

STEM Scholarship Poster Rubric

Competency	5	4	3	2	1
Content Knowledge: Accuracy of scientific understanding	<ul style="list-style-type: none"> Reflects well-developed understanding of current scientific theory and concepts. Explicitly summarizes essential background information. 		<ul style="list-style-type: none"> Reflects understanding of current scientific theory and concepts. Summarizes most of the essential background 		<ul style="list-style-type: none"> Reflects inaccuracies or large gaps in understanding of current scientific theory and concepts. Does not summarize essential background and information
Analysis: Identifies Rationale/Hypothesis	<ul style="list-style-type: none"> Very clearly identifies a hypothesis, rationale, or clarifies a systematic approach for exploration Explicitly draws support for his/her rationale from experience, observation, and/or the literature base. Most variables are thoughtfully identified. Explicit link of current theory to the individual's own research study. 		<ul style="list-style-type: none"> Identifies a hypothesis, rationale, or approach for exploration Limited support for the rationale Some variables are identified. Links current theory to the individual's own research study (may be implied or vague). 		<ul style="list-style-type: none"> Hypothesis, rationale, or line of inquiry is not identified or has inconsistencies. Does not support rationale Variables are inadequately addressed Does not link current theory to the individual's own research study.
Synthesis: Design of Methodology	<ul style="list-style-type: none"> Clear and complete description of steps that will achieve the purpose of the research study and allow for replication of the study. 		<ul style="list-style-type: none"> Description of steps for research study is included. 		<ul style="list-style-type: none"> Methodology is confusing or contains gaps. Methodology will not achieve the intended purpose of the study. Does not include description of steps for research study.
Application: Data Presentation: Scientific Poster	<ul style="list-style-type: none"> Highly consistent and appropriate use of scientific units of measurement, labels, symbols, and equations. Concise visuals convey pertinent data that are otherwise difficult to convey; thus, increasing the efficiency and effectiveness of the presentation. Visuals enhance the communication process by utilizing the appropriate balance between effective visuals and text. 		<ul style="list-style-type: none"> Consistent use of scientific labels, units of measurement, symbols, and equations. Minor inaccuracies or omissions noted, such as skipping a step, inaccurate equation (e.g., lack of labels, typographical errors, etc.) Visuals convey data that are pertinent and add to the presentation, with some balance between text and visuals. 		<ul style="list-style-type: none"> Does not attempt to use scientific labels, symbols, or equations. Major inaccuracies or omissions are noted. Visuals distract from presentation by being too wordy or too limited (e.g., too much text or visual)
Synthesis: Conclusions	<ul style="list-style-type: none"> Clearly addresses the research question(s). Draws inferences that are highly consistent with the data and scientific reasoning 		<ul style="list-style-type: none"> Addresses the research question(s). Identifies conclusions based on observation. 		<ul style="list-style-type: none"> Conclusions do not address the research question(s). Conclusions not evaluated for accuracy and precision.
Evaluation: Relevance (NOS: Social and Cultural)	<ul style="list-style-type: none"> Clearly articulates scientific and societal relevance of the study. 		<ul style="list-style-type: none"> Identifies a general relevance of the study. 		<ul style="list-style-type: none"> Does not identify the relevance of the study.
Inferential NOS: The crucial distinction between scientific claims (e.g., inferences) and evidence on which such claims are based (e.g., observations)	<ul style="list-style-type: none"> Inferences are made appropriately and well-justified: Clearly shows evidence of the distinction between scientific claims and evidence on which claims are based. 		<ul style="list-style-type: none"> Inferences are made but not well-justified: Shows evidence of the distinction between inference and observation. 		<ul style="list-style-type: none"> Inferences are not made, or are not justified: Does not distinguish between inference and observations