

## **Standards for Judging Science Fair Projects**

*The GSDSEF projects are judged by Standards aligned with the Regeneron International Science and Engineering Fair.*



### **CREATIVITY:**

Originality of problem, uniqueness of approach. The handling and interpretation of data should be commensurate with the grade level of the student. Ingenious use of equipment and materials is considered without regard to the cost of the items involved. The project demonstrates imagination and inventiveness, and often offers different perspectives, new possibilities or new alternatives.

### **SCIENTIFIC THOUGHT/ENGINEERING GOALS – Design and Methodology:**

**Scientific Thought:** The project demonstrates a thorough study and application of scientific methods to solve a well-defined problem. It includes background research, organized procedures, appropriate sampling, systematic data collection, and logical conclusions based on analysis. The research question is clear, focused, and testable, contributing meaningfully to the field. A well-designed plan outlines the sample size, number of trials, defined variables, controls, and data-driven conclusions. **Engineering Goals:** The project has a clear objective relevant to the needs of the potential user with defined criteria for the proposed solution. The product/process has been tested, is workable and feasible economically and ecologically, and demonstrates the intended design and objective.

### **THOROUGHNESS:**

**Science Projects:** The study is complete within the scope of the problem. Scientific literature has been searched, experiments have been repeated and careful records have been kept. Data collection and analysis is systematic and sufficient with appropriate application of statistical methods to support interpretation and conclusions. **Engineering Projects:** The project demonstrates the development of the process/prototype/model. Prototype has been tested in conditions/trials of intended usage and demonstrates engineering skills.

### **SKILL:**

Due credit is given for any special skills needed for the construction or use of equipment and for mathematical, computational, and observational & design skills, as well as whether project has been done at a school laboratory or in a research laboratory, and the degree of any assistance, mentoring, or professional guidance has been given.

### **CLARITY:**

The purpose, procedures, results and conclusion are clearly explained orally and through a display. Graphics and legends are understandable and clear. The project notebook is well organized, neat and accurate, and complete. Sources of ideas, data and assistance are clearly identified with supporting documentation clearly cited.

### **TEAM PROJECTS:**

The tasks and contributions of each team member are clearly outlined, and both team members are familiar with all aspects of the project. The final work reflects the coordinated efforts of both team members.