

# Archdiocese of New Orleans Science Laboratory Student Safety Guidelines

TEACHER SHALL REVIEW THIS DOCUMENT WITH STUDENTS PRIOR TO SIGNING AGREEMENT.

#### Overview

Safety in the science classroom is the #1 priority for students, teachers, and parents. In order to help ensure a safe science classroom, a list of guidelines has been developed and provided to the student. These rules must be followed at all times.

#### **General Rules**

- 1. Always follow written and verbal instructions and make sure you ask questions if you do not understand either the written or verbal instructions. Students should not touch equipment, chemicals, or other materials until instructed to do so.
- 2. Students must always be accompanied by a certified science laboratory instructor when conducting or preparing science experiments.
- 3. No food or beverages are allowed in the laboratory.
- 4. Unauthorized experiments are prohibited.
- 5. Always be sure to read instructions thoroughly before entering the laboratory.
- 6. Horseplay, practical jokes, and pranks are prohibited in the laboratory.
- 7. Always keep the laboratory area neat and clean and be sure to keep aisles clear. School supplies and materials other than laboratory materials (e.g., backpack, books, jackets, etc.) should be left in the classroom area.
- 8. Know the locations and operating procedures of all safety equipment including the first aid kit, eyewash station, fire extinguisher, and fire blanket. Also be familiar with the location of the fire alarm and emergency exits.
- 9. Always be aware of your immediate surroundings. Notify the instructor immediately if you observe any unsafe conditions in the laboratory.
- 10. Labels and equipment instructions should be read carefully.
- 11. Keep hands away from face, eyes, and mouth and do not rub your hands on any part of your body while using chemicals or preserved specimens. Always wash your hands with soap and water after all experiments.
- 12. Students are never allowed in the science storage rooms or preparation areas unless accompanied by the instructor.
- 13. Students should promptly exit in a fire emergency.
- 14. Handle all living organisms in the laboratory area in a humane manner.

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- 15. When using knives and other sharp instruments, always carry with tips and points pointing down. Always cut away from your body. Never try to catch sharp instruments, and always grasp sharp instruments by the handles.
- 16. Always let your instructor know if you have a medical condition or if you are not well before entering the laboratory.
- 17. Certified science teachers shall be responsible to see that all science materials are locked in a secure location if lab classroom is to be used for instruction in any other subject matter.

## **Clothing**

- 18. Any time chemicals, heat, or glassware are used, students must wear laboratory goggles.
- 19. A student should inform the instructor if they wear contact lenses.
- 20. Long hair, dangling jewelry, and loose or baggy clothing are dangerous in a laboratory. Long hair must be tied back and dangling jewelry and loose or baggy clothing must be secured. Lab aprons or jackets should be worn during laboratory activities.

## **Accidents and Injuries**

- 21. Report any accident or injury to the instructor immediately.
- 22. If a chemical splashes in your eye(s) or on your skin, immediately flush with running water from the eyewash station or safety shower for 20 minutes. Notify the instructor immediately.
- 23. Notify the instructor immediately if mercury thermometers are broken.

### **Handling Chemicals**

- 24. All chemicals in the laboratory are to be considered dangerous. Do not touch, taste, or smell any chemicals unless specifically instructed to do so.
- 25. Check the label on chemical bottles twice before removing any of the contents.
- 26. Never return unused chemicals to their original containers.
- 27. Never use mouth suction to fill a pipet. Use a rubber bulb or pipet pump.
- 28. When transferring reagents from one container to another, hold the containers away from your body.
- 29. Acids must be handled with extreme care. You will be shown the proper method for diluting strong acids. Always add acid to water, swirl or stir the solution and be careful of the heat produced, particularly with sulfuric acid.

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- 30. Handle flammable hazardous liquids over a pan to contain spills. Never dispense flammable liquids anywhere near an open flame or source of heat.
- 31. Never remove chemicals or other materials from the laboratory areas.
- 32. Take great care when transporting acids and other chemicals from one part of the laboratory to another.

## **Handling Glassware and Equipment**

- 33. Carry glass tubing, especially long pieces, in a vertical position to minimize the likelihood of breakage and injury.
- 34. Never handle broken glass with your bare hands. Use a brush and dustpan to clean up broken glass and place broken or waste glassware in the designated glass disposal container.
- 35. When removing an electrical plug from its socket, grasp the plug, not the electrical cord. Hands must be completely dry before touching an electrical switch, plug, or outlet.
- 36. Examine glassware before each use. Never use chipped or cracked glassware.
- 37. Report damaged electrical equipment immediately to the instructor; do not use damaged electrical equipment.
- 38. Ask the instructor for help if you do not understand how to use a piece of equipment.
- 39. Do not immerse hot glassware in cold water—it may shatter.

#### **Heating Substances**

- 40. Be very cautious when using a gas burner. Take care that hair, clothing and hands are a safe distance from the flame at all times. Do not put any substance into the flame unless instructed to do so. Never reach over an exposed flame. Never ignite gas or alcohol burners unless instructed by the teacher.
- 41. Never leave a lit burner unattended. Always turn the burner or hot plate off when not in use.
- 42. You will be instructed in the proper method of heating and boiling liquids in test tubes.
- 43. Heated metals and glass remain very hot for a long time. They should be set aside to cool and always use tongs or heat-protective gloves if necessary.
- 44. Never look into a container that is being heated.
- 45. Do not place hot apparatus directly on the laboratory desk. Always use an insulating pad.

This safety contract was based on the Safety Contract published by Flinn Scientific, Inc.

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