BLRA Laboratory Safety Rules

 To prepare yourself to work safely in the laboratory, read the following safety rules. Make sure you understand and follow each rule. If you choose not to follow the safety rules, you will be asked to leave the lab, and may not be able to join future labs. Ask the teacher to explain any rules you do not understand.

DRESS CODE:

1. To protect yourself from injuring your eyes, wear safety goggles whenever you work with chemicals, flames, glassware, or any substance that might get into your eyes.
2. Wear an apron whenever you work with corrosive chemicals or substances that can stain.
3. Tie back long hair to keep it away from any chemicals, flames, or equipment.
4. Remove or tie back any article of clothing or jewelry that can hang down and touch chemicals, flames, or equipment. Roll up or secure long sleeves.
5. Never wear open shoes or sandals.

GENERAL PRECAUTIONS:

1. Read all directions for the experiment several times before beginning the activity. Carefully follow all written and oral instructions. If you are in doubt about any part of the experiment, ask your teacher for assistance.
2. Never perform activities that are not assigned or authorized by the teacher. Obtain permission before “experimenting” on your own. Never handle any equipment unless you have specific permission.
3. Never perform lab activities without direct supervision.
4. Never eat or drink in the laboratory.
5. Keep work areas clean and tidy at all times. Bring only notebooks and lab manuals or written lab procedures to the work area.
6. Horseplay WILL NOT be tolerated.

FIRST AID:

1. Always report all accidents or injuries to the teacher, no matter how minor. Notify your teacher immediately of any fires.
2. Learn what to do in case of specific accidents, such as getting acid in your eyes or on your skin. (Rinse acids from your body with plenty of water).
3. In case of injury, your teacher should administer first aid. Your teacher may also send you to the school nurse.
4. Know the location of the nearest telephone and whom to contact in an emergency.

HEATING AND FIRE SAFETY:

1. Never use a heat source, such as a candle or hot plate, without wearing safety goggles.
2. Never heat anything unless instructed to do so. A chemical that is harmless when cool may be dangerous when heated.
3. Keep all combustible materials away from flames. Never use a flame or spark near a combustible chemical.
4. Never reach across a flame.
5. Chemicals can splash or boil out of a heated test tube. When heating a substance in a test tube, make sure that the mouth of the test tube is not pointed at you or anyone else.
6. Never heat a liquid in a closed container. The expanding gases produced may shatter the container.
7. Before picking up a container that has been heated, first hold the back of your hand near it. If you can feel heat on the back of the hand, the container is too hot to handle. Use an oven mitt to pick up a container that has been heated.

USING CHEMICALS SAFELY:

1. Never mix chemicals “for the fun of it”. You might produce a dangerous, possibly explosive substance.
2. Never put you face near the mouth of a container that holds chemicals. Many chemicals are poisonous. Never touch, taste, or smell a chemical unless you are instructed by your teacher to do so.
3. Use only chemicals needed in the activity. Read and double-check labels on supply bottles before removing any chemicals. Take only as much as you need. Keep all containers closed when chemicals are not being used.
4. Dispose of all chemicals as instructed by the teacher. To avoid contamination, never return chemicals to their original containers. Never pour untreated chemicals or other substances into the sink or trash containers.
5. Be extra careful when working with acids or bases. Pour all chemicals over the sink or a container, not over your work surface.
6. If you are instructed to test for odors, use a wafting motion to direct the odors to your nose. Do not inhale the fumes directly from the container.
7. When mixing an acid and water, always pour the water into the container first and then add the acid to the water. Never pour water into an acid.
8. Take extreme care not to spill any material in the laboratory. Wash chemical spills and splashes immediately with plenty of water. Immediately begin rinsing with water and acids that get on your skin or clothing, and notify your teacher of any acid spill at the same time.

USING GLASSWARE SAFELY:

1. Never force glass tubing or a thermometer into a rubber stopper or rubber tubing. Have your teacher insert the glass tubing or thermometer if required for an activity.
2. Never heat glassware that is not thoroughly dry on the outside.
3. Keep in mind that hot glassware looks cool. Never pick up glassware without first checking to see if it’s hot. Use an oven mitt. See rule 7 under heating.
4. Never use broken or chipped glassware. If glassware breaks, notify your teacher and dispose of the glassware in the proper broken-glassware container.
5. Never eat or drink from glassware.
6. Thoroughly clean glassware before putting it away.

USING SHARP INSTRUMENTS:

1. Handle scalpels or other sharp instruments with extreme care. Never cut material toward you; cut away from you.
2. Immediately notify your teacher if you cut your skin when working in the laboratory.

ANIMAL AND PLANT SAFETY:

1. If you know that you are allergic to certain plants, molds, or animals, tell your teacher before doing an activity in which these are used.
2. Wash your hands thoroughly after handling animals or a cage containing animals. Wash your hands when you are finished with any activity involving animal parts, plants or soil.

END-OF-EXPERIMENT RULES:

1. After an experiment has been completed, turn off and unplug all hot plates and any other electrical equipment that you used.
2. Clean your work area and return all equipment to its proper place.
3. Dispose of waste materials as instructed by the teacher.
4. Wash your hands after every experiment.