

One More Idea: It Goes Both Ways

REVEAL AT REVIEW

10 MIN

FREEZER

The point

When the ice melted, it wasn't gone for good. Here is one more idea: the door swings **both ways**. Heat turns ice to water — and taking the heat back away turns the water into ice again. **Same stuff, back and forth, as many times as you like.** Melting is not a one-way street.

Do it

- 1 Melt an ice cube on a saucer — watch it become a puddle.
- 2 Pour the puddle into an ice tray and put it in the freezer.
- 3 Check after the lesson: the water is an ice cube again.
- 4 Ask: “Is it the same water?” Yes — nothing was lost, nothing was added. Only the **heat** came and went.

Say: “Heat in — it melts. Heat out — it freezes. The water never stops being water.”

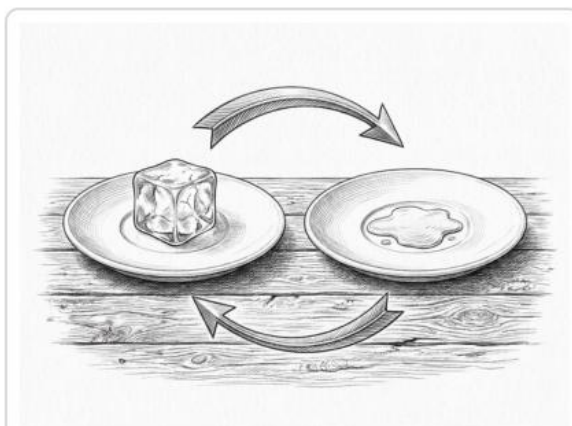


Fig. 1 — melt one way, freeze back the other — the same water both times

What to watch for

- The click that the puddle and the cube are **the same water**
- Kids asking whether *boiled* water can come back too — hold that thought!

A PEEK AHEAD

WATER THAT BOILS AWAY INTO INVISIBLE GAS **ALSO COMES BACK** — AS FOG, DEW, AND RAIN. THAT ROUND TRIP IS A WHOLE LESSON OF ITS OWN, COMING SOON.