



Literacy Project Plans

POLE TO POLE

These project plans are designed to be used alongside the accompanying resource sheets.
(please note: a CD resource does not accompany this resource pack, all resources are provided below)

Literacy Project 1: Letter writing (Foundation and Key Stage 1)

Aims of the lesson: To develop basic literacy skills through letter writing.

Activity: When teaching the topic of Pole to Pole, covering the North Pole and the South Pole, children immediately think of Santa (living at the North Pole) and, for some children, writing a letter to Santa may be the only time they experience letter writing outside the classroom. However, all sorts of contexts can be used to write the letters. For example, in the New Year, pupils could be asked to write thank you letters to family and friends for their Christmas presents. Whatever the reason for writing letters, refresh the pupil's understanding of the five parts of a letter. The five parts can be related to the body:

1. Head – date of the letter
2. Mouth – opening greeting for the letter

3. Trunk – main body of the letter
4. Ankles – closing phrase for the letter
5. Feet – signature

Then after thinking time, ask the pupils to draft their letters before writing them 'in best'.

Other ideas: An excellent way to get the pupils back into writing after the Christmas break or at the start of a new school year is to ask them to produce a 'Back-To-School Book'. In the book the pupils can write about themselves, their families, and their favourite things. Given the topic of Pole to Pole, you could also ask the pupils to write a letter from the North Pole or the South Pole, or even send a postcard. The **Literacy Project 1 folder** on the accompanying CD-ROM includes two postcard templates for the children to use.

Literacy Project 2: Exciting explorers (Key Stages 1 and 2)

Aims of the lesson: To improve literacy skills by writing about a famous explorer.

Activity: For this activity, the pupils are going to research and write about a famous explorer. There are plenty of explorers to choose from and the **Literacy Project 2 folder** on the accompanying CD-ROM includes some information on three very famous ones – Roald Amundsen, Robert Falcon Scott and Sir Ernest Henry Shackleton. The page opposite also offers a picture of Roald Amundsen (a copy of this page can be found in the **Literacy Project 2 folder** on the accompanying CD-ROM). Once the pupils have completed their research, a variety of activities can be carried out:

- Ask the pupils to write a short essay that answers the question: Would you want to travel to the North Pole by yourself? Why or why not?
- Define the term 'explorer'. Then, use the newspaper to identify and read about local

people who are considered adventurers or explorers.

- Create an 'Explorer Hall of Fame'. Interview your friends, family or neighbours to find out who they think should be in the 'Explorer Hall of Fame'.

Other ideas: Some historians believe that Ernest Shackleton placed an advert in *The Times* of London in December 1901 reading:

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.

Whilst, there is some debate as to whether this is true or not, ask the pupils to write their own advert to recruit explorers for an expedition.



Literacy Project 3: Riotous reindeers (Key Stage 2)

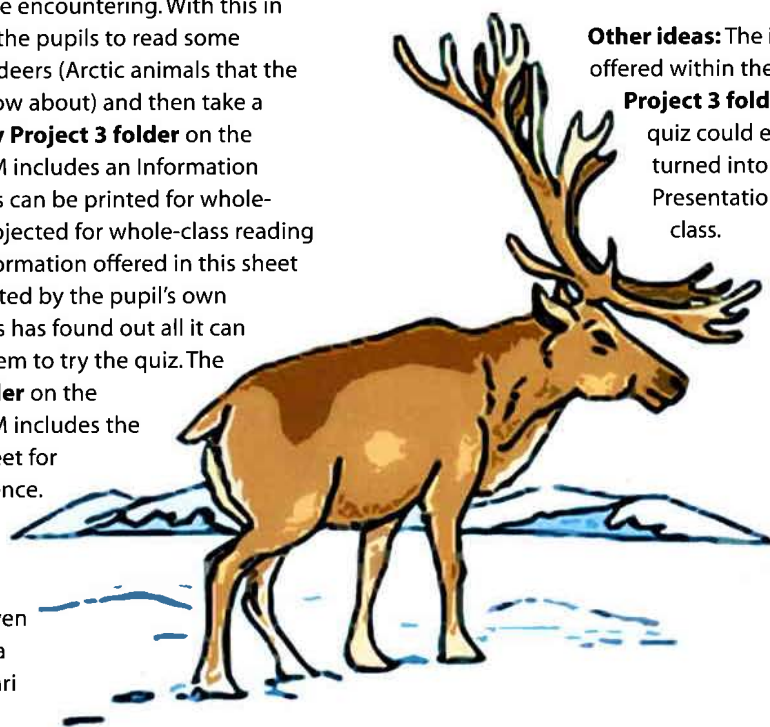
Aims of the lesson: To develop reading and comprehension skills.

Activity: It is essential that pupils, from an early age, learn how to read a passage of text and understand the information they are encountering. With this in mind, this activity asks the pupils to read some information about reindeers (Arctic animals that the pupils will certainly know about) and then take a short quiz. The **Literacy Project 3 folder** on the accompanying CD-ROM includes an Information Sheet on reindeers. This can be printed for whole-class distribution or projected for whole-class reading and discussion. The information offered in this sheet can also be supplemented by the pupil's own research. Once the class has found out all it can about reindeers, ask them to try the quiz. The **Literacy Project 3 folder** on the accompanying CD-ROM includes the quiz and an answer sheet for your own ease of reference.

As an addition to this activity, and to afford the pupils the opportunity to learn even more about reindeers, a class visit to a local safari

park or zoo could be arranged to see reindeers. If a visit is organised a wealth of literacy activities can ensue, including writing a fact sheet about the reindeers, writing a plan for the visit and/or writing about the visit itself, covering all the animals seen.

Other ideas: The information offered within the **Literacy Project 3 folder** and/or the quiz could easily be turned into a PowerPoint Presentation with the class.



Literacy Project 4: Polar Poetry (Key Stages 1 and 2)

Aims of the lesson: To develop writing skills through poetry.

Activity: The environments of the North and South Poles and their surrounding areas have been used as a stimulus for poetry ever since the first explorers ventured into these barren landscapes. Both the Arctic and the Antarctic are perfect contexts for poetry writing and this activity can be started by asking the pupils what they think the Arctic and Antarctic are like. The **Literacy Project 4 folder** on the accompanying CD-ROM includes two Information Sheets (on the Arctic and the Antarctic) for you to read with the class. The page opposite also offers a polar picture – a copy of this image can be found in the **Literacy Project 4 folder** on the accompanying CD.

Explain to the class that they are going to write a poem about either the Arctic or the Antarctic. Many famous poems have been written about these extreme environments, including *The Rime of the Ancient Mariner*, by Coleridge, which is about a ship that is driven to the South Pole by storms. The pupil's

poems could be about the landscapes, the weather or polar animals. Probably the most famous animal that lives at the South Pole is the penguin and the poem given below could be read to the class to get them ready for writing their own poetry.

THE PENGUIN

The penguin is an awkward bird.
At least, that's what I've always heard.
It swims and waddles, never flies,
When other birds act otherwise.
Its workday outfit seems so formal
And that, I think, is hardly normal.
It keeps its egg upon its feet
Which doesn't sound so very neat.
Still, I guess the penguin does its best
To raise a child without a nest.
It's not exactly Paradise
Living on a slab of ice.

Once the pupils have written some polar poetry, they can illustrate their work and create a whole class display!



Literacy Project 5: Daring diaries (Key Stage 2)

Aims of the lesson: To develop writing skills through diary writing.

Activity: Seventy years ago, American polar explorer and pioneer aviator Richard E. Byrd was believed to be the first person to fly an airplane to the North Pole. Recently, an American Professor discovered Byrd's diary – written during his flight to the North Pole on 9 May 1926. Byrd's flight to the North Pole was a pivotal event in his career. It made him a leader in aviation and in polar exploration as well as a national hero.

Yet, this accomplishment also brought controversy that has continued to this day. Sceptics believe that Byrd did not reach the North Pole and even deliberately invented the accomplishment. Fresh studies have revealed that Norwegian explorer Roald Amundsen was the first in the world to conquer both the North and South Poles. Amundsen believed that he had been beaten to the North Pole by American Richard E. Byrd. However, a meticulous study of Byrds' diary has now revealed that the latter in all probability did not reach the North Pole at all.

Throughout the centuries, polar explorers have kept diaries, and these important historical documents have become essential sources of information. The writing of a diary involves a range of skills and pupils of all ages can

develop basic literacy skills through the keeping and writing of a diary.

Begin this activity, by telling the class that they are going to imagine that they are an explorer going to the North or South Pole. Ask for volunteers to point out the location of the North and South Poles on a world map. Ask the pupils to compare the geography of the two poles. How are they similar? How are they different?

Next, ask the pupils how difficult they think it would be to get to one of the poles. Brainstorm how explorers could travel there, and what supplies they would need to survive in the extreme polar environment. Review with the pupils the historic polar expeditions of the early 1900s, when four explorers set out on perilous journeys to a pole, all

competing to be the first to reach their destination. Make sure students understand that Admiral Robert Peary and Dr Frederic Cook were in a race to reach the North Pole, while Captain Robert Falcon Scott and Roald Amundsen were in a race to reach the South Pole. Ask the pupils to recall specific examples of hardships and obstacles the explorers and their crews faced.

Whilst they are at the pole, they are going to keep a diary. Ask the pupils to think about what they would write in their diary.

- Would they note any animals and plants seen on the journey?
- Would they note the weather conditions?
- Would they note how they felt and what it is like to deal with such extreme cold?
- Would they note what they ate and drank during the journey?

Once the class has brainstormed diary writing and the North and South Poles, ask them to write their own diaries.



Other ideas: The page opposite shows a representation of Ernest Shackleton's Discovery diary. This is a very famous expedition diary and lots of other extracts can be found on the Internet. A copy of this page can be found in the **Literacy Project 5 folder** on the accompanying CD. The folder also includes some extracts from Robert Edwin Peary's diary of his controversial journey to the geographic North Pole on 6 April 1909.

The Internet offers many more examples of real diaries written by real explorers. Modern-day explorers also offer website-based 'live' diaries. These live diaries allow pupils to read the accounts of explorers first-hand. Some of the websites also have 'live' camera feeds so the pupils can see the environment for themselves.

STAR RESOURCES

Visit the Scott Polar Research Institute website at www.spri.cam.ac.uk for fantastic diary and letter resources.



Pole to Pole

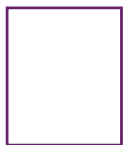
Literacy Project 1: Letter writing

Foundation & Key Stage 1





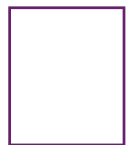
Postcard template 1



To:



Postcard template 2



To:



Pole to Pole

Literacy Project 2:
Exciting explorers

Key Stages 1 & 2





Information sheet:

Roald Amundsen

Amundsen was born to a family of Norwegian shipowners and captains in Borge near Fredrikstad.

Amundsen's Polar Treks

Belgian Antarctic Expedition 1897–1899

Amundsen was a member of the Belgian Antarctic Expedition (1897–1899) as second mate. This expedition was led by Adrien de Gerlache, using the ship the Belgica, and became the first expedition to winter in Antarctica.



Traversing “the Northwest Passage”

In 1903, Amundsen led the first expedition to traverse the Northwest Passage between the Atlantic and Pacific Oceans with six others in the ship Gjoa. They travelled via Baffin Bay, Lancaster and Peel Sounds, and James Ross and Rae Straits to spend two winters exploring over land and ice from the place today called Gjoa Haven, Nunavut, Canada.

The South Pole expedition

After crossing the Northwest Passage, Amundsen made plans to go to the North Pole and explore the North Polar Basin. On hearing in 1909 that first Frederick Cook and then Robert Peary claimed the Pole, he changed his plans. Using the ship Fram (“Forward”), he instead set out for Antarctica in 1910. On 14 January 1911 he arrived at the eastern edge of Ross Ice Shelf at the location known as the Bay of Whales. Amundsen located his base camp there and named it Framheim, literally, “Home of the Fram.” During February, March and early April, Amundsen and his men laid supply depots



at 80°, 81° and 82° South, along a line direct to the Pole. Amundsen made a false start to the Pole on 8 September 1911. The temperatures had risen, giving the impression of an austral-Spring warming. Soon after departure, temperatures fell below -60°F (-51°C). On 12 September, it was decided to reach the Depot at 80°, deposit their supplies and turn back to Framheim to await warmer conditions. The Depot was reached on 15 September from which they hurriedly retreated back to Framheim. Prestrud and Hanssen sustained frost-bitten heels on the return. Amundsen reorganized the Pole party by reducing its number and the new Pole team departed on 19 October 1911. They took four sledges and 52 dogs.

Their track to the South Pole was as follows, on October 23, they reached the 80° S Depot and on November 3, the 82° Depot. On November 15, they reached latitude 85° S. They had arrived at the base of the Trans-Antarctic Mountains. The ascent to the Antarctic Plateau, along the Axel Heiberg Glacier, was easier than they had expected. They arrived at the edge of the Polar Plateau on November 21. Here they camped at the place they named "Butcher Shop", where 24 of the remaining dogs were killed. Some of the carcasses were fed to the dogs, the balance was cached for the return journey. Blizzards and poor weather made progress slow as they crossed the 'Devil's Ballroom', a heavily crevassed area. They crossed 87° S on December 4, and on December 7, they reached the latitude of Shackleton's furthest south, 88° 23'S, 180 km (97 nautical miles) from the South Pole.

Arrival at the South Pole

On 14 December 1911, the team of five, with 16 dogs, arrived at the Pole (90° 00'S). They had arrived 35 days before Scott's group. Amundsen named their South Pole camp Polheim, 'Home of the Pole'. Amundsen renamed the Antarctic Plateau as King Haakon VII's Plateau. They left a small tent and letter stating their accomplishment, in the event they did not return safely to Framheim.

Amundsen's extensive experience, careful preparation and use of high-quality sled dogs (Greenland huskies) paid off in the end. In contrast to the misfortunes of Scott's team, the Amundsen's trek proved rather smooth and uneventful, although Amundsen tended to make light of



difficulties. They returned to Framheim on January 25, 1912 with eleven dogs. Henrik Lindstrom, the cook, said to Amundsen: "And what about the Pole? Have you been there?" The trip had taken 99 days (originally planned to have taken 100 days), the distance about 1,860 miles. Amundsen's success was not publicly announced until 7 March 1912, when he arrived at Hobart, Australia. Amundsen recounted his journey in the book *The South Pole: An Account of the Norwegian Antarctic Expedition in the 'Fram', 1910–1912*.

Later life

In 1918, Amundsen began an expedition with a new ship *Maud*, which was to last until 1925. *Maud* sailed West to East through the Northeast Passage, now called the Northern Route (1918–1920). Amundsen planned to freeze the *Maud* into the polar ice cap and drift towards the North Pole (as Nansen had done with the *Fram*), but in this he was not successful.

In 1925, Amundsen took two aircraft, the N-24 and N-25 to 87° 44' north. It was the northernmost latitude reached by plane up to that time. The planes landed a few miles apart without radio contact, yet the crews managed to reunite. One of the aircraft, the N-24 was damaged. Amundsen and his crew worked for over three weeks to clean up an airstrip to take off from ice. They shovelled 600 tons of ice on 1 lb (400 g) of daily food rations. In the end six crew members were packed into the N-25. In a remarkable feat, Riiser-Larsen took off and barely became airborne over the cracking ice. They returned triumphant when everyone thought they had been lost for ever.

Disappearance and (probable) death

Amundsen disappeared on 18 June 1928 while flying on a rescue mission. Afterwards, a pontoon from the French *Latham 47* flying-boat he was in, improvised into a life raft, was found near the Tromsø coast. It is believed that the plane crashed in fog in the Barents Sea, and that Amundsen was killed in the crash, or died shortly afterwards. His body was never found.

Roald Amundsen





Information sheet: Robert Falcon Scott

Robert Falcon Scott was a Royal Naval officer and Antarctic explorer. In the so-called 'Race to the South Pole' Scott came second, behind the Norwegian Roald Amundsen; and subsequently died, along with four companions, whilst trying to return to the safety of their base. Scott has become the most famous, and tragic, hero of the 'heroic age' of Antarctic exploration.

Childhood and early career

Scott was born at Stoke Damerel, near Devonport in England. Scott left home at the age of thirteen to join the naval vessel HMS Britannia at Dartmouth and began his training.

Discovery expedition 1901–1904

At the request of Sir Clements Markham, the former polar explorer and then President of the Royal Geographical Society, Scott commanded the National Antarctic Expedition in Discovery which began in 1901. The major achievements of the expedition were an exploration of the Ross Sea, the land to the east of the ice sea was sighted for the first time and named 'King Edward VII Land' in honour of the then British monarch, the Polar Plateau was discovered and a new 'furthest south' was achieved. Scott and Dr Edward Wilson reached 82°17'S on 31 December 1902. Ernest Shackleton did not reach this furthest south, having been ordered to stay behind with the dogs at 82°15'S.

Terra Nova expedition 1910–1913

Scott had, following his Discovery expedition in 1902, been keen to return to Antarctica. He embarked on his second polar expedition on 1 June 1910 on the ship, Terra Nova. set up his base camp on Ross Island, some 100 km north of Amundsen's who had landed and set up base on the edge of the Ross Ice



Shelf hundreds of miles from the nearest land. After a year spent undertaking science work, and laying provisions along the route of the party who were to make the journey to the South Pole, a five man party (Scott, Lieutenant Henry Bowers, Dr Edward Wilson, Petty Officer Edgar Evans and army Captain Lawrence Oates) set out. On arriving at the South Pole on 17 January 1912, Scott found that Amundsen had been there a month earlier. Scott had some months before predicted this would likely be the case. Amundsen returned to his base in good order, while Scott's entire party perished on the return journey. Scott acknowledged that there had been no margin for error or delay in his calculations and his party eventually succumbed to injury, frostbite, malnutrition and exhaustion.



Information sheet:

Sir Ernest Henry Shackleton

Sir Ernest Henry Shackleton was an Irish explorer, now chiefly remembered for his Antarctic expedition of 1914–1916 in the ship *Endurance*.



Antarctic Expeditions

1901–1902 Discovery Expedition

Shackleton participated in the National Antarctic Expedition, which was organized by the Royal Geographical Society in 1901, and led by Robert Falcon Scott. This expedition is also called the 'Discovery Expedition', as its ship was called Discovery. Shackleton with Scott and Dr Edward Wilson trekked south towards the South Pole in 1902. The journey proceeded under difficult conditions, partially the result of their own inexperience with the Antarctic environment, poor choices and preparation and the pervading assumption that all obstacles could be overcome with personal fortitude. They used dogs, but failed to understand how to handle them. As with most of the early British expeditions, food was foolishly in short supply; the personnel on long treks were usually underfed by any sensible measure and were essentially starving. Scott, Wilson and Shackleton made their 'furthest south' of 82°17'S on 31 December 1902. They were 463 nautical miles (857 km) from the Pole. Shackleton developed scurvy on the return trip and Dr Wilson suffered from snow blindness at intervals.

1907–1909 Nimrod Expedition

Shackleton organized and led the "British Antarctic Expedition" (1907–1909) to Antarctica. The primary and stated goal was to reach the South Pole. The expedition is also called the Nimrod Expedition after its ship, and the 'Farthest South' expedition. Accomplishments of the expedition included the first ascent of Mount Erebus, the active volcano of Ross Island; the location of the Magnetic South Pole by Douglas Mawson, Edgeworth David and MacKay (16 January



1909); and locating the Beardmore Glacier passage. While the expedition did not make it to the pole, nonetheless, Shackleton, Adams, Marshall, and Wild were the first humans to not only cross the Trans-Antarctic mountain range, but also the first humans to set foot on the South Polar Plateau. Shackleton returned to the United Kingdom a hero and was immediately knighted.

1914–1916 Endurance Expedition

Shackleton's most famous expedition set out from London on 1 August 1914, to reach the Wedell Sea on 10 January 1915, where the pack ice closed in on the *Endurance*. The ship was broken by the ice on 27 October 1915. The 27 crew members managed to flee to Elephant Island, bringing three small boats with them. All of them survived after Shackleton and four other men managed to reach the southern coast of South Georgia in one of the small boats, from where Shackleton organized a rescue operation to bring home the remaining men.

1917 Ross Sea Party

After his legendary ordeal in the Weddell Sea sector, Ernest Shackleton arrived in New Zealand during December 1916. He was advised that his supply team the Ross Sea Party was stranded in Antarctica. By that time the *Aurora* had been repaired and after discussion with the *Aurora*'s captain, Shackleton immediately sailed to Ross Island to bring his men home. On 10 January 1917, the ship pulled alongside the pack ice near Cape Royds and worked its way to Cape Evans. One week later, Shackleton and the Ross Sea Party survivors were headed back to Wellington, New Zealand.

1921–1922 Shackleton-Rowett Expedition

In 1921, Shackleton set out on another Antarctic expedition. Its purpose was to circumnavigate the Antarctic continent by sea, but it was derailed when Shackleton died of a heart attack on board his ship, the *Quest*, while anchored off South Georgia and the South Sandwich Islands on 5 January 1922. His body was being returned to England when his widow requested that the burial take place on Grytviken, South Georgia and the South Sandwich Islands instead. Shackleton was buried there on 5 March 1922.



Pole to Pole

Literacy Project 3:
Riotous Reindeers

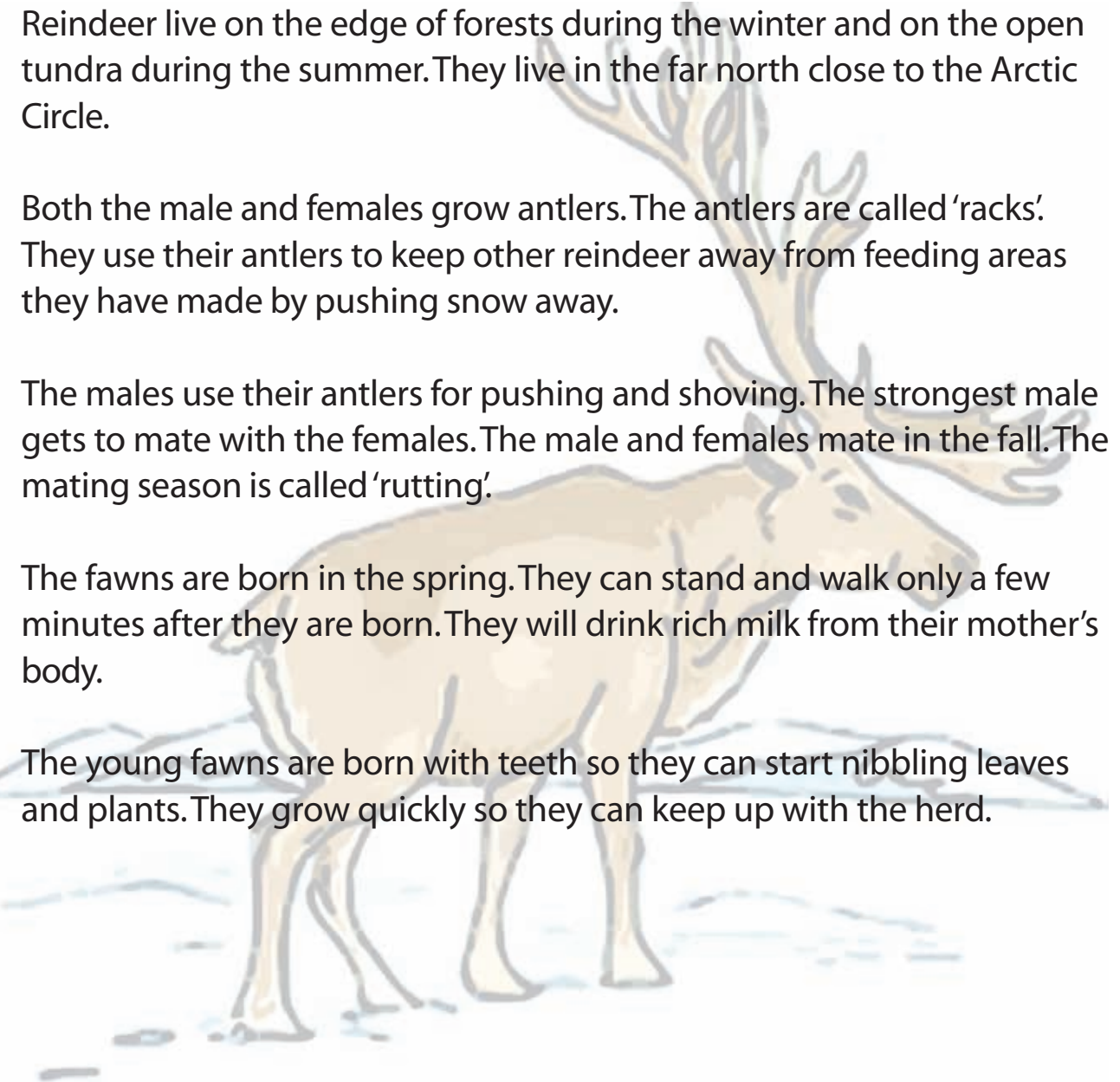
Key Stage 2





Information Sheet: Reindeers

1. Reindeer herds can be very large in size. They can range from 1,000 to 10,000. As summer ends the herds in Alaska migrate within the same general area. They use different areas during different seasons.
2. Reindeer live on the edge of forests during the winter and on the open tundra during the summer. They live in the far north close to the Arctic Circle.
3. Both the male and females grow antlers. The antlers are called 'racks'. They use their antlers to keep other reindeer away from feeding areas they have made by pushing snow away.
4. The males use their antlers for pushing and shoving. The strongest male gets to mate with the females. The male and females mate in the fall. The mating season is called 'rutting'.
5. The fawns are born in the spring. They can stand and walk only a few minutes after they are born. They will drink rich milk from their mother's body.
6. The young fawns are born with teeth so they can start nibbling leaves and plants. They grow quickly so they can keep up with the herd.





Name..... Date.....

Reindeer Quiz

1. Are reindeer real?

A. Yes, they are real.

B. No, they are make-believe

Answer: _____

2. Are reindeer wild animals?

A. Yes, they are wild

B. No, they are tame

Answer: _____

3. Where do reindeer live?

A. Everywhere

B. Europe and Asia

C. Europe, Asia and parts of North America

Answer: _____

4. What do reindeer eat?

A. Wheat

B. Lichen

C. Hay

Answer: _____

5. How tall are reindeer?

A. 2 feet tall

B. 3 1/2 feet tall

C. 4 feet tall

Answer: _____

6. Do people in Lapland use reindeer milk?

A. Yes

B. No

Answer: _____

7. Are reindeer used for transportation?

A. Yes

B. No

Answer: _____



8. What else do the people of Lapland use the reindeer for?

- A.** Ploughing their fields
- B.** Clothing and shelter
- C.** Riding

Answer: _____

9. How fast can reindeer run?

- A.** 8–10 miles per hour
- B.** 14–16 miles per hour
- C.** 20–22 miles per hour

Answer: _____

10. How much weight can a reindeer carry?

- A.** 200 pounds
- B.** 250 pounds
- C.** 300 pounds

Answer: _____

11. How do you know who each reindeer belongs to?

- A.** Branding signs
- B.** They look different
- C.** Notches on their ears

Answer: _____

12. Which reindeer have antlers?

- A.** Males
- B.** Females
- C.** Both

Answer: _____

13. Do reindeer have fur on their noses?

- A.** Yes
- B.** No

Answer: _____

14. How much does an adult reindeer weigh?

- A.** 300 pounds
- B.** 350 pounds
- C.** 400 pounds

Answer: _____



Reindeer Quiz – Answers

1. Are reindeer real?
A. Yes, they are real.
B. No, they are make-believe
2. Are reindeer wild animals?
A. Yes, they are wild
B. No, they are tame
3. Where do reindeer live?
A. Everywhere
B. Europe and Asia
C. Europe, Asia and parts of North America
4. What do reindeer eat?
A. Wheat
B. Lichen
C. Hay
5. How tall are reindeer?
A. 2 feet tall
B. 3 1/2 feet tall
C. 4 feet tall
6. Do people in Lapland use reindeer milk?
A. Yes
B. No
7. Are reindeer used for transportation?
A. Yes
B. No



8. What else do the people of Lapland use the reindeer for?

- A. Ploughing their fields
- B. **Clothing and shelter**
- C. Riding

9. How fast can reindeer run?

- A. 8–10 miles per hour
- B. **14–16 miles per hour**
- C. 20–22 miles per hour

10. How much weight can a reindeer carry?

- A. 200 pounds
- B. 250 pounds
- C. **300 pounds**

11. How do you know who each reindeer belongs to?

- A. Branding signs
- B. They look different
- C. **Notches on their ears**

12. Which reindeer have antlers?

- A. Males
- B. Females
- C. **Both**

13. Do reindeer have fur on their noses?

- A. **Yes**
- B. No

14. How much does an adult reindeer weigh?

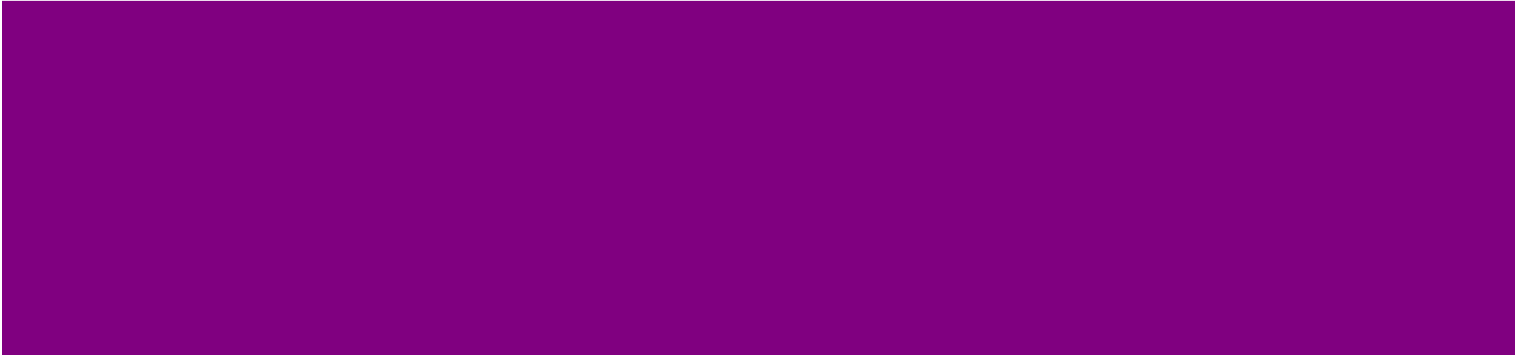
- A. **300 pounds**
- B. 350 pounds
- C. 400 pounds



Pole to Pole

Literacy Project 4:
Polar poetry

Key Stages 1 & 2





Information sheet: The Arctic

Where is the Arctic?

In the strictest sense, the Arctic is all of the Earth north of the Arctic Circle, which is located at 66 degrees, 32 minutes North Latitude.

Where is the North Pole?

If you think of the Earth as a spinning top, then the North and South Poles are the top and bottom of the spinning top. As the Earth spins we get day and night. At the North Pole, however, night occurs continuously for half the year, and day occurs continuously for half the year depending on whether the pole is facing toward or away from the sun.

What is it like at the North Pole?

The North Pole is in the middle of the Arctic Ocean. The Arctic Ocean is surrounded by Alaska, Canada, Greenland, and Russia. The ocean is 4000 metres deep. Although it is an ocean, it is water you can walk on. There are 2–3 metre thick ice floes floating on the water at the North Pole. In summer the temperatures are near zero degrees centigrade and there is light. In winter the temperature is about -30 degrees centigrade and it is dark.

Who lives in the Arctic?

The Arctic, unlike the Antarctic is inhabited by humans. The Arctic is inhabited by several different groups of indigenous people, and also by relatively recent immigrants of mostly European background. For humans that live in the Arctic, conditions there dictate lifestyle to a very great extent. Residents must cope with very low temperatures and constant darkness in the winter, and temperatures above freezing and constant daylight in the summer. While temperatures are below freezing, the frozen, snow covered ground, ice covered rivers, and shore-fast ice are utilized for transportation using dog sleds (traditionally) or snowmobiles (recently). In warmer weather, transportation is based on small boats on ice-free coastal waters and flowing rivers. Most indigenous people live along the coast or on river banks. Diet is based on foods that can be taken from the natural environment (fish, seals, whales, caribou, berries, plants), since agriculture is impossible.

The Arctic is a vast, ice-covered ocean that is surrounded by treeless, frozen land, which is often covered with snow and ice. The rigours of this harsh environment are a challenge to living, working and performing research in the Arctic. Nonetheless, the Arctic is full of life including organisms living in the ice, fish and marine mammals living in the sea, birds, land animals such as wolves, caribou and polar bears and humans.



Information sheet: The Antarctic

Antarctica is the southernmost continent and includes the South Pole. Geographic sources disagree as to whether it is surrounded by the Southern Ocean or the South Pacific Ocean, South Atlantic Ocean, and Indian Ocean. On average, it is the coldest, driest, and windiest continent and has the highest average elevation of all the continents. Because there is little rainfall, except at the coasts, the interior of the continent is technically the largest desert in the world. There are no permanent human residents and only cold-adapted plants and animals survive there, including penguins, fur seals, mosses, and many types of algae.

The Antarctic Treaty was signed in 1959 by 12 countries. The treaty prohibits military activities and mineral mining, supports scientific research, and protects the continent's ecozone. On-going experiments are conducted by more than 4,000 scientists of many nationalities and with different research interests.

Geography

Most of Antarctica is located south of the Antarctic Circle. It is the southernmost land mass and comprises more than 14 million km², making it the fifth-largest continent. The coastline measures 17 968 km (11,160 miles) and is mostly characterized by ice formations. Physically, Antarctica is divided in two by the Transantarctic Mountains close to the neck between the Ross Sea and the Weddell Sea. The portion west of the Weddell Sea and east of the Ross Sea is called Western Antarctica and the remainder Eastern Antarctica, because they roughly correspond to the Western and Eastern Hemispheres relative to the Greenwich meridian.

Climate

Antarctica is the coldest place on Earth. Temperatures reach a minimum of between -85 °C and -90 °C (-121 °F and -130 °F) in the winter and about 20 °C (30 °F) higher in the summer months.

Emperor penguins in Ross Sea, Antarctica

Antarctic sea life includes penguins, blue whales, and fur seals. The Emperor penguin is the only penguin that breeds during the winter in Antarctica, while the Adélie Penguin breeds farther south than any other penguin. The Rockhopper penguin has distinctive feathers around the eyes, giving the appearance of elaborate eyelashes. King penguins, Chinstrap penguins, and Gentoo penguins also breed in the Antarctic.

Polar landscape





Pole to Pole

Literacy Project 5:
Daring diaries

Key Stage 2





Information sheet: Peary Diary

Robert Edwin Peary was an American explorer who claimed to have been the first person, on 6 April 1909, to reach the geographic North Pole. However, there is much controversy as to whether (or not) he was the first person to reach the geographic North Pole.

1 April

Came on at a good clip for about 4 hours when the sledges overtook me. After that obliged to sit on sledges most of the time (setting course by moon, our shadows, etc.) or else run to keep up. Kept the pace for 10 hours....Have no doubt we covered 30 miles but will be conservative and call it 25. My Eskimos say we have come as far as from the Roosevelt to Porter Bay. This by our winter route scales 35 miles on the chart. Whatever the distance is, we are likely now that the wind has ceased to retain what we have made. It is possible that with release from the wind pressure the ice may rebound some and return us some of the hard earned miles it stole from us yesterday and the day before. In any event, we are now beyond the 88th parallel, and I am a tired and satisfied man.

3 April

Got on the trail 3 hours earlier this morning after a small sleep. Am going to try and work in an extra march. Am training down. Took up another hole in my belt this morning. Weather fine, clear & calm. Ice as yesterday except at beginning of march it was rougher requiring use of pickaxes. This & a brief delay at a narrow lead cut down our distance some. Ten hours. (20 m.) half way to 89°. Dogs frequently on trot. Some gigantic rafters but not in our path.

4 April

Hit the trail again before midnight after a short sleep. If weather holds good shall be able to make get in the extra march. The day a duplicate of day before yesterday as to weather & going. The latter even better. The surface is as even (except for the pressure ridges) as the glacial fringe from Hecla to Columbia, & harder. Something over 10 hours on a direct course, 25 dogs often on the trot, occasionally on the run. 25 miles. Near end of march crossed a hundred yard lead on thin young ice. As I ran ahead to guide the dogs obliged to slide my feet & travel wide, bear style. One runner of one sledge cut through for some distance but the sledge kept up. The men let sledges & dogs come on by themselves and came gliding across where they could. The last two came over on all fours. Sledge ran over side of my right foot as result of my stumbling while running but think it will give me no trouble. Am tired but satisfied with our progress. We are in sight of 89°. Give me three days more of this weather.

Ernest Shackleton's Discovery Diary

Nov 1902/Jan 1903

Boxing Day.

Similar weather but we only did five miles today, Billy's right eye being so bad that we camped in the afternoon. The poor chap suffered agonies all the afternoon, in spite on temporary relief by cocaine. He bore it very well though. It was pitiful that he should have to lie there, shaking with pain, while we could do nothing for him.

I killed Brownie tonight to feed the other dogs; he had no trouble, I luckily got his heart first dig.

There is a huge mountain to the south of us which I suppose will be named Mount Longstaff.

28 December

Weather fine and clear all day; I am still leading, Billy going blindfolded.

30 December

Thick fog all day, but we did four miles to the south. Started to blow at 6 pm from the south. Very hungry.

31 December

Last day of the old year. We turned back. Had a very blowy night. Dogs utterly useless, not pulling at all. Clarence died this morning.

Went into the land on ski at 2pm, leaving camp. Found the place full of crevasses; roped together and tried to cross, spending three hours and crossing snow bridges and chasms. Brought up by sheer over hanging ice cliff, about seventy feet high. It is a great pity we cannot get geological specimens.