

# Lab Safety Notes

**LAB SAFETY**



**Protective Goggles**

**Gloves**

**Closed toe shoes**

**SCIENCE LAB SAFETY**



# Warm Up #1, write question and answers!!

1) Why is safety important?

2) Name 2 safety facts you already know:

*E.g. Look both ways before you cross a street*

3) *How did you learn these?*

4) *Who taught you these safety facts?*



# Examples



- Hold scissors by the handles, don't run with them
- Don't run around pool
- Drink cool liquids when its hot
- Wear a helmet when biking/skateboarding/riding motorcycle
- Look both ways before crossing road
- Obey speed limits
- Wash your hands after using restroom



- Was it hard to identify safety facts? Why / why not?
- Did they seem like common sense?



# The Connection

- We want lab safety to become so well known that it feels like common sense!!!!

Emergency Safety Equipment



# Purpose of learning Lab Safety:

- Title this notes section: “Lab Safety Notes”
- Watch video → write down as many safety facts as you can in your notes!!! (AGJS Lab Safety Rap, 3:23)
- <https://www.youtube.com/watch?v=xJG0ir9nDtc>
- “I will know the location and proper use of the safety equipment in the lab. I will know the appropriate safety protocol in the event of an accident or emergency.”





# Lab Safety Notes



# Now we'll review some safety rules...

- If you didn't already write it down in your notes make sure to write it now!!!
- Remember you'll need these to create your safety comic strip using some of these safety facts later

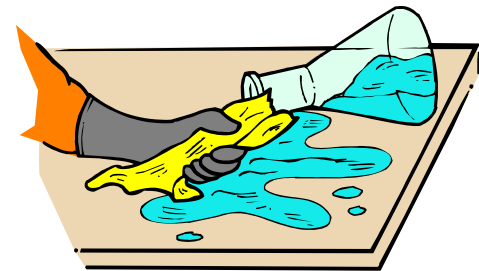




# General Safety Rules



1. Listen to or read instructions carefully **BEFORE** attempting to do anything.
2. Wear safety goggles!
3. Notify your teacher if any spills or accidents occur.



# General Safety Rules

4. Wash hands after dealing with chemicals!



5. During lab work, keep your hands away from your face.

6. Tie back long hair.



# General Safety Rules

7. Roll up loose sleeves.
8. Know the location of the fire extinguisher, eyewash station, & first aid kit. (all in room B120)
9. Keep your work area uncluttered.  
Neat area = safe



# General Safety Rules

10. Better to wear **glasses** rather than contact lenses when dealing with chemicals. Any chemicals in the air can get trapped between the eye & contact lens, where their concentrated.



11. **Never** put anything into your **mouth** during a lab experiment.



# General Safety Rules



12. **Clean up your lab station!!!!** Waste chemicals go in specific containers, return reusable materials, wash all glassware with soap & water and wipe down desks with sanitizing wipe (especially important when working with biological items e.g. liver or bacteria).



13. Make sure sink area is cleaned & dry after labs. This is both a safety & classroom guideline!





# Glassware Safety



1. Chipped or cracked glassware should not be used. Show it to the teacher

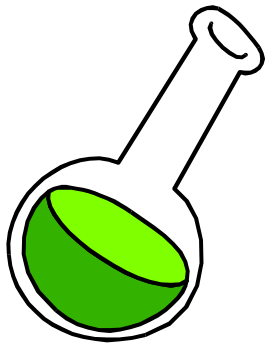


2. Broken glassware or Biological waste should not be disposed of in a classroom trashcan. There are special, labeled broken glass or Bio waste containers for these. Notify teacher!



3. As needed or if directed, use broom and dustpan to clean area.





# Glassware Safety



4. Do not place **hot glassware** in water. Rapid cooling may make it shatter.



# Chemical Safety

1. If you need to smell the odor of chemical, waft the fumes toward your nose with one hand.



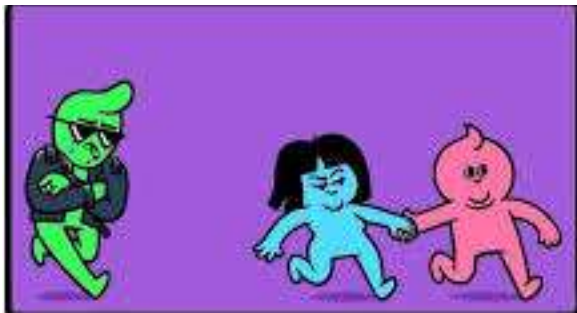
**Do not** put your nose over the container & inhale the fumes- your nose, throat or lungs could be damaged.



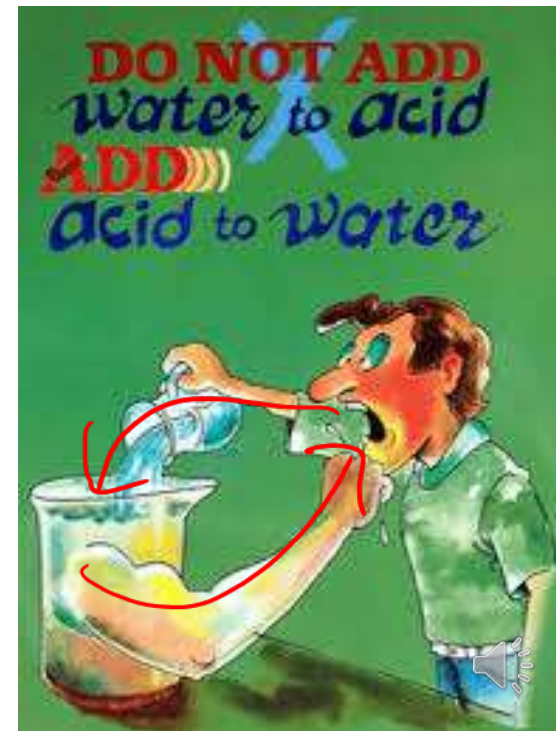


# Chemical Safety

2. Never pour water into a concentrate **acid** - it could splash out & hurt you! **Acid** should be poured slowly into water (acid is poured into swimming pools, not the other way around)



Don't do it!



# Chemical Safety

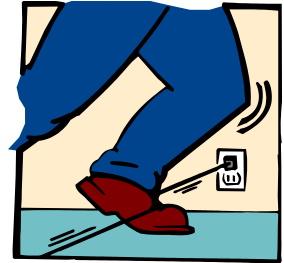


3. **Follow the instructions** of your teacher when disposing of all chemicals or Biological samples.



# Electrical Safety

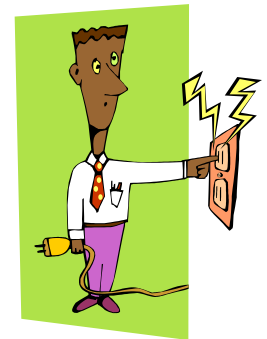
hopefully this is common sense....



1. Lay **electrical cords** where no one can trip on them or get caught on them.

2. Be sure your **hands and your lab area are dry** before using electrical equipment.

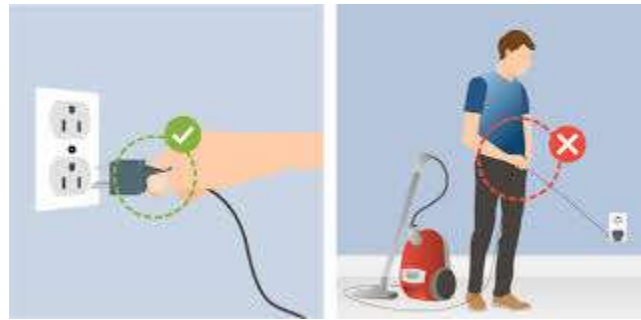
3. Never poke anything into **electrical outlets**.



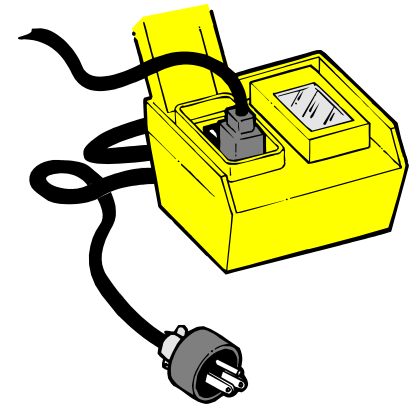
# Electrical Safety



4. Unplug cords by **pulling the plug** and not the cord.



5. **Unplug** all electrical equipment at the **end of the lab period**.



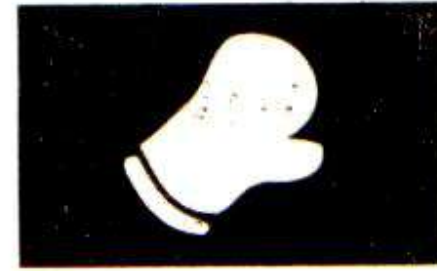
# Heating Safety



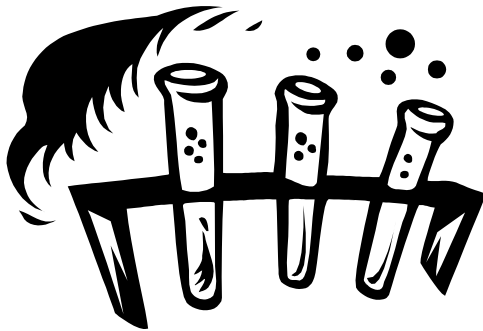
1. Let burners and hotplates cool down before touching them.
2. Use tongs and/or protective gloves to handle hot objects.
3. Never reach across an open flame or burner.



# Heating Safety



4. Always point the **top ends of test tubes** that are being heated **away from people**.



Heating Test Tubes

- ❑ NEVER point the mouth of a test tube or Erlenmeyer flask at yourself or another person!
- ❑ ALWAYS direct the mouth away from people!

Wrong! Correct!



# First Aid



## Injury: Eyes

- What To Do:
- Find eyewash station
- Push plunger on eyewash station while your head is directly above where the water comes out
- Rinse eyes for 15 minutes while rotating eyes in all directions



# First Aid



**Injury: Spills on the skin**

**What To Do: Flush with large quantities of water**

**For acid spills, apply baking soda solution or soap**

**For base spills, apply vinegar or weak acid**





# Ethical treatment of animals!

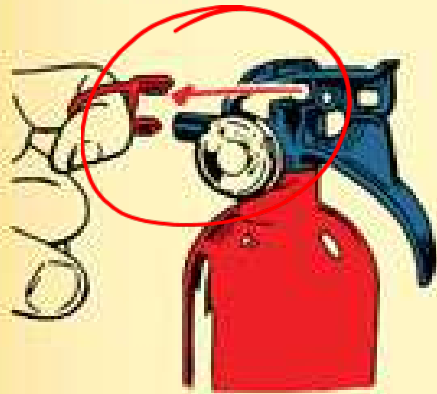
- - Handle all living organisms or Biological items used in a laboratory activity in a humane manner & appropriate.
- - Preserved biological materials are to be treated with respect and disposed of properly.



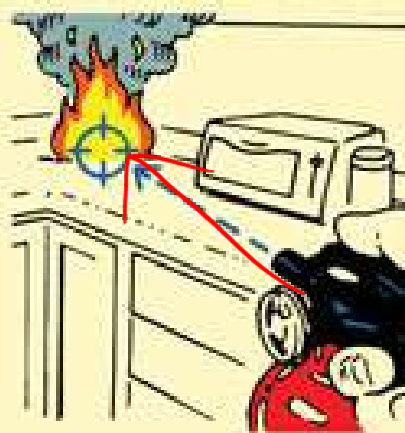
# Using Fire Extinguisher

## HOW TO USE A FIRE EXTINGUISHER

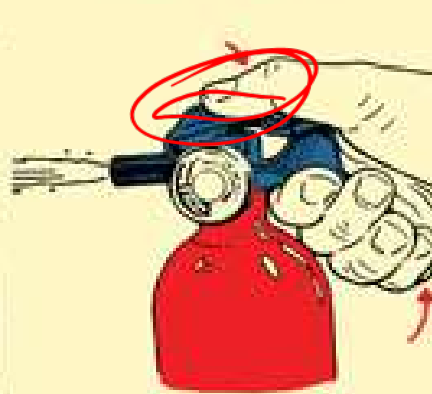
# P A S S



**Pull** the pin  
in the handle



**Aim** the nozzle  
at the base  
of the fire



**Squeeze** the  
lever slowly



**Sweep** from  
side to side



# If you catch on fire - STOP DROP AND ROLL!!!

## How to use fire blanket



Stop.



Drop.



Roll.



- If person is on fire wrap fire blanket (or large towel) around them completely (except head so they can breathe unless head is on fire) until fire is out. Remove blanket from head if necessary after 30 minutes to 1 minute
  - Seek immediate medical assistance
  - If object is on fire simply smother it with fire blanket
- USE FIRE BLANKET on person's hair or clothing**



# Earthquake/fire escape route

- -Exit B quad and head towards lunch tables.
- -Continue in that direction (east) and line up on field

