



Thomas County Central High School

Lab Safety Policy

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School Safety Policy

It is the responsibility of the Thomas County Central High School science department to ensure that our educational programs and other activities protect the health and safety of our students, staff, and environment.

From the administration:

Dear science students and parents,

The TCCHS science department and administration welcome you to the study of science. As part of our school's commitment to promote and protect the health and safety of our students, employees, and environment, the science department has developed rules and policies for science safety.

We expect that you will read these rules and policies carefully and ask questions about those which are unclear. Signing the agreement means that you have read, understand, and agree to follow the rules at all times.

Safety in the science laboratory depends on following recognized good practices. If the rules are not followed, there will be serious consequences that can include loss of the privilege of participating in lab experiments and/or suspension from school.

The following represents the minimum response to violations of our lab safety policy:

- 1st offense = written warning
- 2nd offense = written warning, possible detention/parent notification
- 3rd offense = removal from lab activity
- 4th offense = immediate referral to the administration

Please note that serious offenses will always result in immediate referral to the administration.

As administrators, we want to make it clear to you that we fully endorse and support science safety rules and the disciplinary code. We appreciate your cooperation and look forward to you having a positive, safe, and healthy learning experience.

Sincerely,

Trista S. Jones

Trista S. Jones, Principal

Safety Rules

Science is a hands-on laboratory class. You will be doing many laboratory activities which may require the use of hazardous chemicals. Safety in the science classroom is the first priority for students, teachers, and parents. To ensure a safe science classroom, a list of rules has been developed and provided to you as well as a safety contract. The contract must be signed by both you and a parent/guardian before you can participate in the lab. These rules are for you to keep in your notebook as a constant reminder of safety in the laboratory.

General Guidelines

1. Conduct yourself in a responsible manner at all times in the lab.
2. Follow all written and verbal instructions carefully. **If you do not understand a direction or part of a procedure, ask the instructor before proceeding.** Notify the instructor immediately of any unsafe conditions you observe.
3. Never work alone. No student may work in the lab without an instructor present.
4. When first entering a science room, do not touch any equipment, chemicals, or other materials in the lab area until you are instructed to do so.
5. Do not eat candy or food, drink beverages, or chew gum in the lab. Do not use laboratory glassware as containers for food and beverages.
6. Labels and equipment instructions must be read carefully before use. Set up and use the prescribed apparatus as directed in the laboratory instructions or by your instructor.
7. Perform only those experiments authorized by the instructor. Never do anything in the lab that is not called for in the procedures or by the instructor. Carefully follow all instructions, both oral and written. Unauthorized experiments are prohibited.
8. Be prepared for your work in the laboratory. Read all procedures thoroughly before entering the laboratory. Never fool around in the lab. Horseplay, practical jokes, and pranks are dangerous and prohibited.
9. Observe good housekeeping practices. Work areas should be kept clean and tidy at all times. Bring only your lab instructions, worksheets, and/or reports to the work area. Other materials (books, purses, backpacks, etc) should be stored under your desk. Keep aisles clear.
10. Know the locations and operating instructions of all safety equipment including the first aid kit, eyewash station, safety shower, fire extinguisher, and fire blanket. Know where the fire alarm and the exits are located.
11. Dispose of all chemical waste properly. Never mix chemicals in sink drains. Sinks are to be used only for water and those solutions designated by the instructor. Solid chemicals, metals, matches, filter paper, and all other insoluble materials are to be disposed of in the proper waste containers. Check the label of all waste containers before adding your chemical waste to the container.
12. Keep hands away from face, eyes, mouth, and body while using chemicals or preserved specimens. Wash your hands with soap and water after performing all experiments. Clean all work surfaces and apparatus at the end of the experiment. Return all equipment clean and in working order to the proper storage area.
13. Experiments must be personally monitored at all times. You will be assigned a lab station at which to work. Do not wander around the room, distract other students, or interfere with the laboratory experiments of others.
14. Students are never permitted in the science storage rooms unless accompanied by their instructor.
15. In the event of a fire drill during a lab period, containers must be closed, gas valves turned off, and any electrical equipment turned off.
16. Handle all living organisms used in the lab in a humane manner. Preserved biological materials are to be treated with respect and disposed of properly.

17. When using knives and other sharp instruments, always carry with tips and points pointing down and away from yourself. Always cut away from your body. Never try to catch falling sharp instruments. Grasp sharp instruments only by the handles.
18. When using computers, extra care should be taken to keep chemicals and water away from the laptops. Probes should be used only as instructed.

Clothing

19. Any time chemicals, heat, glassware, or preserved specimens are used, students will wear laboratory goggles. There will be no exceptions to this rule!
20. Dress properly during a lab activity. Long hair, dangling jewelry, ties, and loose or baggy clothing are a hazard in the laboratory. Jackets should not be worn during lab and should be left at your desk.
21. Lab aprons are provided for your use and should be worn when instructed to do so.

Accidents and Injuries

22. Report any accident (spill, breakage, etc) or injury (cut, burn, etc) to your instructor immediately, no matter how trivial it may appear. If you or your lab partner are hurt, notify your instructor immediately.
23. If a chemical should splash in your eyes or on your skin, immediately flush with running water from the eyewash station or safety shower for at least 15 minutes. Notify the instructor immediately.
24. If your clothing catches on fire, remember to stop, drop, and roll. Help someone whose clothing is on fire by getting him or her to the safety shower, or by using a fire blanket to smother the fire.

Handling Chemicals

25. All chemicals in the laboratory are to be considered dangerous. Do not touch, taste, or smell any chemicals unless specifically instructed to do so. When instructed, check odors by gently wafting some of the vapor towards your nose with your hand.
26. Check the label on chemical bottles twice before removing any of the

contents. Take only as much chemical as you need.

27. Never return unused chemicals to their original containers.
28. When transferring reagents from one container to another, hold the containers away from your body.
29. Acids must be handled with extreme caution. Always add acid to water, swirl or stir the solution, and be careful of the heat produced, particularly with sulfuric acid.
30. Never remove chemicals or other materials from the laboratory area.
31. Take great care when transferring acids and other chemicals from one part of the laboratory to another. Hold them securely and walk carefully.

Handling Glassware and Equipment

32. Never handle broken glass with your bare hands. Inform your instructor of any broken glass before cleaning it up.
33. Examine glassware before each use. Never use chipped or cracked glassware. Never use dirty glassware. Do not immerse hot glassware in cold water, because it might shatter.
34. Fill wash bottles only with distilled water and use only as intended for rinsing glassware and adding water to a container.
35. When removing an electrical plug from its socket, grasp the plug, not the cord. Hands must be completely dry before touching an electrical switch, plug, or outlet. Report damaged electrical equipment immediately. Look for things such as frayed cords, exposed wires, and loose connections. Do not use damaged electrical equipment.
36. **If you do not understand how to use a piece of equipment, ask the instructor for help.**

Heating Substances

37. Exercise extreme caution 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 specifically instructed to do so. Never reach over an exposed flame. Light gas burners only as instructed by the teacher.

38. Never leave a lit burner unattended. Never leave anything unattended that is being heated or is visibly reacting. Always turn the burner or hot plate off when not in use.
 39. Do not point the open end of a test tube towards yourself or anyone else while it is being heated. Never look into a container that is being heated.
 40. Heated metals and glass remain very hot for a long time. They should be set aside to cool and picked up with caution. Use tongs or heat-protective gloves if necessary. Determine if an object is hot by bringing the back of your hand close to it prior to grasping it.
- (adapted from Flinn Safety Rules and Student Contract)*

Recommendations

- A. Contact Lenses: It is recommended that students not wear contact lenses when chemicals are used. Reasons include:
 - a. Should a chemical splash in the eye, the chemical could be held under the contact lens and against the surface of the cornea, possibly causing permanent eye damage.
 - b. Involuntary spasm of the eyelid, and the panicked nature of the victim who has the chemical splashed in his/her eye makes removal of the contact lens virtually impossible. By the time the lens is removed, irreversible damage may have already occurred.
 - c. In a situation where the victim is unconscious, people attempting to irrigate the victim's eyes may be unaware that the victim wears contacts.

If you wear contact lenses and cannot replace them with glasses, be sure to let your teacher and lab partner know.

- B. Shoes: Because spills occur frequently, it is recommended that students not wear open-toed shoes in lab. Also, it is better to wear leather shoes than shoes made

of more absorbent materials like canvas.

- C. Clothing: It is better for students to wear clothing made of natural fibers like cotton than synthetic fibers like polyester. Synthetic fibers have a tendency to melt and stick to the skin when exposed to flames and certain chemicals.