

## Lab Safety Review

### Reading Directions

- Read over lab documentation / watch pre-lab video before entering lab
- Following all safety warnings in written and verbal lab instructions
- Not following directions can lead to injury or worse...

### Food and Drink

- Never eat food or drink during lab
- Lab surfaces, including tables, chairs, and counters are likely contaminated
- Do not eat anything made or being used in lab

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## Lab Safety Review

### Performing Unauthorized Experiments

- Interactions between chemicals in lab are complex
- Overheating substances can cause
  - Glassware to break or shatter
  - Explosions, or materials to catch on fire
  - Production of dangerous liquids or gases

### Clean and Tidy Lab Environment

- Dirty and messy labs lead to more accidents
- Items in hallways lead to dangerous tripping hazards

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## Lab Safety Review

### Safety Equipment

- Eyewash Stations, Fire Extinguishers, Fume Hoods, and Safety showers are in the lab for your safety in the front of the class
- Always inform instructor before using safety equipment

### Laboratory Observation

- Students must remain at their lab when experiments are going on until lab is completely over
- Lab accidents can happen at anytime and being at the station to react minimizes impact of accidents

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## Lab Safety Review

### Chemical Spills, Chemical Skin/Eye/Clothes Interaction

- Contain all chemical spills with chemical spill kits
- Instructor will give you specific instructions during pre-lab on any possible skills
- If chemicals get on your skin or clothes wash skin in laboratory sink for 15 seconds. For large spills use the laboratory shower
- In chemicals get into eyes use eyewash station for at least 30 seconds, up to 2 minutes
- Inform instructor about any spills or other hazards as soon as possible after incident occurs

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## Lab Safety Review

### Obtaining and Pouring Chemicals

- Always pour chemicals from stock containers into smaller *reagent* containers, and never in reverse
- Always pour containers away from yourself and others in the lab
- For solids scoop solids slowly using a spatula or scoopula instead of pouring directly

### Broken Glassware

- Don't touch small pieces of broken glassware with bare hands
- Only throw broken glass in the glass disposal box

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## Lab Safety Review

### Handling and Using Glassware

- Always check glassware for chips, crack, and damage prior to using them in lab.
- Chipped or cracked glassware can break until pressure or while using to heat up chemicals

### Heating and Cooling Glassware

- Glassware is sensitive to changes in temperature and will break when there is a large difference in temperature
- Do not rinse or place hot glassware on a cold countertop
- Do not touch hot glassware without hot mitts or hot pads

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## Lab Safety Review

### Bunsen Burners

- Bunsen burners use natural gas like your stove at home. Natural gas is explosive and will catch fire if there is a leak
- Alert instructor if you smell gas at any point during class when the burners are not being used
- Keep all flammable objects including long hair, paper, clothing, and jewelry away from burner flame
- Do not look directly over burner or hot plate. A malfunction with the burner can cause the gas to explode in your face. A heated chemical can boil or produce steam without warning and burn you

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## Lab Safety Review



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