





EXPLORE!



Welcome to “WWF Explore”, a free poster resource for youth groups and young people. Each issue features one key species with news, fascinating facts and great activities to help your group members earn a special badge. This edition looks at polar bears, and how you can help safeguard their future.

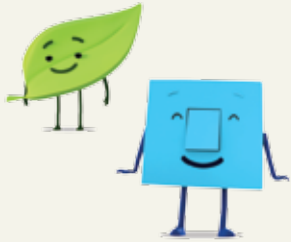


XXXXXX ©

CALLING BUDDING GREEN CHAMPIONS!

Green Ambassadors for Youth – or GA4Youth – is a fantastic new programme to help 5-14s get informed, get involved and get sharing on six topical green issues. Designed with the help of over 100 leaders, it offers six themed activity sets, a suite of posters to help you plan your green journey, and a badge scheme to reward young people for their achievements.

Sign up at wwf.org.uk/greenambassadors4youth



All our resources are accompanied by a badge. Find out more at wwf.org.uk/ygresources

DID YOU KNOW?

- Polar bears are fantastic swimmers - some have been tracked swimming non-stop for over 60 miles.
- Despite their impressive size, polar bears have pretty small tails – just 7-12cm long.
- The only parts of a polar bear not covered with fur are their nose tips and paw pads.
- Polar bears are speedy when they need to be, and can run at 25mph for short distances, usually while charging prey or being chased.
- There are 20-25,000 polar bears, in various population pockets, remaining in the Arctic.



XXXXXX ©

POLAR BEARS

- perfectly adapted to a freezing life

Polar bears are perfectly suited to their environment – from their furry, anti-slip feet to the tips of their small, heat-conserving ears.

FUR

thick, two-layered, and oily to repel water and prevent their coats from freezing. The fur looks white because the sunlight is reflected back down the hair-shaft to heat the skin. They moult every year, replacing their fur completely.

SKIN

black to soak up the sun's heat most efficiently. Under the skin, polar bears have a thick layer of fat, which insulates the animal when it's in the water.

EARS

very furry and smaller than other bears' so they retain the heat better and help keep the bear warm in winter temperatures of -30°C.

NOSE

the ultimate hunting tool in a landscape where most of the food is under the ice. Polar bears have an amazing sense of smell, and can smell a seal up to 1km away, even if it's under the ice. Their nostrils close when they're under water.

FEET

bigger than other bears' and work like snow-shoes, spreading the polar bear's weight evenly over the snow and ice. Non-retractable claws help grip on slippery surfaces; webbed toes act like flippers in the water.

SIZE

the biggest of all bear species. Males (boars), weigh up to 800kg - biggest recorded was 1002kg and 3.6m long. Females (sows) are much smaller, but a pregnant female can weigh up to 500kg.

DIET AND HUNTING

As top predators in the Arctic food chain, polar bears eat whatever they can. Their main food source is seals but walrus, narwhale, beluga whale, fish, birds, eggs – even other polar bears – are all on the menu too.

Polar bears need to eat about 2kg of fat each day – a large seal weighing 55kg would give a bear enough energy for a week. They have incredibly efficient metabolisms and can use 97% of all the fat they eat.

When they're really hungry, they can eat up to a fifth of their bodyweight – when you consider the weight of a fully grown boar is nearly 800kg, that's quite a meal.

Polar bears are superb hunters - vital for surviving in such freezing conditions. 'Still hunting' polar bears stake out a seal air-hole before pouncing on seals which poke their noses out to breathe. They'll also stalk seals basking on the ice and target 'nests' under the ice which they'll crash through to catch the pups.

HABITAT

Polar bears are found in the Arctic landscapes of Canada, Greenland, Norway's Svalbard archipelago, Russia and Alaska, and spend most of the time on, or near the edge of Arctic sea ice – the best place for hunting.



THREATS

Climate change: Today, climate change is the most serious threat to polar bears. The Arctic is warming roughly twice as fast as the global average, causing the ice that polar bears depend on to melt away.

The sea ice is melting earlier and forming later each year. Polar bears need the sea ice to hunt their main prey – seals. The reduction in sea ice means some bears are having to fast for longer – affecting their survival and breeding success.

Pollution: Toxic chemicals can pass through the food chain and accumulate in the body fat and tissue of predators: the further up the food chain, the more concentrations of toxic chemicals there are. Pollution brought by wind and water from other parts of the globe also affects them, as does development from the oil and gas industries which can damage or destroy habitat.



BREEDING

Female polar bears can breed at three years old – males mature later and have to compete for a mate so most won't breed until they are 10. As solitary animals with a vast territory range, finding a mate is an all-consuming occupation during the March to May breeding season.

Pregnant females need to put on around 200kg for a healthy litter and can delay implantation so the cubs are born at the right time of year for their best chance of survival. Females retreat to a den in the Autumn and give birth and nurse the cubs during the winter. Tiny and hairless at birth, cubs weigh 450-680g (like four bananas) but the mother's fatty milk helps them gain weight quickly and they develop their fur and teeth in time to emerge from the den in March or April. The mother needs to regain weight fast by hunting in order to keep producing that all-important milk.



ACTIVITIES

POLAR BEAR 40:40

You can play this anywhere there's a bit of space – ideally the playground or park. One person is the polar bear – everyone else is a seal. "Home" is an imaginary breathing hole in the sea ice which the seals are trying to get to but the bear is guarding. The polar bear can only spend 10 seconds at "home" before having to leave to hunt elsewhere, which means some of those brave seals might just make it.

20 QUESTIONS

The group stand at the back of the hall and the leader calls out questions relating to sustainable behaviours. Each member who can answer positively, take a step forwards and the winner is the first person to reach the end of the hall. You could challenge the group to think of 100 things to do without using electricity in less than 5 minutes, then use these examples as your questions. For example, 'take a step forward if you'

- walked to school
- turned off the light as you left the room today
- cycled this week
- played a board game instead of a computer game
- re-used something so that energy wasn't used to replace it with something new

MELTING ICEBERGS GAME

Play this game like musical chairs, but replacing the seats with sheets of newspaper spread out on the floor, one sheet per member of the group. Explain that the sheets are icebergs and members are all polar bears. The group should run around the room pretending to swim in the cold water until the music stops, then they have to get to their iceberg. Take a sheet away each time until there is only one bear left. Discuss how our energy-hungry lifestyles use fossil fuels which contribute to climate change and how this, in turn, affects the home of the polar bear (see 'Why are polar bears under threat?' inside).

POLAR EXPLORERS

How do we humans compare to polar bears? What preparation, equipment and special skills would help you to be safe and survive an Arctic mission? Undertake your mission now by:

- Finding out about polar bears, what are their unique qualities which make them so well adapted to their icy habitat? What do they need to survive and what is threatening their existence?
- Build a shoe box model showing the polar bear in its habitat, how they hunt and what they need to survive
- Plan a trip to the Arctic. What would you need to survive, how would you keep warm, what would you eat? Find out about the Aurora Borealis.
- Sleep outdoors for a night with your pack/group/unit or small group. Try a tent or bivouac. Consider everything you would need to survive. How you would keep warm, what would you eat, how would you carry the equipment? (Remember that camping, residential and sleepovers should follow your own organisations safely rules)



FANCY ADOPTING A POLAR BEAR?

Polar bears aren't easy to protect because they range over such a vast and hostile area on both land and sea. But by tracking them we can gain valuable insights into their lives and see how they're adapting to a changing climate. By adopting a polar bear, you can help fund that research and support our wider work to keep the Arctic environment healthy. When you adopt, you'll hear news of the polar bears – when cubs are born, where they're travelling and what they're eating. You'll also hear – first hand – about the information which makes our research so important.

Go to wwf.org.uk/polarbearadopt to find out more.



Why we are here

To stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature.

wwf.org.uk