

# Lab Safety



**Safety First! Always.**

## Cornell Note-taking Method - Lifehacker.com

### Cues

- \* Main ideas
- \* Questions that connect points
- \* Diagrams
- \* Prompts to help you study

*WHEN:*  
After class  
during review

### Notes

- \* Record the lecture here, using
  - \* Concise sentences
  - \* Shorthand symbols
  - \* Abbreviations
  - \* Lists
- \* Skip lots of space between points

*WHEN:*  
During class

2.5 inches

6 inches

### Summary

*WHEN:*  
After class during review

- \* Top level main ideas
- \* For quick reference

2"

# Essential Question:



**EPIC FAIL**

Some days...  
You just have no excuse.

BYVIDESPAIL.COM

How can we stay safe in a laboratory environment?

# Lab is a Privilege

- Who is responsible for safety?



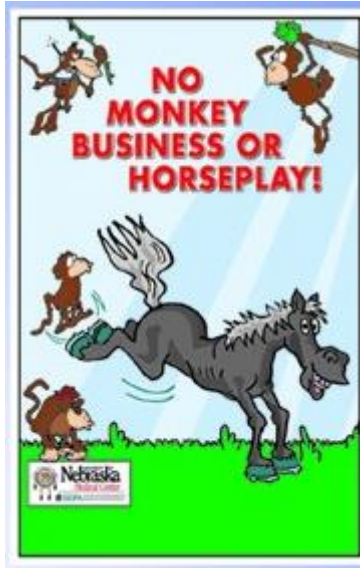
# Be Prepared for Lab



- **What NOT to wear:**
  - Dangling jewelry
  - Baggy sleeves
  - Loose long hair
  - Open-toed shoes
- **What to wear:**
  - **Goggles** are required when working with heat, glass or chemicals
  - **Closed toe shoes**
  - No baggy clothes or dangly jewelry



# Act Responsibly



# Follow Lab Instructions

## Student Reads Lab Manual

*Unorthodox move stuns professor, classmates*

Bowling Green Ky. - In an unexpected move late Sunday night, Jim Daniels removed his Bio 121 lab Manual from the shelf and read it before coming to Daniel's professor, Dr Stoke expressed "surprise. pleasant surprise upon learning of the unusual technique. " I am hon

- **Read** all instructions before performing the lab.
- Get **permission before starting** the lab
- **And** before handling the equipment.

# Personal Safety Equipment



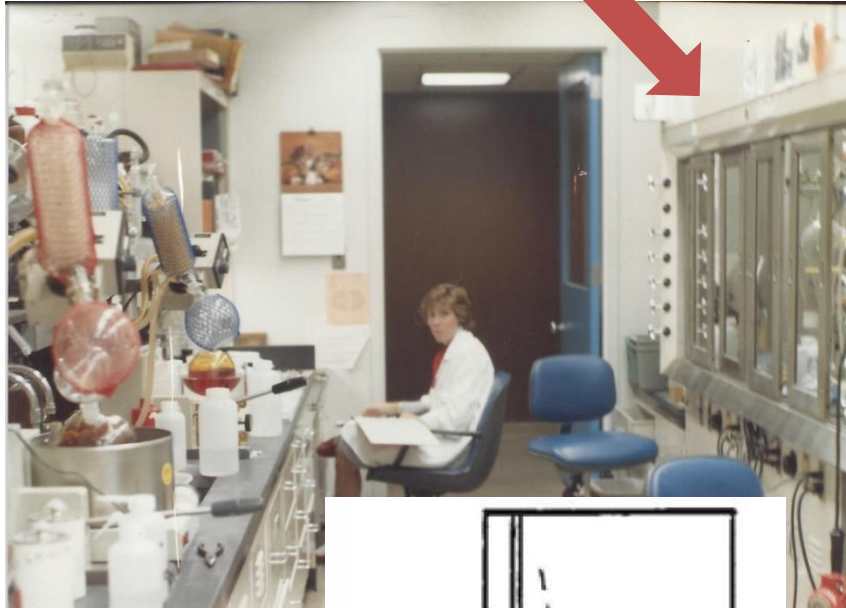


# Safety Features and Equipment

- Know the location of classroom safety equipment.



# Fume Hood



**WHAT** is it? A local ventilation system.

**WHY** use it? To protect yourself from toxic fumes and dust.

**How** do we use it?



# Materials Needed for Lab

- Lab Sheet
- Pencil or pen
- Lab notebook
- Lab materials



# Handle Glassware Safely

- Notify the teacher of any spills or breakages.
- Report all accidents or injuries however small.
- Fire burns. Keep all flammable stuff away from flames or heat.










# Read Labels

- **Labels** tell you what is in the can or bottle.
- **Pictograms** communicate specific information about the hazards of a chemical.

GHS Hazard Pictograms		
<p>Corrosion</p>  <ul style="list-style-type: none"><li>• Skin Corrosion/ burns</li><li>• Eye Damage</li><li>• Corrosive to Metals</li></ul>	<p>Skull and Crossbones</p>  <ul style="list-style-type: none"><li>• Acute Toxicity (fatal or toxic)</li></ul>	<p>Explanation Mark</p>  <ul style="list-style-type: none"><li>• Irritant (skin and eye)</li><li>• Skin Sensitizer</li><li>• Acute Toxicity (harmful)</li><li>• Narcotic Effects</li><li>• Respiratory Tract Irritant</li><li>• Hazardous to Ozone Layer (Non Mandatory)</li></ul>
<p>Exploding Bomb</p>  <ul style="list-style-type: none"><li>• Explosives</li><li>• Self-Reactives</li><li>• Organic Peroxides</li></ul>	<p>Flame</p>  <ul style="list-style-type: none"><li>• Flammables</li><li>• Pyrophorics</li><li>• Self-Heating</li><li>• Emits Flammable Gas</li><li>• Self-Reactives</li><li>• Organic Peroxides</li></ul>	<p>Flame Over Circle</p>  <ul style="list-style-type: none"><li>• Oxidizers</li></ul>
<p>Gas Cylinder</p>  <ul style="list-style-type: none"><li>• Gases under pressure</li></ul>	<p>Health Hazard</p>  <ul style="list-style-type: none"><li>• Carcinogen</li><li>• Mutagenicity</li><li>• Reproductive Toxicity</li><li>• Respiratory Sensitizer</li><li>• Target Organ Toxicity</li><li>• Aspiration Toxicity</li></ul>	<p>Environment</p>  <ul style="list-style-type: none"><li>• Aquatic Toxicity</li></ul>



# How to use the eye wash station



- Turn on the water.
- Hold your eyes open wide
- Flush with the water
- 20 minutes
- Get medical attention afterwar.

# How to use the fire extinguisher



Only the teacher uses the fire extinguisher!

Remember the acronym PASS:

Pull the silver ring.

Aim the wand.

Squeeze the trigger.

Sweep back and forth.

Wafting is the way...



# Waste Disposal



**YES**



**Use designated Disposal Stations**

# Cleaning Up Your Bench



- **Turn off** gas and water, disconnect electrical devices.
- **Return all materials** to their proper place.
- **Dispose of stuff** as directed by your teacher.
- **Wipe down** the work area.

# Use Heat Carefully



<http://scienceportfolio1p1.wikispaces.com/>

- Hot and cold glass looks the same! Use caution when picking up glassware.
- NEVER use the Bunsen burner until you are trained.
- Tie back your hair and loose clothing.