

# Laboratory Safety

## Safety Rules 2

Magee Secondary School

1. Be prepared to work when you arrive at the laboratory. Familiarize yourself with the lab procedures before beginning the lab.
2. Perform only those lab activities assigned by your teacher.
  - Never do anything in the laboratory that is not called for in the laboratory procedure or by your teacher.
  - Never work alone in the lab.
  - Do not engage in any horseplay.

**SAFETY  
FIRST**

**KEEP THIS AREA  
SAFE AND CLEAN**

Safety – this is the  
number one priority in  
the science lab!

**CAUTION**

**FOOT  
PROTECTION  
REQUIRED**

3. Work areas should be kept clean and tidy at all times.

- Only lab manuals and notebooks should be brought to the work area.
- Other books, purses, brief cases, etc.. should be left at your desk

4. Clothing should be appropriate for working in the lab. Jackets, ties, and other loose garments should be removed. **Open-toed shoes should not be worn.**

5. Long hair should be tied back or covered, especially in the vicinity of open flame.
6. Jewelry that might present a safety hazard, such as dangling necklaces, chains, medallions, or bracelets should not be worn in the lab.
7. Follow all instructions, both written and oral, carefully.

**SAFETY  
FIRST**

**GOGGLES  
REQUIRED**

8. Safety goggles and lab aprons should be worn at all times.
9. Set up apparatus as described in the lab manual or by your teacher. Never use makeshift equipment.

10. Always use the proper instrument (tongs, test tube holder, forceps, etc.) for handling apparatus or equipment.
11. Keep all combustible materials away from open flames.
12. Never touch any substance in the lab unless specifically instructed to do so by your teacher.
13. Never put your face near the mouth of a container that is holding chemicals.

14. Never smell any chemicals unless instructed to do so by your teacher. When testing for odors, use a wafting motion to direct the odors to your nose.
15. Any activity involving poisonous vapors should be conducted in the **fume hood**.
16. Dispose of waste materials as instructed by your teacher.
17. Clean up all spills immediately.



18. Clean and wipe dry all work surfaces at the end of class. **Wash your hands thoroughly.**

19. Know the location of emergency equipment (First aid kit, fire extinguisher, safety shower, fire blanket, etc.) and how to use them.

20. Report all accidents to the teacher immediately, regardless of how small it seems to be.

21. Read and double check labels on reagent bottles before removing any reagent. Take only as much reagent as you need.

22. Do not return unused reagent to stock bottles- share with other students.

23. When transferring chemical reagents from one container to another, hold the containers out away from your body.

24. When mixing an acid and water, always add the acid to the water.

25. Avoid touching chemicals with your hands. If chemicals do come in contact with your hands, wash them immediately.
26. Notify your teacher if you have any medical problems that might relate to lab work, such as allergies or asthma.
27. If you will be working with chemicals in the lab, avoid wearing contact lenses. Change to glasses, if possible, or notify the teacher- there are special goggles (nonvented) for you to wear.

28. Glass tubing, especially long pieces, should be carried in a vertical position to minimize the likelihood of breakage and to avoid stabbing anyone.

29. Never handle broken glass with your bare hands. Use a brush and dustpan to clean up broken glass. Dispose of the glass in the “Broken Glass Box”, or as directed by your teacher.

30. Always lubricate glassware (tubing, thistle tubes, thermometers, etc.) with water or glycerin before attempting to insert it into a rubber stopper.

31. Never apply force when inserting or removing glassware from a stopper. Use a twisting motion. If a piece of glassware becomes "frozen" in a stopper, take it to your teacher.

32. Do not place hot glassware directly on the lab table. Always use an insulating pad of some sort, such as the base of your ring stand.

33. Allow plenty of time for hot glass to cool before touching it. Hot glass can cause painful burns.

(Remember: **Hot** glass looks cool.)

34. Exercise extreme caution when using a gas burner. Keep your head and clothing away from the flame.
35. Always turn the burner off when it is not in use.
36. Do not bring any substance into contact with a flame unless instructed to do so.
37. Never heat anything without being instructed to do so.

38. Never look into a container that is being heated.

39. When heating a substance in a test tube, make sure that the mouth of the tube is not pointed at yourself or anyone else.

40. Never leave unattended anything that is being heated or is visibly reacting.



Remember to:

**THINK  
SAFETY**

Be Alert - Proceed with Caution

***End of Safety Rules 2***