

## Lab #1- Safety in Chemistry Lab

**LAB OBJECTIVE:** To become acquainted with proper procedures & rules in the Chemistry Lab

**Introduction:** Chemistry is an experimental science. You cannot learn chemistry without getting your hands dirty. Any beginning chemistry student faces the prospect of laboratory work with some apprehension. It would be untruthful to say that there is no element of risk in a chemistry lab. **CHEMICALS CAN BE DANGEROUS.** The more you study chemistry, the larger the risk will become. However, if you approach your laboratory work calmly and studiously, you will minimize the risks.

**MATERIALS:** Flinn Safety Contract **PROCEDURE:** Use your Flinn Contract to answer the following questions

### SCIENCE LABORATORY SAFETY TEST

1. Flammable materials, like alcohol, should never be dispensed or used near A. an open flame B. an open flame C. another person D. a sink	8. You are heating a substance in a test tube. Always point the open end of the tube A. toward yourself B. toward your lab partner C. toward another classmate D. away from all people
2. If a lab fire occurs, you should A. notify your instructor B. run for the door C. throw water on the fire D. open the windows	9. You are heating a piece of glass and now want to pick it up. you should A. use a rag or paper towel B. pick up the end that looks cooler C. use tongs D. pour cold water on it
3. Goggles should be worn in the lab A. to avoid eye strain B. to protect your eyes C. only if you don't have glasses D. anytime glassware are used	10. You have been injured in the lab (cut or burn). First you should A. visit the school nurse after class B. see a doctor after school C. tell the science instructor at once D. apply first aid yourself
4. If you wear contact lenses in the school lab A. take them out before starting lab B. you do not have to wear goggles C. advise your teacher before proceeding D. keep the information to yourself	11. When gathering glassware & equipment for an experiment you should A. read all directions carefully to know what equipment is necessary B. examine all glassware to check for chips or cracks C. clean any glassware that appears dirty. D. all of the above
5. If you do not understand a direction or part of the lab procedure, you should A. figure it out as you do the lab B. try several methods until something works C. ask the teacher before proceeding D. skip it and go on to the next part	12. You want to place a piece of glass tubing into a rubber stopper after the tubing has been fire polished and cooled. This is best done by A. lubricating the tubing with water or glycerin B. using a towel or cotton gloves for protection C. twisting the tubing and stopper carefully D. all of the above
6. After completing an experiment, all chemical wastes should be A. left at your lab station for the next class B. disposed of according to your teacher's directions C. dumped in the sink D. taken home	13. Personal eyeglasses provide as much protection as A. a face shield B. safety glasses C. splash proof chemical goggles D. none of the above

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7. If a lab experiment is not completed, you should A. discuss the issue with you teacher B. sneak in after school and work alone C. come in during lunch and finish while eating lunch D. make up some results	14. Long hair in the lab must be A. cut short B. held away from the experiment with one hand C. always neatly groomed D. tied back or kept entirely out of the way with a hair band
15. In the lab, the following should not be worn A. loose clothing B. dangling jewelry C. sandals D. all of the above	20. When you finish working with chemicals, biological specimens, and other lab substances, always A. treat your hands with skin lotion B. wash your hands with thoroughly with soap and water C. wipe your hands on a towel D. wipe your hands on your clothes
16. The following footwear is <i>best</i> in the lab A. sandals B. open toed shoes C. closed toed shoes D. shoes appropriate for the weather	21. Draw a diagram of your science lab and label the location of the following: A) fire blanket B) fire extinguisher C) eyewash station D) emergency shower E) broken glass disposal F) goggles G) exits H) telephone I) fume hood J) emergency gas shut off
17. Horseplay or practical jokes in the lab are A. always against the rules B. okay C. not dangerous D. okay if you're working alone	
18. If a piece of equipment is not working properly stop, turn it off, and tell A. the custodian B. your lab partner C. your best friend in the class D. your teacher	
19. If an acid is splashed on your skin, wash at once with A. soap B. oil C. weak base D. plenty of water	
True or False T F	T F
22. <input checked="" type="checkbox"/> <input type="checkbox"/> Hot glass looks the same as cold glass	29. <input type="checkbox"/> <input checked="" type="checkbox"/> Chipped or cracked glassware is okay to use
23. <input type="checkbox"/> <input checked="" type="checkbox"/> All chemical in the lab are considered dangerous	30. <input checked="" type="checkbox"/> <input type="checkbox"/> Read all procedures thoroughly before entering the lab
24. <input type="checkbox"/> <input checked="" type="checkbox"/> Return all unused chemicals to their original containers	31. <input type="checkbox"/> <input checked="" type="checkbox"/> All unauthorized experiments are prohibited
25. <input checked="" type="checkbox"/> <input type="checkbox"/> Work areas should be kept clean and tidy	32. <input type="checkbox"/> <input checked="" type="checkbox"/> You are allowed to enter the chemical preparation/storage Area any time you need to get an item
26. <input type="checkbox"/> <input checked="" type="checkbox"/> Pipets are used to measure & dispense small amounts of liquids. You should draw the liquid into the pipet using your mouth.	33. <input checked="" type="checkbox"/> <input type="checkbox"/> Lab aprons should be worn during all lab activities

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27. <input type="checkbox"/> <input checked="" type="checkbox"/> Lab work can be started immediately upon entering the lab even if the teacher is not yet present.	34. <input type="checkbox"/> <input checked="" type="checkbox"/> It's okay to pick up broken glass with your bare hands as long as the glass is placed in the trash
28. <input type="checkbox"/> <input checked="" type="checkbox"/> Never remove chemicals or other equipment from the lab	35. <input checked="" type="checkbox"/> <input type="checkbox"/> Never leave a lit burner unattended