Criteria for Judging Engineering Projects

Creative Ability
Questions asked
Approach to solving problem
Analysis of data
Interpretation of data
Use of equipment
Construction or design of new equipment
Total Points Awarded for Creative Ability (Maximum 30 Points)
Engineering Goals
Project has clear objective
Objective is relevant to potential users needs
Solution is workable, acceptable to potential user, and economically feasible
Solution could be utilized successfully in design or construction of an end product
Solution is a significant improvement over previous alternatives
Solution has been test for performance under the conditions of use
Total Points Awarded for Engineering Goals (Maximum 30 Points)
Thoroughness
Purpose carried out to completion within the scope of the original intent
Problem was covered completely
Conclusions based on a single experiment or replication
How complete project notes are
Student is aware of other approaches or theories
Amount of time student spent on project
Student is familiar with scientific literature in the studied field
Total Points Awarded for Thoroughness (Maximum 15 Points)
Skill
Student has required laboratory, observational and design skills to obtain supporting data
Location of project creation. Assistance received from parents, teachers, scientists, or engineers
Student largely complete project alone or work under adult supervision
Source of project equipment: Was it built independently? Was it obtained on loan? Was it part of the laboratory?
Total Points Awarded for Skill (Maximum 15 Points)
Clarity
Student clearly discusses his/her project and explains the purpose, procedure, and conclusions
Written material reflects the student's understanding of the research
Important phases of the project are presented in an orderly manner
Clear presentation of data
Clear presentation of results
How well project display explains the project
Presentation was done in a forthright manner, without tricks or gadgets
Student performed all of the work, or student received help from someone else
Total Points Awarded for Clarity (Maximum 10 Points)
Total Overall Score (Maximum 100 Points)