



Blubber Experiment

Have you ever wondered how marine mammals are able to stay warm in the ocean? The ocean can be a very cold place but there are many animals that call it home! Animals like whales, seals, and dolphins have a layer of blubber that help them keep warm. This activity is going to show you how blubber works as an insulator to allow animals to survive in the cold temperatures of the ocean!

Materials

Large bowl
Water
Ice

Ziploc sandwich bags
Vegetable shortening
Spatula

Step 1

Fill your large bowl with ice and cold water.

Step 2

Turn the ziplock bag inside out, and place it on your hand. Use the spatula to cover both sides of the bag in vegetable shortening.





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Step 3

Place the bag with shortening on the outside inside another bag.

Step 4

Place your hand that is inside the bag in the bowl of ice cold water. Notice the temperature of your hand. Try placing your other hand in the water with no bag.



Which hand feels colder?

BUT WHY??

The fat molecules in the shortening act like an insulator, just like blubber in a marine mammal! Insulation slows the transfer of heat, keeping the animal warm in very low temperatures.

