

Base Scientific Explanation Rubric

A scientific explanation is a written response to a question that requires you to analyze and interpret data with regard to scientific knowledge. Quality explanations contain three components: Claim, Evidence, and Reasoning. As this can be a difficult practice to learn quickly, scientific explanations for all labs will be rated using the rubric below along with peer and teacher critiques and thorough feedback.

<i>Component</i>	<i>Level</i>		
	<i>0 - Not There</i>	<i>1 - Developing</i>	<i>2 - Good</i>
CLAIM — a conclusion that answers the original question.	Does not make a claim, or makes an inaccurate claim.	Makes an accurate but incomplete claim.	Makes an accurate and complete claim.
EVIDENCE — Scientific data that supports the claim. The data needs to be appropriate and sufficient to support the claim.	Does not provide evidence, or only provides inappropriate evidence (evidence that does not support the claim), no numerical data with appropriate labels.	Provides appropriate, but insufficient evidence to support claim. May include some inappropriate evidence or missing numerical data or appropriate labels.	Provides appropriate and sufficient evidence to support claim. All numerical evidence contains appropriate labels.
REASONING — A justification that links the claim and evidence. It shows why the data counts as evidence by using appropriate and sufficient scientific principles.	Does not provide reasoning, or only provides reasoning that does not link the evidence to the claim.	Provides reasoning that links the claim and evidence. Repeats the evidence and/or includes some scientific principles, but not sufficient.	Provides reasoning that links evidence to claim. Includes appropriate and sufficient scientific principles.