

CER (Claim Evidence Reasoning)

For scientific discovery

Claim:

The claim must directly answer the question prompt.

Sentence Starters:

- When _____, _____ happens.
- My hypothesis was (incorrect / correct).
- The effect of _____ on _____ is _____.

Evidence:

The scientific data that supports the claim must be provided or explained.

- Data are observations or measurements OR results from an experiment.
- Use specific examples.
- Use numbers and data tables where necessary to show important information.

Sentence Starters:

- In the data
- The (information in the graph / data) suggests that _____.
- The evidence I use to support my claim is _____.
- According to (Expert / Person / Research study) _____.

Reasoning:

The reasoning must explain why the evidence supports the claim. Your reasoning must provide a logical connection between the evidence and the claim. It **does not** simply restate your observations. It **must include your interpretation** of the information.

- Why is the claim valid.
- Includes general scientific principles.
- It takes advantage of background information or prior knowledge.

Sentence starters

- Based on the evidence, (I / we / our group) must **conclude** _____ **because** ...
- The most logical conclusion that (I / we / our group) can draw from this evidence is that _____ **because** ...
- These facts work together to build a case that _____ **because** ...
- All of the evidence proves that my claim is correct **because** ...

声明证据推理

用于科学发现

声明：

声明必须直接正面回答问题

句子开头：

- 当...的时候, 发生...
- 我的假设是 (不正确/正确)
- ...对于...的影响是...

证据：

必须提供或解释支持该声明的科学数据

- 数据可以是观察、测量或实验结果
- 使用具体示例
- 必要时使用数字和数据表显示重要信息

句子开头：

- 在数据中……
- (图表/数据中的信息) 表明…
- 我用来支持声明的证据是…
- 根据 (专家/人员/研究) 得出…

推理：

推理必须解释为什么证据能支持这一声明。你的推理必须阐明证据和声明之间的逻辑关系, 而不仅仅是重申你的观察。推理必须包括你对信息的解释。

- 为什么声明是可行的
- 涵盖一般科学原则
- 利用背景信息或先前知识

句子开头

- 根据证据, (我/我们/我们小组)得出...(结论)是因为…
- (我/我们/我们小组) 从这个证据中得出的最合理的结论是...因为…
- 这些事实共同表明...是因为……
- 所有这些都证明我的声明是正确的的是因为…