



Claim-Evidence-Reasoning

Name: _____ Date: _____

Scenario

Take a few minutes to make scientific observations about variations in traits in the families below, then complete the prompt.

External Data





Claim-Evidence-Reasoning

Prompt

Write a *scientific explanation* describing all the processes by which the variations of traits develop within a human family. In your rebuttal, discuss how recessive traits can be expressed in offspring but not parents.

Claim:

Evidence:

Reasoning:

Rebuttal:



Claim-Evidence-Reasoning

Variations in Traits

Rubric for Writing a Scientific Explanation

Points Awarded	2	1	0
Claim	Makes an accurate claim or answers the question.	Makes an inaccurate claim.	No claim, or does not answer the question.
Evidence	Cites comparative data, uses labels, and addresses variables.	Cites some, but not all, appropriate data, or does not use labels or statistical analysis.	No evidence, or cites changes but does not use data from the data table.
Reasoning	Cites the scientifically accurate reason, using correct vocabulary, and connects this to the claim. Is able to accurately show understanding of the concept.	Cites a reason, but it is inaccurate or does not support the claim. Reasoning does not use scientific terminology or uses it inaccurately.	No reasoning, or restates the claim but offers no reasoning.
Rebuttal	Rebuttal provides reasons for different data in the class data or outliers in the data. Can also provide relevance to the real world or other uses for the findings.	Rebuttal is not connected to the investigation or is inaccurate.	Does not offer a rebuttal.