

Research Project Evaluation Rubric

Pathways: Grade 9-10

Judge

Name: _____ Group: _____

Group Presentation and Poster

| Component | Not There Yet | Met the Goal | Above and Beyond | Points |
|------------------------|---|--|---|--------|
| | The students... | The students... | The students... | |
| Background and Purpose | <ul style="list-style-type: none"> Did not identify the problem in the introduction. | <ul style="list-style-type: none"> Introduced the context (background) of the research. Explained the critical need and importance of the research and connected it to the pathway TAMUAE (welding, animal science, digital communications, business, etc.) Identified the purpose of research in the introduction. <i>"The purpose was..."</i> | <ul style="list-style-type: none"> Explained the science behind the problem using scientific terms. Paraphrased and summarized sources in a logical way E1.5D, E2.5D Cited sources when explaining the background and purpose. E2.1C, E1.1C <i>"According to..."</i> | |
| Research Question | <ul style="list-style-type: none"> Did not state the research question. | <ul style="list-style-type: none"> Identified the research question. E1.11A, 2.11A <i>"We wanted to know whether/ how / why..."</i> <i>"Our research question was..."</i> The research question was clearly related to the topic and purpose. | <ul style="list-style-type: none"> Research question was clear with language about the independent variable's relationship with the dependent variable. <i>"Our research question was how does ___ affect ___ ?"</i> | |
| Hypothesis | <ul style="list-style-type: none"> Did not state a hypothesis. | <ul style="list-style-type: none"> Stated the hypothesis. <i>"Our hypothesis was..."</i> Provided reasoning for the particular hypothesis. <i>"We hypothesized that ___ because..."</i> | <ul style="list-style-type: none"> Cited evidence when explaining the reasoning for the hypothesis. <i>"We hypothesized ___ because ___ according to ___."</i> | |

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| Research Design | <ul style="list-style-type: none"> Did not describe the research design or methods. | <ul style="list-style-type: none"> Stated type of research (experimental, descriptive, or correlational) Listed steps taken to conduct research and collect data. Identified the dependent and independent variables. <p>TAMUAE</p> | <ul style="list-style-type: none"> Steps were thoroughly explained so they could be repeated. Described and explained control variables. Explained why they performed or could not perform repeated investigations (trials). <p>TAMUAE</p> | |
| Results and Conclusions | <ul style="list-style-type: none"> Did not include a graph or graph was not accurate. Did not state results. Did not state conclusion(s). Did not address the hypothesis. | <ul style="list-style-type: none"> Created an accurate graph or chart with results. Included title, axis labels, axis titles, and legend if needed. Used measurements in units to interpret patterns and explain results. Made conclusive statements. Expressed a confirmation or disconfirmation of the hypothesis. <p>TAMUAE</p> <p><i>“Higher pressure causes...”</i></p> <p>TAMUAE</p> | <ul style="list-style-type: none"> The graph or chart matched well with the research design and question. Clearly explained how the conclusions were based on the data results and literature. Clearly connected the data results to the confirmation or disconfirmation of the hypothesis. Identified and explained any limitations (obstacles) in the study. Explained how the findings supported, refuted, or explained original literature they researched. Group circled back to the science behind the problem. <p>E1.4H E2.4H</p> <p>E1.11B, E2.11B</p> <p>E1.4F, E2.4F</p> | |
| Record of Sources | <ul style="list-style-type: none"> Did not include a reference list. | <ul style="list-style-type: none"> Included a reference list with at least 4 sources on the poster. Internal citations were included in introduction (teacher will assess)* <p>E1.11E, E2.11E,</p> | <ul style="list-style-type: none"> Included additional sources beyond 4. Included a variety of sources; one was a peer-reviewed scholarly source (teachers will assess)* | |

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| | | <ul style="list-style-type: none"> References were in 7th edition APA style (teachers will assess)* E1.11H, E2.11H | |
| Academic Research Poster | <ul style="list-style-type: none"> Did not include some required components of the poster. Introduction, methods, results, or conclusions were not clear or thorough. | <ul style="list-style-type: none"> Included a title and names. TAMUAE Wrote the abstract as a conglomeration of each of the other components: introduction, methods, results, conclusion. TAMUAE Included a clear, thorough introduction. TAMUAE Included clear, thorough methods. TAMUAE Included clear, thorough results including at least 1 figure. TAMUAE Included clear, thorough conclusion that discusses implications of research. TAMUAE Included acknowledgements. TAMUAE | <ul style="list-style-type: none"> Created a poster that was attractive in terms of design, colors, contrast, and font size/handwriting. TAMUAE Included image(s) of experimentation or entities studied Included extra figure(s) to portray content or processes (such as life cycles or chemical reactions) Poster is grammatically correct. TAMUAE |
| Presentation and Defense | <ul style="list-style-type: none"> Some students did not present or speak. Group did not answer most of the questions. | <ul style="list-style-type: none"> All group members presented. Group introduced themselves and the title of the project. Group answered most questions about experiment with clear knowledge about the experiment. TAMUAE While speaking, group pointed to graphics to help audience visualize experiment and results. | <ul style="list-style-type: none"> Most held attention of audience with use of eye contact TAMUAE Most used gestures, proper enunciation, and volume E2.1C, E1.1C, TAMUAE Most demonstrated knowledge by answering all questions with clear explanation and elaboration. Most used technical vocabulary they learned E2.5F Most spoke generally without using rote memory or direct scripts. |

