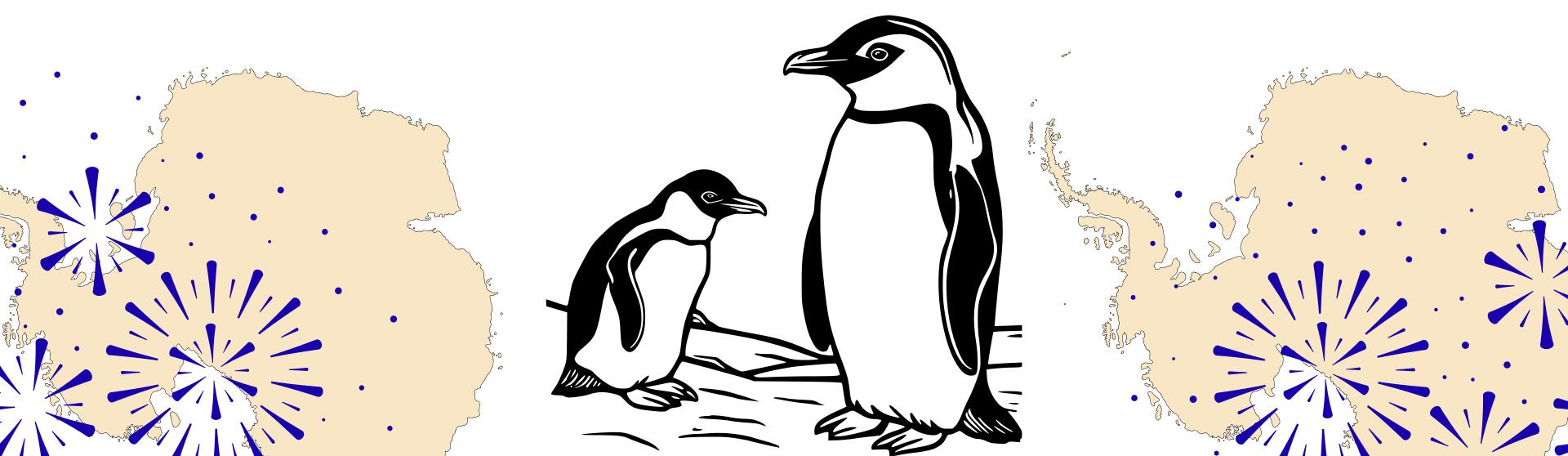
MINI LESSON

# Antarctica



# Welcome to Antarctica!

Before we dive in, meet Archie and his friends, the Intrepid Explorers. They are five adventurous Aussie kids who travel the world on missions to recover stolen artefacts or protect endangered species. This time, they are headed to Antarctica. Before landing, they have decided to read up on the country's geography, history, and wildlife, and we hope you have fun learning with them!

And the adventure does not stop there. On our website, www.thelittlexplorersjournal.com, under the resources page, we've also shared fun resources from their journey, including landmarks and animal cards, interactive activities linked of the country, and brain-teasing games to keep your kids learning and having fun every step of the way.



## Welcome to Antarctica!

Antarctica is the coldest place on Earth. It sits right at the very bottom of the planet, around the South Pole. Because of the thickness of the ice sheet, Antarctica has the highest average altitude of all of the continents. Unlike other continents, it doesn't have any countries, cities, or towns. Instead, scientists from all over the world come here to study, and they live in special research stations.

Almost the whole continent is covered in ice. In fact, about 60% of all the fresh water on Earth is frozen here! Even though it looks like an icy desert, some animals call it home, like penguins, seals, and seabirds. In the ocean around Antarctica, you can also find whales and orcas.

In summer, the sun never goes down; it shines all day and all night. But in winter, it's the opposite: the sun doesn't rise, and everything stays dark for months.







# Geography of Antarctica

Antarctica is a land of ice and snow, with nearly the entire continent covered by a thick ice sheet. This ice can be more than 4 kilometres deep in some places! Beneath it are hidden mountains, valleys, and even lakes that never see the sun. But Antarctica isn't just ice. It is actually the driest continent on Earth, which makes it a desert. In some places, there are areas without snow where the ground is bare rock and sand. Here, strong winds shape sand and ice into dunes, just like in hot deserts, but much colder! The coastline of Antarctica is surrounded by the Southern Ocean. Floating icebergs, some as large ' as cities, drift in the water. Along the icy edges, penguins waddle, seals rest, and seabirds soar!



## History of Antarctica

Humans didn't know about Antarctica until 1820, when explorers first spotted its icy coasts. Unlike other continents, Antarctica has no native people, so it was free from permanent settlements. Over the years, countries raced to explore its coasts and islands, hoping to claim parts of this mysterious land. In 1959, nations decided it should remain a peaceful place for science, and they signed the Antarctic Treaty, agreeing to protect the land, study its wildlife, and share discoveries with everyone. Since then, scientists from all over the world have built research stations here, studying penguins, glaciers, volcanoes, and even the effects of climate change.

Antarctica may seem empty, but its history is full of exploration, adventure, and scientific discovery!

Today, there are about 70 permanent research stations in Antarctica, with more that are only used during the summer. Scientists from countries like the United States, Russia, Chile, Argentina, China, the United Kingdom, and Australia work here, often living in small, colorful buildings surrounded by ice and snow.

## The Climate of Antarctica

Antarctica has the coldest climate on Earth. In the interior, far from the ocean, temperatures can drop below -80°C in winter, making it almost impossible for people to survive without special equipment. Along the coast, it is not quite as extreme, but still very cold, with temperatures often below freezing even in summer.

Unlike most places, Antarctica has only two main seasons: summer and winter. In summer, the sun never sets, and it can stay light for 24 hours a day. In winter, the sun doesn't rise, leaving the continent in darkness for months.

Antarctica is also one of the driest places in the world. Very little snow falls each year, so it is considered a polar desert. The strong winds, called katabatic winds, can reach over 300 km/h, making the weather even harsher.



## Famous Landmarks

Antarctica doesn't have cities or castles, but it is full of natural landmarks that look like they belong on another planet. Mount Vinson is the tallest mountain, rising 4,892 meters above the ice. The Transantarctic Mountains stretch across the whole continent, splitting it into East and West.

But one of the strangest sights is Blood Falls in the Dry Valleys. Here, red, rusty-colored water pours out of the ice, making it look like the glacier is bleeding. The color comes from iron in the salty water that has been trapped under the ice for millions of years.

Antarctica is also known for its blue ice glaciers. These glaciers look almost glowing blue because the ice is so thick and packed that it absorbs every other color of light except blue. Standing near them feels like looking at a giant frozen sapphire.

And of course, the South Pole is here too, the very bottom of the Earth, where every direction is north!



Wildlife in Antarctica

The marine waters around Antarctica are some of the richest in the world. Tiny shrimp-like creatures called krill live here in huge numbers. They are very important because almost every animal depends on them for food, penguins, seals, whales, and even seabirds. Without krill, the whole Antarctic food chain would collapse.

Among the biggest animals in these waters are whales. Blue whales, the largest animals ever to live on Earth, come here to feed on krill. Orcas (killer whales) hunt in groups and can work together to knock seals right off the ice. Humpback whales are known for their acrobatic jumps out of the water. Several types of seals live in Antarctica too. The leopard seal is fierce and hunts penguins, while the crabeater seal eats mostly krill. The Weddell seal is famous for diving deep under the ice and can stay underwater for more than an hour.



Wildlife in Antarctica

On land, penguins are the stars of Antarctica. The emperor penguin is the only animal that breeds during the harsh winter, with fathers keeping the egg warm on their feet while mothers hunt for food. Adélie penguins are smaller but very lively, often seen sliding on their bellies across the ice. Gentoo penguins, with their bright orange beaks, are some of the fastest swimmers.

High above, birds like the snow petrel and the south polar skua soar across the skies. The snow petrel is one of the few birds that spends its entire life in Antarctica.

Every creature here has special adaptations to survive the freezing cold, thick layers of blubber, waterproof feathers, or teamwork in huge groups to stay warm.



Brave Explorers of Antarctica

#### Roald Amundsen (Norway)

- First person to reach the South Pole in 1911
- Used sled dogs to travel across the ice
- Known for careful planning and survival skills
   Ernest Shackleton (UK)
  - Led the Endurance expedition (1914–1917)
  - Ship got trapped in ice, but he and his crew survived incredible conditions
- Famous for courage and leadership Robert Falcon Scott (UK)
  - Reached the South Pole shortly after Amundsen
  - Explored parts of the Antarctic coast and studied wildlife
  - Known for his dedication to science

These explorers faced freezing temperatures, giant glaciers, and fierce winds, and they paved the way for modern scientists to study Antarctica safely.



### Fun Facts about Antarctica

Antarctica is home to many volcanoes, some are even active!

- Mount Erebus is the southernmost active volcano on Earth. It has a lava lake in its crater and icy sculptures formed by escaping gases. The first people to climb it did so in 1908, taking five very cold days to reach the top.
- Deception Island is a horseshoe-shaped volcano that last erupted in 1970. It once had a whaling station and later a research station, but today it's a fascinating place to explore.

Even under the ice, there are many more volcanoes, scientists have found 138 hidden under the western ice sheet!



### Fun Facts about Antarctica

Sometimes the air sparkles! Tiny ice crystals called diamond dust float in the air, almost like an icy fog. When the sunlight hits them, it looks like millions of tiny diamonds are sparkling all around. Diamond dust can also make amazing light shows, like sun dogs, halos, and light pillars.

Even though Antarctica is the coldest place on Earth, it wasn't always frozen. The coldest temperature ever recorded here was -89.2°C (-128.6°F)—brrr! But 90 million years ago, Antarctica was much warmer, with temperatures reaching 17°C (63°F), almost like Melbourne today. Back then, the continent was full of green forests and even dinosaurs roamed its land!

Today, parts of Antarctica are warming really fast, especially the Antarctic Peninsula. Over the past 50 years, its temperatures have risen by 3°C (5.4°F)—five times faster than the average for the whole Earth. This warming is already causing changes:

- Penguins are forming their colonies in different places.
- Sea ice is melting and forming at different times.
- Mosses have a slightly longer growing season, giving a tiny bit more life a chance to flourish.

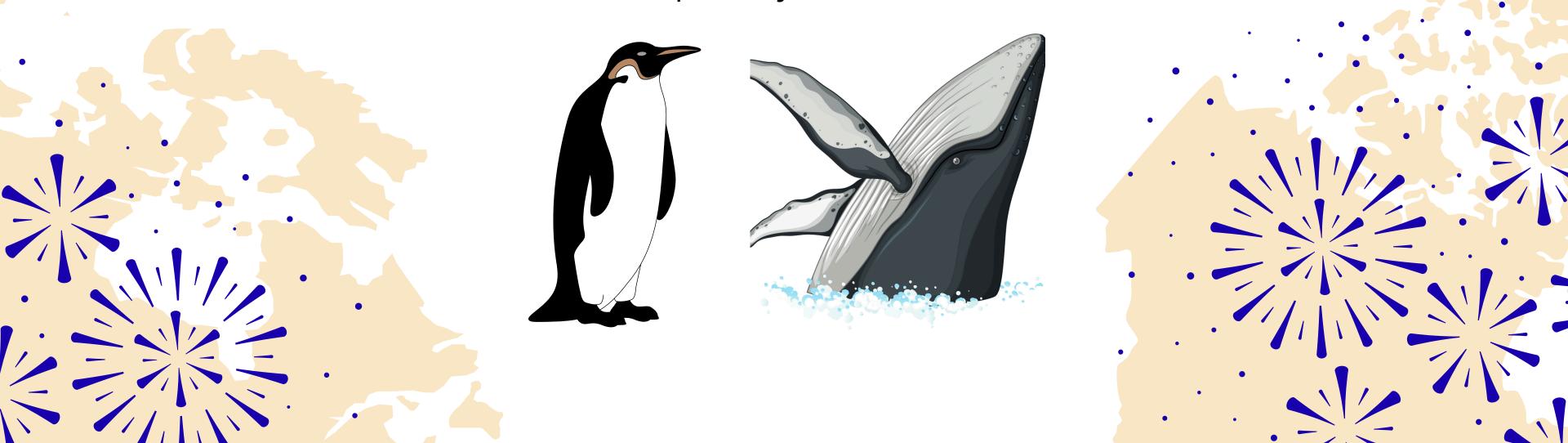


#### COUNTRY INTRODUCTION

Did you enjoy this lesson? Please leave us a review on Trustpilot. It really helps small businesses like yours.

https://au.trustpilot.com/review/thelittleexplorersjournal.com/

And sign up for our newsletter for more country-focused lessons, quizzes and interactive activities or www.thelittleexplorersjournal.com/newsletter



## Do you like adventure and mystery stories? Then join Archie and his friends on their biggest mission yet!

#### Solve the riddles. Find the stolen artefact. Survive the mission.

When thirteen-year-old Archie signs up for a high-stakes virtual reality game, he has no idea he's about to embark on the adventure of a lifetime. Thrown together with four unlikely teammates, Archie must decode historical puzzles, defeat dangerous pirates, and survive a cassowary attack...all to recover a priceless painting before it's lost forever.

But just when the team thinks the game is over, a mysterious email changes everything: an ancient and sacred artefact, the royal flute of Makassar, has been stolen. It's time for the Intrepid Explorers to take on a real-world mystery.

From crocodile-infested swamps and an abandoned mine in the Australian desert to a bobby-trapped room in a famous art gallery, the five children will face life-threatening challenges. They'll have to rely on their courage, survival instincts and ability to solve cryptic puzzles to complete their mission before time runs out.

Will they be able to recover the sacred object before it vanishes forever?

This book is the debut instalment in a new mystery-adventure series that takes middle-grade readers on epic quests around the world, exploring cultures, wildlife, and landmarks along the way.

Adventure awaits, so grab your copy here



Perfect for **ages 8+,** this book is packed with:

✓ Courage

✓ Teamwork

- ✓ Action & mystery
- ✓ Riddles
  ✓ Friendship
- ✓ Beautiful landscapes
  - , ,

✓ Facts about Australia's culture and history





