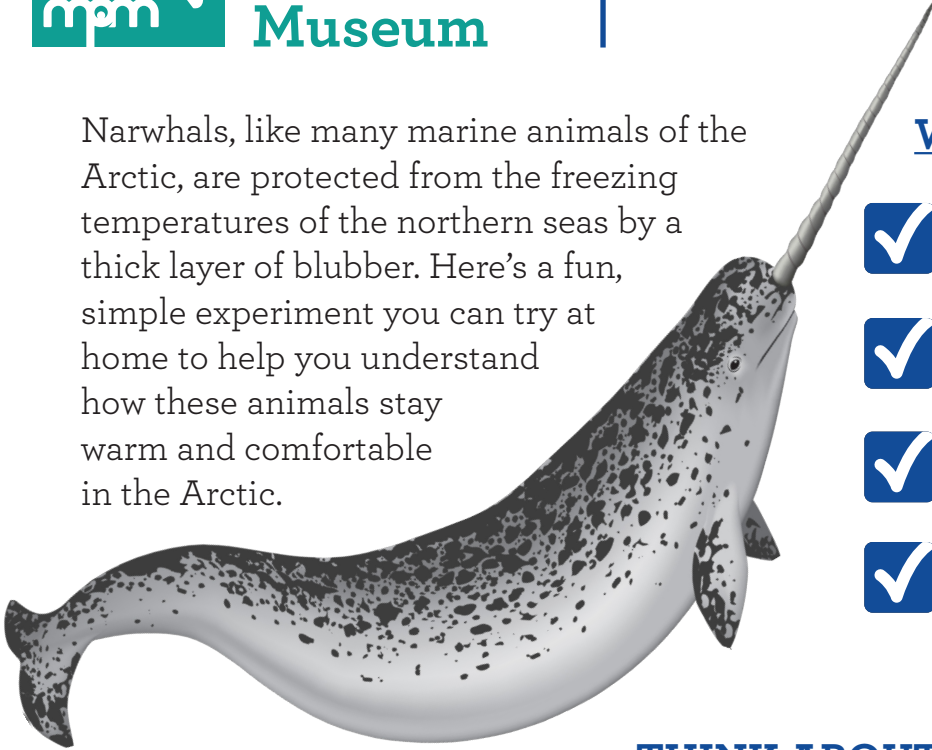


BLUBBER GLOVES

Narwhals, like many marine animals of the Arctic, are protected from the freezing temperatures of the northern seas by a thick layer of blubber. Here's a fun, simple experiment you can try at home to help you understand how these animals stay warm and comfortable in the Arctic.



Created by Smithsonian's National Museum of Natural History, Washington, D.C.

WHAT YOU'LL NEED:

- ✓ Big and small plastic baggies that are the locking kind
- ✓ Shortening
- ✓ Rubber spatula or spoon
- ✓ Duct tape
- ✓ Cold water
- ✓ Ice
- ✓ Paper towels
- ✓ 2 buckets or big bowls

THINK ABOUT...

- What is blubber?
- Do you know why Arctic animals have blubber?
- Do you want to see how blubber works for yourself?

DIRECTIONS:

- 1** Fill both buckets or bowls with **ICE COLD** water.
- 2** Fill a large baggie with shortening and seal it, leaving an opening for the small baggie to be inserted.
- 3** Insert the small baggie into the large baggie and duct tape them together, keeping an opening for participants to put their hand inside the small baggie. (They should not be able to touch the actual shortening.)
NOTE: It would be a good idea to have a few premade blubber bags ready to go.
- 4** Have participants put one hand in the blubber baggies.
- 5** Then, have participants dunk both hands in the ice water (one with the blubber baggie, one without).
- 6** Have the participants explain what they feel on both hands.
Which one was warmer?

HOW BLUBBER WORKS

Blubber is a thick layer of fat, also called adipose tissue, directly under the skin of all marine mammals. It covers the entire body of animals such as seals, whales, and walruses—except for their fins, flippers, and flukes.

Blubber is an important part of a marine mammal's anatomy. It stores energy, insulates heat, and increases buoyancy.

Blubber is a way for Arctic animals to stay warm in frigid temperatures. Narwhal blubber can be up to six inches thick, but some animals have even more blubber, like the right whale, which can be up to 12 inches! Without blubber, narwhals would not be able to survive in the freezing temperatures of Arctic waters.

Photo: Glenn Williams, Narwhal Tusk Research



Photo: Ansgar Walk, 2002



IMPORTANCE

Blubber is also important to the Inuit people. They use narwhal blubber as a source of vital nutrients in the winter when food is scarce. In fact, the Inuit are the only people that can legally hunt narwhals because of how vital the blubber is to their survival and culture.

Two Inuit women eating whale blubber.

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