

**Lab Safety: Everyone Is Responsible!**

# **Safety In the Science Lab**

## **Rules and Symbols**



Millbrook Middle Junior High





# Safety First

- Safety is my #1 priority in the science lab.
- Science is a hands-on laboratory class.
- You will be doing many laboratory activities, which require the use of hazardous chemicals and expensive lab equipment.
- To ensure a safe science classroom, a list of rules has been developed and provided to you in your student safety contract.
- These rules must be followed at all times.
- A signed lab safety contract and a passing grade on the safety test is required to participate in labs.



# General Safety Guidelines

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- Be Responsible at All Times. No horseplay, practical jokes, pranks, etc.
- Follow all instructions carefully.
- Do not play with lab equipment until instructed to do so.
- Food, drink, and gum are not allowed in the science classroom.
- Stay at you lab station unless directed to move.



# General Safety Guidelines

- Keep the science room clean and organized.
- Notify the teacher immediately of any accidents or unsafe conditions in the science classroom!
- Wash your hands with soap and water after experiments.

**Lab Safety: Everyone Is Responsible!**



General danger

# Use Your Head



Poison

- You will be performing lab experiments this year that involve chemicals, open flames, and flying objects.
- Read lab instructions ahead of time
- Always follow lab procedures exactly
- Never do an unauthorized experiment

# Safety Symbols



- Know safety symbols
- They appear in your laboratory activities
- They will alert you to possible dangers
- They will remind you to work carefully





# Protect Yourself Eye Safety



- Wear safety goggles when working with chemicals, flames, or heating devices or if possibility of flying debris



- If you wear contact lenses let your teacher know



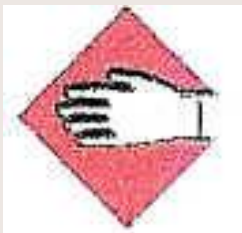
# Protect Yourself Proper Attire



- Keep long hair tied back.
- Do not wear loose clothing that could catch on fire
- Foot wear that completely covers the foot is required







# Protect Yourself Hand Safety

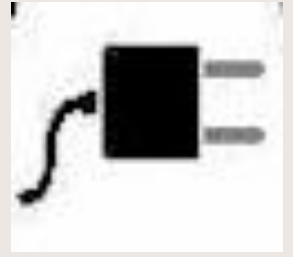


- If a chemical spills on your skin, notify the teacher and rinse with water for 15 minutes
- Wash hands after every lab
- Handle glassware, sharp tools and heated containers carefully





# Electrical Safety



- Only electrical plugs are to be placed into an electrical outlet
- Unplug electrical equipment after use
- Keep all electrical cords, wires, and appliances away from water





# Physical Safety



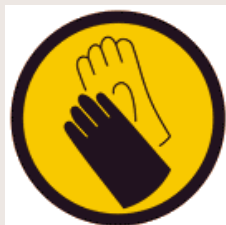
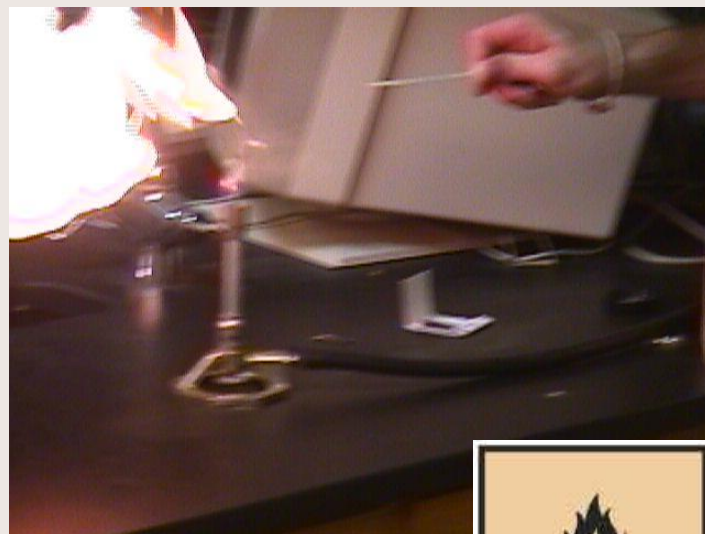
- Handle all equipment carefully
- Do not place a cord where someone can trip over it
- Push all stools under the table, so that they are out of the way while you are standing.
- Keep book bags in the backpack corral, and picked up out of walking isles



# Heating Safety



- Tie back hair and loose clothes when working with open flames
- Never look into a container as you are heating it
- Never point the end of a test tube being heated at yourself or others
- Never heat in a closed container





# Heating Safety



- Never leave a heat source unattended
- Heated metal and glass looks cool, use tongs or gloves before handling
- Do not place hot glassware directly on lab desk or in cold water







# Chemical Safety



- Read all labels twice before removing a chemical from the container



- Only use the type and amount of chemical instructed to use
- Never touch, taste, or smell a chemical unless instructed by the teacher
- Never mix chemicals unless instructed to do so



# Chemical Safety



- Transfer chemicals carefully!
- Keep lids on chemical containers when not in use
- When diluting an acid, pour the acid into water
- Consider **all** chemicals dangerous



Corrosive



Radioactive



Biohazard



Poison



Oxidizing



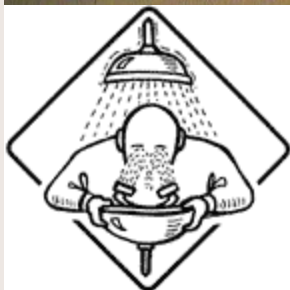
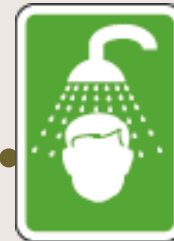
Explosive



Flammable



# In case of an emergency...



- Know the locations of:
  - fire extinguisher
  - fire blanket
  - body shower
  - eyewash station
  - first aid kit



- If you spill a harmful chemical on yourself or in your eyes, start rinsing immediately and send your partner to get teacher's help



# Safety Equipment



- Fire Blanket – Located in back of classroom in the red container
- Fire Extinguisher – Located on the wall

To operate the fire extinguisher remember **P-A-S-S**

**P**- Pull the Pin

**A**-Aim the hose at the base of the fire from 5-6 feet away.

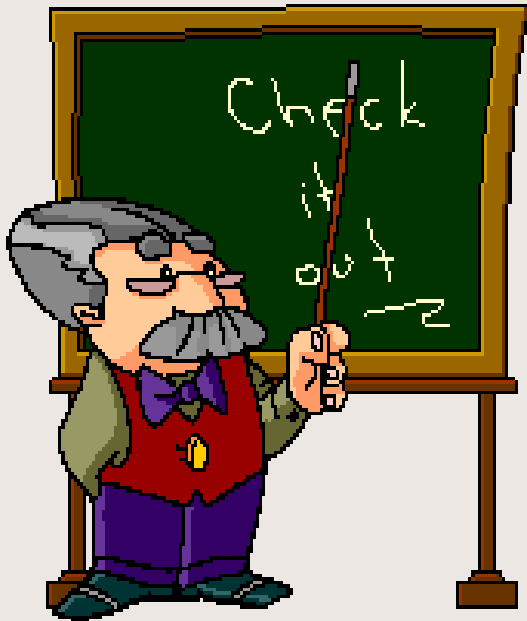
**S**-Squeeze the handle.

**S**-Sweep the hose back and forth across the fire.

On Fire?

**REMEMBER: Stop, Drop, & Roll**

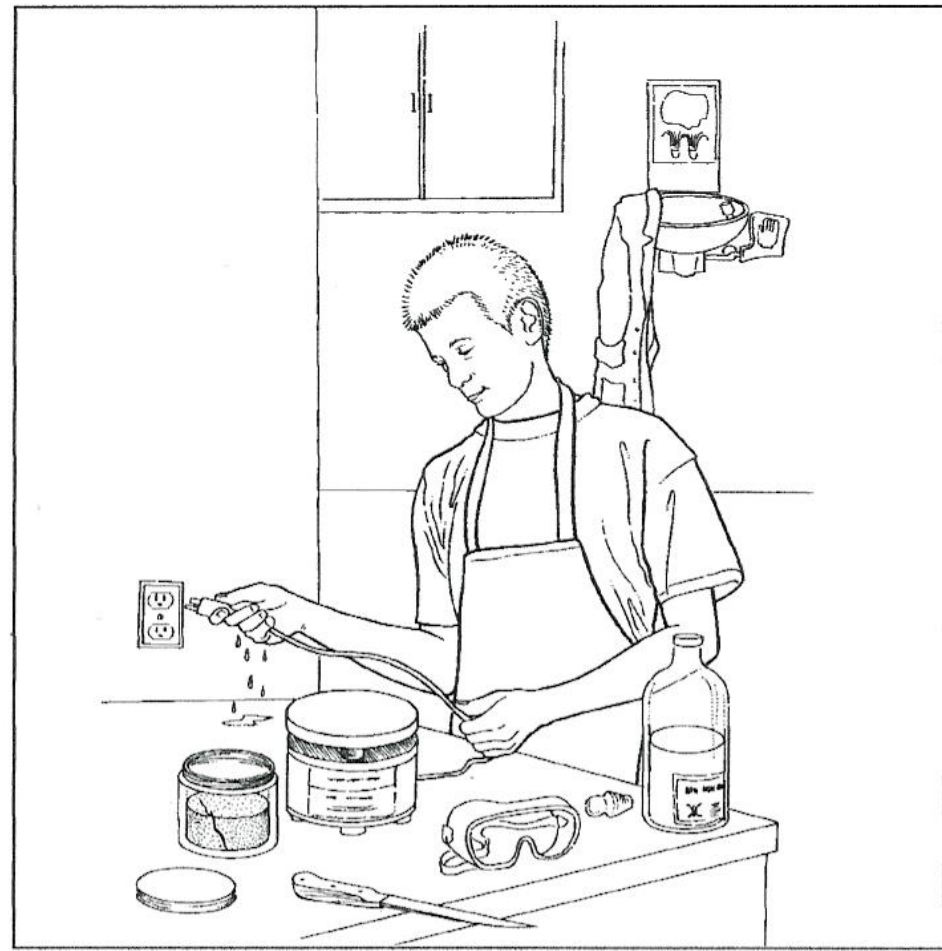
# Remember to...



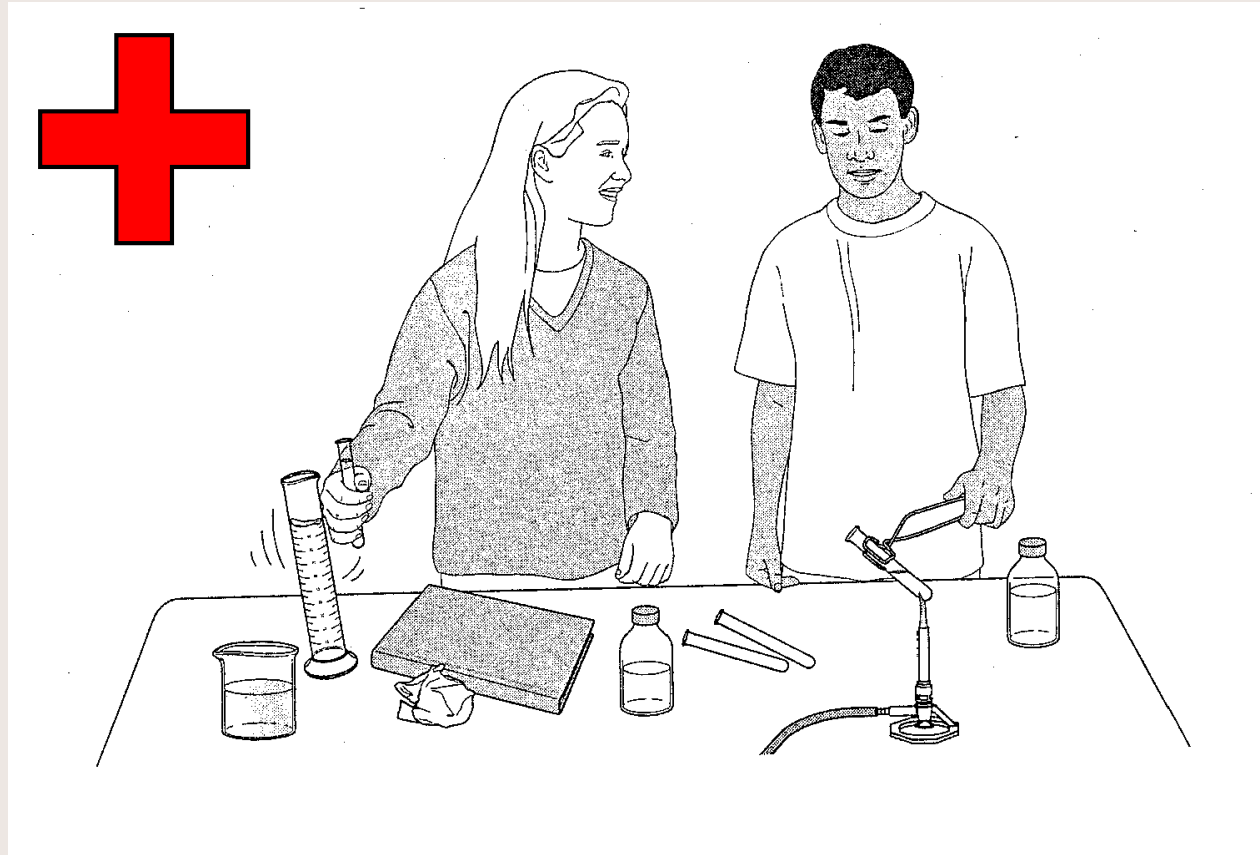
- Stay at your work station
- Maintain a clean work area
- Read and follow all directions
- Report any spills, accidents, or injury to the teacher immediately
- Clean and put away all equipment at the end of the lab period
- Dispose of waste products according to instruction



# What's Wrong With This Picture?



# What's Wrong With This Picture?



# What's Wrong With This Picture?





# What's Wrong With These Statements?

- Hal says that his teacher is solely responsible for preventing laboratory accidents.
- Keshia started the lab activity before reading it through completely.
- Ricardo decided to do a lab activity that he read about in a library book before the teacher came into the classroom.
- Stephanie says that the safety goggles mess up her hair and give her raccoon eyes. She refuses to wear them.
- Barbie and Ken accidentally break a beaker full of some chemical. Instead of risking getting in trouble they quickly clean up the mess with paper towels and throw it in the garbage.

# What To Do In An Emergency

If there is a fire or fire alarm

- Quietly get up and push in your chair.
- Walk toward the outside classroom door.
- Walk to the basketball court.
- Quickly line up in alphabetical order by last name.
- Remain in line until the drill is over.
- Remain silent throughout the entire alarm so that all people can hear important directions.



**Lab Safety: Everyone Is Responsible!**



# Any Questions?



## REMEMBER:

- Carefully read through the entire safety contract and sign.
- Have your parents read and sign your safety contract.
- Study for the safety quiz later this week!