

## SAFETY GUIDELINES \_\_\_\_\_

The experiments that you will be performing in your biology labs can be both interesting and rewarding. The labs will provide you with the opportunity to experience some of the things we will describe in class, and to develop new skills. Laboratory work is an essential part of this biology course.

In the course of your lab work, you will be handling strong chemicals, sharp instruments, and expensive equipment. Safety guidelines help to establish classroom responsibility. They also make you aware of the possible dangers that may exist in various science experiments. Accidents can often be prevented by working carefully and following safety regulations faithfully. Learn these rules and follow them at all times.

- **General**

1. Know the location of emergency equipment such as the first aid kit and fire extinguisher.
2. Be familiar with evacuation procedures to be used in the event of an emergency.
3. Be prepared to work when you arrive in the lab.
4. Do not bring food or drink into the lab.

- **Personal**

1. Notify your teacher of any medical problems you may have that relate to lab work.
2. Clothing should be appropriate for working in the lab. Roll up long sleeves.
3. Long hair should be tied back.
4. Notify your teacher if you wear contact lenses in the lab.

- **Preparation and Procedure**

1. Listen carefully. Be sure you understand all instructions. Ask questions if you are unsure.
2. Perform only the activities assigned by your teacher.
3. Never fool around in the lab. No horseplay allowed.
4. Set up apparatus exactly as described and use the prescribed instruments.
5. Safety goggles, gloves, and a lab apron should be worn when heating substances.
6. Work areas should be kept clean and neat at all times. Return materials to their proper locations.
7. Never touch, taste, or smell a substance unless you have been specifically instructed to do so.
8. Never put your face near the mouth of a container that is holding chemicals.
9. Avoid touching chemicals with your hands. Use a dropper or pipette.
10. Never leave a dropping bottle open. Screw on the cap all the way.
11. Dispose of waste materials as instructed by your teacher.
12. Allow adequate time for clean up at the end of each lab session. Wash your hands.
13. Report all accidents, no matter how minor, to the teacher immediately.

**Keep this page in the LAB section of your notebook at all times.**

- **Using Glassware**

1. Never use cracked or chipped glassware.
2. Never handle broken glass with your bare hands.
3. Use extreme caution when heating. Keep your hair and clothing away from the heat source.
4. Never look into a container that is being heated.
5. When heating a substance in a test tube, point the mouth of the test tube away from everyone.
6. Never stopper a container that you are heating.
7. Never walk away from your station when something is being heated.
8. Use the proper equipment when handling hot glassware.
9. Use a lubricant when inserting glassware through a stopper.

- **Using the Microscope**

1. Never use direct sunlight as a light source.
2. Be extremely careful with stains. They will ruin your clothing.
3. Keep the microscope away from the edge of the table to prevent its falling.
4. Never dangle the microscope cord where it might be pulled.

- **Dissecting**

1. Make sure the specimen is pinned down in the tray before cutting.
2. Use sharp instruments with care. Cut away from yourself. Use a light touch.
3. When offering a tool to your partner, offer the handle end first.
4. Always wash your hands thoroughly after working with specimens.

## Safety Lab

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In the space provided below, draw a map of the biology room and laboratory area.

Using pencil and colored pencils devise a key that indicates the location of the following items:

- teacher's lab table
- student desks
- student lab tables
- ALL sinks
- ALL doors
- fire extinguisher(s)
- fire exit route
- paper garbage(s)
- broken glass garbage
- dissecting garbage
- first aid kit
- eyewash
- fire blanket.



The drawing on page 2 shows 12 science students engaged in laboratory activities. Decide whether each student is safe or unsafe (circle one). List the safety guideline that is being followed or ignored. USE THE **EXACT WORDING!** Use each guideline **ONLY** once! **NO REPEATS!**

1: Safe or Unsafe

Why? \_\_\_\_\_

2: Safe or Unsafe

Why? \_\_\_\_\_

3: Safe or Unsafe

Why? \_\_\_\_\_

4: Safe or Unsafe

Why? \_\_\_\_\_

5: Safe or Unsafe

Why? \_\_\_\_\_

6: Safe or Unsafe

Why? \_\_\_\_\_

7: Safe or Unsafe

Why? \_\_\_\_\_

8: Safe or Unsafe

Why? \_\_\_\_\_

9: Safe or Unsafe

Why? \_\_\_\_\_

10: Safe or Unsafe

Why? \_\_\_\_\_

11: Safe or Unsafe

Why? \_\_\_\_\_

12: Safe or Unsafe

Why? \_\_\_\_\_

List **FOUR** safety guidelines that are not illustrated on page 2. **NO REPEATS!**

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

Identify **FOUR** pieces of safety equipment that are pictured on page 2. Why is each used?

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_

CONCLUSIONS: What procedure should be followed in the following situations?

1. A chemical spills on your hand. \_\_\_\_\_  
\_\_\_\_\_
2. A chemical spills on your lab table. \_\_\_\_\_  
\_\_\_\_\_
3. Your hand is cut by broken glass. \_\_\_\_\_  
\_\_\_\_\_
4. A drop of chemical gets in your eye. \_\_\_\_\_  
\_\_\_\_\_
5. Your partner's hair catches fire. \_\_\_\_\_  
\_\_\_\_\_

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Please read and sign the following acknowledgment.

I have read, and my teacher has explained, the **safety guidelines** in detail.  
I understand each of the guidelines and will follow them faithfully at all times.

\_\_\_\_\_ Student

I have read and understand the safety guidelines that my child is expected to follow.

\_\_\_\_\_ Parent or guardian