

Cool-Water Supplied Data — Part 2: Reassess the Record

Student selection · Classroom copy · 6 October 2026

Open this selection only after your Part 1 proposal has been retained. This retest record belongs to the specified fictional redesign, not your own proposal. Keep awkward or changed records visible, use the concurrent reference, and explain what the supplied evidence supports and leaves uncertain. You may write, dictate to a recorder, or use a labeled sketch/table.

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supplied redesign/retest record

CONSTRUCTED FICTIONAL RECORDS. These belong to the specified fictional redesigned sleeve, not to a learner's unbuilt redesign.

Fictional redesigned sleeve: two 26 × 6 cm felt sheets, each 2 mm thick, 20 cm tape, footprint 9 cm diameter, height 8 cm; base/top/slot exposed. original sleeve reference: original single-sheet sleeve, unchanged. 150 mL each; identical cups/covers/probe placement; 60 s minimum response; fresh water and room-water reset each run. Day 2.

R1 original sleeve left/A, redesigned sleeve right/B; R2 original sleeve right/B, redesigned sleeve left/A; R3 original sleeve left/A, redesigned sleeve right/B. Fictional room/cool consistency readings before/after: same as Day 1. R2: a spill wet redesigned sleeve's outer sleeve near 2 min; retained, flagged. Teacher replaced it with identical dry material for R3, recorded rebuild; R3 is not an unchanged uninterrupted sequence.

constructed R1; reference original sleeve, prototype redesigned sleeve; dry.

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

Minute	Clock	Reference °C	Prototype °C	Room °C
0	10:00	13.0	13.1	22.0
5	10:05	14.2	14.1	—
10	10:10	15.3	15.0	22.1

constructed R2; WET-SLEEVE FLAG; retained.

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

Minute	Clock	Reference °C	Prototype °C	Room °C
0	10:20	13.0	13.0	22.1
5	10:25	14.3	14.5	—
10	10:30	15.4	15.7	22.2

constructed R3; rebuilt dry redesigned sleeve; change logged.

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

Minute	Clock	Reference °C	Prototype °C	Room °C
0	10:40	13.1	13.0	22.2
5	10:45	14.3	14.1	—
10	10:50	15.4	15.0	22.2

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reassess the redesign

Use your R1–R3 records or supplied redesign/retest record. Keep the wet/changed/missing records visible. Compare redesigned sleeve with concurrent original sleeve, using the rises for each pair.

1. List each reference rise, redesign rise, difference and flag. Does the evidence support improvement? What should happen to an awkward result?

2. Check the redesign's resource constraints. Write a revised claim and one exact next comparison.

evidence and explanation

1. Explain why a sleeve could slow warming without making the water colder or stopping all energy transfer. What can the temperature readings tell you?

2. Give two limits of your claim. Distinguish trial variation, display resolution and instrument accuracy.

3. Optional graph or table: represent one paired trial's 0/5/10-minute readings. Label units and run ID; mark any anomaly. Explain one pattern using the representation.
