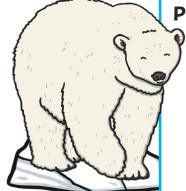
Some animals live in very hot places, e.g. snakes and camels live in deserts. Other animals live in extremely cold places, like the Arctic or Antarctic.

Polar Bears

Polar bears live in the ice and snow and hunt seals. Their bodies are adapted to the cold. This means their bodies have changed to help them stay warm.





Polar Bear Facts

- They have big feet for swimming through the sea. They spend most of their lives in water.
- Their fur is the same colour as the snow so they blend in.
- Their super sense of smell lets them know where to hunt for seals.
- They have sharp teeth to help them hunt and eat.

Penguin Facts

- They use their wings like flippers for swimming.
- They have waterproof feathers to keep them dry.
- They have lots of fat to stop them getting too cold.
- Their beaks open wide to catch and eat fish whole!

Did You Know ...?

Penguins are found in both hot and cold places. Some kinds of penguin love hot weather!



Questions

- 1. Name one animal found in a desert.
- 2. What do polar bears hunt?
- 3. What are polar bears' feet useful for?
- 4. What can penguins' beaks do that helps them?
- 5. Why do polar bears need to look white?
- 6. Can you draw your own picture of a penguin and label the beak, feet and flippers?



Answers

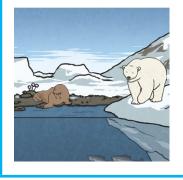
- Name one animal found in a desert.
 Snake, camel or any other desert animal.
- 2. What do polar bears hunt? Polar bears hunt seals.
- 3. What are polar bears' feet useful for?Polar bears use their paws like paddles to help them swim.
- 4. What can penguins' beaks do that helps them?Penguins' beaks can open wide so they can swallow fish whole.
- 5. Why do polar bears need to look white?Polar bears need to look white to blend in with the snow.
- 6. Can you draw your own picture of a penguin and label the beak, feet and flippers? **Child's own picture.**



Polar Bears

Polar bears are very large, meat-eating mammals that can be found in the Arctic. Mammals are animals with fur and warm blood. Fully-grown polar bears can measure over 2.5m long and weigh around 700kg. They are not like other bears because they spend most of their lives swimming and hunting on ice for food. They only come onto land to have babies.

Polar bear cubs stay in their dens for up to five months after they are born and stay with their mums for up to 2 years after that.



Wow!

Polar bears are strong swimmers, using their huge feet like paddles to push through the water. They can swim for hours to get from one piece of ice to another.

Polar bears live at the very top of our planet, and it is bitterly cold there. Water and steam will freeze almost instantly in the Arctic in winter. Thankfully, polar bears are adapted for this environment. They have a thick layer of fat which keeps heat trapped inside their bodies. They also have a thick coat that keeps

them warm and also helps them to blend in with the snow. Despite how it might look, a polar bear's fur isn't really white. It's actually transparent (see-through) and it reflects light to look white.





Penguins

Penguins are birds that spend much of their lives in the water and unlike most other birds, they cannot fly. Penguins do have wings but they are more like flippers to help them swim. As they live in water, their bodies have adapted so that they can swim brilliantly to catch food. Their bodies are smooth and dart-shaped so they glide easily through the water. They have dark feathers with light patches which help them to blend in so they are difficult to spot. This is a very useful way to trick predators and avoid being eaten!

Penguins don't have to swim in deep water as the fish they catch are found near to the surface. Their feathers make their bodies waterproof.

Penguins are found on every continent in the southern hemisphere (the bottom half of the world). Most people think that penguins only live in the ice and snow but there are some species that live in warmer climates. The hottest penguin habitat is the Galapagos Islands, where temperatures can reach as high as 32°C. Emperor and Adélie penguins live in Antarctica in temperatures as low as -60°C. Emperor penguins are the only animals to stay on the open ice during an Antarctic winter, huddling together to survive the worst weather conditions on earth.





Questions

1. What is a mammal?

- 2. How long are adult polar bears?
- 3. What happens to steam and water in an Arctic winter?
- 4. What colour is a polar bear's fur?
- 5. What does 'adapted' mean?
- 6. Why do penguins have dark feathers with light patches?
- 7. Where are emperor penguins found?
- 8. Which is your favourite: a polar bear or penguin? Why?



Answers

1. What is a mammal?

A mammal is an animal with fur and warm blood.

- How long are adult polar bears?
 Adult polar bears are over 2.5m long.
- What happens to steam and water in an Arctic winter?
 In the Arctic winter, steam and water freezes almost instantly.
- 4. What colour is a polar bear's fur?A polar bear has transparent (clear) fur.
- 5. What does 'adapted' mean?Adapted means changed for its environment.
- 6. Why do penguins have dark feathers with light patches?Penguins have dark fur with light patches to help them blend in so nothing will eat them.
- 7. Where are emperor penguins found?Emperor penguins are found in the Antarctic, at the bottom of our planet.
- 8. Which is your favourite: a polar bear or penguin? Why? **Varied answers.**





Polar Bears

Polar bears are huge mammals that can weigh up to 700kg when they are fully grown and are the largest carnivores (meat eaters) to live on land. Polar bears are born between November and January and then spend up to five months in their den before they see the outside world. The cubs then stay with their mother for up to two years after that, before going on to live and hunt alone.

Although polar bears have their cubs on land, they actually spend most of their lives around water and ice, hunting for food. They are strong swimmers and can swim for hours to get from one piece of ice to another. As the winter gets particularly cold, the sea freezes and they are able to hunt many miles out to sea by walking across the thick sea ice. Polar bears mainly prey on seals as seal fat provides them with lots of energy to help them keep warm.



Wow!

They use their amazing sense of smell to find seals hidden under the snow. They can even smell an injured animal from up to one kilometre away. When polar bears get desperate for food, they will sometimes catch a whale or walrus.

Polar bears live in the Arctic, at the very top of our planet, where the temperature can reach as low as -50°C. Water and steam will freeze almost instantly in the Arctic in winter. Thankfully, polar bears are adapted for this environment in different ways. Firstly, they have a thick layer of fat which keeps heat trapped





inside their bodies. On top of that, their coat not only keeps them warm, but also helps them to blend in with the snow. Despite how it might look, a polar bear's fur isn't really white. It's actually transparent (see-through) but reflects light, making it look white.

Penguins

Penguins are birds that spend much of their lives in the water and unlike most other birds, they cannot fly. Penguins do have wings but they are more like flippers to

help them swim. As they live in water, their bodies have adapted so that they can swim brilliantly to catch food. Their bodies are smooth and dart-shaped so they glide easily through the water. They have dark feathers with light patches which help them to blend in so they are difficult to spot. This is very useful way to trick predators and avoid being eaten!

Penguins don't have to swim in deep water as the fish they catch are found near to the surface. Their feathers make their bodies waterproof.

Penguins are found on every continent in the southern hemisphere (the bottom half of the world). Most people think that penguins only live in the ice and snow but there are some species that live in warmer climates. The hottest penguin habitat is the Galapagos Islands, where temperatures can reach as high as 32°C. Emperor and Adélie penguins live in Antarctica in temperatures as low as -60°C. Emperor penguins are the only animals to stay on the open ice during an Antarctic winter, huddling together to survive the worst weather conditions on earth.





Questions

- 1. What is a carnivore?
- 2. What temperatures can it reach in the Arctic in winter?
- 3. From how far away can a polar bear smell an injured animal?
- 4. How are polar bears able to hunt many miles out at sea?
- 5. How have penguins adapted to their life in water? Give two ideas.
- 6. What is the southern hemisphere?
- 7. When do polar bears choose to stay on land?
- 8. Why don't penguins need to dive deep under water?
- 9. Which penguins spend the winter in the Antarctic?
- 10. Can you name any other birds that don't fly?





Answers

- 1. What is a carnivore?
 - A carnivore is a meat eater.
- What temperatures can it reach in the Arctic in winter?
 In the Arctic it can reach -50°C in winter.
- From how far away can a polar bear smell an injured animal?
 A polar bear can smell an injured animal from 1km away.
- 4. How are polar bears able to hunt many miles out at sea?

Polar bears can hunt many miles out at sea because the sea freezes and the polar bears walk across the ice.

5. How have penguins adapted to their life in water? Give two ideas.

Penguins have adapted using waterproof feathers, layer of fat, wings like flippers and body shaped to help them swim. (Accept two reasons given.)

- 6. What is the southern hemisphere?The southern hemisphere is the bottom half of our planet.
- When do polar bears choose to stay on land?
 Polar bears choose to stay on land to have their cubs.
- 8. Why don't penguins need to dive deep under water?
 Penguins don't need to dive deep into the water because the fish come near to the surface of the water.
- 9. Which penguins spend the winter in the Antarctic?Emperor penguins are the only animals to stay on the open ice during an Antarctic winter.
- Can you name any other birds that don't fly?
 Examples: ostrich, emu, kiwi, kakapo.



