

Hibernating Animals

Collect

- 2 Paper cups
- Water
- Maple syrup
- Plastic wrap

Chill it!

1. Fill one cup about 1/3 full with water.
2. Fill the other cup about 1/3 full with syrup.
3. Cover both cups with plastic wrap.
4. Place both cups in the freezer overnight.

Pour it!

5. Remove the cups from the freezer.
6. Hold each up over a plate or the sink and try to pour out the contents of the cups.

What happened?

During hibernation, animals lower their heart rate and their body temperatures in order to conserve energy during cold months. Why doesn't a hibernating animal's blood freeze at these cooler temperatures? Their blood contains a chemical called glucose, a type of sugar, which acts like a natural anti-freeze. Just like the sugar in the syrup, the glucose lowers the freezing point of the liquid and keeps it from freezing.

