

Antarctica

Antarctica is the fifth largest, southernmost continent. Its climate and landscape make it one of the least habitable places on Earth. Despite the inhospitable conditions, Antarctica is the subject of much scientific and geological study.



Climate

Antarctica is the windiest, coldest and driest continent. Winds on Antarctica reach speeds of up to 351 kilometres per hour. Annual precipitation is very low and as a result, many scientists label Antarctica a ‘polar desert’. The ice sheets of Antarctica exist because the extremely cold temperature prevents the small amounts of new snow and ice from melting. For around 15 million years, the cold climate has left the land hidden under a thick sheet of ice.

Landscape

The landscape of Antarctica has numerous distinctive features:

- It has many islands of different sizes, such as the South Shetland Islands. Some of these are connected to the mainland by ice and others are connected to the mainland only at the coldest times of the year.
- The Transantarctic Mountains divide the continent into two parts, known as East and West Antarctica. East Antarctica is a high plateau and West Antarctica is an archipelago.
- At an average of 2500m above sea level, it is the highest continent on Earth.
- The continent is almost entirely covered by ice. Over 90% of Earth’s ice is found on Antarctica.
- Dry valleys are another distinctive physical feature. There is no snow within dry valleys because the mountains around them prevent the flow of ice from surrounding glaciers.
- There is a volcano called Mount Erebus, which is the southernmost active volcano on the planet.

Animals

With the harsh climate and icy landscape, the animal species that live on Antarctica, and in the surrounding waters, have had to adapt to the bitterly cold conditions.

This table features some of the best-known terrestrial and aquatic animals that live on or around Antarctica.

Animal	Length	Diet	Adaptations
 Adélie penguin	70cm	fish, krill and squid	white belly to camouflage against the snow and black back to camouflage in the sea
 orca	6–8m	fish, sea turtles, rays and sharks	blubber to keep warm
 leopard seal	3m	fish, smaller seals, penguins and squid	blubber and two layers of fur to keep warm
 snow petrel	35–40cm	fish and squid	white feathers to camouflage

Research

There are no indigenous people on Antarctica because of the incredibly cold conditions. However, 30 countries run research stations on Antarctica. As a result, many scientists live and work there: as many as 10,000 scientists and staff during the Antarctic summer.

Scientists study the land, life and atmosphere of Antarctica in an amazing range of areas. In particular, their studies are helping us understand climate change.

Antarctica is an incredible continent. Although few people want to live there, it is helping us to understand more about the world.