

Greater Kansas City Science and Engineering Fair Senior Experimental Scoring Guide

|-----Gold-----| |-----Bronze-----|
|-----Silver-----|

Senior High	Full Accomplishment	Substantial Accomplishment	Partial Accomplishment	Little or no Accomplishment
Lab Notebook				
Is there a lab notebook ?	Yes , it is detailed, complete and clear.	Yes, but some details are missing.	No, but there was an attempt to keep notes.	No , there is no notebook.
Introduction				
Is the Literature Reviewed ?	Yes , it demonstrates a thorough search.	Yes, but some areas are not addressed.	No, but some sources are used.	No , background material is missing.
Is the problem identified and precisely stated?	Yes , it is realistic, and appropriate limits have been established.	Yes, but the way it is stated may lead to erroneous conclusions.	No, but the reader has some idea of what is being attempted.	No , or it is stated in a way that was confusing to the reader.
Is the problem original with this student?	Yes , the answer is probably not in literature.	Not sure , the answer may be readily available in the literature.	No, but the problem is still an area of active research.	No , the answer is common knowledge in most circles.
Is the problem relevant ?	Yes , it has meaning in today's scientific climate.	Yes, but its relevancy may not be apparent.	No, but the problem does generate interest.	No , it has little or no relevancy.
Does the hypothesis relate to the problem?	Yes , it is a logical outgrowth of the stated problem and is testable as stated.	Yes, but it may contain some illogical ideas or is not testable as stated.	No, but information allows the reader to assume a hypothesis.	No , it is missing, or it does not lead to the experiment that follows.
Materials/Methods				
Are the methods used appropriate ?	Yes , the method directly addresses the hypothesis.	Yes, but there may be some question as to its reliability.	No, but there is an awareness of the hypothesis.	No , the stated hypothesis wasn't tested.
Is the procedure logical and repeatable ?	Yes , it is clear and could easily be repeated by others.	Yes, but there are some elements that may be difficult to repeat.	No, but the reader has a general idea of what was done.	No , the procedure is very confusing.
Are the variables and controls clearly identified ?	Yes , the Independent and Dependent Variables are identified, and the control(s) is clearly stated.	Yes , the Independent and Dependent Variables are as is control(s) but are not clearly stated.	No , all types of variables are not evident, but some are implied.	No , there is no clear evidence of the study variables.
Results				
Are there enough data (observations and replicates) to create confidence?	Yes , there are enough data to be statistically significant with appropriate replication.	Yes, but there should have been more replication of the treatments.	No, but there was an attempt to collect enough data.	No , too little data were collected.
Are the data appropriate for the stated hypothesis?	Yes , they are clearly identified, and appropriate statistics are included.	Yes, but it is difficult to determine trends, or there is a more appropriate statistical treatment.	No, but trends may be suggested, or maybe inappropriate statistics are included.	No , the data are missing or are inappropriate for the hypothesis.
Are the data presented in graphs and/or tables ?	Yes , the data appears in correctly labeled tables and/or graphs.	Yes, but they are either incomplete or unclear in some details.	No, but there was an attempt to include data in a table.	No , the data were not presented in tables or graphs
Are the results summarized ?	Yes , the results are communicated trends are clearly identified.	Yes, but there are a few areas that need clarification.	No , but there were statements summarizing some detail.	No , there was no summary of the results.
Conclusion/Discussion				
Are inferences and conclusions included?	Yes , the status of the hypothesis is correctly & logically determined & stated in an unbiased manner.	Yes, but it may not be completely logical or there may be some bias indicated.	No, but there was an attempt to infer relationships which were partly correct.	No , either it was missing or the data were misunderstood.
Is an insightful discussion included?	Yes , it is insightful and demonstrates an understanding of the broader implications.	Yes, but there are areas that were not addressed, or were unclear.	No , there was an attempt to discuss the experiment and its broader implications, but there were many problems.	No discussion was included.
Display				
Is the display effective?	Yes , it is clear and easy to read.	Yes, but there are elements that are unclear.	No, but information is presented.	No , little can be understood from the display.
Does the written paper add to the display?	Yes , the additional information is helpful.	Yes, but there are elements that are unclear.	No, but some additional information is presented.	No , the paper is identical to the display