## THE INTREPID EXPLORERS in Antarctica



## Penguin Expedition



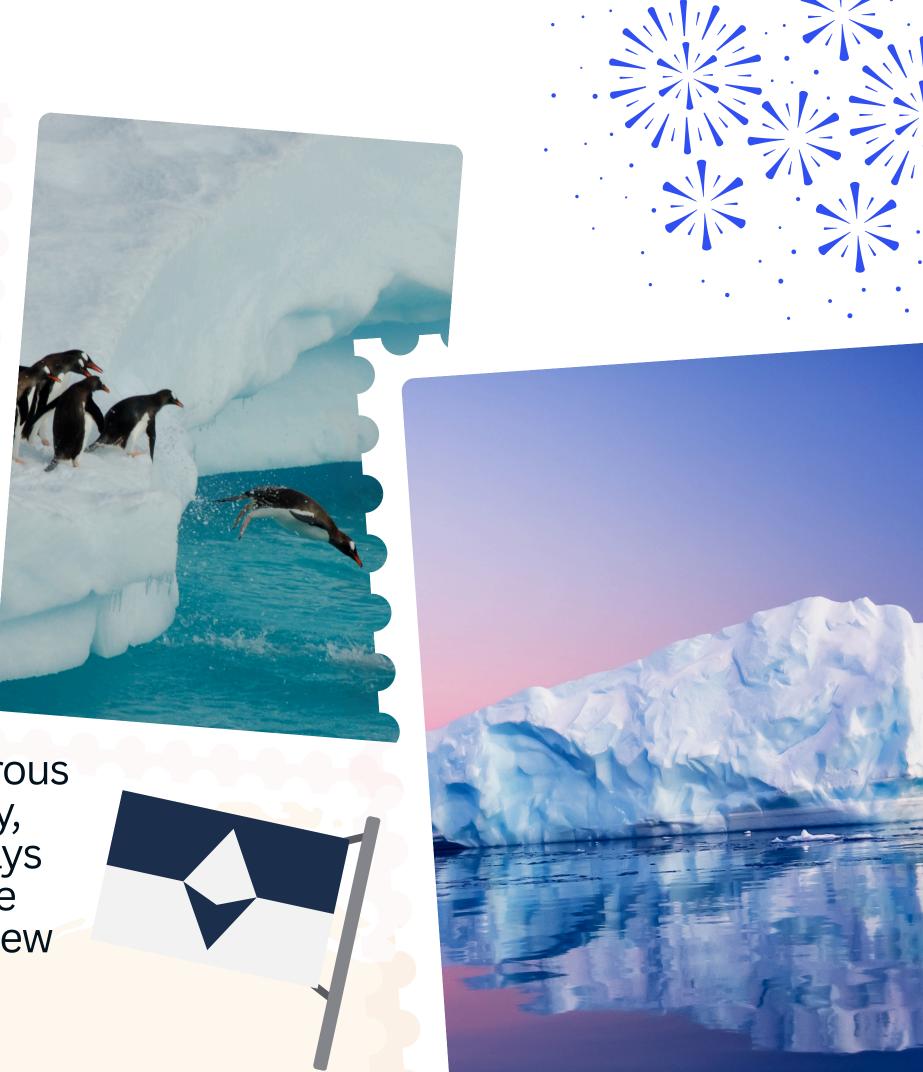


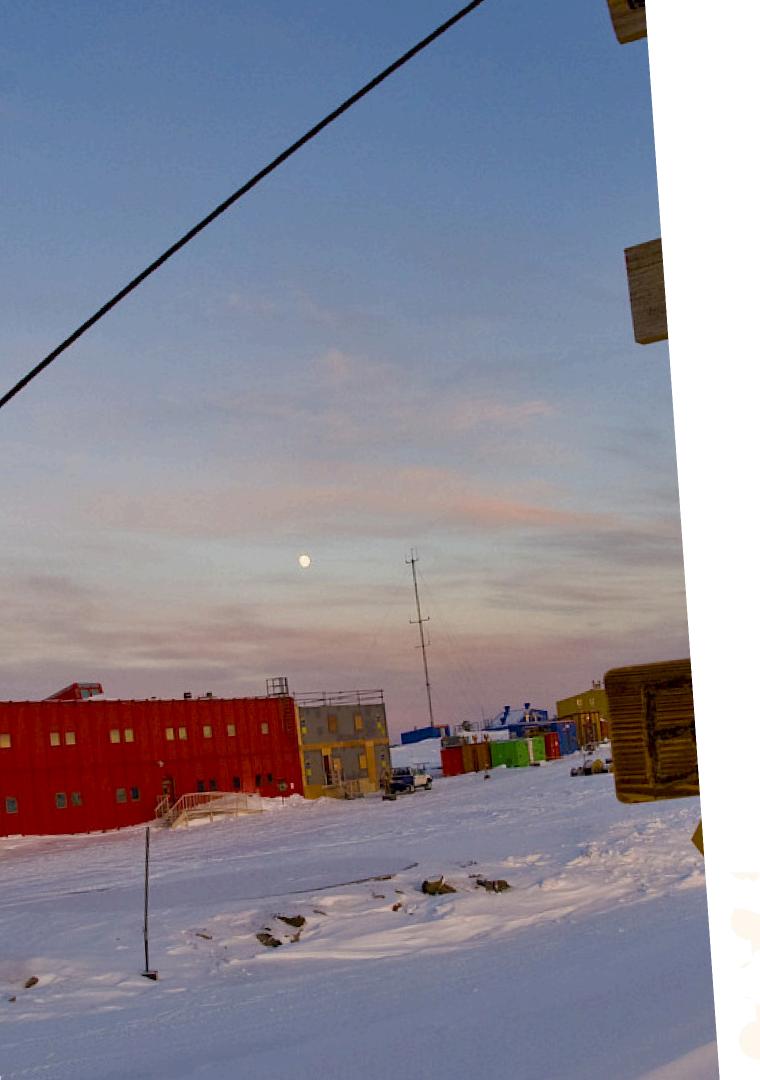


# Welcome to Antarctica!



The Intrepid Explorers (five adventurous Australian kids named Violet, Ruby, Archie, Max, and Alex, who are always embarking on missions around the world) have just begun an exciting new expedition in Antarctica.

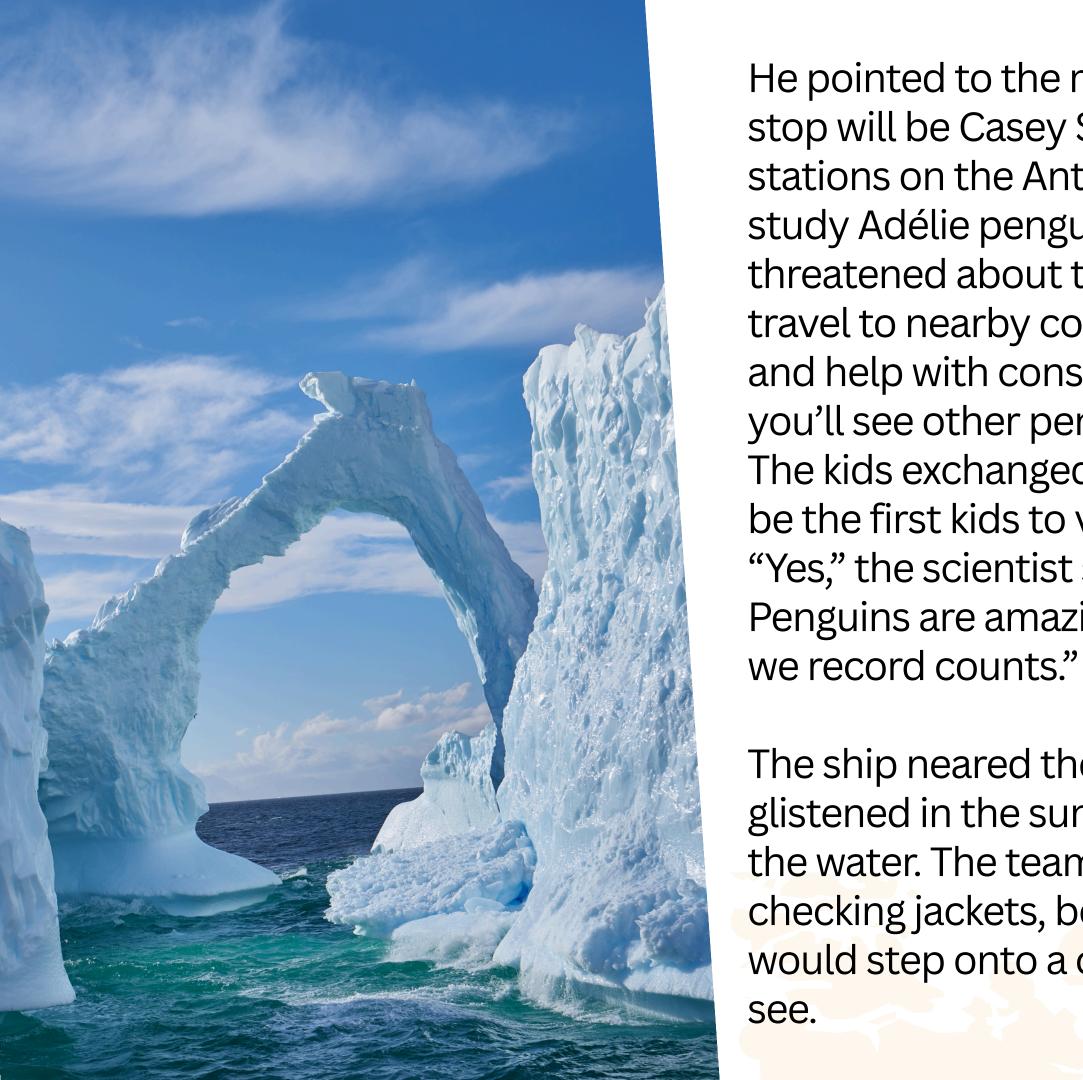




#### **Chapter 1: Journey to Casey Station**

Alex stared out at the endless ocean as the research ship cut through the waves. Beside him, Ruby sketched the horizon while Archie studied a map of Antarctica, tracing the route they were taking with his finger. Violet fiddled with her camera, ready to capture the first moment the explorers set foot on the frozen continent. Max had stayed inside, complaining about the cold.

A few minutes later, Alex's dad, the lead scientist, gathered the kids on the deck. "Welcome to Antarctica," he said, voice barely audible over the wind. "Our mission is to visit penguin colonies, observe their behaviour, and report our findings. You'll also help study other wildlife and ice formations along the way."



He pointed to the map Archie was holding. "Our first stop will be Casey Station, one of the main research stations on the Antarctic continent. Scientists here study Adélie penguins, which were considered near-threatened about ten years ago. From Casey, we'll travel to nearby colonies to observe their behaviour and help with conservation. Later in our expedition, you'll see other penguin species too."

The kids exchanged excited glances. "We're going to be the first kids to visit the station?" asked Archie.

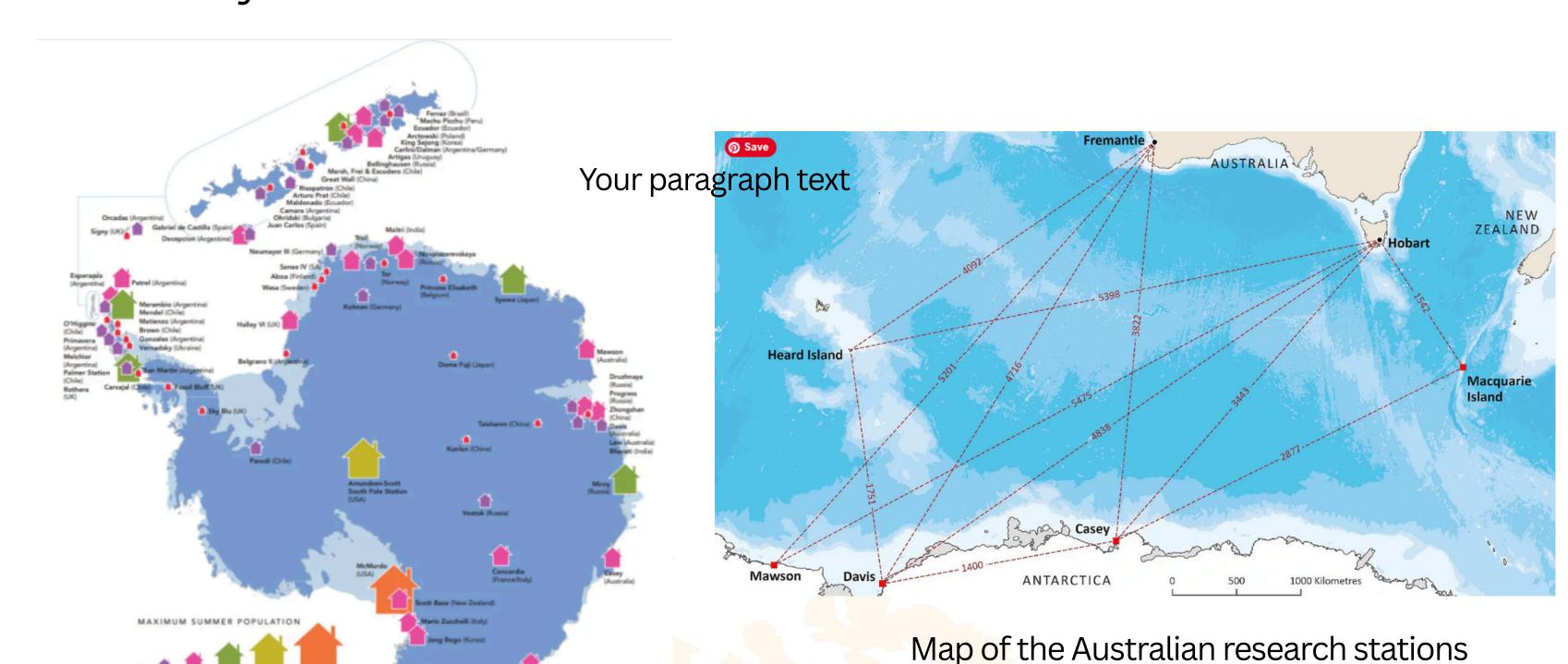
The ship neared the icy shoreline. Towering glaciers glistened in the sun, and icebergs floated silently in the water. The team prepared their gear, double-checking jackets, boots, and binoculars. Soon, they would step onto a continent that few people ever see.

"Yes," the scientist smiled. "And it's important work.

Penguins are amazing animals, and every observation

### Map of the permanent research stations in Antarctica

There are currently 70 permanent research stations scattered across the continent of Antarctica, which represent 29 countries from every continent on Earth.



### Adélie penguins

Size: About 70 cm (28 inches) tall and weigh around 4–5 kg (9–11 lbs).

Appearance: Black head and back, white belly, with a distinctive white ring around the eyes.

Diet: Primarily krill, fish, and small squid.

Habitat: Coastlines of Antarctica, often on rocky beaches near the sea.

Behavior:

Travel long distances to feed at sea.

Huddle in large groups to stay warm during extreme winter temperatures.

Build nests out of small stones, sometimes stealing rocks from neighbors.

Reproduction: Lay two eggs per season; both parents take turns incubating.

Swimming: Excellent swimmers, can dive up to 175 meters (574 feet) and stay underwater for several minutes.

Conservation: Near-threatened about ten years ago; monitoring populations helps track the impact of climate change and overfishing.

Lifespan: Around 10-20 years in the wild.

Fun Fact: Adélie penguins are very curious and often approach humans, unlike some other penguin species.



### Activity: spot the differences

Below is a picture Violet took of the Adélie penguins at Casey Station. But something's tricky... one of the images is the original, and the other has a few changes.

Can you figure out which one is the real photo by spotting the 5 differences?







#### **Chapter 2: Inside Casey Station**

The heavy door to Casey Station swung shut behind the explorers, blocking out the icy wind. Archie rubbed his hands together, glad to feel the warmth of the station. The room smelled faintly of coffee and soup, and the steady hum of heaters filled the silence. Alex's dad led them down a narrow hallway to the common room, where a woman in a brown coat sat with a laptop open and a stack of notebooks beside her.

"Everyone, this is Dr. Elena Harper," Alex's dad said. "She's one of the scientists here. We've worked together on penguin research before."

Dr. Harper smiled and waved them over. "Welcome to Casey Station!"

Archie leaned forward, curiosity written all over his face. "So... what's it like living here?"

Dr. Harper chuckled. "Different from home, that's for sure! Some people say it feels a little like living in a ski lodge, except our 'supermarket' is a walk-in cupboard called Woollies, where we pick up soap, linen, or snacks without money changing hands. Everyone helps out with chores, too. We take turns vacuuming, shovelling snow, or even helping the chef with kitchen duty, which we call slushy duty."



Violet wrinkled her nose. "Slushy duty? That doesn't sound fun."

Dr. Harper grinned. "It can be messy, but it's part of life here. And when the weather's too wild to go outside, which happens often during blizzards, we've got a gym, a library, even a little cinema in the Red Shed to keep busy. On Saturday nights, we dress up for dinner, sometimes with crazy theme nights. It's very social."

Alex's eyes lit up. "My dad said you grow vegetables down here?"

"Yes," Dr. Harper nodded. "We have a hydroponics building where we grow lettuce, tomatoes, and herbs. Fresh food is rare in winter, so it's a treat. And since water is scarce before the summer melt, we make do with quick showers every other day. Two minutes, that's it!"

Max groaned. "Two minutes? That's not even enough time to wash my hair!"

Everyone laughed, and Dr. Harper leaned closer. "But the best part of being here isn't the food or the gym. It's the science. My work focuses on penguins, and I think you'll love learning about the species that live in Antarctica."



Dr. Harper carefully arranged a row of penguin photos on the table, each one showing a different species.



Emperor penguins are the largest of all penguin species and true survival experts. They breed in the coldest place on Earth, where temperatures can fall to -50 °C and winds roar at 200 km/h. To stay warm, they huddle in tight groups, swapping places so no penguin is left in the freezing wind for long. Males are the dedicated caregivers, balancing a single egg on their feet under a brood pouch for more than two months without eating. These incredible birds can dive over 550 m in search of fish, krill, and squid, but their future is uncertain as melting sea ice threatens the places they need to breed and feed.

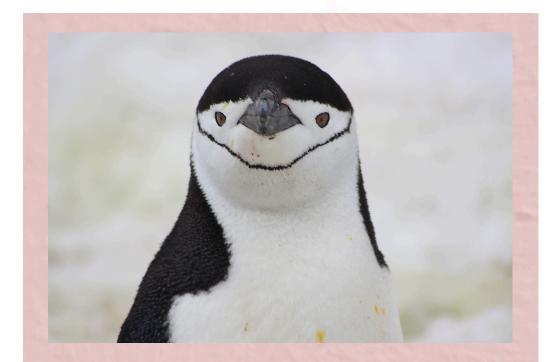


Adélie penguins are the smallest and most widespread penguin species in Antarctica, living almost entirely on or near sea ice. Though clumsy on land, they are powerful swimmers, diving up to 180 m to hunt krill and fish. These feisty little birds are known for their boldness, sometimes even fending off seals, seabirds, or unwary researchers with their flippers. Adélies breed only on ice-free ground, which is scarce in Antarctica, and their populations are heavily affected by climate change; in some areas, numbers have dropped by more than 65% in the past 25 years.

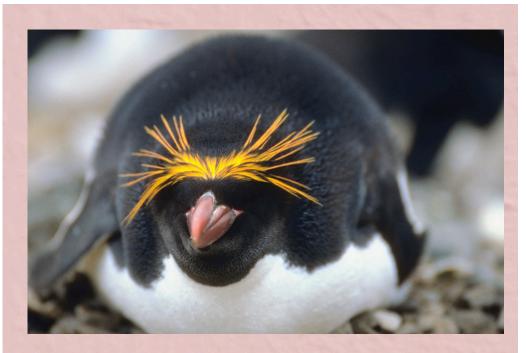




Gentoo penguins are the third-largest penguin species, with bright redorange bills and distinctive white eye patches. They breed on sub-Antarctic islands and the Antarctic Peninsula, building nests on beaches or among tussock grass and fiercely defending their territory. Gentoos eat a mix of crustaceans, small fish, and squid, and their eggs and chicks can fall prey to birds like skuas and giant petrels, or even elephant seals that trample nests. These clever and adaptable birds usually start breeding at 2-4 years old, laying two eggs that hatch after about a month. Their population is considered stable, and they are classified as "Least Concern."



Chinstrap penguins are medium-sized penguins with a thin black line under their chin that looks like a strap. They are one of the most abundant penguins in the world, with roughly seven million pairs. Adults stand about 68–76 cm tall and weigh 3.2-5.3 kg. They eat fish and krill, foraging near the shore and under pack ice, and can reach speeds of 30 km/h in the water. Chinstraps usually dive less than 45 m, and their dives are short because they chase their prey. On land, they slide across ice on their bellies using their feet and flippers. These bold penguins are social and breed in large colonies, sometimes even on icebergs, and are known to be feisty, often getting into fights with other penguins.



Macaroni penguins are medium-sized birds, about 70 cm tall and weighing 4-7 kg, with a funy yellow crest on their heads. They are excellent divers, reaching depths over 220 meters, and travel far from their colonies to find food, mostly Antarctic krill and fish. Macaronis breed on sub-Antarctic islands and a few Antarctic Peninsula sites, laying two eggs each season, though usually only one chick hatches. Predators include fur and leopard seals, as well as skuas, sheathbills, and giant petrels. Once extremely numerous, their globa population is now declining, and they are considered vulnerable, making conservation efforts important for their survival.











### Penguin match-up game

Match the penguin to the right fact!

I wear a black strap under my chin, zoom through the water at 30 km/h, and love sliding across the ice—who am I?

I'm the tallest and heaviest of all penguins, I brave the icy Antarctic winter to breed, and I keep my egg warm on my feet—who am I?

I wear a bright yellow crest on my head, dive deep for krill and fish, and usually raise just one chick from two eggs—who am I?

I have a bright red-orange bill, and a white eye patches, and I fiercely defend my nest on beaches or tussock grass—who am I?

I'm the smallest and feistiest penguin, living mostly on sea ice and diving deep for krill—who am I?