

## Characteristics of a Quality Scientific Explanation

### Components

- Claim
  - An assertion or conclusion that answers the original question
- Evidence
  - Scientific data that supports the student's claim
    - Must be appropriate and sufficient
  - Can come from an investigation or other source
    - Observations
    - Reading material
    - Archived data
    - Other
- Reasoning
  - Justification that links the claim and evidence
  - Shows why the data counts as evidence to support the claim, using appropriate scientific principles

### Qualities of the communication

- Use precise and accurate scientific language.
- Write clearly so that anyone interested in the explanation can understand it.

## Developing a Scientific Explanation

<p><b>What is the question that you want to answer?</b></p>
<p><b>List the sources used for the evidence that will be used to support your explanation.</b></p>

### Evidence to support your explanation

Claim(s) that you think answer the question	Evidence that supports your claim(s)

### Explanation for your answer to the question = Claim + Evidence + Reasoning

<p><b>I think <u>(Claim)</u> answers the question because <u>(Evidence + Reasoning)</u> .</b></p>
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