

How Have Polar Bears Adapted To Their Environment?





It is extremely cold in the polar regions! Although winter is the coldest season, it is cold enough in summer to keep the sea water frozen at the pole. Polar bears have many features that help them cope with year-round icy conditions.

Keeping Warm On The Ice

Polar bears are mammals. They have warm blood, just like us. So how do they protect themselves from the harsh conditions they live in?

Polar bears have thick fur coats that help keep them keep warm in cold conditions. They have a dense layer of fur close to the skin and an outer layer of longer fur. The inner layer insulates them against the cold. They even have thick fur on the soles of their feet!

The skin underneath their fur is black and absorbs the heat from sunlight, helping them stay warm. We lose a lot of heat through our skin- it helps us cool down when we are hot. But polar bears retain most of their body heat because of their thick fur.



Keeping Warm In The Water

Did you know that polar bears have a thick layer of fat under their skin which insulates them from the cold?

Like whales and seals, polar bears need to be able to withstand the icy cold conditions of the Arctic seas.

Their thick layer of fat acts like a wetsuit, helping them retain their body heat and stay warm while they are in the water.

This layer of fat is also a source of stored energy that helps keep them alive when food is scarce.



Do Polar Bears Hibernate?

Unlike other large bears, polar bears do not hibernate. They keep active during the cold winter months.

However, pregnant females will dig a snow cave just big enough for them to give birth to their babies in. They do not leave the den until their young are strong enough to survive.

They do not hunt during this time so the females rely on their store of body fat to help them survive the cold conditions.



Effective Hunters

Polar bears are hunters. Seals are their main source of food but they will eat any animal that they are able to catch with their powerful shoulder muscles, sharp claws and teeth.

They need to be able to strike quickly to capture prey before they can escape so their light fur provides good camouflage in the icy conditions. Potential prey are less likely to see them coming when they blend in with their surroundings!

Polar bears are swift runners and excellent swimmers so they can capture prey in the water as well as on the land.



What features do polar bears have that have helped them adapt to their environment?

