

## Arctic Polar Bears

Arctic temperatures can drop to  $-50^{\circ}\text{F}$ , but keeping warm is no sweat for polar bears. In fact their biggest problem is often cooling off. A polar bear is so well insulated that it can become overheated simply by moving too fast. For this reason, they don't run very often, even though they can cover 50 feet in 3 seconds when necessary. To cool off, they might pick up a mouthful of snow or lie flat on the snow and spread out on their stomach, where their fur is much less dense.

Polar bear fur is the "right stuff", when it comes to keeping warm. Their outer fur coat consists of long, dense guard hairs and an undercoat of short wooly hairs. The guard hairs are actually hollow tubes that guide the sunlight down to the polar bear's skin. Although a polar bear has a white coat, its skin is actually black so it can absorb more of the sun's heat.

Another way that the polar bears cope with the arctic cold is with its built-in insulation. These bears have a layer of blubber under their skin, that can be 4-inches thick.

A polar bear spends the winter living on the sea ice, but it has no trouble keeping its footing. Its paws are perfect for getting around on cold, frozen, slick ice. Rough pads give it a non-slip grip, and thick fur between the pads keeps the bear's feet warm. It uses the sharp, curved claws on the front paws like hooks to climb onto the sea ice from the water. These claws also help them dig in the ice when they hunt for seals. These front paws are partially webbed for better swimming. Their rear paws are used mainly as steering rudders as they swim. Polar bears have been seen swimming as far as 150 miles from the nearest land. For these reasons polar bears are the only bears considered to be marine mammals. Their unusually long neck help keep their head above the water when they swim. Underwater their nostrils are closed.

There are an estimated 40,000 polar bears in the Arctic. They usually give birth to twins each weighing about a pound. An adult can be 1400 pounds. When they hunt they are usually looking for baby seals resting in dens under the snow covering sea ice near the water's edge.