

Polar Animal Adaptations

Polar Bear



Polar bears spend much of their life on the sea ice. Their white coats are made up of water proof fur and are great for camouflage when hunting. Polar bears have short snouts and ears that minimize heat loss to the environment. They also have extremely sensitive noses. Polar bears can smell a seal up to 20 miles away or under three feet of ice. They have very sharp teeth and use their large feet to spread their weight when walking on ice. They are excellent swimmers and can run as fast as 40mph.

Adelie Penguin



They have a small compact body, which means less surface area to keep heat in. They also have very dense, thick feathers to keep in heat in as well. Their wings and flippers are short so that they can swim fast under water. They have a spiky tongue so that slippery fish (food) can't escape. The colour of their feather helps with camouflage (black on top and white underneath - makes it harder to see in the sea and helps with warming and cooling while on land).

Arctic Hare



Arctic hares have long claws that help them dig through the snow to find food. They often huddle together in groups to help preserve body heat. Their long, muscular legs make them very fast runners. They have been known to reach speeds up to 40 mph. Arctic hares have bright white fur (changes to grey fur in the summer) to help them camouflage. Their fur is thicker and ears are smaller (less surface area) to keep heat in. To keep warm a hare will tuck their feet, paws and ear in and sit still for hours. They can also swim across small streams and rivers.

Seal



A seal has flippers at the front and back for swimming. It has a smooth and stream line body to pass easily in the water. It has a thick layer of blubber to keep heat in during extreme cold temperatures. Seals have large eyes to see under the water and ice while hunting. Their whiskers are very sensitive and help them feel around in the dark when hunting their prey. They can swim very large distances under water and dive for over an hour up to depths of 600m.

Antarctic Krill



Krill are the source of food for a lot of polar animals including Whales. Krill can survive through long periods of starvation (up to 200 days). They have the most developed eyes of any animals in the world, which help them to see their food in the dark. Their organs glow in the dark so that they can see each other. They can move very fast and flip to escape danger. To avoid predators they stay in deep water during the day and come to the surface at night time.

Emperor Penguin



The Emperor Penguins large size and huddling together helps to keep the heat in. They can also absorb 80% of the heat lost in their breath back through their nose. They can dive up to a depth of 550m and hold their breath for up to 22 minutes. Emperor Penguins have a short stiff tail to help with balance when they are on land. They have powerful claws on their feet to grip onto ice, snow and rocks. Male penguins can not eat for up to 100 days.

Arctic Fox



Arctic Foxes prefer small dens in the side of cliffs or mountains for more shelter. They have white fur (grey in the summer) to help with camouflage. They have one of the thickest and warmest furs of any animal in the world to keep in heat in during the winter (grey coat in the summer releases heat). They often follow larger animals such as polar bears in an attempt to steal their food. They have small sharp teeth to be able to eat food.