



Animals in the cold

Climate

time

45 minutes.

learning outcomes

To:

- know there are different sorts of weather
- know the characteristics of animals living in a cold environment

materials needed

- photographs of penguin and polar bear (Appendix)
- Vaseline
- water
- scissors
- colouring pencils
- optional: the book *The Snowman* by Raymond Briggs

Preparation

For the activity **How do animals keep themselves warm?** you will need the photographs of the penguin and polar bear from the Appendix.



Types of weather 10 min.

Ask the children what kinds of weather they know. Talk about sunny weather, rain, and snow. Explain that some kinds of weather occur more often in some places in the world. Some places get lots of rain, while other places are very dry. Some places are very hot and others very cold.

At the North and South Pole, for example, it is often extremely cold. Do they know any films (cartoon films) about the North or South Pole? What do the children know about these places on Earth?



The children find out how animals that live in cold places keep themselves warm.



How do animals keep themselves warm? 30 min.

Ask whether the children know of any animals that live in cold places. Show them the photographs of the polar bear and the penguin. What are these animals called? How do the penguin and the polar bear keep themselves warm? Discuss the ideas put forward by the children.

Explain that the animals have a thick layer of fat under their skin to keep themselves warm. However, the areas where the polar bears and the penguins live are so cold that this thick layer of fat is not enough. That's why the polar bear also has a thick coat of fur and the penguin has a thick layer of feathers.

Question: 'What do people do when they feel cold?' People put on an extra jumper or a thick coat. Polar bears and penguins don't put on a coat. Their fur and feathers act like a kind of coat that they are always wearing.

Tip. Read some stories about cold weather (for example *The Snowman* by Raymond Briggs).

Good to know.

The skin of the polar bear is black, because dark colours absorb more light and heat than lighter ones.



The penguin's feathers and the polar bear's fur are also covered in a layer of grease to repel water. Rub Vaseline on one of each child's hands. Now the children also have a greasy layer on their skin. Drip some water on this hand.

What happens to the water?

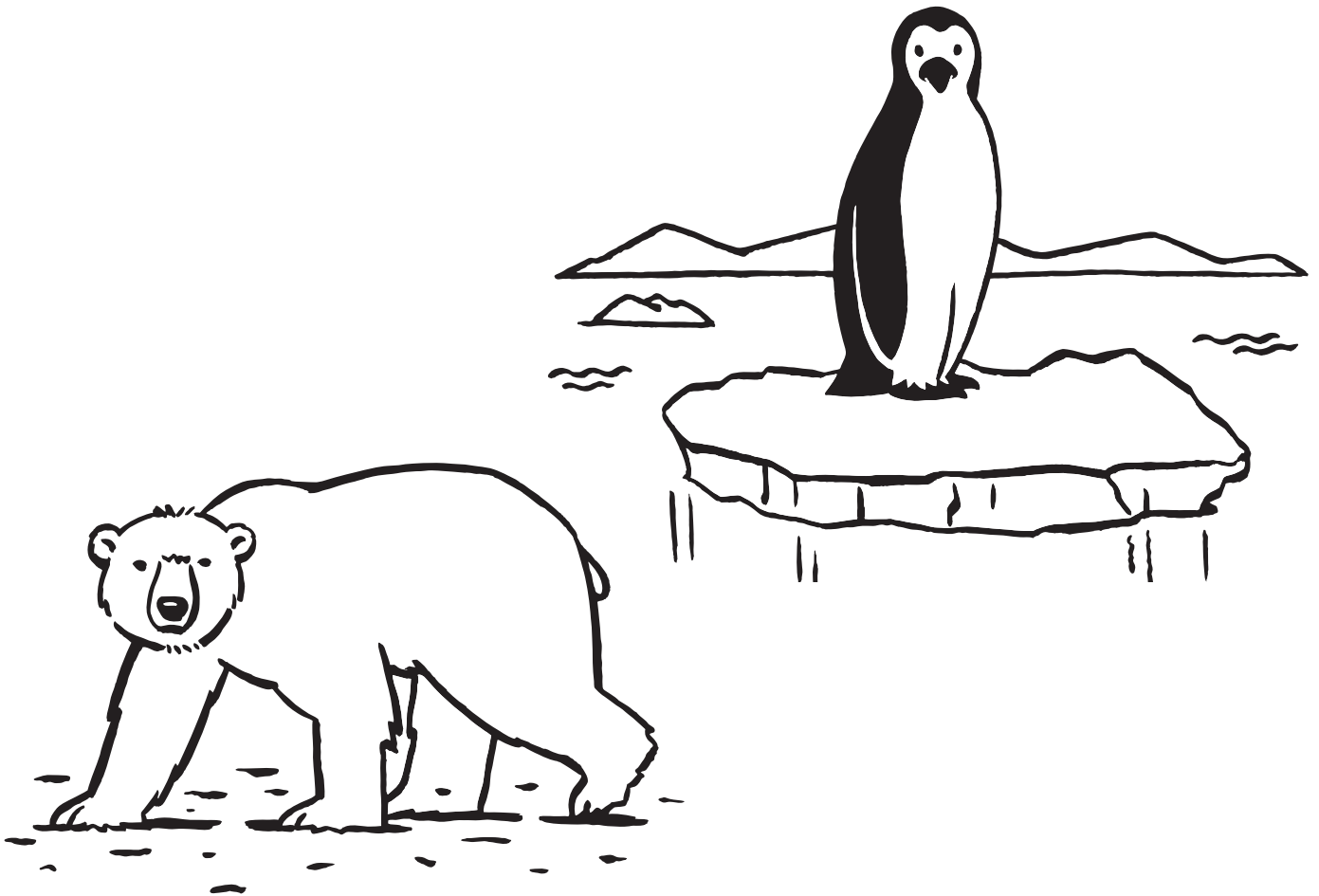
Come to the conclusion that the water rolls off the hand with the greasy layer.

Discuss with the children what they have learned. Come to the conclusion that the penguin and the polar bear have three ways to keep themselves warm: a thick coat of fur or feathers, a thick layer of fat under their skin, and a greasy layer on their fur or feathers. Explain that the animals have adapted to the conditions that they live in.



White animals 5 min.

Show the children the photographs of the animals again. What do they notice? Explain that the animals that live at the North and South Poles are often white, like the polar bear. This means they don't stand out in the snow which helps them to hunt unseen. Penguins have a black back and a white front. So when they are swimming in the dark water they cannot be seen from above. And looking from underneath their white front blends in with the colour of the sky. This makes it harder to catch them.





Penguin and polar bear • LESSON 7