

How to write CER (Parent-friendly steps)

A guide to help your child master the Claim-Evidence-Reasoning framework for science assessments



Step 1: Write the Claim (1 sentence)

- Start with a direct conclusion.
- Use the comparatives in the question as clues (e.g., "more", "less", "faster", "slower", "higher", "lower").

Claim

- Yes/No
- Agree/Disagree
- Suggested change
- I think that...

Step 2: Add Evidence (1–2 sentences)

Evidence must come from the question stimulus. This includes **data from tables, graphs, bar charts, diagrams** (and also observations or information stated in the scenario).

Examples of what can count as Evidence

Table:

specific numbers / changes (e.g., "Temperature increased the most from 25°C to 35°C in 5 minutes.")

Graph / bar chart:

trends and comparisons (e.g., "_____ in Set-up A increased faster than _____ in Set-up B.")

Diagram:

visible labelled parts (e.g., "The leaf has stomata on the underside.")

Scenario text:

observations given (e.g., "Droplets formed on the outside of the can.")

Rules for good Evidence

- Use **specific data** (trend, changes, comparisons).
- Use **key comparatives** that support your claim (increase, decrease, faster, slower, more, less etc.)

Helpful starters for Evidence

- "From the results in the table/graph/bar chart, ____ (compare MV) ____"
- "From the diagram, ____ (compare CV) ____"
- "When ___, the ___ increased/decreased ..."
- "Compared to ___, ___ is ..."

Step 3: Add Reasoning (1–2 sentences)

Reasoning explains **why** the evidence supports the claim using a **Science idea**. This is where students show understanding.

Rules for good Reasoning

- Choose the relevant Science concept.
- Tweak Science concept to explain clearly how the evidence supports the claim. Be mindful to use scientific terms/phrases.
- Avoid vague phrases like "it is better" without explaining what makes it better scientifically.

Helpful starters for Reasoning

- "So, ___(key science concept contextualised to evidence chosen)___"
- "So, ___(state its effect due to the cause highlighted in evidence, eg. change to a part which affects function)___."

Quick "Check" for parents (easy checklist)

A strong CER answer should have all 3:

C:

Did he clearly state the conclusion?

E:

Did he use the given information (including **data from tables/graphs/bar charts/diagrams**) and not just general knowledge?

R:

Did he explain using a relevant Science concept that links E → C?

If one part is missing, the answer usually becomes unclear or incomplete.

If key scientific terms/phrases taught are not used accurately in R, the answer does not demonstrate understanding of scientific knowledge.