Keeping It Safe in the Food Science Lab
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Safety

Basic Rules
Safety Symbols

The condition of being protected from or unlikely to cause danger, risk or injury
Basic Rules

Do

• Act responsibly
• Know the location of all safety equipment
• Read lab procedures ahead of time
• Report accidents, spills and injuries to your instructor

Do Not

• Eat
• Drink
• Chew gum
• Throw items
• Work alone
• Remove chemicals or equipment from the lab
Safety Symbols

Chemical
Clothing
Electrical Equipment
Eye
Fire
Hand
Personal Hygiene
Sharp Objects
Waste Disposal
Chemical Symbol

Alerts you that substances used in the experiment require special handling and precautions.
Chemical Safety

• Follow specific instructions
• Use chemicals from labeled containers only
• Wear safety goggles
Clothing Symbol

Reminds you to take certain precautions to protect yourself and your clothing while working in the lab.
Clothing Safety

- Dress appropriately
- Remove loose or baggy clothing and dangling earrings
- Tie hair back
- Wear closed-toe shoes
- Wear a lab apron when working in the lab
Electrical Symbol

Alerts you that the procedure requires electrical equipment and electrical safety practices
Electrical Safety

- Check all equipment before use
- Keep cords clear of hazards such as heat or water sources
- Never leave appliances or equipment unattended
Equipment Symbol

Reminds you of general rules for using the specialized equipment of a lab
Equipment Safety

- Be familiar with all equipment before using it in the lab
- Transport equipment properly
- Use equipment only for its designated purpose
Eye Symbol

Alerts you that some conditions of the experiment require extra attention to eye safety
Eye Safety

- Avoid wearing contacts, if possible
- Know the location of the emergency eye wash station
- Wear approved safety goggles
Fire Symbol

Alerts you that the procedure involves the use of a burner or other source of heat
Fire Safety

• Never reach across an open flame
• Turn off burners when not in use
• Never use an open flame when working with volatile liquids, such as alcohol
• Know how to use the fire extinguisher, fire blanket and safety shower.
Hand Symbol

Tells you that some steps in the experiment call for particular attention to hand safety
Hand Safety

• Wear approved gloves and equipment to protect yourself from heat and sharp objects

• Use caution when working with knives and other sharp objects
Personal Hygiene Symbol

Serves as a reminder for safe personal habits in the lab
Personal Hygiene Safety

- Wash hands with soap and water before and after lab
- Handle microorganisms grown in a petri dish or test tube with care
- Avoid touching your eyes, face or mouth with your hands
Sharp Object Symbol

Reminds you to take precautions when using lab glassware
Sharp Object Safety

• Do not use broken, chipped or cracked glassware
• Keep glassware away from the edge of the table
• Use precautions when handling heated glassware
Waste Disposal Symbol

Refers to the appropriate disposal of chemicals or waste
Waste Disposal

• Follow teacher’s instructions for:
  • Broken glass and substances
  • Chemical and microbial materials
  • Paper toweling and other disposable cleaning supplies
Flinn Scientific Laboratory Safety Challenge

(image from video – click on image)
Images:
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Textbook(s):

Website:
• Centers for Disease Control
   Handwashing: Clean Hands Save Lives
   http://www.cdc.gov/handwashing/when-how-handwashing.html
• National Science Teachers Association
   NSTA works with other science teaching and education professionals
   http://www.nsta.org/

YouTube™:
• Flinn Scientific Laboratory Safety Challenge
   Witnessing lab procedures gone awry may make students think twice about some of their own safety shortcomings.
   Featuring Sue Bober, Schaumburg High School, IL. This video is part of the Flinn Scientific Teaching Chemistry video series.
   http://youtu.be/V-fNpaOX0-g