

What makes a Good STEM Fair Project?

Science Projects

- There must be a testable question and/or hypothesis for science projects.
- There should be clearly defined controls, if needed, where the control is compared to the experimental group.
- There should only be ONE change from one group to another so they can be compared.
- Quantifiable data: Most data should be expressed in numbers; avoid words like better, best, worst, darker, brighter, etc. which are subjective and qualitative.
- If human subjects are involved, there should be an adequate number of participants (50+ recommended, but fewer are okay if the overall project is strong).
- If plants are involved, there should be an adequate number of plants per treatment (30+ recommended, but fewer are okay if the overall project is strong).
- For most other projects, there should be a suitable number of data points/measurements per treatment to establish a trend or pattern. (10+ recommended)
- Some calculations should be done with the results/data – at least an average/mean.
- Any graph (usually a bar graph), picture, diagram should be labeled appropriately. Make sure the student has used the correct kind of graph to display data for this project.
- NO faces of any student participants may be shown. ONLY the experimenter's face may be shown if properly identified.

- Students should have analyzed data and drawn conclusions about their hypothesis.
- The conclusion must provide a logical, carefully analyzed answer to the question/problem posed at the beginning of the project. The hypothesis should be either accepted or rejected. Does the information flow correctly from problem → hypothesis → procedure → results → conclusion?

Engineering Projects

- For engineering projects, the testing and re-design process leading to the optimized design must be evident as well as any data students may have collected. For further information, see: [Engineering Project Information](#)

Computer Science Projects

- For computer science projects, evidence of original student works needs to be apparent—no commercial kit projects (robots, computers, drones, etc.). For further information, see: [Computer Science Information](#)

Math Projects

- For math projects, please see: [Math Project Information](#)