

Greater Kansas City Science and Engineering Fair

Junior - Grades 7-8 Experimental Scoring Guide

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

Junior	Full Accomplishment	Substantial Accomplishment	Partial Accomplishment	Little or no Accomplishment
Introduction				
Is the problem identified or scientific question precisely stated?	Yes , and -the problem or question 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 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 hypothesis identified and relevant to the problem or question?	Yes , it is logical, leads to the -investigation and makes appropriate predictions.	Yes, but it may contain some illogical ideas or it may not precisely lead to the investigation.	No, but there is enough information that allows the reader to assume a hypothesis.	No , it is missing, or it does not lead to the experiment that follows.
Materials and Methods				
Are the variables clearly identified ?	Yes , the Independent and Dependent - Variables are identified and stated clearly plus the need for control(s) is stated.	Yes , the Independent and Dependent - Variables are mostly evident, but not stated clearly plus the need for control(s) is not stated clearly.	No , all types of variables are not evident, but some are implied.	No , there are no clear evidences of the study variables.
Is the procedure logical, repeatable and appropriate to the hypothesis?	Yes , it is clear and could easily be replicated.	Yes, but there are some elements that may be difficult to replicate.	No, but there is enough information so that the reader has a general idea of what was done.	No , the procedure is missing or very confusing.
Are sample sizes large enough to create statistical confidence?	Yes , sample sizes were large enough to be statistically confident.	Yes, but there could have been more in the sample.	No, but there was an attempt to collect enough data.	No , sample sizes were too small.
Is the investigation designed so that it tests the hypothesis ?	Yes , the data directly address 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.
Results				
Were the data collected or gathered accurately and consistently?	Yes , the data are clearly identified and accurate which includes units and/or measurements and controls.	Yes, but it is difficult to determine trends from the data, and some of the units and controls are labeled.	No, but trends may be suggested and units and measurements and controls are not included.	No , the data are missing, and units and measurements and controls are not included.
Are the data presented in graphs and/or tables ?	Yes , the data appear in correctly labeled tables and/or graphs.	Yes, but they are - incomplete and not labeled.	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 accurately?	Yes , trends are recognized.	Yes, but there are a few areas that are in need of clarification.	No , there may have been statements but some details of the data were ignored or incorrect.	No , there was no summary of the results.
Is statistical treatment included?	Yes , and it is appropriate for the data collected.	Yes, but there may be a more appropriate treatment.	No, but an attempt was made.	No , there was no attempt
Conclusion/Discussion				
Does the evidence support the conclusion or explanation?	Yes , and it demonstrates an understanding of the evidence and how an explanation or conclusion is reached.	Yes, but the conclusion/explanation - may not be completely logical or there may be some bias indicated.	No, but there was an attempt to -show relationships which were partly correct.	No , either it was missing or the data were misunderstood.
Display				
Does the display - communicate the procedure and results?	Yes , it is organized in a sequential order 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 accompanying paper include a review of the literature and bibliography?	Yes , the paper includes a review of the literature and 3 or more sources in the bibliography.	Yes, but there are not 3 sources cited in the bibliography.	No, but some information is presented in the form of literature review and bibliography.	No , the paper does not include a review of literature and bibliography.
NEXT STEPS				
What are the potential applications of this research and what would you do differently?	Yes , the potential applications of this research are explained and logical ways to change the research are explained.	Yes , but the explanation of future application is not complete and some changes are explained.	No , the explanation is incomplete and a few changes are explained.	No , application of the research is not explained and there is no explanation of changes.