

Reteach · Initial conditions and claim

Write a bounded warming comparison, then turn to the new conditions. Keep both records.

K5-D-B0 · Fresh 100 g;10°C start;22°C surroundings;20 min;matched L/N versions/cups/lids/exposure/procedure. Covered liquid water; no active heating/cooling, ice, phase change, direct sunlight or meaningful evaporative cooling. Room, cup, lid and supporting surfaces are at the stated surrounding temperature; it stays constant. Readings represent the sample temperature with a consistent procedure. This is a paper scenario, not apparatus instructions.

Initial matched comparison

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

Trial ID	Sleeve L final (°C)	Sleeve N final (°C)
B-1	15	18
B-2	16	19
B-3	15	18

K5-B1. Write the supported comparison and list the conditions that matter for a new comparison.

Reteach · Compare conditions before revising

K5-D-B1 · 22°C surroundings. Cups/lids/position/procedure match. Mass, start and duration differ between L and N and from B0. Covered liquid water; no active heating/cooling, ice, phase change, direct sunlight or meaningful evaporative cooling. Room, cup, lid and supporting surfaces are at the stated surrounding temperature; it stays constant. Readings represent the sample temperature with a consistent procedure. This is a paper scenario, not apparatus instructions.

A new comparison with changed conditions

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

Trial ID / setup	Mass (g)	Start (°C)	Time (min)	Final (°C)
B-4 / L	80	12	20	18
B-4 / N	160	10	10	13
B-5 / L	80	12	20	19
B-5 / N	160	10	10	14

Fictional response: “Pool every endpoint; N is now better, so cross out the first conclusion.”

K5-B2. Find the changes and identify relevant condition differences. What can be described? What cannot be attributed to sleeve design alone? Evaluate the fictional response.

K5-B3. Revise or retain the particular earlier claim. Specify a more informative next comparison with actual matching values.

Fresh recheck · Initial conditions

Complete this new initial statement before looking at the next page.

K5-D-Bc 0 ·Fresh 100 g;10°C start;22°C surroundings;20 min;matched E/F sleeves/cups/lids/exposure/procedure. Covered liquid water; no active heating/cooling, ice, phase change, direct sunlight or meaningful evaporative cooling. Room, cup, lid and supporting surfaces are at the stated surrounding temperature; it stays constant. Readings represent the sample temperature with a consistent procedure. This is a paper scenario, not apparatus instructions.

Initial recheck trials

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

Trial ID	Sleeve E final (°C)	Sleeve F final (°C)
Bc-1	15	17
Bc-2	16	18

K5-B4. State a bounded E/F comparison and support it.

Fresh recheck · Changed surroundings

K5-D-Bc 1 ·Only E tested now;fresh 100 g;10°C start;28°C surroundings;20 min;all other E conditions match Bc 0. No new F data. Covered liquid water; no active heating/cooling, ice, phase change, direct sunlight or meaningful evaporative cooling. Room, cup, lid and supporting surfaces are at the stated surrounding temperature; it stays constant. Readings represent the sample temperature with a consistent procedure. This is a paper scenario, not apparatus instructions.

New evidence for one design

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

Trial ID	Sleeve E start (°C)	Sleeve E final (°C)
Bc-3	10	18
Bc-4	10	19

K5-B5. What conditions changed? What conclusion can stay, what scope needs limiting, and what ranking is not established? Propose useful next evidence.