

BUNDLED UP WITH BLUBBER

BACKGROUND

Blubber is a specialized type of fat found in marine mammals such as whales, seals, and walruses. These animals are warm blooded like we are, but they have to adapt to living in ocean temperatures that can get as low as -2 degrees Celsius!



Blubber is more dense than fat. Blubber is composed of a mix of lipids and collagen fibers. Collagen is the protein found in bones, skin, hair, and fingernails! Blubber has more blood vessels than regular fat, and the layer of blubber is very thick.



The thick layer of blubber that most marine mammals have not only keeps them warm, but it also serves as a food reserve if the animal can't find enough to eat. Blubber even helps animals float in the ocean!



MATERIALS

- 2 plastic bags (quart sized or larger)
- Duct tape
- Shortening
- Spoon
- Optional: styrofoam packing peanuts, cotton balls, feathers
- Large bowl
- Ice
- Water
- Towel



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PROCEDURE

Step 1 - Layout your towel or puppy pad and prepare your ice water in the large bowl. Use at least 1-2 trays of ice if you have enough, and add 1-2 liters of cold water so that your ice doesn't all melt. If you have a thermometer, you can take the temperature of your ice water.

Step 2 - Spoon two cups of shortening into one of the bags. You can use the side of the bag to wipe the shortening out of the spoon.

Step 3 - Place the second bag into the first bag. While keeping one hand inside the inner bag, use your other (outside) hand to smooch the shortening in between the two bags into a thin, even layer.

Step 4 - Once you have the shortening spread evenly between the two bags, fold the top of the inner bag out and over the top of the outer bag. Use duct tape to seal the bags together. Your blubber glove is now ready!



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PROCEDURE

Step 5 - Before testing how well the blubber glove works, you should see how long you can keep your bare hand in the ice water. Place your hand in the ice water bowl and time yourself!

Step 6 - Next dry off your hand (or use your other hand) and place it inside the blubber glove. Push your hand with the glove into the ice water, but be careful to keep the top edge of the glove above the surface so it doesn't fill with water.

Step 7 - Start a timer and see how long it takes for your hand to feel the cold ice water through your blubber glove. How much longer could you keep your hand in the ice water wearing the blubber glove?



The Importance of Blubber

Thick layer
of fat for
warmth

Food
reserve

Buoyancy
in water

