

Rubric for Scientific Modeling

All scoring elements may not apply.

Base Scoring Elements	Not Yet		Approaches Expectations		Meets Expectations		Advanced
	1	1.5	2	2.5	3	3.5	4
1. Explains Phenomena: <i>Does my model explain the phenomenon?</i>	Model does not explain the phenomenon of the investigation.		Model includes some of the relevant parts of the model to explain what caused the phenomena. Model might include text and diagrams.		Model connects all relevant components and relationships (observable and unobservable) of the model to explain what caused the phenomena. Model includes text and diagram(s) to describe model pieces and processes.		Model includes the relevant parts of the model to explain what caused the phenomena (as in Level 3) – as well as additional components and relationships that fit the scientific model.
2. Fits with Evidence: <i>Does my model fit with the evidence collected?</i>	Evidence is not correctly related to the model.		Model correctly incorporates some of the evidence collected through the investigation.		Model refers to a sufficient amount of relevant evidence collected through the investigations to be compelling.		Model fits with all the evidence collected and additional evidence that could be collected is described.
3. Builds on Science Ideas: <i>Does my model incorporate established scientific ideas?</i>	Model does not include relevant science ideas.		Model includes some of the essential concepts to explain the phenomenon – but not all that are needed.		Model includes essential disciplinary science concepts AND crosscutting concepts needed to explain the phenomenon.		Model includes essential science concepts and other relevant science ideas.
4. Clarity of Communication: <i>Would someone else be able to understand my model?</i>	Model is not clearly described.		Model is somewhat clearly described.		Model is clearly described in a way that allows others to understand how and why the phenomenon happens.		Model is clearly described and additional communication or educational pieces are included for the audience.