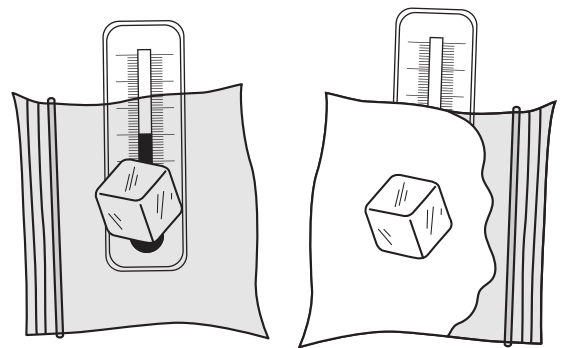


Fat and Fur

How well do fat and fur keep out heat? Try this!

1. Place a stick of butter inside a quart-sized plastic bag. Allow it to come to room temperature. Gently squish the butter so it makes a thick layer.
2. Place two thermometers side-by-side on a desk. Record the temperature of each on the chart below.
3. Place the butter-filled bag on top of one thermometer. Place an empty bag on top of the other.
4. Position an ice cube on each bag at the bottom end of the thermometer, as shown.
5. **Butter is 4/5 fat. Predict:** Will this layer of fat protect the thermometer from the chilling effects of an ice cube?



6. After 5 minutes, record the temperature of each thermometer on the chart below.
7. Allow both thermometers to return to room temperature. Place model "fur" inside a plastic bag. Repeat Steps 2–6, testing the fur instead of the butter.
8. Does fat help keep an animal warm or help it cool off? How about fur?

Time	Temperature (no fat)	Temperature (with fat)	Temperature (no fur)	Temperature (with fur)
Start				
5 minutes				

Materials

- ★ 1 stick of butter
- ★ 3 zip-top quart-sized plastic bags
- ★ 2 thermometers
- ★ model "fur" (like yarn or fuzzy fabric)
- ★ 4 ice cubes