

NARWHAL

REVEALING AN ARCTIC LEGEND

Activity for Students and Families

Blubber Gloves

Created and field tested by: Smithsonian's National Museum of Natural History

Purpose: Show participants the texture and purpose of blubber. Since narwhals live in one of the coldest places on earth, they need something to protect them from the harsh elements in the Arctic.

Target Ages: Multigenerational and student groups

Content Standards: *NGSS*

MS-LS4-2. Apply scientific ideas to construct an explanation for the anatomical similarities and differences among modern organisms and between modern and fossil organisms to infer evolutionary relationships.

3-LS4-2. Use evidence to construct an explanation for how the variations in characteristics among individuals of the same species may provide advantages in surviving, finding mates, and reproducing.

Goals: In this activity, participants will:

- Be introduced to the importance of blubber in Arctic mammals
- Understand how blubber helps narwhals live in the cold Arctic waters
- Understand why blubber is an important source of food for Inuit people

Materials:

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

Script:



Before beginning the activity, ask:

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

Procedure:

- Fill both buckets or bowls with ICE COLD water.
- Fill a large baggie with shortening and seal it, leaving an opening for the small baggie to be inserted.
- 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 advantageous to have a few premade blubber bags ready to go. Recreating a new blubber bag for each participant will become costly and take too much time for maximum participation.
- Have participants put one hand in the blubber baggies.
- Then, have participants dunk both hands in the ice water (one with the blubber baggie, one without).
- Have the participants explain what they feel on both hands. Which one was warmer?

Discuss with the participant what they experienced.

- Blubber is a way for Arctic animals to stay warm in frigid temperatures. Narwhal blubber can be up to 6-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.
- 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 and expensive. The Inuit are the only people that can legally hunt narwhals because of how vital the blubber is to their survival and culture.