

FCPS County Science & Engineering Fair

Project Types

Below is a brief description of the three different project types that will be judged in the county science & engineering fair. For more detail, please see the judging sheet. As always, students will compete in categories (animal sciences, chemistry, etc.) but different project types may be present within that category.

In addition to category winners, an overall grand prize winner and an overall runner up, 1 champion of each project design type will be recognized per middle school and high school division.

Experimental Design - This project design is the "traditional" format which follows a step by step problem solving approach.

Examples: Which salt solution conducts electricity the best?

Observational/Theoretical Design - This project design can be more of a thought experiment, development of new theories and explanations, analysis of data from an outside source (satellites, field studies, etc.), formation of a new concept from the analysis of data, or design of a mathematical model.

Examples:

The changing bear population in Garrett County, MD from 2003 to present and its possible effect on future hunting regulations.

Is there a correlation between high sunspot activity and an active hurricane season?

Engineering Design - This project design defines a need or tries to make an existing device better. This project design usually involves the building of a prototype, testing the prototype and retesting and redesigning as needed.

Examples: Design and testing of a hoverboard.