

# SAFETY REGULATIONS FOR SCIENCE STUDENTS

While working in the science laboratory, you will have certain important responsibilities that do not apply to other classrooms. You will be working with materials and apparatus, which, if handled carelessly or improperly, have the potential to cause injury or discomfort to someone else as well as yourself.

A science laboratory can be a safe place in which to work if you, the student, are foresighted, alert, and cautious. The following practices will be followed:

1. Report any accident to the teacher immediately, no matter how minor, including reporting any burn, scratch, cut, or corrosive liquid on skin or clothing.
2. Prepare for each laboratory activity by reading all instructions before coming to class. Follow all directions implicitly and intelligently. Make note of any modification in procedure given by the instructor.
3. Any science project or individually planned experiment must be approved by the teacher.
4. Use only those materials and equipment authorized by the instructor.
5. Inform the teacher immediately of any equipment not working properly.
6. Clean up any nonhazardous spill on the floor or workspace immediately.
7. Wear appropriate eye protection, as directed by the instructor, whenever you are working in the laboratory. Safety goggles must be worn during hazardous activities involving caustic/corrosive chemicals, heating of liquids, and other activities that may injure the eyes.
8. Splashes and fumes from hazardous chemicals present a special danger to wearers of contact lenses. Therefore, students should preferably wear regular glasses (inside splash-proof goggles, when appropriate) during all class activities or purchase personal splash proof goggles and wear them whenever exposure to chemicals or chemical fumes is possible.
9. Students with open skin wounds on hands must wear gloves or be excused from the laboratory activity.
10. Never carry hot equipment or dangerous chemicals through a group of students.
11. Check labels and equipment instructions carefully. Be sure correct items are used in the proper manner.
12. Be aware if the chemicals being used are hazardous. Know where the material safety data sheet (MSDS) is and what it indicates for each of the hazardous chemicals you are using.
13. Never taste anything or touch chemicals with the hands, unless specifically instructed to do so.
14. Test for odor of chemicals only by waving your hand above the container and sniffing cautiously from a distance.
15. Eating or drinking in the laboratory or from laboratory equipment is not permitted.
16. Use a mechanical pipette filler (never the mouth) when measuring or transferring small quantities of liquid with a pipette.
17. When heating material in a test tube, do not look into the tube or point it in the direction of any person during the process.
18. Never pour reagents back into bottles, exchange stoppers of bottles, or lay stoppers on the table.
19. When diluting acids, always pour acids into water, never the reverse. Combine the liquids slowly while stirring to distribute heat buildup throughout the mixture.
20. Keep hands away from face, eyes, and clothes while using solutions, specimens, equipment, or materials in the laboratory. Wash hands as necessary and wash thoroughly at the conclusion of the laboratory period.
21. To treat a burn from an acid or alkali, wash the affected area immediately with plenty of running water. If the eye is involved, irrigate it at the eyewash station without interruption for 15 minutes. Report the incident to your instructor immediately.
22. Know the location of the emergency shower, eyewash and face wash station, fire blanket, fire extinguisher, fire alarm box, and exits.

23. Know the proper fire- and earthquake-drill procedures.
24. Roll long sleeves above the wrist. Long, hanging necklaces, bulky jewelry, and excessive and bulky clothing should not be worn in the laboratory.
25. Confine long hair during a laboratory activity.
26. Wear shoes that cover the toes, rather than sandals, in the laboratory.
27. Keep work areas clean. Floors and aisles should be kept clear of equipment and materials.
28. Light gas burners only as instructed by the teacher. Be sure no volatile materials (such as alcohol or acetone) are being used nearby.
29. Use a burner with extreme caution. Keep your head and clothing away from the flame and turn it off when not in use.
30. Use a fire blanket (stop, drop, and roll) to extinguish any flame on a person.
31. Dispose of laboratory waste as instructed by the teacher. Use separate, designated containers (not the wastebasket) for the following:
  - Matches, litmus paper, wooden splints, tooth- picks, and so on
  - Broken and waste glass
  - Rags, paper towels, or other absorbent materials used in the cleanup of flammable solids or liquids
  - Hazardous/toxic liquids and solids
32. Place books, purses, and such items in the designated storage area. Take only laboratory manuals and notebooks into the working area.
33. Students are not permitted in laboratory storage rooms or teachers' workrooms without the approval of the teacher.
34. To cut small-diameter glass tubing, use a file or tubing cutter to make a deep scratch. Wrap the tubing in a paper towel before breaking the glass away from you with your thumbs. Fire polish all ends.
35. When bending glass, allow time for the glass to cool before further handling. Hot and cold glass have the same visual appearance. Determine whether an object is hot by bringing the back of your hand close to the object.
36. Match hole sizes and tubing when inserting glass tubing into a stopper. If necessary, expand the hole first by using an appropriate size cork borer. Lubricate the stopper hole and glass tubing with water or glycerin to ease insertion, using towels to protect the hand. Carefully twist (never push) glass tubing into stopper holes.
37. Remove all broken glass from the work area or floor as soon as possible. Never handle broken glass with bare hands; use a counter brush and dustpan.
38. Report broken glassware, including thermometers, to the instructor immediately.
39. Operate electrical equipment only in a dry area and with dry hands.
40. When removing an electrical plug from its socket, pull the plug, not the electrical cord.
41. Treat all animals in the science laboratory humanely; that is, with respect and consideration for their care.
42. Always approach laboratory experiences in a serious and courteous manner.
43. Always clean the laboratory area before leaving.
44. Students and teacher wash hands with soap and water before leaving the laboratory area.

***Note: Persistent or willful violation of the regulations will result in the loss of laboratory privileges and possible dismissal from the class.***

***Please print and sign the "Student Science Safety Contract" on the following page.***

# Chino Valley Unified School District

## Student Science Safety Contract

School: **Ruben S. Ayala High School**

Teacher: **Masson**

Student's name (print): \_\_\_\_\_

The Science teachers of the Chino Valley Unified School District, in alignment with the National Science Teachers Association, urge that students be required to review and sign a contract that defines acceptable behavior in a school science setting. The teacher will cover the contract with the student to make the student aware of the basic rules and their definitions. The student reviews these basic rules plus a more detailed set of rules within the classroom and then is tested on them. The student will pass the test with a minimum score of 85% and hand corrects the missed items, before he/she begins lab activities. The student then signs the contract agreeing to abide by these rules and any addition safety directions provided by the science instructor or school administration.

### **THE PURPOSE OF THE CONTRACT IS TO MAKE THE STUDENT AWARE OF HIS/HER RESPONSIBILITY FOR LABORATORY SAFETY.**

Students should also realize the implications of improper behavior. For example, courts have ruled that students can be just as guilty of negligence as teachers in laboratory accidents.

#### **Students WILL:**

- 1. Follow all instructions given by the teachers.**
- 2. Protect eyes, face, hands, and body when involved in science experiments.**
- 3. Carry out good housekeeping practices.**
- 4. Know where to get help fast.**
- 5. Know the location of: first aid, eyewash, fire blanket, fire exits, fire pulls, fire extinguisher, safety shower, lab aprons and goggles.**
- 6. Act in a responsible manner at all times.**

List below any special allergies or sensitivities (e.g., to plants, animals, pollen, foods, chemicals, bee stings) that may affect the student's safety in the laboratory or on field trips:

\_\_\_\_\_  
Check this box if the student wears contact lenses: ☐

#### **Student's Statement**

I have in my possession and have read the "Safety Regulations for Science Students" and agree to abide by them at all times while in the laboratory. I have received specific safety instruction as indicated above.

\_\_\_\_\_  
Signature of student

\_\_\_\_\_  
Date

#### **Parent's or Guardian's Statement**

I have read the "Safety Regulations for Science Students" and give my consent for the student who has signed the preceding statement to engage in laboratory activities using a variety of science equipment and materials, including those described. I pledge my cooperation in urging that she or he observe the safety regulations prescribed.

\_\_\_\_\_  
Signature of parent or guardian

\_\_\_\_\_  
Date

*Return the completed and signed form to Ms. Masson by*\_\_\_\_\_