

Ice Cube Insulation

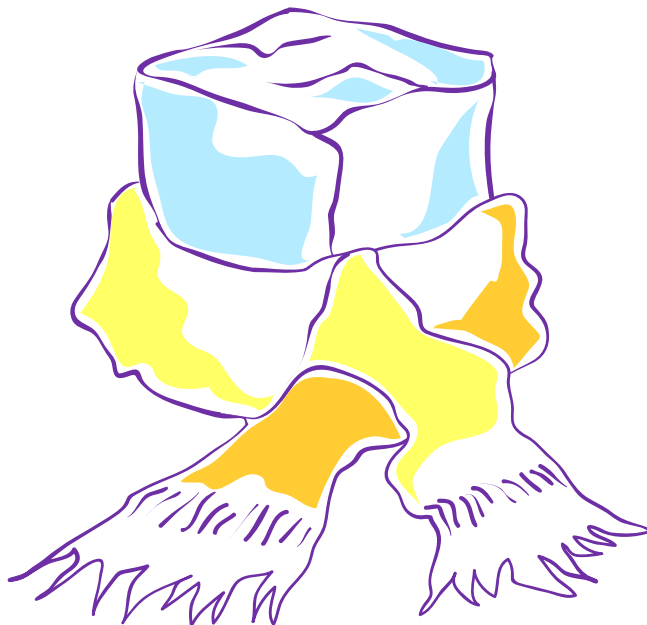
WHAT MATERIALS DO A GOOD JOB OF INSULATION?

When it's cold outside, we want our homes, schools and businesses to be warm inside. But when it's a hot summer day, we want to stay cool. Good insulation can help keep us comfortable in any weather and save money on air conditioning and heating bills.

See how long you can keep your ice cube well insulated and frozen.

TRY THIS

1. A few days before you want to do the experiment, ask your students to make an insulated container big enough to store an ice cube in a small cup or baggy, and bring it to school. Store-bought coolers are not allowed!
2. Ask the students to show their container, and explain why they chose the material they used.
3. Give students an ice cube in the baggy or cup, and have them close it up in their container.
4. After half an hour, ask them to peek quickly to see if their ice cube is still whole, or if it has begun to melt.
5. Do similar checks at intervals throughout the day.
6. If more than one student still has ice at the end of the day, you can ask them each to pour the water into a measuring cup to see whose melted more.
7. Discuss with the class which materials were the best insulators.



THINGS YOU NEED

- One ice cube per student, all the same size
- Student-made containers
- One plastic baggy or small plastic cup per student
- Measuring cup

POWER WORDS

Insulation is material used in ceilings and walls to prevent the loss of heat. It works like a blanket – by trapping air.

WHAT DO YOU THINK?

What if you had two containers made of the same material, but one had a crack or leak? What effect would that have on the ice cube?

How does insulation save money?

What else can we do to help keep us warm in the winter and cool in the summer?