

Blubber in Sea Mammals

Section: The Chemistry of Earth & Life Sciences

Name: _____

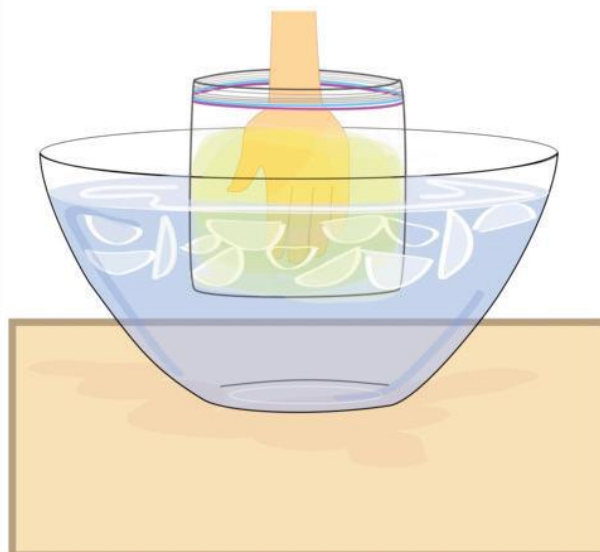
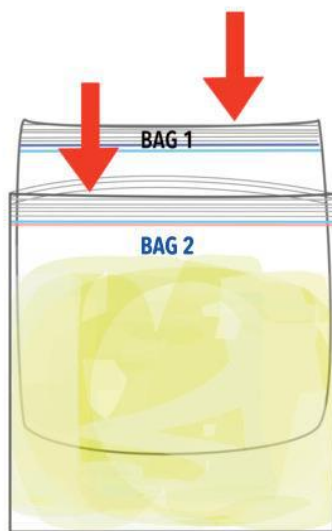
Date: _____

Inquiry Question

Write down what you'll be learning today! What do you want to understand?

Procedure

1. Fill the bucket or bowl with ice and water.
2. Fill a plastic bag halfway with vegetable shortening.
3. Take a second plastic bag and turn it inside out. Place it inside the bag with shortening and connect the two seams. This should allow a student to put their hand in the now double-walled bag without touching the shortening directly. (If this is too messy, try sealing the two bags together with a layer of duct tape along the top.)
4. Have a student place one hand in an empty plastic bag, and the other in the double-walled shortening bag. Place both hands with the bags over them into the ice water for a few seconds.
5. Take the temperature of the inside of each bag by placing the bulb of the thermometer at the bottom of the bags one at a time. Wait a few minutes and record the temperature. Repeat for the other bag.



Observations, Data Collection & Analysis

Write down your observations below.

1. Describe the appearance of the vegetable shortening. What physical properties do you notice?

2. Describe the feeling inside each bag. Are they the same or different? How?

3. Record the temperature (in °C) for each bag. Does this support what you noticed when you put your hands in the bags?

| | Temperature in Regular Bag | Temperature in Blubber Bag |
|---------------|----------------------------|----------------------------|
| Your data | | |
| Class average | | |

4. How is the vegetable shortening similar to blubber?
