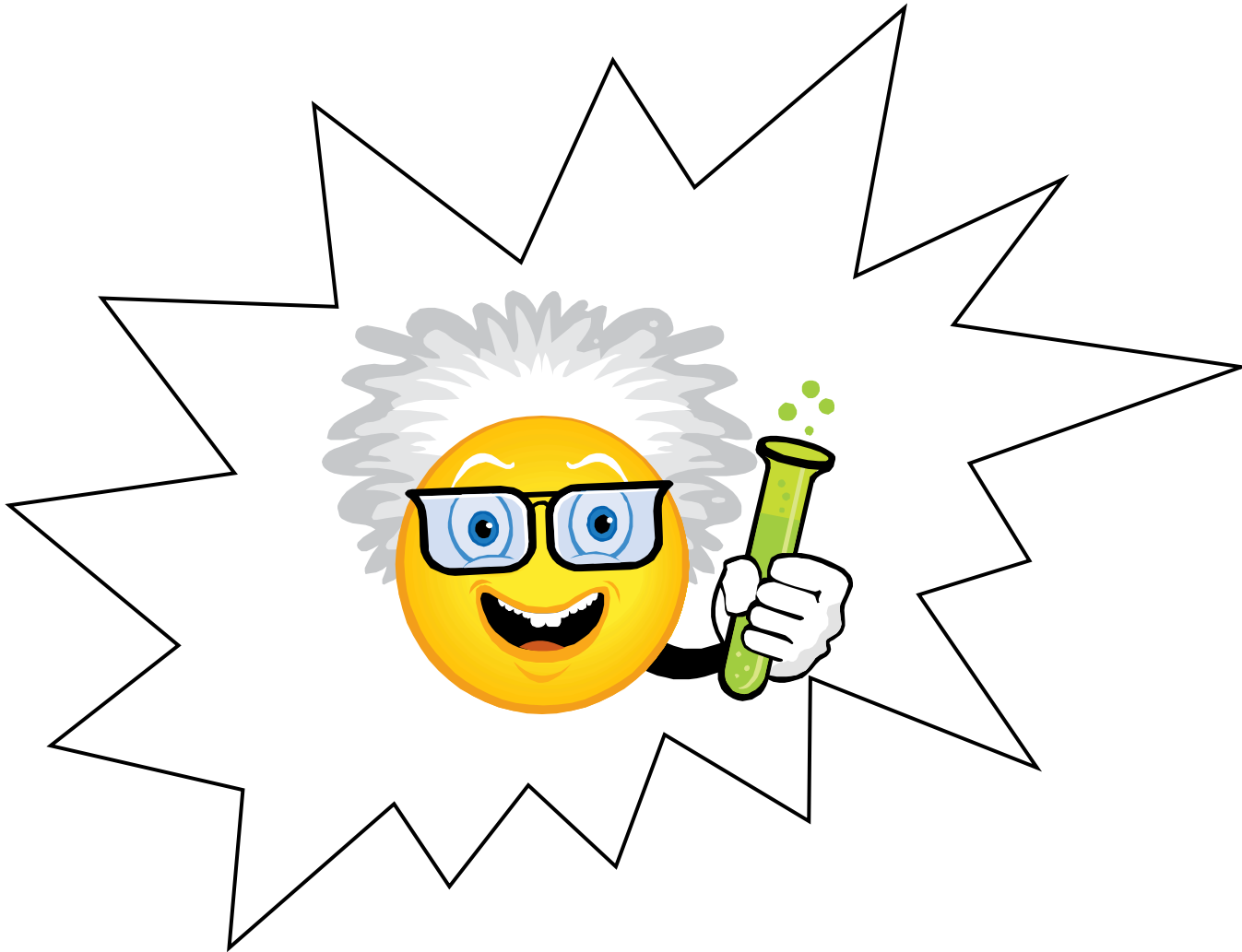


# Safety in the Science Lab!!



# Safety Equipment

<u>Equipment</u>	<u>Use/Function</u>
Safety Goggles	<ul style="list-style-type: none"><li>•Protect eyes from chemical spills and/or projectiles</li></ul>
Aprons	<ul style="list-style-type: none"><li>•Protect skin and clothing from chemical spills</li></ul>
Fire blanket(s)	<ul style="list-style-type: none"><li>•Wrapped around burning object to suffocate/extinguish flames (e.g. hand or arm)</li></ul>
Fire extinguisher(s)	<ul style="list-style-type: none"><li>•Used to suffocate and extinguish flames</li><li>•Directed at flames from a 2 meter distance</li></ul>

# Safety Equipment

<u>Equipment</u>	<u>Use/Function</u>
Eyewash station	<ul style="list-style-type: none"><li>•Used to rinse/wash chemicals from eye region</li><li>•Gentle application of water to both eyes for 15 mins</li></ul>
Broken glass container	<ul style="list-style-type: none"><li>•Container in which broken glass is placed</li></ul>
Emergency shower	<ul style="list-style-type: none"><li>•Used to rinse/wash chemicals from skin and hair</li><li>•Clothing should be removed</li></ul>
First Aid kit(s)	<ul style="list-style-type: none"><li>•Used to treat minor cuts and burns</li></ul>
Soap & Paper Towel	<ul style="list-style-type: none"><li>•Used to clean up/dry minor spills/hands/equipment</li><li>•Used to wash/disinfect hands</li></ul>

# Household Hazardous Product Symbols



Poison Flammable Explosive Corrosive

Danger













Warning

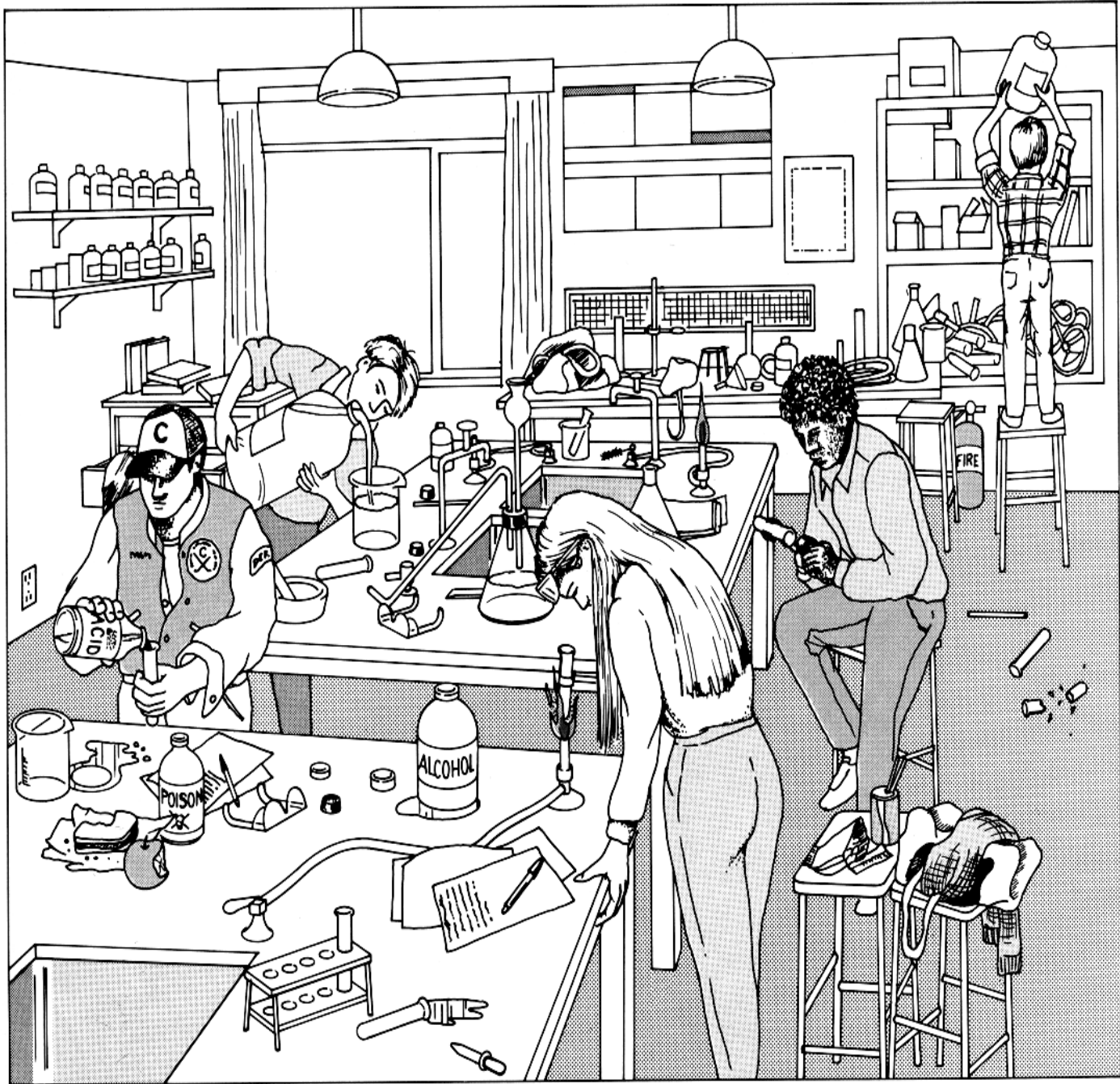


Caution



# WHMIS Product Symbols

	<b>Exploding bomb</b> (for explosion or reactivity hazards)		<b>Flame</b> (for fire hazards)		<b>Flame over circle</b> (for oxidizing hazards)
	<b>Gas cylinder</b> (for gases under pressure)		<b>Corrosion</b> (for corrosive damage to metals, as well as skin, eyes)		<b>Skull and Crossbones</b> (can cause death or toxicity with short exposure to small amounts)
	<b>Health hazard</b> (may cause or suspected of causing serious health effects)		<b>Exclamation mark</b> (may cause less serious health effects or damage the ozone layer*)		<b>Environment*</b> (may cause damage to the aquatic environment)
	<b>Biohazardous Infectious Materials</b> (for organisms or toxins that can cause diseases in people or animals)				



# Lab Safety Rules – THINK!!

- **Think**, before doing anything in the laboratory.
- Maintain quiet behaviour during lab periods. Never rush. Always be prepared to stop quickly.
- Come to the lab **PREPARED**. Read experiments carefully before doing it. Know the location for equipment in the lab. Books not in use should be put aside.
- Report all injuries to the teacher immediately, regardless of how minor (cuts, burns, scrapes).
- Learn to light the Bunsen burner correctly (you will be instructed by your teacher). Keep your head back from the burner when using it. Long hair should be behind your shoulders, and back if possible.
- The most common injury is a **BURN** caused by touching objects that have been heated. Hot glass looks the same as cold glass.

# Lab Safety Rules – THINK!!

- When removing an electric plug from the socket, pull the plug **NOT** the cord.
- Wash your hands with soap after **EVERY** lab period especially if you have been handling chemicals or doing bacterial labs.
- Clean up chemical spills **IMMEDIATELY**. The desk should be clean and dry throughout the experiment. That drop of liquid may be acid and not water.
- Put all broken glass in the broken glass container. Report all cracked glassware to your teacher **IMMEDIATELY**.
- If you spill acid or base on your skin, immediately **FLUSH** the area with lots of water. Tell the teacher who will take further action (A baking soda solution may be added).



# Lab Safety Rules – THINK!!

- If acid or any chemical is splashed in your eyes, **FLUSH** them with lots of water for at least 10 minutes (at the eyewash station if available).
- When heating a test tube containing a liquid, heat **GENTLY** and point the tube away from anyone. Slant it towards the wall.
- Keep your **SAFETY GOGGLES** on, when told to do so by the teacher.
- Clamps holding material to the edge of the desk must be pointed down.
- Quickly rotating materials should be thoroughly checked prior to the beginning of the experiment. A small piece of material moving quickly has a tremendous potential to damage.
- Be familiar with the **LOCATION** and **USE** of safety equipment in the classroom or lab (e.g. fire blanket, fire extinguisher, safety goggles, first aid kits, etc.)

# Lab Safety Rules – DO NOT!

- Wear contact lenses, loose clothing, or hanging jewelry during an experiment.
- Smell chemicals without permission from the teacher. Use the “**hand-waving**” method if necessary.
- Push glass tubing or thermometers into rubber stoppers. If they have to be adjusted, ask your teacher to do it.
- Carry hot equipment or dangerous chemicals through a group of students.
- Taste anything in the laboratory unless directed to do so.
- Drink water from the taps (or **EYE WASH STATION**) in the lab.
- Eat or bring food into the laboratory.

**GUM ESPECIALLY!!!**

# Lab Safety Rules – DO NOT!

- Handle chemicals with your hands. Use a **SCOOPULA** to remove chemicals from the containers. Take **ONLY** the amount needed and then replace the lid.
- Leave the Bunsen burner flame **UNATTENDED**. One partner should stay with the experiment. Turn the burner off if you don't need to use it anymore.
- Remove footwear in the lab.
- Conduct any experiment or **TOUCH** any equipment if the teacher is not present in the room.
- **TOUCH** any chemicals or equipment set up by another class or teacher