



S.T.E.A.M. Expo Rules and Project Guidelines

Presentation

S.T.E.A.M. projects may be presented using a variety of formats such as a demonstration, a slideshow, a video, a hands-on activity or a traditional display board.

The presentation should communicate the following elements:

- Evidence of Inquiry
- Organizational procedure
- Visual representations of data such as tables and/or graphs
- Results

The use of technology is encouraged.
Spectator participation is encouraged.

Technology use

All students practice ethical, safe and legal behavior while using technology

Prohibited Items

Because safety for all is a concern, we must adhere to the following precautions

- Organisms, fungi, any type of cultured growth, spoiled foods or molds must be completely sealed. Petri dishes may be photographed or sealed.
- Human or animal feces may be displayed ONLY if completely encased in a plastic display medium such as Lucite.
- Syringes, mercury thermometers and similar devices are prohibited.
- Any flames, open or concealed are prohibited.
- Highly flammable, combustible gases, liquids, or solids are prohibited.
- Dangerous chemicals including caustics and acids are prohibited.
- Poisons, toxic and hazardous chemicals, drugs and other controlled substances are prohibited.
- Dry ice or other sublimating solids are to be handled by participant ONLY and with proper safety gear.
- Tanks that have contained combustible liquids or gases are prohibited unless they have been purged with carbon dioxide.
- Operation of a class III or IV laser is not allowed.
- Projects with belts, pulleys, chains, moving parts with tension or pinch points that pose a potential hazard to observers must be shielded unless movement is disabled.
- Any exhibit producing temperatures exceeding 80°C (140°F) must be adequately insulated from its surroundings.
- Batteries with open top cells are not permitted. Other types of batteries may be used for electrical power.

Special Care Needed

- High-voltage equipment MUST be shielded with a grounded metal box or cage to prevent accidental contact.
- Large vacuum tubes or dangerous ray-generating devices MUST be properly shielded.
- High voltage wiring, switches, and metal parts MUST be located out of reach of observers and designed with an adequate overload safety factor.
- Electric circuits for 110-volt AC MUST have an Underwriter Laboratories- approved cord of proper load-carrying capacity, which is at least nine feet long and equipped with a standard grounded or polarized plug.
- All wiring MUST be properly insulated; Nails, tacks, or uninsulated staples MUST NOT be used to fasten wiring.
- Bare wire and exposed knife-switches may be used only on circuits of 12 volts or less. The only power to be supplied will be standard 110-volt AC.
- Electrical connections in 110-volt circuits MUST be soldered or fixed under approved connectors. Connecting wires must be properly insulated.