The following is taken from the Massachusetts State Science and Engineering Fair suggestions for "Good Science Fair Judging"

*Scoring the Projects*

*When you begin to deliberate on the projects, you can use a few simple criteria for your decisions:*

* *The quality of the student's/students’ work is what matters, not the amount of work;*
* *Team projects and individual projects are judged the same -- it is the quality of the work that matters*
* *A less sophisticated project that the student understands gets higher marks than a more sophisticated project that is not understood;*
* *Access to sophisticated lab equipment and endorsements from professionals do not guarantee a high quality project (Did the student really understand what was going on?);*
* *It is acceptable if the student ended up disproving the objective or hypothesis of the experiment.*

*High marks go to:*

* *Genuine scientific breakthroughs*
* *Discovering knowledge not readily available to the student*
* *Correctly interpreting data*
* *A clever experimental apparatus*
* *Repetitions to verify experimental results*
* *Predicting and/or reducing experimental results with analytical techniques*
* *In engineering categories, experiments applicable to the "real world"*
* *Ability to clearly portray and explain the project and its results*

*Low marks go to:*

* *Ignoring readily available information (e.g. not doing basic library research)*
* *An apparatus (e.g. model) not useful for experimentation and data collection*
* *Improperly using jargon, not understanding terminology, and/or not knowing how equipment or instrumentation works*
* *Presenting results that were not derived from experimentation (e.g. literature search)*



 Tantasqua ***Science*** Fair Judging Criteria

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| I. Scientific Approach  | Below Ave | Ave | Above Ave | Extra-ordinary |
| Clearly Stated Purpose/Objective  |  |  |  |  |
| Logical Experimental Design that Tests the Purpose  |  |  |  |  |
| Correct Identification of Variables (Independent, Dependent, and Control) |  |  |  |  |
| Procedure is clear, complete, and follows the scientific method |  |  |  |  |
| Accuracy of data collection methods (appropriate # of trials, correct units, etc)  |  |  |  |  |
| Conclusions are consistent with data |  |  |  |  |
| Student has background knowledge  |  |  |  |  |
| Student has considered future research (how to modify the experiment, how to collect other relevant data,etc) |  |  |  |  |
| Student can make connections to other disciplines |  |  |  |  |
|  |  |  |  |  |
| II. Innovation/Creativity |  |  |  |  |
| Originality |  |  |  |  |
| Use of Unique Methods, Designs or Materials |  |  |  |  |
| Creative Approach to Problem Solving |  |  |  |  |
|  |  |  |  |  |
| III. Presentation  |  |  |  |  |
| Clarity of Auditory Presentation  |  |  |  |  |
| Effectiveness and Use of Visual Display  |  |  |  |  |
| Well documented Entries in Lab Notebook  |  |  |  |  |
|  |  |  |  |  |



Tantasqua ***Engineering*** Fair Judging Criteria

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| I. Scientific Approach | Below Ave | Ave | Above Ave | Extra-ordinary |
| Identified Need or Problem  |  |  |  |  |
| Development of Clear Performance Criteria  |  |  |  |  |
| Well Constructed and Tested Prototype  |  |  |  |  |
| Retesting and Redesign  |  |  |  |  |
| Feasibility Study  |  |  |  |  |
|  |  |  |  |  |
| II. Understanding of Science |  |  |  |  |
| Application & Understanding of Design Process  |  |  |  |  |
| Conclusions are Consistent with Data  |  |  |  |  |
| Knowledge of Scientific Literature Relevant to Project  |  |  |  |  |
| Connections to other Disciplines  |  |  |  |  |
|  |  |  |  |  |
| III. Innovation/Creativity |  |  |  |  |
| Originality |  |  |  |  |
| Use of Unique Methods, Designs or Materials |  |  |  |  |
| Creative Approach to Problem Solving |  |  |  |  |
|  |  |  |  |  |
| IV. Presentation |  |  |  |  |
| Clarity of Auditory Presentation  |  |  |  |  |
| Effectiveness and Use of Visual Display  |  |  |  |  |
| Well documented Entries in Lab Notebook  |  |  |  |  |