

## Claim-Evidence-Reasoning (CER) Statements

### Scaffolding Suggestions:

A CER statement is a structure to help students construct good arguments. It is the same idea as ACE (Answer-Cite-Explain) used in Language Arts classes. Students should aim to become fluent in this type of argument so they can make a claim and support it with reasonable information without being bound to this structure.

However, for many students constructing these arguments in science can be a struggle. Whether your students are struggling writers or simply lack experience with constructing arguments from evidence, consider providing scaffolds through sentence stems. As students become more skilled in this form of writing, remove the number and/or types of stems you provide for them.

Some ways to utilize the chart, generally:

- Provide stems for each part of the answer.
  - This is good for struggling writers and classes who have never written a CER.
- Provide stems for the least important parts of the answer.
  - If you want students to practice constructing logical explanations/reasoning, give them stems to structure the claim and evidence coherently.
- Only work on one part of the argument at a time, with or without stems.
  - Consider providing students with a claim and asking them to find the evidence to support it.
- Provide stems only for students who need them.
  - English language learners and students with literacy-specific IEP modifications may benefit from the structural support.

Sentence stems are written here for the Dust Bowl CER specifically. However, they should provide an example of similar ways to provide your own. Multiple stems are offered for evidence and reasoning, and they can be used in any combination. Words in parentheses are (examples of types of evidence). Reasoning statements can be used in combination with each other and with (any type of evidence), not just those provided.

This is an argument from evidence.  
Claim-Evidence-Reasoning Statement

This is the student's core argument.  
Claim

Soil conservation practices were/were not...  
Claim Stem

These are the pieces of information students use to justify their answer.  
Evidence

The (data/graph/results) support the claim.  
Evidence Stem

(Photos/literature) from the Dust Bowl show \_\_\_\_\_.  
Evidence Stem

The (Ken Burns clip and Interstellar) both explained \_\_\_\_\_.  
Evidence Stem

This is where the students make a logical connection between their claim and the evidence.  
Reasoning

(Data/graph/results) show \_\_\_\_\_.  
Reasoning Stem

\_\_\_\_\_ in the (photos/literature) was caused by \_\_\_\_\_.  
Reasoning Stem

The fact that \_\_\_\_\_ was caused by \_\_\_\_\_ means \_\_\_\_\_.  
Reasoning Stem

Since \_\_\_\_\_ did/did not occur in the 1950s, it means \_\_\_\_\_.  
Reasoning Stem

This also occurred in the 1950s, so \_\_\_\_\_.  
Reasoning Stem

Therefore, \_\_\_\_\_ explains why I support/reject the claim \_\_\_\_\_.  
Reasoning Stem