

Glass Safety

Glassblowing can be creative and fun, but potential dangers lurk everywhere. Glassblowing does not need to be dangerous, but it can be. That is why you are taking this class; not only to learn basic glassblowing, but to learn how to do it safely. When approached with common sense, the dangers within this class are minimal. All actions in this class should be associated with their possible consequences. Everything should be dealt with an “*If I did this, what could happen?*” approach before you do anything. Following each rule in this list cannot prevent all accidents, the creativity of the accident prone is amazing. However, it should help to prevent the common careless ones.

The following are several potential actions that can set up dangerous conditions. This is by no means a comprehensive list. Rather, these examples should establish concepts of safety for all your actions in this lab, as well as any other lab you may find yourself in.

Long Glass: Stock glass is four feet long. Walking around in a crowded room with such a spear can hurt someone.

Therefore, watch where you walk and watch out *how* you carry the tubing. If you are walking with tubing, carry it low in front of you rather than high and/or off to the side. Cleaning glass tubing can also be dangerous if done carelessly. Look to see you don’t “wop” someone. On the other hand, when walking or working near someone cleaning glass, don’t assume they are watching out for you. Be defensive.

Cutting Glass: Glass knives are not sharp to the skin, but they can scratch glass. It does not take strength to create this scratch. However, if you bear down on the glass, you create incredible “pounds per square inch” forces that can crush the glass. It does not take strength to create the scratch, rather, it takes technique.

Sharp Glass: Cut or broken, glass is sharp. Whenever possible, fire polish glass before placing it in your mouth or holding it in your hands.

Hot Glass: Glass that is hot enough to burn looks no different than cold glass. Therefore, assume that all glass is hot until proven otherwise. Develop habits of placing recently made items in a location where you are unlikely to grab at them.

Glass Rods: Glass rods are tools in this class and are used to collect hot glass from the ends of other tubes. One end of a glass rod should always be balled up. This helps to identify the cold end of the glass rod. It also places a smooth round lump of glass in your palm rather than a sharp piece of glass which may otherwise cut you. Use of an improperly prepared glass rod will cause loss of one homework point for each offense.

Glass ‘Angels:’ If a glass bubble is blown out too forcefully, the bubble becomes very thin and pops. This leaves very very thin glass shards floating through the air. These are potentially dangerous to breathe. If they land on a flat surface such as glass or eye glasses, they will fuse onto the surface and it may not be possible to remove them. If you do ‘pop’ a glass bubble and create some glass angels, take the spray bottle (filled with the glass cleaning solution) and spray the angels with a fine mist. This mist will weigh the angels down to the table top or floor where they are harmless.

Oxygen/Gas Torches: These torches emit a very hot flame (several thousand degrees centigrade). There are times when you will be taking them out of their holders and aiming the flame at various glass items. Be sure to aim the torch away from flammable objects such as paper, corks, hair, and skin.

Trash Cans: There are two types of trash cans in a glass lab: those for scrap glass, and those for refuse. Paper, plastics, and other combustible items should never go into a trash can that may also receive hot glass. Never, never, never, ever reach into a trash can that contains glass with your bare hands!!! Aside from the possibility of picking up a piece of hot glass, there is also a possibility of stabbing yourself with a piece of glass. Such a piece of glass may not be in your sight line, and you may not see it until it is too late. If you need to retrieve an item out of a glass trash can, use a pair of tweezers.

Oxygen Regulators: Be sure to blow out all dust before attaching any regulator to a compressed gas tank. Never oil a fitting, especially an oxygen regulator: compressed oxygen in contact with oil will explode.

Glass Tools: Most of the tools used in glassblowing are fairly harmless. The one exception is the tungsten pick. This is a sharp needle attached to a small metal handle. Like anything sharp, it can pierce skin.

Any roughhousing, dangerous playing, or any action deemed a careless disregard for the safety of yourself or any other person in this class, is cause for immediate dismissal with the grade of F.

Your signature on this paper means that you have read and understand the memo and are aware of the dangers (and potential dangers) of the glass class.

(Name) _____

(Date) _____