FIGURE 3

Evidence-based explanation rubric.

Criteria	Not yet	Approaches expectations	Meets expectations	Advanced
	1	2	3	4
1. Explains the scenario: Does my explanation explain the scenario using the concept of homeostasis?	Explanation does not explain the scenario or only describes what happened.	Explanation includes some of the relevant parts of the explanation to explain *how* the scenario happened but does not include homeostasis.	Explanation connects all relevant components and relationships (observable and unobservable) to explain what *caused* the scenario using homeostasis.	Explanation includes the full causal story of the scenario including the concept of homeostasis as well as additional components and relationships that fit the scientific explanation.
2. Fits with evidence: Does my explanation include the evidence?	Evidence is not correctly related to the explanation or not included.	Explanation correctly incorporates some of the evidence.	Explanation refers to a sufficient amount of relevant evidence to be compelling and justifies why it is evidence.	Explanation includes all of the evidence and correctly justifies why it is evidence.
3. Builds on scientific ideas: Does my explanation incorporate established scientific ideas?	Explanation does not include relevant science ideas from lecture.	Explanation includes some of the essential concepts to explain the scenario—but not all that are needed.	Explanation includes essential concepts needed to explain the scenario.	Explanation includes essential science concepts and other relevant science ideas.
4. Clarity of communication: Would someone else be able to understand my explanation?	Explanation is not clearly written.	Explanation is somewhat clearly written.	Explanation is clearly written in a way that allows others to understand how and why the scenario happens.	Explanation is clearly written and additional communication or educational pieces are included for the audience.