

Independent task · Choose from new results

Work on this record without returning to the model's design choice. You may show your thinking in prose, a labeled diagram, or an oral explanation that points to data.

Data I · Three separate trials use fresh 100 g samples starting at 11°C in a 23°C room. Cups, lids, exposure, 20-minute duration, and thermometer procedure match within and across trials. The table shows final readings, not a time series.

Final water temperatures after 20 minutes

Constructed teaching data: these values were invented for this activity, not collected in an experiment.

Trial	No sleeve: final °C	Sleeve C: final °C	Sleeve D: final °C
1	21	18	16
2	20	17	15
3	21	18	16

I1. Which sleeve is better supported for limiting warming under these conditions? Use at least two matched D-versus-C comparisons.

I2. What differs across the trials, and what pattern stays consistent? You may compare rows directly; a mean is not required.

I3. Explain why the water changed temperature and how the evidence supports your choice. State the direction of net energy transfer.

I4. A fictional student says, ‘Sleeve D cooled the water.’ Agree, disagree, or revise using the starting and final readings.

I5. State one useful conclusion and one question these records do not settle. Name information or a test that addresses that question.