



Blubber Mitten Experiment

Hi Owls! Here's a fun experiment. I did this experiment one summer when I was a camp counselor, and I can tell you that it's extra fun to do it outside in warm weather! This experiment will show you how penguins stay warm when they're in cold water. Like some other animals that live in cold places, penguins have a layer of fat on their bodies. It's called blubber! You'll use vegetable shortening, another kind of fat, to cover your hand in a layer of "blubber" just like a penguin's body.

Here is what you need for this experiment:

- Vegetable shortening (I used Crisco)
- Two sandwich- or quart-size zip lock bags
- Duct tape
- Container of ice water (make it very VERY cold!)

Step 1: Fill a zip lock bag with a big scoop of shortening.

Step 2: Put another zip lock bag inside the shortening (that's where your hand will go!)

Step 3: Fold the tops of the bags together and tape them together to create a seal (I have skipped this step, and it's fine, but it will make more of a mess!)

Step 4: Spread the shortening around the bag by squishing it gently with your fingers until there's blubber covering the whole bag

Step 5: Fill a wide bowl or container with cold water and add lots of ice. See how it feels to put your hands in the ice water.

Step 6: Dry off your hands. Put your hand inside the "blubber mitten," also known as your ziplock bags.

Step 7: Put your bagged-hand back into the ice water

Did it feel different this time?

Could you keep your hand in the water longer than without the blubber layer?

If you try this experiment at home, please send us an e-mail to share what you discovered!