

NAME:

HONORS CHEMISTRY

SECTION:

SAFETY IN THE CHEMICAL LABORATORY

Chemistry is a hands-on laboratory class. This year, you will be doing many laboratory activities which require the use of hazardous chemicals. Any chemical can be dangerous if misused. The challenge is to know how to use chemicals correctly so that they will not cause harm to yourself or others working in the laboratory. To ensure a safe science classroom, the following safety rules have been developed and provided to you. Keep this handout in your science notebook as a constant reminder of the safety rules.

The following safety rules always apply in the lab.

1. Safety goggles are to be worn at all times when working in the lab.
2. Wear appropriate clothing for lab work. This means: No tank tops or bare midriffs. Shorts and skirts must reach to the knees. Wear closed-toe shoes. Contact lenses are not recommended for lab work. Wear aprons and gloves when appropriate.
3. Learn the location and use of safety devices in the lab BEFORE an emergency arises. These include the fume hood, fire blanket, fire extinguisher, eye wash, safety shower, and first-aid kit.
4. The lab is a place for serious work. Fooling around can bring danger to you and to others around you. Horseplay, practical jokes, and pranks are dangerous and prohibited.
5. Never work alone in the laboratory.
6. Read the entire experiment before entering the lab. Memorize the safety precautions and be familiar with the procedure for the experiment; follow the instructions and safety precautions carefully.
7. Never taste or smell anything in the lab. This includes bottled water, chewing gum and small candies you may have brought into the room. Chemical fumes can be absorbed by gum or candy while in your mouth. Do not apply cosmetics while in the lab. DO NOT eat or drink while in the lab. DO NOT bring your lunch or any other food into the lab.
8. Read chemical labels. Follow the instructions and safety precautions stated on the labels.
9. Reactions producing large quantities of noxious fumes should be conducted in the fume hood. You will be notified when you need to do this.
10. NO UNAUTHORIZED EXPERIMENTS are to be performed.
11. Dispose of broken glassware in the designated glass waste basket immediately. Notify the instructor.
12. Clean up spills immediately. Contact your instructor first if a solution may be a waste hazard.
13. Be sure to turn off the Bunsen burners when you are finished working or whenever you leave the area.
14. Use caution when moving glass, porcelain, or metal which has been heated. Remember: hot glass looks cold. Use appropriate tools, such as crucible tongs or test tube holders.

15. When heating substances in open test tubes, always point the mouth of the tube away from any person.
16. Chemical contact with eyes requires extensive flushing (15 minutes) at the eyewash. If you spill anything on you or your clothes, always wash with plenty of water first (for at least five minutes) and inform your instructor.
17. Immediately inform the instructor of an injury, particularly those involving cuts, no matter how minor.
18. If you or your lab partner are hurt, immediately call out "Code one, code one" to get your instructor's attention.
19. Solid waste produced in the lab (i.e., precipitates), solvents (i.e., phenol, methanol, chloroform, etc.) and solutions containing hazardous ions (i.e., heavy metals, chromates, etc.) go into a labeled waste jar in the hood. Paper towels go in the trash can. Solids do not go in the sinks!
20. DO NOT rub your eyes in the lab. Your hands may have chemicals on them.
21. DO NOT sit on the benches or on the floor at any time. Chemical residues and small pieces of broken glass are frequent hazards.
22. **Always** use a damp paper towel to wipe off the bench top before leaving the lab, and check to be sure that you have replaced all of the lab equipment properly before you leave the lab.
23. **Always wash your hands with soap and water immediately after or upon leaving the lab.**
24. Tie long hair back when near a flame or when working with solutions.
25. Never take any chemicals out of the lab.
26. Whether or not the lab instructions remind you, all of these rules apply all of the time.

Most Common Accident Causes

- UNAWARE OF HAZARDS: May be due to lack of experience, lack of training, a temporary hazard created by someone else, or poor judgment.
- INDIFFERENCE: A poor attitude toward safety, when one knows the safe method but doesn't care, creating a hazard for all in the area.
- TEMPER
- HASTE
- LAZINESS

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SAFETY IN THE CHEMICAL LABORATORY

This sheet must be signed by both the student and a parent/guardian and returned to the instructor before the student will be allowed to participate in laboratory activities. The handout "Safety in the Chemistry Laboratory" is to be kept in your science notebook as a constant reminder of the safety rules.

AGREEMENT

I have read and understand the handout titled "Safety in the Chemistry Laboratory" and agree to abide by the rules and procedures described in the handout. I realize that I must obey these rules to ensure my own safety and that of my fellow students and instructor. I will cooperate to the fullest extent with my instructor and fellow students to maintain a safe lab environment. I will also closely follow the oral and written instructions provided by my teacher. I am aware that any violation of this safety contract that results in unsafe conduct in the laboratory or misbehavior on my part may result in being removed from the laboratory, or other consequences as determined by the instructor.

Name of Student

Signature of Student

Date

Dear Parent or Guardian:

It is important that you are informed of the school's effort to create a safe chemistry classroom/laboratory environment. With the cooperation of the instructors, parents, and students, a safety instruction program can eliminate, prevent, and correct possible hazards. You should be aware of the safety instructions your student will receive before engaging in any laboratory work. Please read the handout titled "Safety in the Chemistry Laboratory". No student will be allowed to perform laboratory activities unless this contract is signed by both the student and parent/guardian and is on file with the instructor.

Your signature on this contract indicates that you have read the handout titled "Safety in the Chemistry Laboratory," are aware of the measures taken to insure the safety of your student in the science laboratory, and will instruct your student to uphold his/her agreement to follow these rules and procedures in the laboratory.

Name of Parent/Guardian

Signature of Parent/Guardian

Date