ANTARCTIC EXPLORATION:
WHAT HAPPENED WHEN

350 B.C.
It was the ancient Greeks who first came up with the idea of Antarctica. They knew about the Arctic (named Arktos - The Bear), from the constellation the great bear. They decided that in order to balance the world, there should be a similar cold Southern landmass that was the same but the opposite. They called this landmass "Ant - Arktos", meaning 'opposite The Bear'.
The ancient Greeks never actually went to Antarctica, it was just a lucky guess!

1773
James Cook crosses the Antarctic circle and circumnavigated Antarctica. He did not sight land, however, the sightings of rocks within icebergs indicated a southern continent exists.
His stated - "I make bold to declare that the world will derive no benefit from it".

1819 - 21
Captain Thaddeus Bellingshausen, a Russian naval officer in the Vostok and Mirny circumnavigates the Antarctic and is the first to cross the Antarctic circle since Cook. He made the first sighting of the continent, and described it as an "icefield covered with small hillocks." on Jan 27th 1820.

For some considerable time, exactly who and when first set eyes on Antarctica were in dispute as British naval officers, William Smith and Edward Bransfield also saw Antarctica on Jan 30th the same year - followed by American sealer Nathaniel Palmer on Nov 16th.

This was the first time a continent had truly been "discovered" (i.e. there weren't any native people living there who had inhabited Antarctica for many years prior).

All sightings are of the Antarctic Peninsula.

1821
February 7th: The first known landing on continental Antarctica by American sealer, Captain John Davis. This landing is not acknowledged by all explorers.

In the winter of 1821, for the first time ever a party of men spent a winter in Antarctica. An officer and ten men from a British sealing ship the Lord Melville had to spend the winter on King George Island - part of the South Shetlands group, north of the Antarctic Peninsula. The ship had been driven offshore and did not return to pick them up again. They were rescued the following summer.

1823
British whaler James Weddell discovers the sea named after him and then reaches the most southerly point at that time 74S 15W. No one else manages to penetrate the Weddell sea again for 80 years.
1840's
Separate British, French and American expeditions establish the status of Antarctica as a continent after sailing along continuous coastline.

In 1840, British naval officer and scientist James Clark Ross takes two ships, the Erebus and the Terror, to within 80 miles of the coast until stopped by a massive ice barrier - now called the Ross Ice Shelf. He also discovered the active volcano that he named after his ship Erebus, and a scientist onboard the ship identifies 145 new species of fish.

Late 1800's to early 20th century:
Many expeditions (largely by sealers and whalers to all parts of Antarctica) occur. The expeditions mainly involve marine exploration and exploration of the sub Antarctic islands.

1898:
March: Adrien de Gerlache and the crew of the "Belgica" become trapped in pack ice off the Antarctic Peninsula in the first scientific expedition to the continent. They become the first to survive an Antarctic winter (involuntarily!) as their ship drifts with the ice.

1899
Carsten Borchgrevink leads a British expedition that landed men at Cape Adare and built huts. This was the first time that anyone had wintered on the Antarctic landmass. It is believed by some historians to be the first confirmed landing on continental Antarctica.

1902
Captain Scott, UK, leads his first Antarctic expedition to reach the South Pole, with Ernest Shackleton and Edward Wilson. They are forced to turn back two months later having reached 82 degrees south, suffering from snow blindness and scurvy.

Several other publicly and privately sponsored expeditions around this time. By now, these are driven by science, geography and exploration - less by the exploitation of resources such as seals and whales.

1907 - 1909
Shackleton leads expedition to within 156km of the South Pole, turns back after supplies are exhausted.

1909
January, Australian Douglas Mawson reaches the South Magnetic Pole.
1911
December 14th. Norwegian Roald Amundsen leads a five man expedition that reaches the South Pole for the first time.

1912
January 18th. Britain's Captain Robert Falcon Scott reaches the South Pole only to discover he has been beaten by Amundsen. All of the five man team perish on the return journey only 11 miles from supply depot. Their bodies are not discovered until November.

December. Douglas Mawson begins his trek across George V Land back to his base at Commonwealth Bay. His two companions had died, and against the odds he makes it home. A new section of coast is discovered and described, and radio is used for the first time in Antarctica.

1915
October. Shackleton returns to Antarctica in an attempt to complete the first crossing of the continent. His goal is not attained, but one of the greatest adventures of all time follows – the ship ‘Endurance’ is crushed in the sea ice and a small party sets out for South Georgia and the whaling station. The party is eventually rescued in 1917.

1923
Large-scale factory ship whaling begins in the Ross Sea.

1928
Australian Sir George Wilkins and American Carl Benjamin Eielson are the first to fly over Antarctica around the peninsula region.

1929
Richard E. Byrd and three others - US - become the first to fly over the South Pole.

1935
Lincoln Ellsworth - US - flies across the continent.

Caroline Mikkelsen, Norway, is the first woman to set foot on Antarctica when she accompanies her husband, a whaling captain.

1947
Operation Highjump - US - sends the largest ever expedition of over 4700 men, 13 ships and 23 airplanes to Antarctica. Most of the coast is photographed for map making.
1956
US aircraft lands at South Pole. First people there since Scott and his team in 1912.

1/7/57 – 31/12/58
International Geophysical Year (IGY) 12 nations establish over 60 stations in Antarctica. This is the beginning of international cooperation in Antarctica and the start of the process by which Antarctica becomes "non-national".

The first successful land crossing via the South Pole is led by British geologist Vivian Fuchs with New Zealander Edmund Hillary leading the back up party, over 40 years after Shackleton's expedition set out with the same aim.

1961
Antarctic treaty comes into effect.

1997
Boerge Ousland (Norway) becomes first person to cross Antarctica unsupported. Taking 64 days from Berkner Island to Scott base towing a 180kg (400lb) sled and using skis and a sail.

March 2007 - March 2009
International Polar Year – which actually runs over two years so that researchers get the opportunity to work in both polar regions (north and south), or work summer and winter if they wish.
Who Was Sir Ernest Shackleton?

Born in 1874 in County Kildare, Ireland, Ernest Shackleton lived with his family first in Dublin, Ireland, and then in England, where he was educated at Dulwich College. At age 16, Shackleton joined the British Merchant Navy. A decade later he volunteered to accompany the National Antarctic Expedition under British Captain Robert Falcon Scott, which became the first of four polar adventures Shackleton would undertake.

The 1901–1904 Scott expedition aboard the ship Discovery came within a record-breaking 400 miles (643.7 km) of the South Pole, but was ultimately unsuccessful in reaching its destination. Shackleton returned to England, married, and tried to establish a name for himself in journalism, business, and politics.

By 1908, however, Shackleton was again drawn to the Antarctic. Deciding to attempt the South Pole trek himself, he raised the funds for his own Nimrod expedition. But the Nimrod’s quest for the Pole failed too. His crew got within a scant 100 miles (160.9 km) of the Pole—farther south than anyone had gone before—when Shackleton was forced to turn back because of the party’s ill health and dwindling supplies. To the dismay of England’s citizens, boasting rights to the Pole were three years later to Norwegian explorer Roald Amundsen.

At this juncture, Britain had now been “beaten” to both the North and South Poles. Shackleton set out to gain Britain the honor of what he called “the largest and most striking of all journeys—the crossing of the Continent.”

To recruit the crew of his British Imperial Trans-Antarctic Expedition, who would sail aboard the Endurance, it is said that Shackleton posted the following notice: “Men wanted for hazardous journey. Small wages. Bitter cold. Long months of complete darkness. Constant danger. Safe return doubtful. Honour and recognition in case of success.” Shackleton chose 27 men to serve a variety of positions, such as running and navigating the ship, cooking the meals, and keeping track of supplies. He also took scientists, surgeons, a carpenter, and a photographer on board. The crew set forth from Buenos Aires, Argentina, on October 26, 1914.

Endurance crew members pose beneath the ship’s bow.
Biographers have said that Shackleton was drawn to polar exploration by his romantic, adventurous nature rather than scientific interest. But Shackleton knew that expeditions were formally sanctioned by their scientific goals; therefore, he recruited a scientific staff of four—a biologist, a geologist, a meteorologist, and a physicist. The plan was for these men to work from their base on the Weddell Sea to investigate Graham Land to the West and Enderby Land to the East; the *Endurance* was equipped for dredging and hydrological work. These original goals were thwarted, so, in the end, the crew’s most significant contribution to science was its careful record of the Weddell Sea’s infamous drift.

While Shackleton and his crew failed to make the first crossing of the Antarctic continent, their expedition became a larger-than-life testament to heroism and human endurance, with all 28 men surviving two years in the barren, frigid Antarctic after their ship, the *Endurance*, was caught in pack ice and eventually crushed.

The crew officially dispersed in October 1916, with most of the men returning to England to serve in World War I. The expedition team was later awarded the Polar Medal, although Shackleton denied it to four of his men who he seemed to feel had not given their all in that dire time.

In 1921, Shackleton led his final journey to the Antarctic on the ship *Quest*, bringing with him a handful of the original *Endurance* crew members. But shortly after the start of the expedition—on January 5, 1922—Shackleton died of a heart attack; he was in his late 40s. At the request of his wife, he was buried at Grytviken, the South Georgia Island whaling station that played a pivotal role in his journey of endurance.

![Map of Shackleton's routes](image)

**Key**

- **Intended route**
- **Actual route**

Shackleton originally intended to land at: Vahsel Bay and head southwest toward the Ross Sea. His actual route (inset) was much different—because the *Endurance* became stuck in pack ice. Shackleton and his crew remained in the Weddell Sea, never actually setting foot on the continent.

*Note: Shackleton’s routes are approximated.*
Using this information, create a timeline of Sir Ernest Shackleton’s life. There are 11 points of interest that should be marked on your time line.

Example:

1874: Shackleton was born in County Kildare, Ireland.
A JOURNEY UNEXPECTED

Objective: use the latitude and longitude coordinates to track Shackleton’s epic journey.

Materials:
- copy of ‘Tracking the Expedition’ activity sheet
- copy of The Timeline activity sheet

Procedure:
1) Read the passage below
2) Make sure you understand the terms ‘latitude’ and ‘longitude’
3) Read through the Timeline at least once, before you do the mapping activity
4) As you read through the Timeline, mark the longitude and latitude coordinates on the ‘Track the Expedition’ activity sheet.
5) Join the coordinates on the map to show Shackleton’s incredible journey.
6) Answer the 4 questions listed at the bottom of the ‘Track the Expedition’ activity sheet.

When Sir Ernest Shackleton and his team members left South Georgia Island on December 5, 1914, they sailed south into the Weddell Sea. Their destination was Vahsel Bay, where they would disembark the Endurance and begin their southwest trek across the Antarctic continent toward the Ross Sea. Shackleton brought 69 Canadian sledge dogs to aid the expeditions transcontinental passage, and he arranged for a separate crew to travel inland from the Ross Sea to deposit additional supplies he and his crew would used during their crossing. Everything seemed set.

But what Shackleton and his crew members didn’t anticipate was the amount of pack ice – solid or broken up ocean ice – they would encounter. And so, about a month and half into their journey, they found themselves on a very different expedition from the one they so carefully planned: the Endurance became trapped by pack ice, which crushed the ship 10 months later. This left Shackleton and his 27 men stranded on the ice with only three life boats, limited provisions for food and shelter, and little hope of rescue.

TERMS:
Equator: an imaginary line around the earth (running horizontally on a map) forming a circle that is equal distance from the north and south poles.
International Date line: an imaginary line around the earth (running vertically along a map) at 180 degrees longitude. This line is where the date changes, east of the IDL is one day earlier then west of the IDL.
Latitude lines represent the distance north or south of the earth’s equator, and run almost horizontally across a map of the world.
Longitude lines represent the distance east or west of the International Date Line, and run almost vertically up and down a map of the world.
Both latitude and longitude are measured in angular degrees.
Track the Expedition

Background
Where did Sir Ernest Shackleton begin his journey? When did his ship get caught in pack ice? When did it get crushed? Where were his men stranded for months?

Find out the answers to these questions and more as you track Shackleton's extraordinary journey to and from the Antarctic. Use the map below with the latitude and longitude coordinates listed in the Timeline activity sheets to plot Shackleton's journey.

Questions

1. What were the northernmost and southernmost lines of latitude that the Endurance passed through?
2. What were the easternmost and westernmost lines of longitude?
3. In degrees of latitude, about how far is Coats Land, Antarctica, from the equator, which lies at 0° latitude?
4. In degrees of latitude, about how far is the South Pole, which lies at 90°S, from the North Pole, which lies at 90°N?

Note: Coordinates in this activity approximate Shackleton's journey.
Activity One

The Timeline

**1914**

August 1
The Endurance departs London, England, the same day Germany declares war on Russia.

August 3
Sir Ernest Shackleton offers his ship and crew to the British government for the war effort.

August 8
After Shackleton receives a one-word telegram from the Admiralty ("Proceed"), the Endurance departs Plymouth, England.

October 26
With the final crew on board, the Endurance leaves Buenos Aires, Argentina, for South Georgia Island.

**1915**

December 30
The Endurance crosses the Antarctic Circle.

January 10
The Endurance crew first sights the Antarctic continent (Coats Land).
*Lat: 72°S – Long: 16°W*

January 18
The Endurance becomes trapped in the pack ice.
*Lat: 77°S – Long: 30°W*

February 22
The Endurance drifts to its farthest point south.

**September 2**
Pressure from the ice makes the Endurance, according to steward Perce Blackborow, "literally [jump] into the air and [settle] on its beam."

**October 27**
At 5 p.m., Shackleton gives the order to abandon the Endurance.

**November 1**
After a futile, three-day attempt to march over the ice, Shackleton has the crew erect Ocean Camp on an ice floe.
*Lat: 68°S – Long: 52°W*

**March 17**
The crew's camp drifts to about 40 miles (64.4 km) south of Paulet Island.
*Lat: 63°S – Long: 54°W*

**March 31**
The ice floe that the men are living on splits in two, separating them from their three lifeboats, which are later recovered.

**April 7**
Elephant Island appears on the horizon.

**April 9**
The crew goes to sea in the three lifeboats, the James Caird, the Dudley Docker, and the Stancomb Wills.

**May 10**
After 17 days in stormy seas, and with superior navigation by Endurance Captain Frank Worsley, the Caird miraculously arrives on the west coast of South Georgia.
*Lat: 54°S – Long: 38°W*

**May 19**
Shackleton, Worsley, and Second Officer Tom Crean set off to cross the previously unexplored interior of South Georgia, heading toward the east coast's whaling stations. The other three men remain behind.

**May 20**
Having trekked without a break for 36 hours over glaciers and mountains, Shackleton, Worsley, and Crean arrive at Stromness whaling station.

**May 23**
Picking up the other three men on the west coast of South Georgia, Shackleton, Worsley, and Crean depart on the English-owned Southern Sky to rescue men on Elephant Island, but are stopped by ice 100 miles (160.9 km) short of land.
November 5
The Endurance arrives at Grytviken whaling station on South Georgia Island.
Lat: 54°S – Long: 36°W

February 24
Shackleton orders a hat to the ship’s routine.

May 1
The sun vanishes for the season, not to reappear for four months.

May 2
Noon temperatures are -5°F (-20.5°C).
Lat: 75°S – Long: 42°W

December 5
The Endurance departs Grytviken, South Georgia Island. This is the last time the crew would touch land for 497 days.

December 23
The crew again begins marching toward open water, averaging just a mile and a half a day.

December 29
Shackleton abandons the march; the crew sets up Patience Camp on the ice.

January 21
A blizzard blows the ice floe on which the camp is located north across the Antarctic Circle.

February 29
In honor of Leap Year Day, the crew enjoys three full meals.

April 16
After seven grueling days at sea, the lifeboats land safely on Elephant Island at Cape Vertine.
Lat: 61°S – Long: 55°W

April 17
Shackleton moves camp seven miles to the west, to a spot that comes to be known as Point Wild—named after Frank Wild, the Endurance crew member who found it.

April 20
Shackleton announces that he will attempt to sail the 22-foot (7.0 m) James Caird 900 miles (1,287.5 km) to South Georgia Island.

April 24
Shackleton and five others depart for South Georgia in the Caird.

June 17
The Uruguayan government loans Shackleton the survey ship Instituto de Pecía No. 1, which comes within sight of Elephant Island before accumulating pack ice turns it back.

July 12
Shackleton sets out from Punta Arenas, Chile, on Emma, a schooner chartered by the British Association, but only gets to within 100 miles (160.9 km) of Elephant Island before storms force it to return.

August 25
Chilean authorities loan Shackleton the Yelcho, a small steamer, which sets sail from Punta Arenas with Shackleton, Worsley, and Crean for Elephant Island.
Lat: 53°S – Long: 71°W

August 30
"I felt only near blubbing for a bit & could not speak for several minutes," Frank Wild wrote about seeing Shackleton arrive with the Yelcho, which rescued the crew on this day in 1916, 22 months after they'd set out from Buenos Aires, Argentina.
Lat: 61°S – Long: 55°W
IN YOUR OWN WORDS

Background:
Without the diaries of Sir Ernest Shackleton and other Endurance crew members, we would be left to wonder exactly what happened to the men. For 22 months, the men protected their personal diaries, which captured everything from daily facts to personal feelings.

What makes the journals of the Endurance crew so interesting is that the men recorded not only the facts about what was happening to them, but also how they felt about what was happening and how they felt about each other. While much of what occurred to Shackleton’s men was high adventure, many days were extremely boring. Yet, the men kept writing it all down in a way that still makes us want to read it today.

Procedure:
1) Have students read the journal entries written by the Endurance crew members.
2) Complete the ‘In Your Words’ activity sheet
QUESTIONS:
1) What was the easiest part of your day to remember? The most difficult? Why do you think this is so?
2) List all the feelings you had today. Which one was the strongest, and why?
3) Think about your day one week ago. What can you remember? How do the facts differ from what you remembered about your day today?

IN YOUR WORDS:
Read the excerpts on the Journal Entries activity sheets to see the kinds of things Shackleton and his men thought about when they wrote their journal entries. Then write about your own day. Think about why events from today stand out in your mind. For example, instead of noting ‘The bus was late this morning, and I missed the first 20 minutes of school’, think about how you could more fully describe what happened.
For Example:
- I paced around, feeling angry about being kept waiting
- It was raining – my shoes got soaked
- I heard the bus before I saw it; the gears were grinding really loud as it turned into my street.
- I was really relieved when it arrived because I didn’t want to be late!

Facts alone don’t tell a story, consider whether you felt any of the following: bored, comfortable, tired, excited, happy, loved, frustrated, mad, nervous, overwhelmed, proud, sly, sad.
“This is not a pleasant job. We have to dig a hole down through the coal while the beams and timbers groan and crack all around us like pistol shots. The darkness is almost complete, and we mess about in the wet with half-frozen hands and try to keep the coal from slipping back into the bilges. The men on deck pour buckets of boiling water from the galley down the pipe as we prod and hammer from below, and at last we get the pump clear, cover up the bilges to keep the coal out and rush on deck, very thankful to find ourselves safe again in the open air.”

—Frank Worsley writing about having to go down in the bunkers of the Endurance and clear ice from the bilge pumps a few days before the crew was forced to abandon the ship (1)

“In addition to the daily hunt for food, our time was passed in reading a few books that we had managed to save from the ship. The greatest treasure in the library was a portion of the Encyclopaedia Britannica. This was being continually used to settle the inevitable arguments that would arise. The sailors were discovered one day engaged in a very heated discussion on the subject of Money and Exchange. They finally came to the conclusion that the Encyclopaedia, since it did not coincide with their views, must be wrong.”

—Shackleton, describing an occurrence at Ocean Camp in his memoir of the Endurance voyage (2)

“There are no spoons, etc., to wash, for we each keep our own spoon and pocket-knife in our pockets. We just lick them as clean as possible and replace them in our pockets after each meal. Our spoons are one of our indispensable possessions here.”

—A crew member writing about daily rituals at Ocean Camp (3)
“It’s a hard, rough, jolly life, this marching and camping: no washing of self or dishes, no undressing, no changing of clothes. We have our food anyhow … sleeping almost on the bare snow and working as hard as the human physique is capable of doing on a minimum of food.”

—A crew member recording what it was like to leave the tedious life of Ocean Camp and begin a march toward open water (4)

“Elephant Island

The hut grows more grimy every day. Everything is sooty black. We have arrived at the limit where further increments from the smoking stove, blubber lamps, and cooking gear are unnoticed. It is at least comforting to feel that we can become no dirtier … From time to time we have a spring cleaning, but a fresh supply of flooring material is not always available, as all the shingle is frozen up and buried by deep rifts. Such is our Home Sweet Home.”

—A crew member writing about living conditions at their Elephant Island camp (5)

“It had been arranged that a gun should be fired from the relief ship when she got near the island. Many times when the glaciers were ‘calving,’ and chunks fell off with a report like a gun, we thought that it was the real thing, and after a time we got to distrust these signals. As a matter of fact, we saw the Yelcho before we heard any gun. It was an occasion one will not easily forget.”

—Second-in-Command Frank Wild, recounting the crew’s rescue from Elephant Island, more than four months after Shackleton and five others had left the island to secure rescue (6)

Sources
(2) Shackleton, South, 93–94.
(3) Shackleton, South, 93.
(4) Shackleton, South, 194–105.
(5) Shackleton, South, 331.
(6) Shackleton, South, 222–223.
Background:
Once Sir Ernest Shackleton and his crew made it to Elephant Island, Shackleton was faced with an enormous decision: stay on the uninhabited island through the winter, or sail to the whaling station on South Georgia Island, braving 1287km of difficult seas in one of their small lifeboats to do so. Shackleton chose the latter, and had his carpenter, Chippy McNeish, modify the 7m James Caird to make it as seaworthy as possible.

In addition, The Caird needed to bring along extra weight, called ballast, to keep the boat from tipping over. The crew filled the boat bottom with about 816kg of rocks and gravel, which all six men had to both crawl around and sleep on.

Besides the men, supplies had to be carried on board. According to Shackleton’s memoirs, the following items were also aboard the Caird:

- 3 cases of sledging rations
- two cases nut food
- 2 cases biscuits
- 1 case lump sugar
- 30 packets of milk
- 1 tin of Bovril cubes
- 1 tin salt
- 136L of water
- 250lb of rice
- 30 boxes of matches
- 36L petroleum
- 1 tin methylated spirit
- 1 box blue lights
- 2 Primus Stoves
- 1 Cooker (complete)
- sextant
- binoculars
- prismatic compass
- sea anchor
- sea anchor
- charts
- aneroid
- 30 boxes of matches
- 36L petrol
- 1 tin methylated spirits
- 10 boxes flammers
- 2 primus stoves
- 1 cooker
- 6 sleeping bags
- spare apparel

On April 24, 1916, Shackleton and five others set out to try to reach civilization and secure rescue for themselves and the 22 men waiting on Elephant Island. They braved stormy seas, switching off shifts so that three men would sleep below while others steered, sailed and bailed water from the boat. After 17 days at sea, the men landed on the remote but inhabited island of South Georgia.
HOW BIG WAS THE JAMES CAIRD?

Objective:
To use mathematical scale to create a replica drawing and a life-size outline of the James Caird lifeboat.

Materials:
Measuring tape
String
Scissors
Adhesive tape

Procedure:
- Using the table below, and the scale 2.5cm = 1m, calculate and record the dimensions of the James Caird.

- Making use of the picture ‘Launching the James Caird’
  a) Draw a bird’s eye view of the James Caird in the space provided, using the dimensions of the Replica James Caird.
  b) Draw a lateral (side) view of the James Caird in the space provided, using the dimensions of the Replica James Caird*.

- Use the string, scissors and tape to mark the outline of the James Caird on your classroom floor (actual size of boat).
- Use adhesive tape to stick the string to the floor to hold it in place.
- Once the length and width has been marked on the floor, have 6 students at a time (the amount of people that sailed the James Caird) stand inside the dimensions, with one student in the middle holding a piece of string vertically to indicate the height of the boat.

Imagine being in sub-zero temperatures on a boat this size – sleeping, cooking and eating, along with trying to stay dry!!

- Using the activity sheet ‘24 hours on the Caird’, write a journal entry from one of the crew members about the past 24 hours. Include information to describe what is happening/has happened, and what the crew member is feeling. Be as creative as you wish!

Dimensions: (scale: 2.5cm = 1m)

<table>
<thead>
<tr>
<th>Replica James Caird</th>
<th>Life Size James Caird</th>
</tr>
</thead>
<tbody>
<tr>
<td>17.75cm long from stern to bough</td>
<td>...........m</td>
</tr>
<tr>
<td>5.25cm at widest point</td>
<td>...........m</td>
</tr>
<tr>
<td>2cm height/depth</td>
<td>...........m</td>
</tr>
</tbody>
</table>
Bird's Eye View (from the top looking down)

Lateral View (from the side)
24 hours on the Caird......
Protected by frozen pack ice in the Antarctic winter and surrounded by drifting pack ice and icebergs in the summer, Antarctica has been the most difficult place on the planet to explore. Only two centuries ago did the first person step onto the Antarctic continent. Since then, others have followed in an attempt to find out more about this cold, mysterious place. For many explorers, Antarctica proved to be the final test of whether they could survive the most unforgiving place on earth.

**Pack ice:** floating sea ice which surrounds a continent  
**Iceberg:** a floating mass of freshwater (a big ice block!)  
**Explorer:** a person who travels to a previously unknown region

**Objective:** research an explorer. Record, share and evaluate information whilst learning about the hardships, discoveries and personal trials/triumphs of Antarctic explorers.

**Materials:**  
List of explorers  
‘In the Footsteps of….’ worksheet  
Reference materials for research (books, internet)

**Method:**  
1) Form ‘expedition teams’ in groups of 3 students  
2) Choose an explorer from the list  
3) Research this explorer and record the required information on the ‘Footsteps’ worksheet  
4) Using the map of Antarctica, draw a line(s) to indicate the explorers route around the continent  
5) Compare notes with another expedition team, make sure you choose a team with an explorer who visited Antarctica in a very different time period.  
   a) List 3 differences in the materials that were used by each of the explorers.  
   b) Write a paragraph outlining the different experiences each of these explorers may have had. Explain why you think their experiences would have been different.  
6) Brainstorm ways that the explorer’s expedition could be improved if it were to be duplicated today.  
   Write a paragraph explaining your ideas.
In The Footsteps of ............................................................

- Describe your explorer's character traits.
- What was the purpose of the expedition? How long did it take? Where did it go? When was it?
- What hardships were faced?
- What was eaten?
- What provisions were taken?
- What was the method of transportation?

Draw the flag of your explorer's country.
List of Explorers

1841: Sir James Clark Ross

1911: Roald Amundsen

1912: Robert Scott, Edward Wilson, 'Birdie' Bowers, Edgar Evans and Lawrence Oates

1913: Douglas Mawson

1916: Ernest Shackleton

1929: Richard Byrne

1935: Lincoln Ellsworth

1958: Edmund Hillary

1972: David Lewis

1990: Will Steger and Jean-Louis Etienne