Safety First

The number one priority of Carnegie Science Center is the safety and well being of our visitors. Before deciding which demonstrations to bring please review the following for potential safety hazards:

Burn Hazards	1) an open flame (candle, propane torch, alcohol burner, matches) 2) objects/liquids hot enough to burn a person not properly protected 3) flammable gases 4) hazardous chemicals Note: Place lit candles in holders so that they cannot be knocked over. Place holders toward the center or back of the table and place on a material that is flame retardant/resistant.
Shock Hazards	1) high voltage sources 2) non-shielded electrical wires
Poisons / Allergens	1) hazardous chemicals that are toxic when ingested or inhaled 2) latex gloves, latex balloons
Sharp objects	1) objects with sharp blades (knives, razor blades, large scissors) 2) objects that could cause puncture wounds (nails, pins, tacks) 3) objects that could shatter on impact with the floor (glass flasks, beakers, test tubes)
Choking Hazards	1) objects smaller than the diameter of a quarter that could pose a choking hazard for a young child 2) latex balloons: The Child Safety Protection Act of 1994 requires that all balloon packages have a choking hazard warning stating: "Children under eight years can choke or suffocate on uninflated or broken balloons. Adult supervision is required. Keep uninflated balloons from children. Discard broken balloons at once."
Vision Hazards	1) objects that explode during the demonstration 2) lasers, laser pointers

Any of these items pose a potential safety hazard if not used in a safe manner. That does not, however, mean that they may not be used at all.

Examples

- A good example of a safe demonstration: Bayer Corporation's Alka Seltzer rocket demo. Rockets to be launched are placed in a tall clear acrylic tube so visitors may watch from a safe vantage point.

- An example of an unsafe demonstration: Leaving a bowl of liquid nitrogen on a table with little supervision and allowing visitors to place balloons in the bowl with their bare hands

Considerations

- Be a role model. Follow good safety practices. Use goggles and gloves. Have a fire extinguisher readily available if necessary. Don't try to downplay safety issues or exaggerate them.

- When a young pyromaniac-want to-be asks what chemicals you are using or where you get your supplies, please don't tell them if the chemicals in question could be dangerous. A good general response is, "You need to be specially trained to obtain and use these kinds of supplies."

- Doing a demonstration on a tabletop in a highly-populated space is not the same as doing it on a stage where the physical proximity of the audience is not an issue.

- Visitors watching a tabletop demo are literally inches from the demonstration. Remember that fire, exploding objects with projectiles, sharp items or dangerous chemicals (including liquid nitrogen) all have the potential to seriously injure people if they are not used in a safe manner. **Anything that explodes, or has the potential to explode, must be properly contained.** The people viewing a demo from close quarters, particularly those who are very young or elderly, may not want to be surprised by loud explosions. **Always tell the audience when a loud sound / explosion is about to occur**, and ask them to step back away from the table.

- Remember that a wandering toddler may grab anything on your table and try to eat it or use it to whack her baby brother in the head. For this reason, make sure that all items on your table are nontoxic and unbreakable. **Make sure someone is monitoring the table and its contents at all times.**

- Some demonstrations do not appear to be dangerous, but really are.

- (Hey kids...don't try this at home!) Visitors believe that Carnegie Science Center is a safe place and that we have already taken care of childproofing our exhibits and demonstrations. For this reason, parents often let their children off alone to explore. While we do not condone this practice, be aware that it occurs.

PLEASE NOTE: If at any time the Carnegie Science Center staff deems a demonstration to be unsafe for use on the Exhibit Floor, he or she reserves the right to direct the demonstrator to discontinue the demonstration immediately.

If at any time you have questions regarding safety practices at Carnegie Science Center, please call your CSC contact person.

Science Is Messy

Hands-on science can be fun and messy. Yet Carnegie Science Center must maintain clean facilities and exhibits in order to provide a quality visitor experience.

- Some make-and-take activities can become burdensome for visitors to carry throughout the day, and we often find remnants of them on our carpet, elevators and on exhibits.
- Wet or slippery floors can be hazardous to both you and visitors.
- Wet or loose materials can damage electronic or mechanical functioning of exhibit components.

Please help make the best quality experience for your event participants by taking the following preventative preparations:

1) An event sponsored bag will help visitors transport all of their activities and promotional materials for the day
2) If you are creating a silly, slimy something that will slosh or spill, try taping a tarp or outdoor carpeting under your table. Outdoor remnants have been donated for such use with as little as a phone call or letter. Tarps can be purchased inexpensively at hardware home improvement stores.
3) Work with your event coordinator to determine the best location for your activity. Some activities work best outdoors or close to restrooms.
4) Some messy experiments such as cornstarch/water slime can be tamed by creatively limiting the interaction. For example: we tell visitors, “So you don’t end up wearing our Oobleck, please use only two fingers.”
5) Provide zip lock bags or closed containers for visitors to take samples home. Encourage them to wait until they are home to play with them.
6) Provide a trash can/box, paper towels or unscented baby wipes at your table for you or visitors who may need to wipe hands quickly.