

Cool Winter Coats



BRRR! IS IT COLD where you live? In northern countries, January is one of the coldest months of the year. We need to keep ourselves warm when we go outside. How do you keep warm in the winter? Maybe you wear a sweater or a winter coat. Perhaps you like to sip hot chocolate by a warm fireplace. But how do animals keep themselves warm?

Polar Bears

Do polar bears wear fur coats? A polar bear's coat is between 2.5 and 5 centimeters (about 1 to 2 inches) thick. This helps them stay warm. These large seal hunters also have at least 10 centimeters (3.9 inches) of blubber (fat) under their skin that helps them stay even warmer. A polar bear's skin underneath its fur is black, which helps keep the bear warm by absorbing heat from the sun.

Arctic Foxes

Arctic foxes also have thick fur that keeps them warm. These playful creatures are known to burrow in snow, creating tunnels that keep them insulated (protected) from the cold. They can stay warm in temperatures as low as -58 degrees Fahrenheit (-50 degrees Celsius)!

Snowy Owls

Snowy owls are swift birds with thick, white feathers that keep them warm in the icy winds of the Arctic. Male snowy owls are almost completely white, while female snowy owls have white feathers with gray speckles. These thick feathers make snowy owls one of the heaviest owls in North America, weighing from three to six pounds (about 1.3 to 2.7 kilograms).

Orcas

Orcas spend their lives swimming in the chilly waters of the Arctic and

Antarctic oceans. They have a thick layer of blubber under their skin to keep warm. Mammals lose heat when they exhale, but orcas are able to save their body heat by breathing less.

God of Winter Wonders

Isn't it amazing that God created icy cold weather? The book of Job talks about the greatness of God's winter creation: "The breath of God produces ice, and the broad waters become frozen" (Job 37:10). As you put on your winter coat today, remember to give praise to the God of winter wonders, who wraps creation in the warmth of God's love!

Science Experiment—Feel the Blubber!

If you have ever wondered how blubber is used to keep animals warm in the cold, try this activity!

You will need:

- Lard or shortening
- Latex gloves
- A tub of ice or snow
- A stopwatch

Step 1:

Place your bare hand in a tub of ice and see how long you can keep it in the tub before your hand becomes too cold. Brrr! Record how many seconds you kept your hand in the tub.

Step 2:

Put your other hand in a latex glove and coat that hand with lard or shortening. Put your hand with the shortening in the tub of ice (add more ice if you need to). Use the stopwatch to record how long you can keep your hand in the tub of ice. Did you notice a difference? How is the shortening similar to how animals keep warm using their body fat? **B**



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