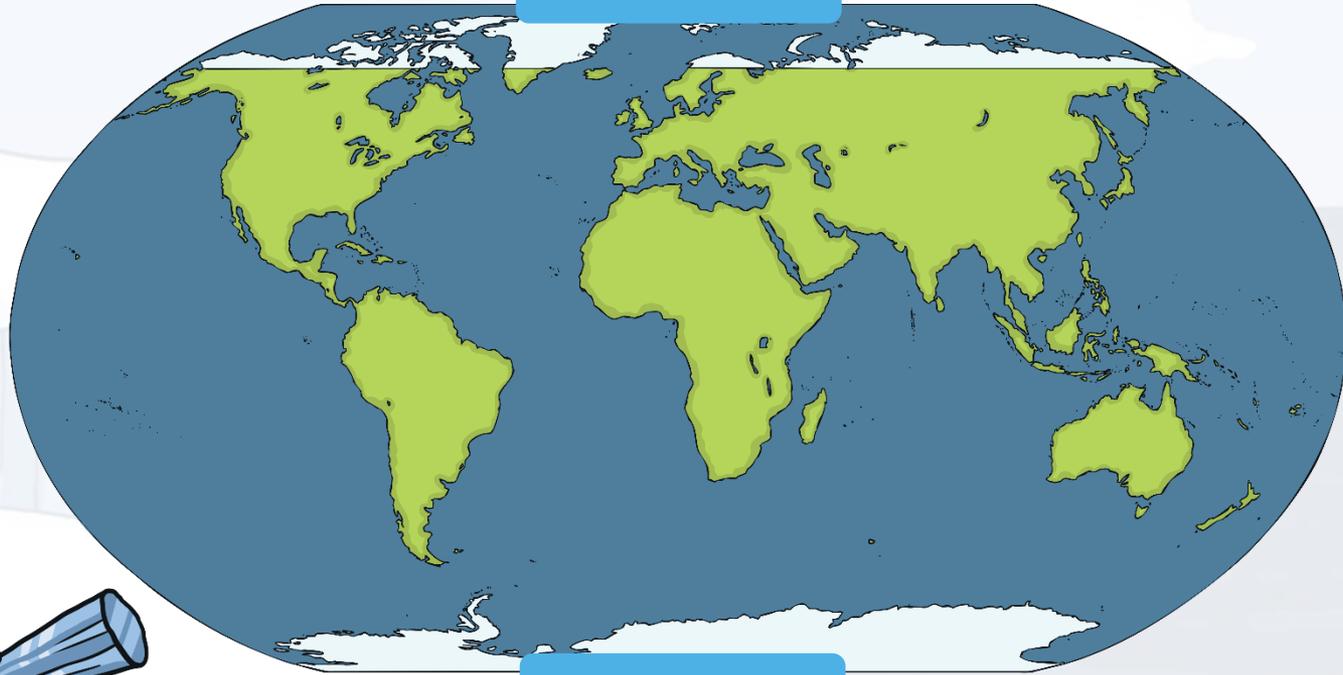


Comparing the Polar Regions



Where Are the Polar Regions?

The Arctic



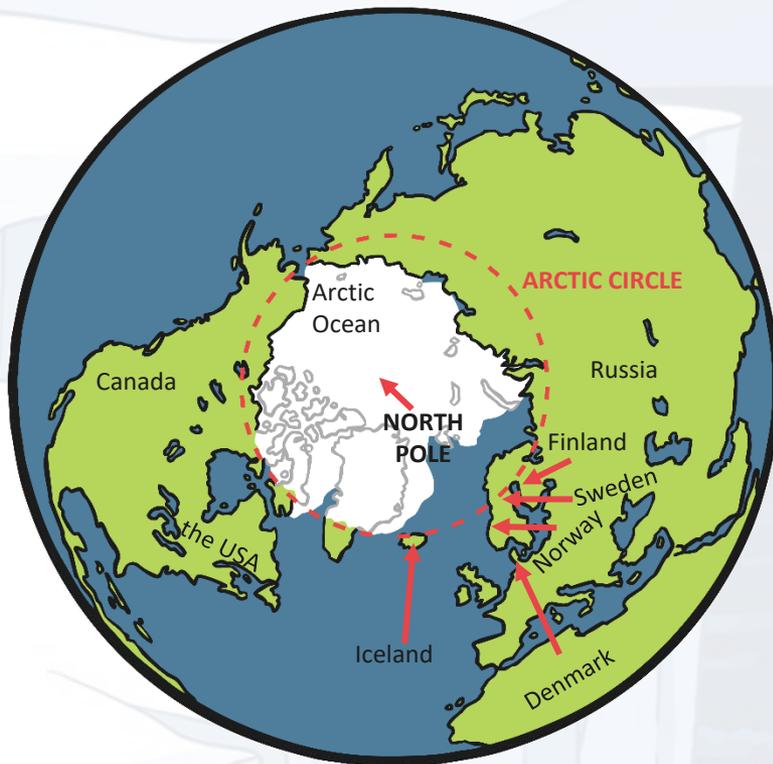
Antarctica

Do you recognise any other places on the map?



The Arctic

The Arctic is at the very top of the Earth. It includes the areas around the North Pole. The Arctic isn't a country or a continent. It is actually mostly a frozen ocean.

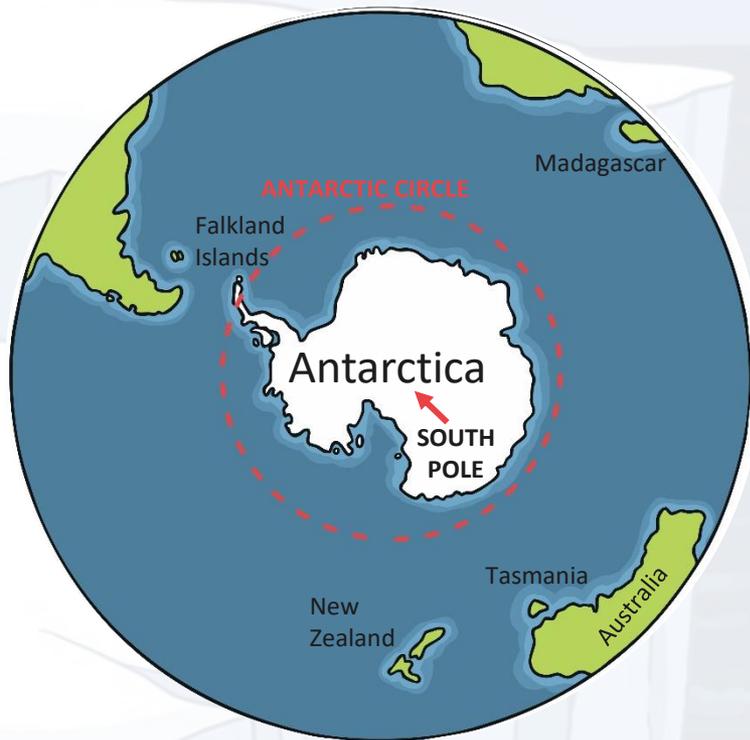


The Arctic includes parts of lots of different countries. These include Norway, Finland, Sweden, Russia, the USA, Canada, Denmark and Iceland. It also includes the Arctic Ocean.

This whole area is known as the **Arctic Circle**.

Antarctica

Antarctica is at the bottom of the Earth. It includes the areas around the South Pole. Unlike the Arctic, Antarctica is actually a continent. This is because Antarctica is an area of land, covered in ice.



Antarctica isn't officially owned by anyone, so it is not called a country. It has no government and no towns or cities.

Climate in the Arctic

The Arctic only has two seasons. It has long, cold winters and short, cool summers. The winters last for about 8 months.



In the winter, the sun is so far away from the Arctic that it doesn't rise at all. This means it can be cold and dark for months.



The average temperatures in the Arctic range from about 12°C in the summer to about -34°C in the winter.

What do you think it would be like if you didn't see the sun for months?

Climate in Antarctica

Antarctica is the coldest and windiest place on Earth. The lowest temperature ever recorded here was -89°C ! The average temperatures range from about 10°C in the summer to -60°C in the winter. Antarctica's winter also lasts for 8 months.



Because it is so cold, over 98% of Antarctica is permanently covered in ice. Antarctica is also home to the driest place on Earth. There are places in Antarctica which haven't had rain or snow in over 2 million years!

What do you think -89°C would feel like?

Physical Features in the Arctic

There are lots of different physical features in the Arctic. These include:

mountains



fjords



islands



plateaus



Most of the Arctic, however, is covered by water and most of that water is frozen. Some of these physical features, such as glaciers and icebergs, help to make up 20% of Earth's freshwater.

Physical Features in Antarctica

There are lots of different physical features in Antarctica. These include:

valleys



glaciers



seas



mountains



...and even volcanoes! There are 138 volcanoes in Antarctica. However, only two of them are currently active. The most active is called Mount Erebus and it has been active for about 1.3 million years.

Humans in the Arctic

People have lived in the Arctic for thousands of years. Only about 4 million people live and work in the Arctic at the moment

In the winter, it can get so cold that it's too dangerous to go outside without special clothing and equipment. Strong storms and blizzards can make travel very difficult and heating a home can be expensive without trees for a fire.

Mining for oil and gas, and fishing are important activities in the Arctic.



"Sisimiut vinter houses" by Greenland Travel is licensed under [CC BY 2.0](https://creativecommons.org/licenses/by/2.0/)



What do you think it would be like to live in the Arctic?

Humans in Antarctica

No people permanently live in Antarctica because it is too cold for them to live there for a long time. Scientists take turns living there for short periods of time to study the ice and the animals. There are no towns or cities in Antarctica.

research stations for
scientists to work in



"Esperanza Station anta0060" by NOAA Photo Library is licensed under [CC BY 2.0](https://creativecommons.org/licenses/by/2.0/)

an Antarctic cruise ship



"Whalers Bay Deception Island Antarctica Fur Seal Silversea Silver Cloud 3" by Gary Bembridge is licensed under [CC BY 2.0](https://creativecommons.org/licenses/by/2.0/)

a weather experiment



"Iceberg B-15A weather instrument" by NSF/Josh Landis, employee 1999-2001 is licensed under [CC BY 2.0](https://creativecommons.org/licenses/by/2.0/)

What do you think it would be like to live in Antarctica?

Arctic Animals

The Arctic covers area of Europe, North America and Asia. Because of this, there are lots of different types of animals here.

Arctic foxes have short ears and noses to limit how much of their body is exposed to the cold. They live in burrows underground to keep them warm. Their fur turns white in winter so they are camouflaged against the snow.



Polar bears have a thick coat and a layer of blubber to keep them insulated. They even have fur on their paws. This helps to protect them from cold surfaces and also lets them grip the ice.



Walrus have long tusks. They use them for pulling themselves out of the water and to break breathing holes in the ice when they are underwater. They also have a very thick layer of blubber.



Antarctic Animals

There are lots of different animals that live in Antarctica.

Emperor penguins are the biggest penguins in the world. They have a special flap of skin above their feet where they keep their egg (and then their chicks) warm and off of the cold ground.



"Emperor Penguins" by Christopher Michel is licensed under [CC BY 2.0](#)

Orcas are one of the fiercest predators in the sea. They eat seals, sea lions, penguins, squid, sea turtles, whales and even sharks. They have a thick layer of blubber to protect them from the cold water.



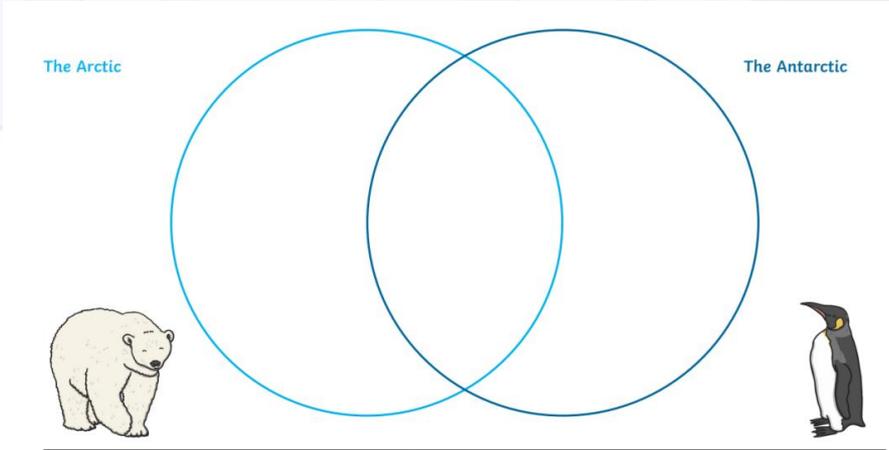
"Killerwhales jumping" by Robert Pittman is licensed under [CC BY 2.0](#)

Elephant seals are the largest of all the seals. They can dive over 4900 metres and can stay underwater for more than two hours.



Now you need to think about what you have learned and put the information in the correct place on the diagram. Remember some of the facts need to be in the Arctic and the Antarctic so make sure you put them in the middle where the circles overlap.

©Can you find any other information to include?



The Arctic and the Antarctic Comparison

Sort the following facts into the correct places on the Venn diagram. Be careful, some facts may be for both the Arctic and the Antarctic!

- Animals include polar bears, lemmings and narwhals.
- Very few plants grow, mainly lichens.
- Sea ice surrounded by land.
- Important research stations have been built.
- Some flowering plants.
- Animals include penguins, elephant seals and the wandering albatross.
- Continent which is 90% covered by an ice cap.
- Constant darkness in winter and constant daylight in summer.
- The lowest temperature on Earth (-89.2°C) was recorded here.
- Home to a range of native people, such as Inuit, Yakuts and the Sami.
- No people permanently live here.