

# Standards for Judging Science Fair Projects

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 thorough study and scientific method application, addressing a defined problem. The research question is clear and testable, contributing to its field. It features a well-planned design, systematic data collection, defined sample size and controls, with conclusions drawn from data analysis.

**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 completely addresses the identified problem. Scientific literature has been searched, experiments have been repeated, and careful records have been kept. Data collection and analysis are systematic and sufficient with appropriate sample size, number of trials, and 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 the 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 of statistical analyses, and conclusion are clearly explained orally and through a display. Graphics and legends are understandable and clear. Axes on graphs are clearly labeled. The project notebook is well organized, neat, accurate, and complete. Sources of ideas, data and assistance are clearly identified and supporting documentation is clearly cited.

## TEAM PROJECTS

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