Mukwonago High School
Laboratory Safety Contract

The members of the science department at Mukwonago High School wish to make your time in science class as rewarding and interesting as possible and, therefore, have included as many laboratory and hands-on exercises as possible in their curriculum. However, this places a large burden of responsibility on you, the student. You must know the proper behavior standards, laboratory techniques, and safety practices to make the laboratory experience rewarding and safe. The following page is an outline of the basic rules you must follow.

Safety

1. Know the location of emergency equipment (fire extinguisher, safety shower, fire blanket, eye wash station, etc.) and how to use them.
2. Be familiar with laboratory evacuation procedures to be used in the event of a laboratory emergency.
3. Notify your teacher of any medical problems that you have, such as allergies, asthma, or high sensitivity to irritants.
4. Do **not** eat, drink, or store lunches in the laboratory classroom.
5. Safety goggles and lab aprons should be worn when indicated.
6. **Never** taste, touch, or smell anything in the laboratory unless told to by the instructor.
7. Any activity involving dangerous vapors should be conducted in the fume hood.
8. Keep all combustible materials away from open flames.
9. **Never** put your face near the mouth of a container that is holding chemicals.
10. Work areas should be kept clean and neat at all times. Only lab sheets and notebooks should be in the work area.
11. Dispose of waste materials as instructed by the teacher.
12. Clean up spills immediately.
13. Report all accidents to the teacher immediately.

Safety Behaviors

1. Be prepared when you arrive in the laboratory. If possible, familiarize yourself with the lab work to be done before class.
2. Be sure that you understand the procedure to be employed in any laboratory activity and the possible hazards within that lab.
3. Perform only those lab activities assigned by your teacher. **Never** do anything that is not called for in the laboratory procedure or by your teacher.
4. Follow all instructions, both written and oral, carefully.
5. Set up apparatus as described in the lab manual or by your teacher. Never use makeshift arrangements.
6. Always use the prescribed instruments (tongs, test tube holder, forceps, etc.) for handling apparatus or equipment.
7. Clean and wipe dry all work surfaces at the end of the class. Allow yourself adequate time at the end of each lab session for proper and adequate cleanup. Wash your hands thoroughly.
8. **No** materials, including chemicals, are ever to be taken from the laboratory.
9. **Never** draw materials into a pipet with your mouth.
10. **Never** put anything but a standard electrical plug into an electrical outlet.

Safe Apparel

1. Clothing should be appropriate for working in the lab. Jackets, ties, and other loose garments should be removed. Long sleeves should be rolled up or secured in some manner.
2. Long hair should be tied back or covered, especially in the vicinity of open flames. Jewelry that might present a safety hazard, such as dangling necklaces, chains, medallions, or bracelets, should not be worn in the lab.
3. Wearing of contact lenses in the laboratory presents particular hazards to their users. Students who normally wear contact lenses should plan to wear eyeglasses in the laboratory.
4. Footwear that completely covers the foot is highly recommended. Footwear should be hard-soled shoes.

Safe Laboratory Techniques

Handling Chemicals

1. Read and double check labels on bottles of chemicals before taking any.
2. Do **not** return unused chemicals to stock bottles.
3. When transferring chemicals from one container to another, hold the containers out away from your body.
4. When mixing an acid with water, **always add the acid to the water**.
5. Avoid touching chemicals with your hands. If chemicals do come in contact with your hands, wash them immediately.

Handling Glassware

1. Do **not** use cracked, chipped, scored, or badly scratched glassware.
2. **Never** handle broken glass with your bare hands. Use a brush and dustpan to clean up broken glass. Dispose of the glass as directed by your teacher.
3. Always lubricate glassware (tubing, thermometer, etc.) with water or glycerin before attempting to insert it into a stopper. Never apply force when inserting or removing glassware from a stopper. Use a twisting motion.
4. Do **not** place hot glassware directly on the lab table. Always use an insulating pad of some sort. Allow plenty of time for hot glassware to cool before touching it. Hot glass can cause painful burns.

Heating Substances

1. Exercise extreme caution when using a gas burner. Keep your head and clothing away from the flame.
2. Always turn the burner off when not in use.
3. **Never** heat anything without being instructed to do so.
4. **Never** look into a container that is being heated.
5. Do **not** bring substances into contact with a flame unless instructed to do so.
6. When heating a substance in a test tube, make sure the mouth of the tube is not pointed at you or anyone else.
7. **Never** leave unattended anything that is being heated.

Handling Dissecting Instruments and Preserved Specimens

1. Preserved specimens showing any signs of decay should not be used for any type of lab observation or dissection.
2. Dissecting instruments, such as scissors and scalpels, are very sharp. Always use a cutting motion directed away from yourself.
3. In performing a dissection, make sure the specimen is pinned down firmly in a dissecting tray before beginning work.
4. Use your instruments with care. In general, very little force is necessary for making incisions. Excess force will most likely damage delicate tissues.
5. **Never** touch your eyes while handling preserved specimens. Wash hands thoroughly with soap and water after working with specimens.
6. A serious approach to dissection is required. No mutilation or mistreatment of a dissection specimen will be tolerated.
7. No dissection specimen should ever be placed in a student's mouth.
8. No dissection specimen or any part of a specimen should ever be removed from the classroom.

Handling Living Specimens

1. In some labs, you will be using live specimens. In these labs, it is particularly important that you understand clearly the purpose and procedure of the activity before you begin work. If you have any questions, consult your teacher.
2. Animals should be handled gently so as not to produce undue excitement or trauma.
3. Avoid subjecting specimens to stressful conditions such as exhaustive exercise or painful stimuli.

Safe Responses to Accidents

Accident	**Safe Response**
Burns	Flush with water. Call teacher immediately.
Cuts and bruises	Report to your teacher immediately.
Severe Bleeding	Apply direct pressure to the wound and get medical attention immediately.
Fire	Wrap person in fire blanket to extinguish all flames.
Chemical in eye	Flush with plenty of water. Use eyewash.
Poisoning	Note the suspected poisoning agent and notify teacher.
Chemical spills on skin	Flush with water. Use safety shower if necessary.

ALL ACCIDENTS MUST BE REPORTED TO THE INSTRUCTOR.

SIGNATURE FORM FOLLOWS

Mukwonago High School
Student Safety Contract
Signature Form

This form is the third page of a three-page document outlining student safety practices. This third page is to be signed by the student and his or her parents. The first two pages are to be kept by the student as a reference sheet. By signing below, the student and parent or guardian acknowledge that they have read all three pages of this document.

I, (print name) _____, along with my parents or guardian, have read, understand, and agree to follow these science safety rules and procedures. I agree to abide by any additional instructions, written or verbal, provided by my science instructor. If I do not abide by these rules, I understand that it may be cause for an administrative referral and possible removal from this course. I further understand that if I choose to wear contact lenses during a lab, there exists the possibility that the lenses may be permanently damaged due to contact with fumes from some of the chemicals encountered in this science course. In addition, I understand that if I am wearing contact lenses when a chemical gets in my eyes, damage to my eyes may be increased due to the presence of the contact lens preventing adequate rinsing of the eye as a first aid measure.

Student's signature Date

Parent or guardian's signature Date

If you wear contact lenses, indicate the kind (hard or soft), color, and which eyes you wear them in. (This information is necessary in the event of an emergency situation.)

Are there any medical conditions that might affect your participation in any of the laboratory investigations? (ex: asthma or allergies)_____

List any medical conditions here:

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