Note to the Teacher: Test Bed Safety

Safety education must be an integral part of technology instruction. In order to prevent injury to students and teachers, good safety habits, practices and attitudes can best be acquired through a carefully planned and implemented safety education program.

This and other safety guidelines should not be construed to be an answer to all safety problems. They should be recognized as a vehicle for improving safety instruction and for building a strong safety program designed to instill positive attitudes toward safety—an important aspect of the education of every child.

Excerpted from: Pennsylvania Department of Education; Industrial Arts Association of Pennsylvania; Pennsylvania Industrial Arts Safety Guide

Because it uses a car battery, the extended testbed presents substantially greater dangers than the other lesson and resource material, which use comparatively small voltages.

You should not attempt to build the testbed in your classroom unless you are fully confident

- in your own abilities to assemble this testbed safely,
- in your ability to control your class or classes so that they will work safely with the testbed
- in your ability to control outsiders' access to the testbed, so that there is no possibility someone not under your supervision will endanger themselves through their access to it.

Always make sure the battery is disconnected and removed from the testbed when it is not in use. Always make sure you closely supervise the testbed when it is in use.

BATTERY SAFE PRACTICES

Because it is so common, there is a tendency to become careless in the storage and use of automobile batteries. The following are some rules of caution.

- **1.** Batteries should be stored or charged only in well ventilated areas. Do not breathe fumes of battery acid.
- **2.** All sources of ignition should be remote from the battery storage area; i.e., no smoking, no lighted matches, no sparking from tools.
- **3.** Do not work on batteries while on discharge or charge.
- **4.** Proper protective clothing should be worn when handling batteries: i.e., rubber gloves, face shield and apron.
- **5.** Metal jewelry such as rungs, bracelets or necklaces should not be worn around batteries.
- **6.** Deluge showers and eye baths should be provided adjacent to the battery charging area.
- **7.** Acid spills can be neutralized with weak ammonia solution or a bicarbonate of soda solution, or diluted by large quantities of water applied immediately.
- **8.** Battery chargers should be connected or disconnected only when charger is off and caps are in place.

9. When "jump starting" a battery, make the second connection of the jumper cable on the frame of the vehicle, not on the battery terminal.

Some of the more serious potential hazards from batteries are:

- **1.** Explosion due to improper connections.
- **2.** Acid spills caused by incorrect handling.
- 3. Back strain from improper lifting.