

Same-Size Cube Line-Up

KIDS HANDS-ON

RUN AT 10:40

20 MIN

The point

Every cube is exactly the same size and shape — so every difference the kids feel **must come from the material alone.**

Materials

- Same-size density cube set (wood, aluminium, copper, brass, acrylic, PVC...)
- Materials sample card set (wood, metal, cork, rubber, leather swatches) as a reference row
- A towel to work on (stops rolling)

Steps

- 1 Pass the cubes: “Same size, same shape — so anything different is the MATERIAL talking.”
- 2 Rank the cubes **heaviest** → **lightest** in a line.
- 3 Re-rank by **cold-touch**.
- 4 Re-rank by **tap-sound**.
- 5 Notice: **the metals cluster at the same end every time.**
- 6 **Guess each cube’s material**; check against the swatch row; re-test any disagreement.

Say: “The shape is the same, so the shape isn’t talking. Everything you feel is the MATERIAL talking.”

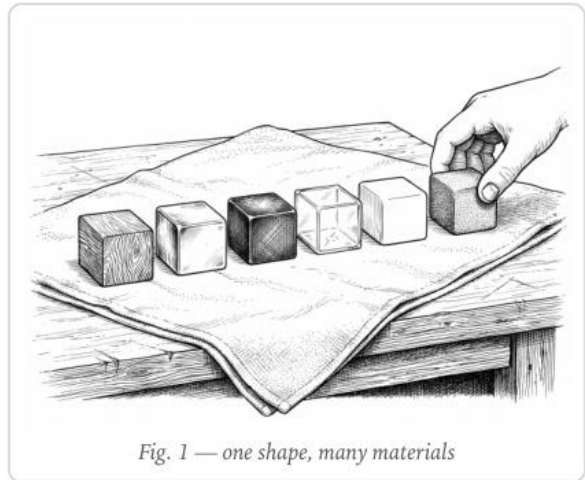


Fig. 1 — one shape, many materials

TEACHER PREP — THE MORNING OF

Lay the swatch cards in a labelled reference row on the towel; keep the cube set boxed until the activity starts.

What to watch for

- Astonishment at copper’s weight; wood drifting to the light end
- Heavy + cold + ringing travelling together (the metal cluster)
- A child claiming the metal cube “IS colder” — park it on the board for Card 5

EXPECTED RESULT

Same size does NOT mean same weight or feel — the material decides. (The sink/float and weight story becomes *density* in a later lesson.)