

**You must know all of these rules, techniques and procedures in order to participate in any of the Lab Activities**

**Before beginning any activity**

- Know what is expected
- Prepare a clear work environment
- Wait for permission to start
- Whenever special attention is needed in a Lab activity you will see the word Caution (This means that special care must be taken when proceeding with this activity)

**General Safety Precautions**

- Work quietly and carefully
- Never work alone
- Wear appropriate clothing
- Wear safety equipment
- Inform your supervisor of health-related problems, allergies
- Never eat or drink In the Lab area
- Do not attempt Lab activities at home unless told to do so by your teacher, and only under the direct supervision of an adult
- Touch substances only when told to do so
- Smell substances using the proper technique (wafting fumes toward you)
- Pour substances properly and safely
- Rinse off substances immediately that come into contact with skin or clothing
- Wash hands after handling substances and before leaving the Lab
- Clean up all spills Immediately
- Dispose of harmful substances by following teacher's directions

**Handling a Heat Source**

Use hot plates that have thermostatic controls. Use a beaker of water on a hot plate to heat substances In test tubes. Use heat-resistant glass (Pyrex or Kimax) - never use cracked glass. Always keep the open end of the test tube pointed away from everyone. Never allow any container to boil dry. Use tongs or gloves to pick up hot objects. Turn off hot plate when not In use. Unplug cords by pulling on the plug, not the cord. Report and replace equipment that has frayed or damaged cords. Make sure electrical cords are placed properly where no one will trip over them. Treat burns using cold water or ice

**Handling an Open Flame**

- Locate fire safety equipment before using any open flame (fire blanket, fire extinguishers, fire alarm, first-aid kit)
- Know the proper procedures for using a Bunsen burner In the Lab
- Remove all flammable substances from the room before lighting a flame
- Use a test tube holder if the test tube Is being heated in an open flame
- Point the open end away from yourself and others
- Gently move the test tube back and forth over the flame so that it is heated evenly

**Other Recommendations**






- Dispose of broken glassware as instructed by your teacher
- Report broken or damaged equipment immediately (DO NOT USE IT)
- Clean up work area completely when you are finished
- Wash all glassware thoroughly and place in drying racks
- Report all accidents to the teacher immediately (no matter how minor)




**SAFETY RULES**

- **Do not perform unauthorized experiments.**
- **Never work in the lab alone.**
- **Report all accidents immediately to your teacher.**
- **If vapors generated are toxic, use a fume hood.**
- **Wear chemical splash goggles.**
- **Wear a chemical resistant apron.**

- **Wear chemical resistant gloves.**
- **Tie back long hair.**
- **Do not wear loose sleeves.**
- **Do not wear shorts.**
- **Do not wear sandals.**
- **Do not wear contact lenses.**
- **No food or beverages.**
- **No gum chewing.**
- **Do not leave experiments unattended.**
- **Know the location of all of the science lab safety equipment, exits and telephone.**
- **(safety showers, eye wash, fire blankets, fire extinguishers)**
- **No running.**
- **Keep aisles clear.**
- **Extinguish burners when away from desk.**

#### Workplace Hazardous Materials Information System (WHMIS)

	<p><b>Compressed Gas</b></p> <p>This symbol is in class A and is used to inform people of compressed gas. This category includes such things such as propane bottles, butane bottles, and acetylene bottles.</p>
	<p><b>Poisonous and Infectious</b></p> <p>This symbol belongs to class D-1 and is one of the most commonly found symbols in homes across North America. This symbol represents materials that are toxic when ingested. This category includes such common products as bleach, Mr. Clean, and Tide. Most household chemicals and cleaners contain this symbol and has become known as the symbol for poison.</p>
	<p><b>Oxidizing</b></p> <p>This symbol informs people that this substance produces oxygen when burned. This specific reaction creates a high problem for combustion and has to be stored in special containers and must be transported with extreme care.</p>
	<p><b>Dangerously Reactive</b></p> <p>This symbol is found on some household products and on a large number of lab chemicals. It means that when certain chemicals are mixed they will react and produce a harmful side effect. Some chemicals that should not be mixed are bleach, drain cleaner, and ammonia because, when combined, they will form a toxic gas.</p>
	<p><b>Flammable and Combustible</b></p> <p>This symbol is the Flammable and combustible material, which is in class B and tells a person that certain substances will react with a flame and burn. Some materials that fit into this category are gas and oil. These substances are highly flammable and ignite with little effort.</p>

	<p><b>Corrosive</b> This symbol is the second most common symbol found in homes across North America. This symbol is most commonly found on products such as bleach and battery acid, which are highly corrosive and are able to burn organic matter.</p>
	<p><b>Toxic / Infectious</b> This symbol belongs to class D-2 and is one of the less common symbols found in homes. It is more commonly found in Chemistry Labs. This symbol is somewhat similar to the fourth symbol, but chemicals that fit into this category cause slower effects to the body. Some examples of this are arsenic and nicotine.</p>
	<p><b>Biohazardous</b> This symbol is often found in hospitals and is put on products that have materials that are harmful, such as viruses or bacteria. Examples of bacteria that fall into this category are ebola and the flesh eating disease.</p>