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What's dangerous

Cold places can be very beautiful, but they're often very dangerous too. To begin with, you need to be careful of the animals. For instance, polar bears don't usually attack people. But **global warming** is causing the **ice cap** in the Arctic to **melt**. This has made it more difficult for polar bears to find enough food, and a hungry polar bear can be very dangerous. To him, a person looks like a good dinner. Polar bears can run at 40 kilometres per hour: that's about the same speed as **Usain Bolt!**



They can weigh as much as 700 kilos: that's equivalent to about four and a half sumo wrestlers! So... it's best to **STAY AWAY** from polar bears! Most other animals won't hurt you, but you'll need to be careful if they are injured, hungry, or have young animals with them.

A sunny day in the mountains is lovely... until you hear the sound of an **AVALANCHE!** An avalanche happens when a lot of snow becomes **loose** and starts to move down the side of a mountain. As it moves, the avalanche becomes bigger, heavier, and faster. The most frightening avalanches can move at more than 300 kilometres per hour: that's about eight times as fast as Usain Bolt! And they can kill. In the winter of 1950 to 1951, there were more than 640 avalanches in the Austrian and Swiss Alps. More than 200 people died, and hundreds of buildings were destroyed. People called this time the 'Winter of Terror'.

Ask about the danger of avalanches before you go out into the mountains. If you're unlucky enough to be in an avalanche, you should try to **roll** to the side of it. Hold on to a tree or a rock if you can. It's also a good idea to wear an avalanche beacon when you go out onto the snow. This sends a radio message to the **rescuers** if you're caught under the snow.

A crevasse is a deep crack or opening in the ice. Sometimes they are difficult to see, because they have a thin layer of snow over the top, and they may be many metres deep. You can jump across a small crevasse, but you may need a **ladder** to cross a big one.

When Ranulph Fiennes and Mike Stroud were in Antarctica, Stroud fell into a crevasse with his **sledge**. Luckily he landed on a snow **shelf** 6 metres down. He tied a **rope** round himself and threw it up to Fiennes, who tied it to his sledge. Stroud's sledge was too heavy to pull up from the crevasse. He had to take everything from the sledge and throw it up to Fiennes... one thing at a time! Then he climbed up out of the crevasse, and finally the two men pulled the sledge to the surface.



Impossible, but True! 1

In 1985 Joe Simpson was climbing in the Andes with his friend Simon Yates, when he fell and broke his leg. When they were coming down the mountain, Yates had to cut the rope that tied them together. Simpson fell 45 metres into a crevasse, and Yates thought he had died. But Simpson **managed** to get out of the crevasse. It then took him three days to get back to camp. He had no food, and could only walk on one leg. Luckily, he arrived at the camp just before Yates planned to leave. Doctors told Simpson that he would never climb again... but in fact he climbed for another twenty years after that. He has stopped climbing now though.

But one of the biggest dangers is **frostbite**. Very cold weather – or very cold wind – causes frostbite, usually in the parts of the body that are a long way from the heart, like hands, feet, ears, noses and lips. When the temperature is 0°C or lower, the body stops sending blood to these places, and they start to freeze. The skin may become white or red. If you can get to a warm place quickly, then frostbite probably won't do any real damage. But if you are out in cold temperatures for a long time and get frostbite, it can be **SERIOUS!** You could

permanently lose feeling in the part of the body affected and it might have to be amputated.

Many explorers and climbers get frostbite at some time or other. Ranulph Fiennes had to take off his left glove while he was walking to the North Pole. This caused serious frostbite. The tops of his fingers and the thumb on his left hand turned black. Fiennes got bored waiting for the doctors to amputate them... so he cut them off himself!

Impossible, but true! 2

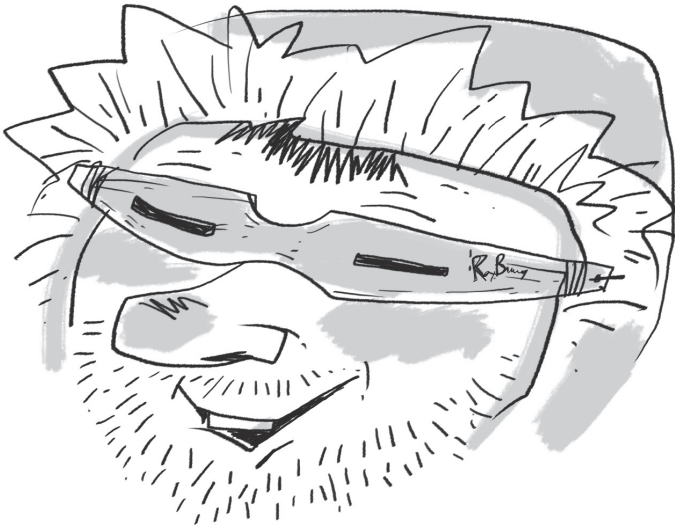
In May 1996, American climber Beck Weathers was in a terrible **blizzard** on Mount Everest. It was hard to breathe, and it was terribly cold. He had problems with his eyes too, and couldn't see very well. Weathers' body began to freeze, and he fell down. When another climber found him, he thought Weathers was dead.

But after 22 hours in the snow, he opened his eyes. His hands were frozen, and he could hardly see, but he walked hundreds of metres down the mountain to the camp. Weathers lost part of his hands, and his nose, but he survived.

Luckily there are things you can do to prevent frostbite. Good warm clothes and boots will help, so take your thermal pants and leave your bikini at home! It's also

a good idea to wear a number of different **layers** rather than just one thick layer of clothes. This helps you to stay warmer, because warm air stays between the layers of clothes. You need to stay dry too; wet clothes can freeze quickly. Hot food and drinks are also important.

In cold climates you also need to protect your eyes. In snowy or icy places, bright sunlight makes it difficult to see clearly, and can damage the eyes. Good sunglasses will stop this. The **Inuit** people, who live in the Arctic, knew about this problem and over 2 000 years ago they invented the first sunglasses. They were made from reindeer **antlers** or from wood, with long narrow hole across them. This protected the eyes from bright light, but still allowed the Inuit to see.



Glossary

advice: recommendation of what someone should do or say

agony aunt: person who replies to letters about readers' problems in a magazine or newspaper

antler: horn of a deer

Arctic Circle: parallel of latitude at 66° 33' N

auk: any of several types of birds belonging to the Alcidae family, for example puffins

berry: small fruit that doesn't have a stone, such as strawberries or raspberries

blizzard: snow-storm

bring down: cause something to fall to the ground

bump: move up and down in an irregular way

butcher: person who sells meat

crowd: large number of people concentrated in a place

crush: destroy something using pressure

drown: cause death or die by submersion in water

food processor: kitchen appliance that mixes, chops and liquidises food

frame: supporting structure

frostbite: condition caused by extreme cold that affects the skin and nearby tissue

frying pan: pan in which food is fried or sauteed

fur: animal hair

get on (with somebody): have a good relationship

get used to: become accustomed to something
global warming: gradual increase in atmospheric and sea temperatures
grind: turn something into powder by crushing it
grip: hold on to something
hare: animal similar to a rabbit, but usually bigger in size
huge: enormous, very big
hunt: look for or chase animals in order to kill and eat them
hut: basic type of building, often made of wood
ice cap: covering of ice that exists in the North and South Poles
Inuit: modern name for people that used to be called Eskimos
itchy: irritates the skin
keep (well): maintain itself in a good condition, not go off
killer whale: common name for the orca whale
ladder: portable steps that allow a person to go up, down or across something
last (vb.): continue to exist
layer: one of several materials located on top of one other
leather: animal skin used as a material
load: things carried by a person or vehicle
loose: not attached, free to move
mainland: principal part of a country, not an island
manage: do something successfully despite difficulty
melt: use heat to make a solid become liquid; become liquid

musk ox (pl. oxen): large ruminant found in the tundra of northern Canada and Greenland

paw: hand or foot of a mammal

pocket: small space

pole: long, narrow piece of wood, metal or plastic

powder: solid substance that consists of small particles

puffin: type of bird found in the Arctic and North Atlantic coasts; member of the Alcidae family

queue: line of people waiting for something

range: group or line of mountains

raw: not cooked

rescuer: person whose job is to rescue

roll: move on the ground by turning over and over

rope: thick strong cord

sea-gull: common type of sea-bird

seal: type of aquatic mammal that has flippers

seaweed: marine plant

sew: join pieces of fabric together using a needle and thread

shelf: thin, horizontal projection

sink: submerge

sledge: vehicle used for travelling on ice and snow, often pulled by huskies

smelly: describes something that smells bad

spike: sharp, pointed piece of metal or wood

spread out: disperse over a wider area

starvation: death caused by lack of food

steel: hard mixture of iron and carbon

stoat: small, carnivorous animal found in northern countries

stove: appliance used for cooking and/or heating

strip: narrow piece of something

sweat (vb.): excrete liquid through the skin to cool the body

tent: portable shelter used for camping

tepee: type of tent traditionally used by North American Indians

tern: group of sea-birds of a similar type to sea-gulls

walrus: type of marine mammal that has tusks and is found in the Arctic

withstand: resist or endure something

woollen: made of wool

While reading activities

Read the introduction. Find the mistake in each sentence and correct it.

- a) Around the North Pole there is a huge sheet of glass.
- b) Finland is an Antarctic country.
- c) Antarctica is three times colder than the other continents.
- d) It doesn't snow very often in Antarctica.
- e) Ten of the world's one hundred highest mountains haven't been climbed yet.
- f) On Mount Everest there can be long queues to use the toilet.

1. Read chapter 1. Decide if these sentences are true or false, and correct the false sentences.

- a) Reindeer can find things to eat under the snow even if they can't see them.
- b) You have to cook reindeer meat before you can eat it.
- c) In cold places it's normal to eat a lot of food that isn't cooked.
- d) Scurvy makes your hair fall out.
- e) Pemmican is made from dried fish.
- f) People take chocolate to cold places because it makes them happy.
- g) You shouldn't eat snow if you are thirsty.
- h) People don't wash very much in cold places because the water is too cold.

2. Read chapter 2. Then complete the sentences using these words (there are more words than you need!): *battery, cover, dry, feathers, freeze, shake, soft, stays, sweat, temperature, thickest, thinnest*

- a) Woollen clothes can be uncomfortable because you _____ in them.
- b) The clothes found in Greenland still had _____ on them.
- c) Fur clothes are good because warm air _____ between the fine hairs.
- d) It's easy to _____ a piece of snow or ice off fur.
- e) Sealskin boots are good at keeping your feet _____.
- f) If you want to change your body _____, walk faster or slower.
- g) The _____ layer of clothes goes next to your body.
- h) If you're feeling cold, you need to _____ your head.
- i) The latest jackets have a _____ to heat your hands and feet.

3. Read chapter 3. Then match these words with the definitions:

ice road, icebreaker, kayak, sledge, snowmobile, snowshoe, spike

- a) A small machine with a motor and skis underneath that you can ride on.
- b) A very strong ship that can push through ice.
- c) Something sharp that helps your boots to grip the ice.
- d) A way across the ice that you can use in winter.
- e) An open box that can be pulled across the snow.
- f) A narrow boat with a cover that one person can use.
- g) Something made of wood, metal or plastic that lets you spread your weight across the snow when you walk.

4. Read chapter 4. Then choose the correct word to complete these sentences.

- a) Modern tents are not as *heavy/light* as older ones.
- b) Without a good sleeping bag, you *will/won't* sleep well.
- c) A balok travels on top *of/under* a sledge.
- d) The Nenets do their cooking inside a *chum/tepee*.
- e) To make an igloo you have to *cut/melt* blocks of ice.
- f) There are *more/less* people who know how to make igloos now than there used to be.
- g) Many people *like/don't like* the buildings in Antarctica because they can't see outside.
- h) Ice hotels last for a few *months/years*.

5. Read chapter 5. Then choose the correct answer to complete these sentences.

- a) In cold climates, a red coat is the best choice for _____.
i) a wolf ii) a hare iii) a person

- b) The safest place for young musk oxen is _____ the biggest animals.
i) behind ii) under iii) in front of

- c) You find blubber under the skin of _____.
i) an eider duck ii) a whale iii) a person

- d) Giant petrels don't eat _____.
i) dead people ii) dead penguins iii) dead whales

- e) In the middle of June in Antarctica, it is _____.
_____.
i) dark all the time ii) light all the time iii) hot all the time

6. Read chapter 6. Then match the two parts of the sentences.

- a) A polar bear can travel...

- b) An avalanche can travel...
- c) If you're in an avalanche...
- d) If you come to a big crevasse...
- e) If your skin starts to freeze...
- f) If you lose the tops of your fingers to frostbite...

- i) get to a warm place quickly.
- ii) at 300 kilometres an hour.
- iii) a beacon can be helpful.
- iv) as fast as Usain Bolt
- v) don't cut them off yourself!
- vi) a ladder can be helpful.

7. Read chapter 7. Are these sentences true or false? Rewrite the false ones with the correct information.

- a) Five of Franklin's men died in Greenland.
- b) People searching for Franklin's expedition learned a lot about Canada's northern coast.
- c) Messner got used to the thin air on the mountain before he began his climb.
- d) Messner started seeing people who weren't there.
- e) The suit that Borge Ousland wore was waterproof.
- f) At the North Pole Ousland joined a group of explorers.
- g) Gulli has more fat under his skin than most people, but less than a seal.
- h) Gulli swam back out to sea because he couldn't see the lights of the town.

8. Read chapter 8. Choose the right word to complete each sentence.

below, fierce, icebergs, lasers, marathon, parachute, water, wedding

- a) Whales blow _____ through their blowholes.
- b) Polar bears are very strong, but they aren't always _____.

- c) _____ come in many different colours and shapes.
- d) Most of an iceberg is _____ the water.
- e) People use _____ to make the snow sculptures look more exciting.
- f) Borge Ousland and Hege had the first _____ at the North Pole.
- g) The only place where you can run a _____ on water is the North Pole.
- h) Johnny Strange is the youngest person to arrive at the North Pole by _____.

9) Read the afterword. Then choose the correct word to complete these sentences.

- a) One hundred years ago, the polar ice was melting *faster/slower* than it is now.
- b) Melting ice is raising water levels in the *Arctic/whole world*.
- c) Antarctica is in *danger/protected* from oil and gas exploration
- d) If you die on Mount Everest, your body *may/must* be left there.
- e) If you want to land on Antarctica, you need to go there in a *big/small* ship.
- f) Sometimes visitors leave *creatures/rubbish* on Antarctica without knowing it.
- g) Films about cold places can show you *things/cities* that you could never normally see.

