

# MY EXPLORER JOURNAL



ANTARCTIC HERITAGE TRUST  
— INSPIRING EXPLORERS —



AN ACTIVITY BOOKLET FOR YOUNG EXPLORERS

NAME:



## ANTARCTIC HERITAGE TRUST

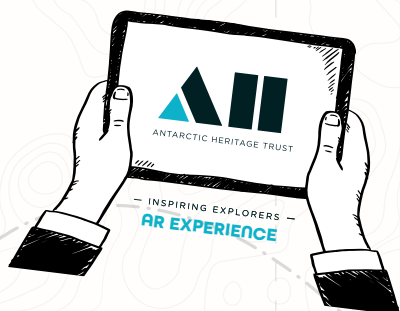
— INSPIRING EXPLORERS —

Antarctic Heritage Trust's mission is to conserve, share and encourage the spirit of exploration. Alongside many other incredible projects (like conserving historic Antarctic huts) the AHT's Inspiring Explorers™ programme connects youth with the spirit of exploration.

The Inspiring Explorers Expeditions™ also provide a platform for participants to share the wonders of Antarctica with a global audience following their expedition.

This booklet has been created in pursuit of this goal; to connect you with the Antarctic and the spirit of exploration!

This journal has been designed to be used alongside the Antarctic Heritage Trust AR App.



1. To use the augmented reality features of this booklet, search the app store for the Antarctic Heritage Trust AR App and download it to your device for free.



2. Open up the 'Explorer Journal' section.



3. Scan the codes throughout this booklet. They look like this.



# Kia Ora Explorers!

Welcome to your very own  
Explorer Journal!

Get ready to embrace the spirit of exploration as we'll  
be starting on an expedition to Antarctica!

Along the way, we'll be using augmented reality (AR) and  
360° video to see what we can find in this distant land.

Hopping penguins? Hungry whales?  
Sleeping seals? Explorer bases?

Let's find out!

AR APP DEVELOPMENT PARTNER



INSPIRING EXPLORERS EXPEDITION™ 2020 PARTNER



The Leader in Polar Adventures



# What is EXPLORATION?

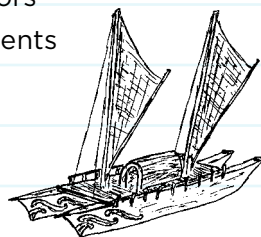
Use the App here to  
make this video come  
to life. (Make sure the  
page is flat, and evenly  
lit!)



Let's start with the idea of exploration.

Often, when discussing the word exploration, we refer to the act of travelling to new places for the purpose of discovery. As a species, we've had a long history of doing just that, with our early ancestors making their way to all Earth's continents (except one!).

More recently, various cultures explored new lands previously unknown to their civilizations.



Even more recently, exploration has meant journeying to environments humans hadn't ever been to before - like the North and South Poles and even the Moon!

When we think about exploration today, we might also refer to the personal discovery of places, information, or skills. They might not be new to humans, but perhaps they are new to you - that's exploration as well!



Through your Explorer Journal, we're going to be reflecting on some of these themes as we go, and ask ourselves how we might continue to explore within our day-to-day lives. Let's get to it!



# ANTARCTICA



Antarctica  
the 7th  
Continent



Antarctica is a place of extremes, as the windiest, coldest and driest place on the planet!

It's also the fifth largest continent, about 52 times the size of New Zealand.

**Brrrrr!**

It is technically the world's largest desert. The coldest air temperature recorded in Antarctica was **-89°C** in 1983.

Today, Antarctica hosts hundreds of researchers every year within a variety of research stations scattered across the continent. Antarctica has no native population of humans. The Antarctic circle wasn't even crossed until 1773 by Captain James Cook.


Even then, it would take another 125 years until the first structure was built on the continent, and the Heroic Age of Antarctic Exploration\* would begin.

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## \*Heroic Age of Antarctic Exploration. 1898 - 1922

A period of exploration that due to the resources available at that time often tested, and sometimes exceeded, the explorers' physical and mental limits. It is called "heroic" because of the challenges that had to be overcome by these pioneers, some of whom did not survive the experience: a total of 19 expedition members died during this period.

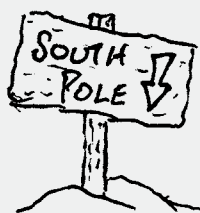
**Expedition bases that  
Antarctic Heritage Trust  
cares for in the Ross  
Sea Region**

-  Borchgrevink's Huts,  
Cape Adare
-  Scott's *Discovery* Hut,  
Hut Point
-  Shackleton's *Nimrod*  
Hut, Cape Royds
-  Scott's *Terra Nova* Hut,  
Cape Evans
-  Hillary's Hut,  
Scott Base

CAPE ADARE

TERRA NOVA BAY

ROSS ISLAND

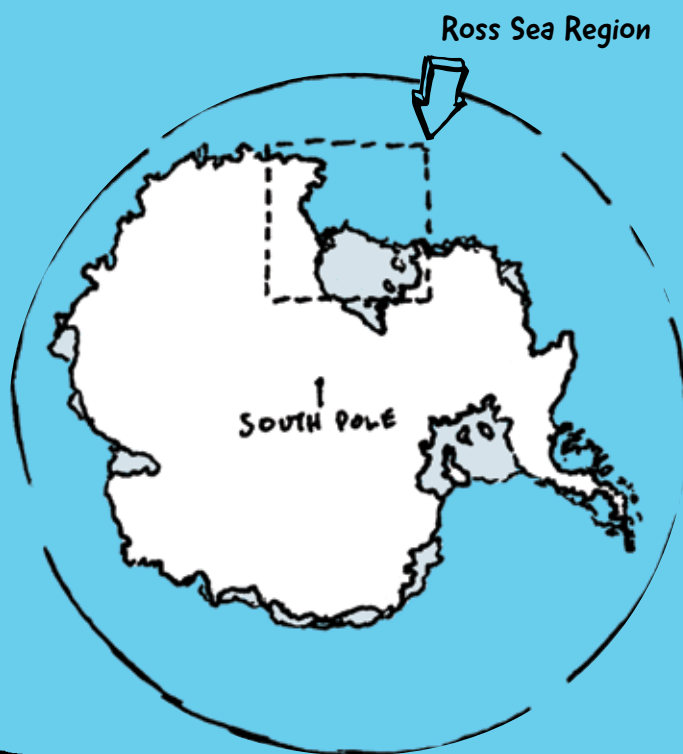




# ANTARCTICA

This map is a close-up of the Ross Sea Region,  
a small part of Antarctica.

The total area of Antarctica is  
**14.2 million km<sup>2</sup>**  
How big is New Zealand?



## ROSS SEA

## ROSS ICE SHELF





# ANTARCTIC EXPLORERS

## OF THE ROSS SEA REGION

What would you say if you were offered the chance to go to the **coldest** and one of the most dangerous places on Earth?

For the early polar explorers Antarctica offered rich opportunities for scientific discovery, and honour for their nations in exploring these frigid, desolate and forbidding lands.

The South Pole was considered the greatest geographical prize of all time, irresistible to the ambitious explorers of the day.

Early Antarctic explorers would have to overcome extreme **adversity** during their various expeditions, which demanded of them and their crew intense resilience, drive, and curiosity.

By investigating some of history's significant Antarctic explorers, we might be able to see some of these traits in action!

So let's jump into our historic **Antarctic explorer** profiles.



1898-1900

British Antarctic  
"Southern Cross" Expedition  
CARSTEN BORCHGREVINK



1901-1904

British National  
Antarctic "Discovery" Expedition  
CAPTAIN ROBERT FALCON SCOTT



1907-1909

British Antarctic  
"Nimrod" Expedition  
SIR ERNEST SHACKLETON



1910-1913

British Antarctic  
"Terra Nova" Expedition  
CAPTAIN ROBERT FALCON SCOTT

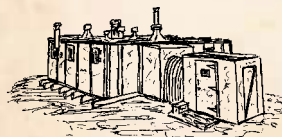
1914-1917

Imperial Trans-Antarctic  
Endurance Expedition  
SIR ERNEST SHACKLETON

1921-1922

Shackleton-Rowett  
"Quest" Expedition  
SIR ERNEST SHACKLETON

Shackleton's death in 1922 marked the end of the Heroic Age of Antarctic exploration.



1955-1958

Commonwealth  
Trans-Antarctic  
Expedition (TAE)  
SIR EDMUND HILLARY

# Carsten Borchgrevink

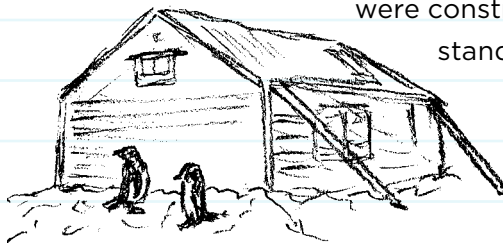
Carsten Borchgrevink is most famously known for leading the 1898-1900 **Southern Cross Expedition** which, ultimately started the **Heroic Age of Antarctic Exploration**.

Before the *Southern Cross* expedition, Borchgrevink had journeyed to the Antarctic on a whaling expedition in 1894, and became one of the first people to set foot on the continent! After he returned, Borchgrevink spent several years trying to gain financial support to launch a more extensive expedition, driven by his desire to further explore the Ice. He would eventually gain support from magazine publisher George Newnes, and the expedition left from London on 23 August 1898.

The *Southern Cross* expedition landed at Cape Adare, and constructed the first-ever shore base on the Antarctic mainland, next to a colony of Adélie penguins. This shore base



hosted the 10 men who were the first to winter over in Antarctica. His team made significant scientific and meteorological observations, mapped the Cape Adare region, and made sledging and ski journeys over ice to go further south than anyone had been previously. Most importantly, Borchgrevink's expedition proved that it was possible for humans to survive a winter in Antarctica. Today, both of the two huts that were constructed by the expedition still stand. This makes them the only examples left of humanity's first buildings on any continent!







# Robert Falcon Scott

Scott was another Heroic Age explorer who lead two expeditions to the Antarctic:

## **Discovery Expedition** (1901-1904)

This expedition saw the discovery of the Antarctic Plateau, as well as producing many scientific findings. This expedition, like Borchgrevink, would leave Scott with a hunger to return to the Ice to further explore!

He had been **"Bitten by the pole mania"** as described by the expedition organiser.

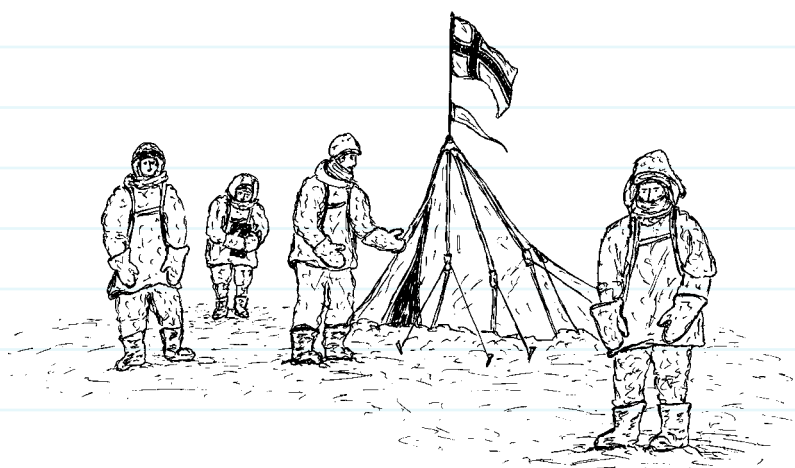
## **Terra Nova Expedition** (1910-1913)

This expedition set out in 1910 with the goal of reaching the geographical South Pole. The expedition would spend quite some time conducting a series of excursions, based out of Cape Evans before Scott attempted the march to the South Pole on 1 November 1911.



**"Great God! This is an awful place"**, he bitterly wrote in his journal as they began the 1387km journey back to the safe haven of their base camp.

Weakened by injuries and insufficient food, two of the five died along the way, then Scott and his two companions perished as they lay trapped in their tent by a raging blizzard, which kept them from the supply depot only 17.7 km away.



On 17 January 1912, the final team of five reached the Pole only to find that Amundsen, the great Norwegian explorer

had **beaten them by 5 weeks!**







# Sir Ernest Shackleton

Shackleton led three British expeditions to the Antarctic. Prior to these three expeditions, he also travelled to the Ice with Robert Falcon Scott on the *Discovery* Expedition in 1901.

Shackleton is most well known for his leadership of the **Imperial Trans-Antarctic Expedition**, when his ship, the *Endurance* became trapped in pack ice and was abandoned before being slowly crushed and sunk!

The crew of **28** camped on the sea ice for months before settling on Elephant Island. Shackleton and five others would then rig a lifeboat to travel **1500km** across some very rough seas to South Georgia Island.



They then faced another incredibly difficult trek across the island to a whaling station where they sought help for them and the rest of the men trapped on Elephant Island.

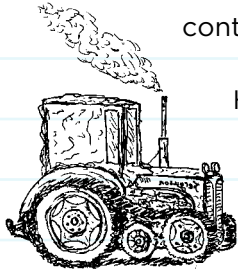
**Shackleton was hailed as a hero for his efforts to ensure no man was left unrescued.**





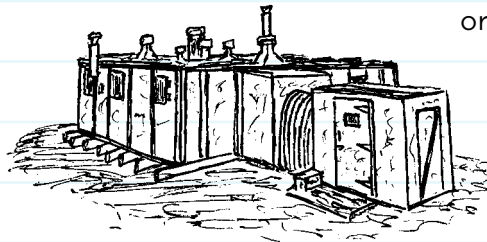
# Sir Edmund Hillary

Just three years after conquering Mt Everest alongside Tenzing Norgay, Sir Edmund Hillary was enlisted to lead the New Zealand component of the Commonwealth Trans-Antarctic Expedition (TAE). Their group of **23** men wintered over, laying supply depots for British explorer Dr Vivian Fuchs who was crossing the continent from the Weddell Sea.



Hillary would venture to the South Pole, completing the third overland crossing of the South Pole after Scott and Amundsen.

Two months later, Fuch's party would arrive at Scott Base, completing the first overland crossing of the continent.

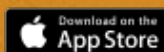
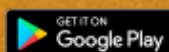


***This 1957–59 expedition saw the construction of Scott Base,***  
New Zealand's first Antarctic scientific facility. Over the Summer of 2016/17, the Antarctic Heritage Trust worked to restore the hut, including painting it in its original colours.

Check out a video of the Hillary's Hut Virtual Reality Experience



**STEP INSIDE** Sir Ed's Antarctic Hut  
Download the virtual reality experience at [www.nzaht.org](http://www.nzaht.org)



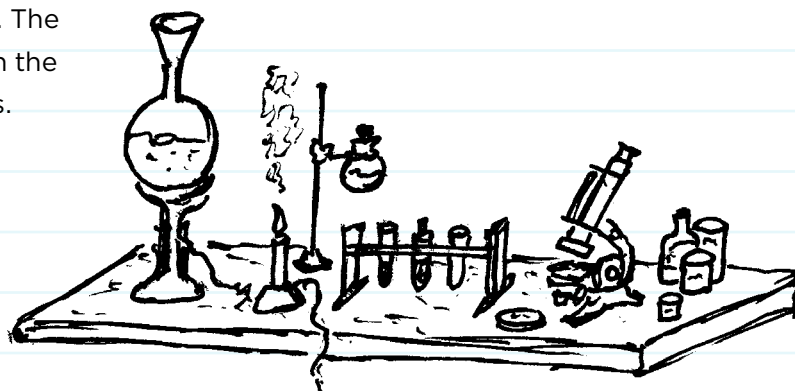
# SCIENCE AND THE ICE

As an extreme environment, Antarctica provides many unique conditions for furthering our understanding of areas such as Biology, Psychology, Chemistry, Physics, Paleoclimatology, Atmospheric Science, Geology, Glaciology – and even Astronomy and Paleontology!

The early explorers' expedition bases were the birth place of science in Antarctica. The explorers conducted a lot of science on the Ice learning about many different areas.

Today thousands of scientists continue in their footsteps travelling to Antarctica to conduct research, making Antarctica a global science hub!

A major focus of science on the Ice is the massive effect Antarctica has on the world's climate systems, and what this means in relation to climate change.



## ANTARCTIC 3D ARTEFACTS

Check out some examples of artefacts from the huts at Cape Adare on this app by going to the Antarctic 3D Artefacts experience, accessed from the app homepage.

Alongside the artefacts that are over 100 years old, you can also see photos and videos relating to the Cape Adare site and more than 1 million penguins that live there. Meet some of the Antarctic Heritage Trust team who are working there to conserve the first buildings in Antarctica.

This fruitcake  
survived more than  
**100**  
years!





# 2020 INSPIRING EXPLORERS



**Anzac  
Gallate**

University student,  
Otago



**Mike  
Dawson**

Olympic kayaker;  
expedition mentor



**Sadra  
Sultani**

University student,  
Canterbury

The 2020 Inspiring Explorers Expedition™ team travelled to the Antarctic Peninsula in early March aboard a Quark Expeditions vessel, the *Ocean Endeavour*.

The team included five Inspiring Explorers™ selected from around New Zealand, and two students from Sir Edmund Hillary Collegiate along with their Deputy Principal, under a partnership with the Antarctic Heritage Trust.

and country-wide lockdowns, disrupting their journey back to New Zealand. The team managed this situation with excellent spirits and came together even more so, arriving safe and well six days after their scheduled return to New Zealand.



**Laurette  
Siemonek**

Principal Advisor,  
Sustainable Business  
Council

During the voyage, they experienced the challenges and rewards of kayaking through pristine playgrounds of whales and seals, navigating between icebergs, and exploring glaciers and penguin colonies.

They faced a further challenge on the return from their Antarctic expedition as the COVID-19 pandemic escalated and brought about worldwide travel restrictions,

These young explorers pushed themselves, learned about Antarctica's history, science, wildlife, and environment, and shared in the spirit of exploration pioneered by early polar explorers like Scott and Shackleton. On their return they shared their experiences with their communities through their own outreach programme.



ANTARCTIC HERITAGE TRUST  
— INSPIRING EXPLORERS —



**Owain  
John**

CEO of Squawk Squad,  
an environmental  
education provider



**Marcus  
Waters**

Expedition Leader and  
experienced explorer



**Ihlara  
McIndoe**

Musician/lawyer



**A'aifou  
Kaufusi-Potemani**

Sir Edmund Hillary  
Collegiate



**Shauna  
Eldridge**

Deputy Principal,  
Sir Edmund Hillary  
Collegiate

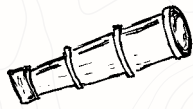


**Jaylee  
Savage**

Sir Edmund Hillary  
Collegiate



# Through our eyes



Inspiring Explorer Anzac Gallate says,  
“Our team travelled to the Antarctic Peninsula from Argentina by ship.

The *Ocean Endeavour* was our home away from home as we crossed the Drake Passage and moved south along the Peninsula.

Each day, our team would travel by **Zodiac** (small inflatable boats) to our kayaking locations.



Once there, we would unload the kayaks and set off, paddling along coastlines of towering cliffs and ice shelves, among penguins, seals, whales, and seabirds.”

**Scan here to access the 360 video!**  
**Move your device around to view the footage from different angles.**



**Can you hear or see any whales, seals or penguins? You may have to look closely!**



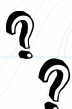
**What are some of the key things you notice when you view the 360 footage?**

**How do you feel?**

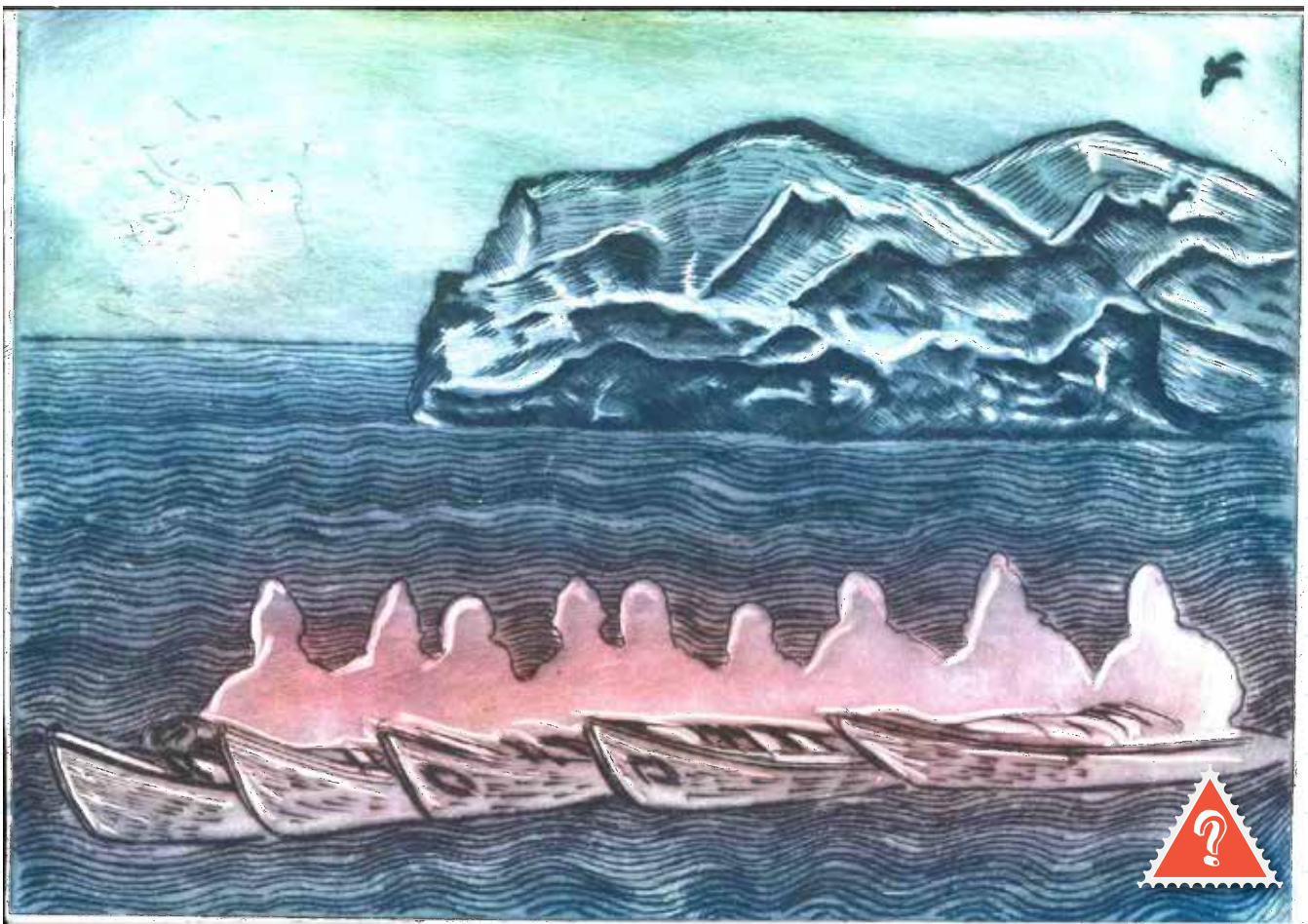
**What do you see and hear?**

**What are you surprised, or unsurprised by?**

**Remember these observations for the next activity coming up – you can come back to view these videos again!**







2020 Inspiring Explorer, A'aifou Kaufusi-Potemani has produced a series of prints, inspired by his trip to the Antarctic Peninsula.



As explorers in the modern age, you're seeing footage taken from a vessel with modern luxuries and capabilities, but use these scenes to imagine what it might have been like for an early Antarctic explorer - navigating the ice in a ship from

**120** years ago!

**478**  
days trapped in  
the pack ice



# HISTORIC JOURNALS

## Tryggve Gran's sledging journal

**Terra Nova expedition** (1910 – 1913).

The following two journal pages are taken from the 1911 sledging journal of Tryggve Gran, who had joined Robert Falcon Scott on his *Terra Nova* expedition.

While Scott and the rest of the Southern Party were journeying to the South Pole, Gran instead accompanied a geological expedition to the western mountains. When the Southern Party failed to return, Gran joined the search party that eventually found the tent where the last of the Southern Party had perished. Gran wore Scott's skis back from the site, stating that they must finish the journey.

The pages here describe the start of their journey to find Scott and his team, setting off from Cape Evans.

Scan the widget to hear a reading of the journal by Norwegian Tom Edvindsen.

Go to [nzaht.org](http://nzaht.org) to see the full size pages from the journal.

**What do you notice about the observations of Tryggve in his explorer journal?**

**How does he describe what is happening?**

**How does he describe what he sees and feels?**





# My Explorer Journal

Now we're going to start writing our own journals!



Journals are incredibly important for explorers to keep a **record** of the expedition, detailing their observations, thoughts, feelings and activities as well as the conditions, wildlife and physical appearance of the place they are exploring.

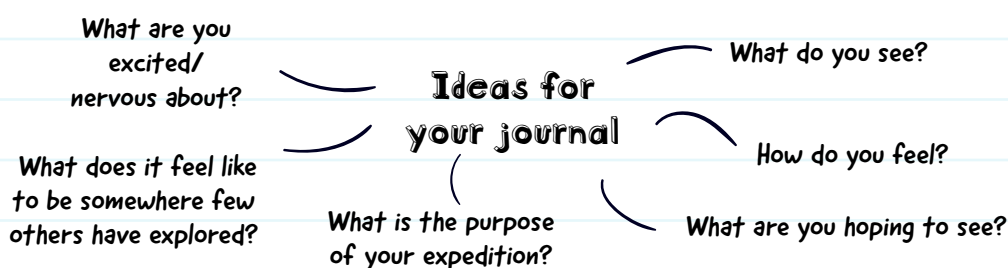
Watch the video  
here for a look at  
a finished journal

## Your Challenge

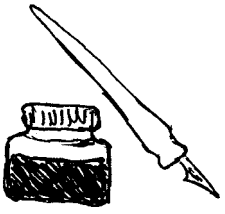
Imagine you are a historic polar explorer who is writing in their expedition journal. It can be from any point during the expedition. You might write about the excitement and nervousness of leaving for Antarctica, your experiences while down there, or the desire to get home and be out of the cold!

Go back to the 360° videos, Inspiring Explorer profiles, and historic journal examples for some inspiration.

To make your journal exciting, you might want to add some illustrations of some of the animals and landscapes you have come across.







# Journal Activity Pages

Location:

Today's Goal:

Weather Conditions:

Where we ended up!:

What we saw:

Date:



# Journal Activity Pages

Location:

Today's Goal:

Weather Conditions:

Where we ended up!:

What we saw:





Date:



# Journal Activity Pages

Location:

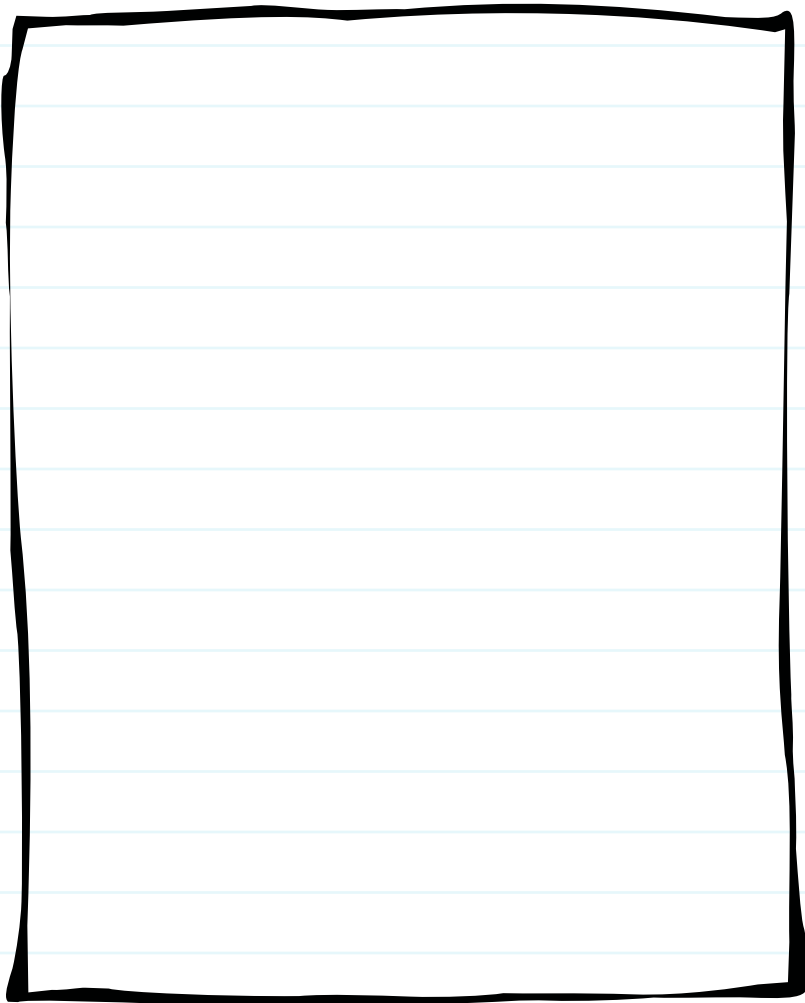
Today's Goal:

Weather Conditions:

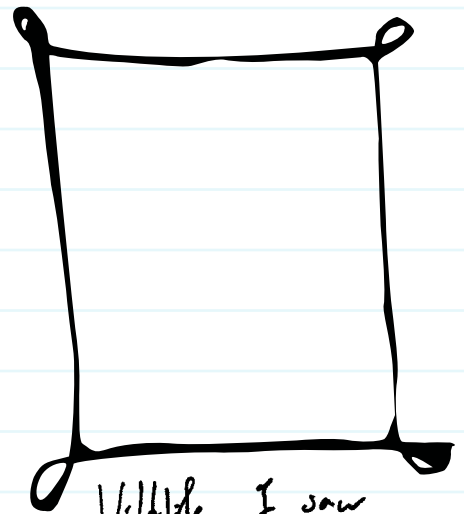
Where we ended up!:

What we saw:

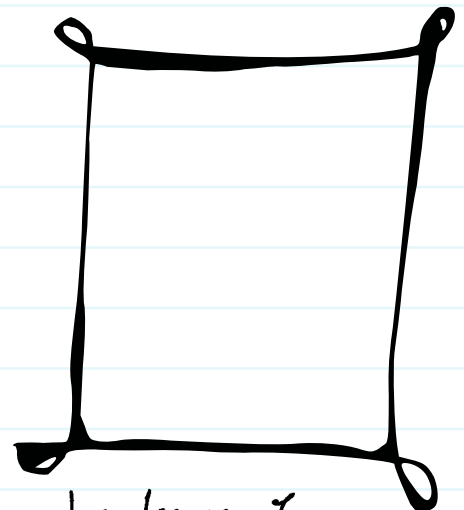
Date:



Me and my exploration gear



Wildlife I saw



Landscape I saw



# ANTARCTIC ECOSYSTEM

## PHYTOPLANKTON



Check out the video here for a bit about the Antarctic Food Web and the very big role of some very small crustaceans - **krill!**

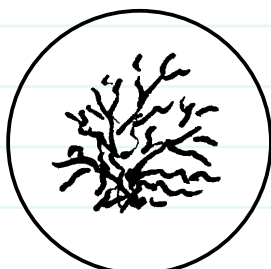
Also, make sure to look out for Antarctic wildlife.

Take a look at this special encounter with one of the Antarctic's larger animals!



## WHO EATS WHAT?

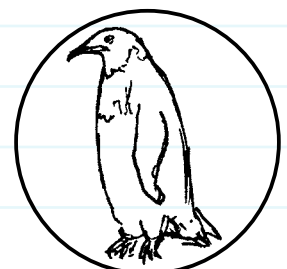
Where would you put these in the food chain?



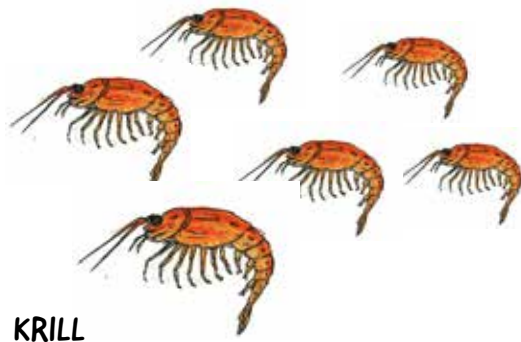
LICHEN



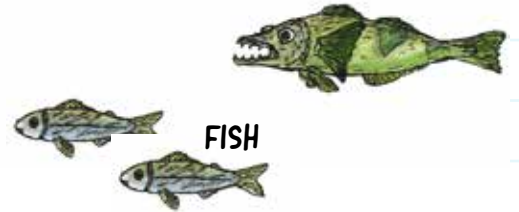
SQUID



EMPEROR PENGUINS

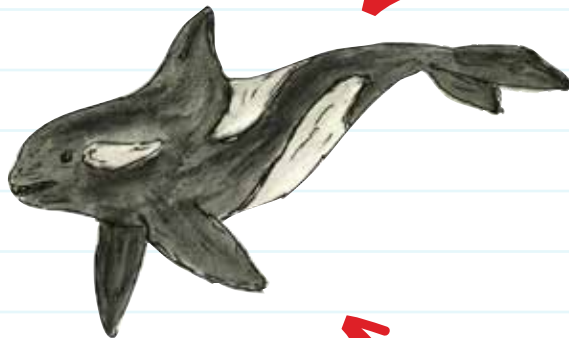
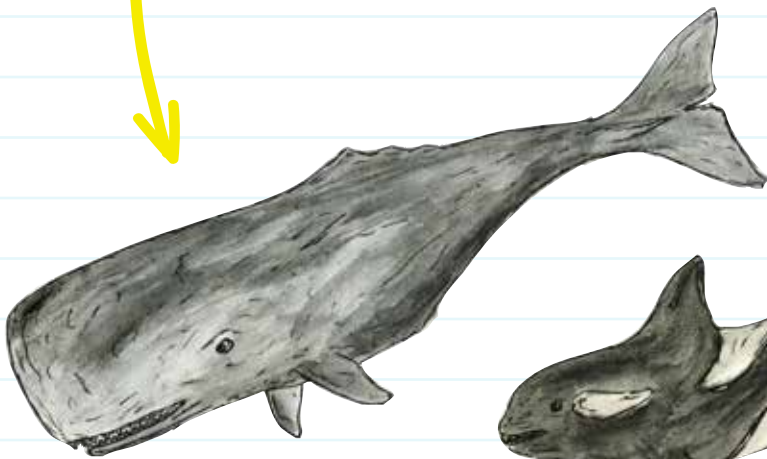


KRILL

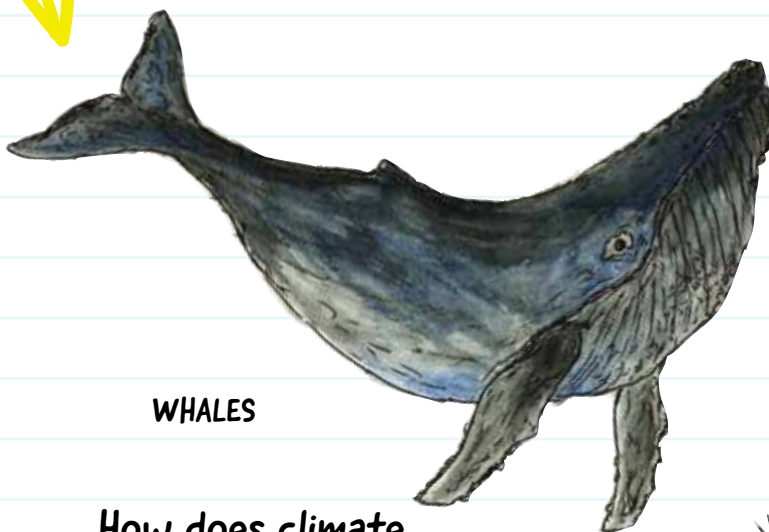


FISH

Many species of seals, whales, penguins, and seabirds call Antarctica home, as well as many fish species and a small selection of invertebrates.



PENGUINS



WHALES



SEALS

How does climate change affect the Antarctic Ecosystem?

## CRITTER PROFILE

# Gentoo Penguin

There are many different species of penguin that call Antarctica home. Each of these species inhabit different regions of the Antarctic, with many migrating to and from the Antarctic throughout the year!

While down on the Ice, our team of Inspiring Explorers came across many Gentoo penguins which live on the Antarctic Peninsula and surrounding islands. Take a look at the 360° video above to jump right into a Gentoo Penguin colony.



What do you see the penguins doing ?

What do you notice about where they are living ?

What is special about their bodies to help them survive in their environment ?

### GENTOO STATISTICS

**Height:** ~76.2cm

**Weight:** ~5.4kg

**Diet:** Krill, fish, squid

**Habitat:** Sub-Antarctic islands and Antarctic Peninsula

### SUPER SWIMMERS

**Speed:** 36kmph

**Diving Depth:** 200m

**Range:** Up to 26km offshore





## CRITTER PROFILE

# Whales

Whales are incredible and majestic animals. Many species of whale can be found roaming Antarctic waters, often migrating from other parts of the world for Antarctica's rich supply of food.

Whaling Harpoon



Whale populations have suffered greatly from whaling, where many species were hunted almost to extinction for their meat and blubber. Today, their populations are recovering.

On our expedition, we had the chance to kayak alongside Minke and Humpback whales. Both of these species migrate to Antarctica for the Summer to feed on krill.

Take a look at the 360 video (at the top of the page) for a special encounter with Minke Whale. Can you spot it?



## HUMPBACK WHALE STATISTICS

**Endangered**

**Length: ~ 16m**

**Weight: ~ 30 Metric Tonnes**

*(The weight of around 70 horses!)*

**Diet: Krill, small fish**

**Habitat: Oceans worldwide**

## SUPER SWIMMERS

**Diving Depth: 200m**

**Range: Up to 9,800km migrations.**

**Endangered  
humpback whale**



# LET'S KEEP EXPLORING!

Personal exploration means the discovery of something that is new to you and being curious about the world. Your task now is to begin another explorer journal, this time – to record your exploration of new places, skills, and experiences in day-to-day life.

**What can you do that you haven't done before? Where can you go that you haven't been?**

## Safety

It's important to remember that thinking about safety is a massive part of being a successful explorer. Explorers of all kinds have to think about the dangers they will face so they can avoid themselves or others getting hurt.

When you are planning your expeditions, think about safety and talk to a family member, or caregiver about your ideas.

A great use of your new expedition journaling skills would be to go somewhere you haven't been before – even in your own city or local area. Take your journal with you and look closely. What do you notice about your surroundings? What structures, plants, animals, or landscape features can you write about and draw? Trying new skills and activities are also forms of exploration. Maybe there's something you have been wanting to learn how to do or get better at. It could be something artistic, a different language, a sport, a subject, it's up to you. Record your progress in your expedition journal.

*Good Luck!*  
*Azazel Galloway*



# THANK YOU

## My Explorer Journal project created by:

Antarctic Heritage Trust with creative by  
Anzac Gallate (Inspiring Explorer).

AR app developed by Staples VR.

## With thanks to:

Alexander Turnbull Library

Antarctica New Zealand Pictorial Collection

Canterbury Museum

H Pennell Collection

Inspiring Explorers™ 2020

Jonny Harrison

Joyce Collection

Kinsey Collection

L Bernacchi Collection

Peter MacDonald Collection

Quark Expeditions

Quartermain Collection

RA Skelton Collection

RGB Design & Print

Tom Edvindsen



## Image Credits

*Southern Cross* Antarctic Expedition (1898-1900) Carsten Borchgrevink, leader of the *Southern Cross* Expedition. ca 1898.

Canterbury Museum, L Bernacchi collection (page 9).

*Southern Cross* Antarctic Expedition (1898-1900) Snow just before the Antarctic winter, Cape Adare. ca 1899. Canterbury Museum, L Bernacchi collection (page 9).

Captain Robert Falcon Scott. Canterbury Museum, Maull & Fox, Picadilly photograph (page 10).

*Terra Nova* Antarctic expedition (1910-1913) Scott, Simpson, Bowers and Evans leaving for the West Mountains. 15 September 1911. Canterbury Museum, H Ponting photographer, H Pennell Collection (page 10, cropped).

Sir Ernest Shackleton. Canterbury Museum (page 11).

Sir Edmund Hillary on a tractor bound for Cape Crozier. Antarctica New Zealand Pictorial Collection (page 12).

Hillary's Hut, Antarctica. Tim McPhee (page 12).

*Endurance* crushed by ice in the Weddell Sea Imperial Trans- Antarctic expedition (*Endurance*), (1914-17). Canterbury Museum, Frank Hurley photograph, DSIR collection (page 17).

Tryggve Gran's sledging journal *Terra Nova* expedition (1910-1913). Canterbury Museum (page 18).

Geological party at Granite Harbour, Antarctica, during the British Antarctic Expedition ca 1912. Alexander Turnbull Library, Tryggve Gran photographer (page 18).



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