

PROJECT CATEGORIES AND LEVELS OF COMPLEXITY

Every project application will also be screened to determine its level of complexity. Printed here are the descriptions of the four levels of complexity for the three categories of projects.

Students aiming for maximum competitive success in the Fair should aim to devise projects at the fourth level of complexity.

EXPERIMENTS

LEVEL ONE: Duplicate a known experiment to confirm a hypothesis which is totally predictable.

LEVEL TWO: Extend a known experiment through modification of hypothesis, procedures, data gathering, application, research so that hypothesis is somewhat predictable.

LEVEL THREE: Devise and carry out an original experiment with controls. Variables are identified. Some significant variables are controlled. Hypothesis is less predictable. Data analysis includes graphic representation with simple statistics.

LEVEL FOUR: Devise and carry out an original experimental research which attempts to control most significant variables. Hypothesis is not predictable. Data analysis includes statistical analysis.

STUDIES

LEVEL ONE: Study of existing printed material relating to the basic issue.

LEVEL TWO: Study of material collected through compilation of existing data and through personal observations. Display attempts to address a specific issue.

LEVEL THREE: Study based on observations and literary research illustrating various options for dealing with a relevant issue. Appropriate arithmetic, graphical or statistical analysis in relation to some significant variable(s).

LEVEL FOUR: Study correlating information from a variety of significant sources which may illustrate cause and effect or original solutions to current problems through synthesis. Significant variable(s) identified with in-depth statistical analysis of data.

INNOVATIONS

LEVEL ONE: Build a model (device) to duplicate existing technology.

LEVEL TWO: Make improvements to, or demonstrate new applications for, existing technological systems or equipment and be able to justify them.

LEVEL THREE Design and build innovative technology or provide adaptations to existing technology that will have economical applications and/or human benefit

LEVEL FOUR: Integrate several technologies, inventions or design and construct an innovative technological system that will have commercial application and/or human benefit.