



IJAS State Exposition Judging Rubric - 2026



PAPER SESSION - EXPERIMENTAL PROJECT

Evidence of Scientific Process Skills (40 Potential Points)

		16	12	8	4	0		Points
1	Scientific Process Skills	<p>Student exhibited a thorough understanding and application of the scientific method.</p> <p>The required elements were included:</p> <ul style="list-style-type: none">- Recognizing and defining a problem- Forming a testable hypothesis- Defining the independent and dependent variables- Having a control or comparison group- Having an adequate sample size to gather enough data to reach a reliable conclusion.	<p>Student exhibited a less thorough understanding and application of the scientific method.</p> <p>One element was missing.</p>	<p>Student exhibited a fair understanding and application of the scientific method.</p> <p>Two elements were missing</p>	<p>Student exhibited a poor understanding and application of the scientific method</p> <p>Three elements were missing.</p>	<p>Student exhibited a poor understanding and application of the scientific method.</p> <p>Four or more elements were missing.</p>		
		4	3	2	1	0		
2	Data Collection	<p>Student accurately collected and recorded quantitative data</p> <p>All of the data were in metric units.</p>	<p>Student recorded and collected quantitative data</p> <p>Some of the data were in metric units</p>	<p>Student recorded and collected quantitative data.</p> <p>None of the data were in metric units.</p>	<p>Student had no quantitative data.</p>	<p>Student had no data collection.</p>		
		10	8	6	4	1		
3	Data Analysis and Discussion	<p>Student thoroughly analyzed and discussed the meaning of the data collected in the experiment. Data from the current study were related to previous studies cited in the background research</p> <p>Student recognized sources of error and ways to minimize these errors in future studies.</p>	<p>Student less thoroughly analyzed and discussed the meaning of the data collected in the experiment.</p>	<p>Student somewhat analyzed and discussed the meaning of the data collected in the experiment.</p>	<p>Student either did not analyze the data or did not discuss the meaning of the data collected in the experiment.</p>	<p>Student did no data analysis or discussion of the data collected.</p>		
		4	3	2	1	0		
4	Validity of Conclusion	<p>Student's conclusion related properly to the hypothesis</p> <p>Conclusion was supported by the data collected.</p>	<p>Student's conclusion was not related to the hypothesis</p> <p>Conclusion was supported by the data collected.</p>	<p>Student's conclusion was not related to the hypothesis</p> <p>Conclusion was not supported by the data</p>	<p>Student's conclusion was not valid.</p>	<p>The conclusion was missing.</p>		
		6	5	4	2	1		
5	Originality	<p>Student demonstrated a creative or novel approach to solving a scientific problem.</p>	<p>Student demonstrated a less creative or novel approach to solving a scientific problem.</p>	<p>Student demonstrated a somewhat creative or novel approach</p>	<p>Student demonstrated very little creativity</p>	<p>Student demonstrated no creativity</p>		
<h4>Communication - Display (9 Potential Points)</h4>								
		3	2	1	0			Points
6	Information	<p>The digital display contained a complete explanation of the project.</p> <p>The display included graphics, charts, and/or pictures.</p>	<p>The digital display had the required information but was not thorough.</p>	<p>The digital display was missing pertinent information.</p>	<p>The digital display was missing.</p>			

7	Organization	The digital display was organized and added to the presentation.	The digital display was somewhat organized	The digital display was not organized.	The digital display was missing.			
8	Artistic Qualities	The digital display was neat and sparked interest in the subject matter. It was evident that time was spent preparing the display.	The digital display was neat but contained spelling or data errors. It was evident that the student did not proof their display adequately.	It was evident that the student did not spend adequate time preparing the digital display.	The digital display was missing.			
Communication - Oral Presentation (12 Potential Points)								
		3	2	1	0		Points	
9	Presentation Quality	The student concisely summarized the project. Student presented the findings clearly and the information was relevant and pertinent.	Student gave adequate information, but the presentation was hard to follow.	Student did not provide enough information to attain a clear picture of the experiment.	The digital display was missing.			
10	Topic Knowledge	Student exhibited a thorough understanding of the topic area.	Student exhibited a sufficient understanding of the topic area.	Student exhibited an insufficient understanding of the topic area.	Student displays little to no topic knowledge.			
11	Speaking Skills and Eye Contact	Student spoke fluently. Student demonstrated excellent eye contact.	Student spoke fluently most of the time. Student had good eye contact.	Student did not speak fluently Student did not have good eye contact	Student displays little to no eye contact when speaking.			
12	Interest and Respect	Student demonstrated pride and interest in their work. Student demonstrated respect for the judges Student answered questions fully.	Student did not exhibit interest in their work or Student did not answer questions fully	Student did not exhibit interest in their work Student did not answer questions fully	Student displays little to no interest in the project or respect toward the judge.			
Written Report (39 Potential Points)								
					1	0	Points	
13	Title Page				Title page is clear and concise. Name(s), title, school, and grade are present	Title page is missing.		
14	Table of Contents				Table of Contents is present with page numbers.	Table of Contents is missing.		
15	Acknowledgements				Student gives credit to those who helped with the project.	Acknowledgements page is missing.		
			4	2	1	0	Points	
16	Purpose & Hypothesis		A testable question (purpose) and a reasonable hypothesis have been identified.	An attempt at a testable question (purpose) and a reasonable hypothesis have been identified.	Either purpose or hypothesis were missing.	Purpose and hypothesis were both missing.		
		10	8	4	2	1	0	Points
17	Background Research: In-Text Citations	Background research was in-depth and the information was pertinent and supports the experiment. Background research was correctly cited within the text following APA format.	Background research was fairly in-depth and the information was pertinent and supports the experiment. Background research was correctly cited within the text following APA format.	Background research was not adequate to support the experiment. Background research was correctly cited within the text following APA format.	Background research was not adequate and in text citations were not in APA correct format.	Background research was not pertinent and in-text citations were missing.	Background Research was missing.	
			4	2	1	0	Points	

18	Procedure			Procedure was complete and easy to follow with all steps included All materials were listed or discussed Measurements were in metric.	Procedure was present but incomplete or confusing Materials were listed or discussed Measurements were not in metric	Procedure was present but incomplete or confusing Materials were not listed or discussed Measurements were not in metric	Procedure was missing.	
			8	4	2	1	0	Points
19	Results and Discussion		Results (data) were organized in tables and/or figures Axes were labeled with titles and units. Results were discussed and related to the background information.	Results (data) were organized in tables and/or figures. Results were discussed but not related back to the background information.	Results were organized but there was no discussion of results.	Results were not organized well and there was no discussion of results.	Results and discussion were missing.	
				2	1	0	Points	
20	Conclusion			Conclusion contained a concise evaluation and interpretation of the data and/or results.	Conclusion was present, but did not reflect the data collected.	Conclusion was missing.		
			4	2	1	0	Points	
21	Reference List		Quality, quantity and variety of sources were adequate for topic. Most sources were current. APA (7th Ed) format was followed.	Quality, quantity, and/or variety of sources were less than adequate. APA format was followed.	Quality, quantity, and/or variety of sources were less than adequate. APA format was NOT followed.	Reference List was missing		
22	Technical Aspects: Spelling and Grammar, Header, Neat and Orderly		Proper grammar and spelling were evident and appropriate font size and type face were used. Header was in the upper right-hand corner and included student's last name and page number Paper was neat and followed P & P Manual order.	Three or fewer errors of proper grammar and spelling were evident. All other elements were present and pages were in the correct order	Four or more errors of proper grammar and spelling were evident. All other elements were present and pages were in the correct order	Numerous grammatical and spelling errors were present Not all elements were present and in the correct order		

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