

**NSTA MINIMUM SAFETY GUIDELINES
FOR PRESENTERS AND WORKSHOP LEADERS**

PREAMBLE

The National Science Teachers Association, an organization of science education professionals dedicated to the stimulation, improvement, and coordination of science teaching and learning, supports scientific safety at all levels. Presenters, workshop leaders, contestants, and authors at NSTA-sponsored activities serve as role models for other science educators. As role models, these individuals must develop, encourage, and display good safety habits at all times. A good safety role model promotes positive safety in actions, words, behavior, and deeds. Science safety is an integral part of science education and serves as a preparation for life. Accordingly, NSTA encourages teachers to offer meaningful and safe science experiences both inside and outside the classroom. NSTA requires that all presentations, workshops, and related science-education activities, be conducted in accordance with recognized safety procedures and good common sense. The intent of the safety guidelines that follow is to promote safe science practices at all NSTA-sponsored activities.

**ALL PRESENTERS AND WORKSHOP LEADERS
MUST FOLLOW THE NSTA MINIMUM SAFETY GUIDELINES**

THE FOLLOWING MAY NOT BE PART OF ANY PRESENTATION OR WORKSHOP AT AN NSTA CONFERENCE UNDER ANY CIRCUMSTANCES:

1. Parts of the body are not to be placed in danger, such as placing dry ice in the mouth or dipping hands or fingers into liquid nitrogen or molten lead. Demonstrations such as the following shall not be conducted: walking on broken glass or hot coals of fire with bare feet, passing an electric current through the body, and lying on a bed of nails and having a concrete block broken over the chest.
2. Live vertebrate animals may not be used in demonstrations or for experimental purposes. Such animals may be used only for observational purposes provided the animals have been lawfully acquired, are housed in proper containers, and are handled in a humane way following the NSTA's "Guidelines for Responsible Use of Animals in the Classroom" (NSTA Position Statement).
3. Live ammunition, firearms, or acutely dangerous explosives, such as benzoyl peroxide, diethyl ether, perchloric acid, picric acid, and sodium azide, may not be used. Commercially available firecrackers and blasting caps shall never be employed.
4. Plants with poisonous oils (e.g., poison ivy), saps (e.g., oleander) or other plants known to be generally toxic to humans are not to be used. (Resource: Human Poisoning from Native and Cultivated Plants, by James W. Hardin and Jay M. Arena. The publisher is Duke University Press, Durham, NC 27708.)
5. Experiments or demonstrations with human blood/body fluids may not be conducted.
6. Radioactive powders, liquids, or solutions are not to be used in a non-laboratory facility.

GUIDELINES FOR PREPARING YOUR PRESENTATION:

1. Practice all demonstrations or workshop procedures BEFORE presenting them to an audience or having participants try them.
2. Research and understand the properties, chemical reactions, and dangers involved in all demonstrations. Plan to use correct handling procedures for all biohazards used. Arrange to have a fire extinguisher available whenever the slightest possibility of fire exists.
3. Prepare a handout that gives participants detailed instructions about the procedures, safety precautions, hazards, and disposal methods for each demonstration.
4. Prepare photographs, slides, videotapes, and so on that show safe science practices. When preparing these materials, safety goggles and equipment shall not be removed for aesthetic considerations.
5. In planning demonstrations and/or workshops, keep quantities of hazardous materials to a minimum. Use only those quantities that can be adequately handled by the available ventilation system. Do not carry out demonstrations that will result in the release of harmful quantities of noxious gases into the local air supply in the demonstration or other rooms. The following gases shall not be produced without using a fume hood: nitrogen dioxide, sulfur dioxide, and hydrogen sulfide. Volatile, toxic substances such as benzene, carbon tetrachloride, and formaldehyde shall not be used unless a fume hood is available.