

ESS Sphere>Sphere and Causal Chain Grading rubric

	4	3	2	1	Rationale
Quality of Understanding: Accuracy of ideas, facts, statements (assertions) about interactions (S>S) and Casual Chains	Responses are complete, and contain no errors. All S>S relationships are represented and a minimum of four casual chains.	No major errors or omissions. May contain 3 minor inaccuracies or misconceptions	Contains one or two significant errors or omissions. Contains 4 minor inaccuracies or misconceptions	Contains three or more significant errors or omissions. Contains 5 minor inaccuracies or misconceptions	Explain your responses with specific references/citations to your work as evidence
Depth of Reasoning: Clarity and focus of ideas, interactions and systemic relationships	Predicts future effects (e.g. feedback mechanisms) or transfers understanding to evaluate other possible situations	Explains the processes responsible for the S>S chains and casual chains in the event.	Describes interactions using cause and effect connections including secondary effects that unfold over time. E>S>S>E	Describes what is happening in the system. Including characteristics and direct effects of the event or context E>S	
Evidence: Scope, detail and accuracy of the evidence supporting the relationship statements	Builds on data from reliable sources using the data to support or refute a position. Uses data to discuss misconceptions.	Supports statements with data from reliable sources. Uses quantitative and qualitative data appropriately	Accurately uses and cites quantitative and qualitative data from reliable sources.	Uses only quantitative or qualitative data. Lacks adequate support for statements. Lacks citations.	
Science Writing	Uses graphics (diagrams, pictures, video, etc.) in a meaningful way to support the text. Answers are well organized, easy to follow and there are less than 2 grammatical errors.	Uses a few graphics (diagrams, pictures, video, etc.) to support the text. Answers are well organized, easy to follow with small inconsistencies within or between topics and there are less than 3 grammatical errors.	Graphics are used but often do not support the text. Ideas are hard to follow within and between sections. There are less than 4 grammatical errors.	No graphics, Main ideas are not clear to me. More than 4 grammatical errors.	