

## **SCIENCE LABORATORY ROUTINES AND PROCEDURES**

### **Before entering to the laboratory**

1. The laboratories are out of bounds to all students unless a teacher is present.
2. Pupils should line up quietly along the wall outside the laboratory, until the teacher indicates they may enter the laboratory.

### **After entering the laboratory**

1. Students must sit ONLY at the benches allotted to them.
2. Students are not to leave the laboratory without permission from the teacher.
3. Laboratory materials and instruments should be handled ONLY with the approval of the teacher.
4. Laboratory materials and instruments are to be used in the laboratory only. Nothing is to be taken from the laboratory.
5. At the start of the each laboratory session, pupils must check condition of their benches, sinks and apparatus and report to the teacher any damage or vandalism.

### **Accidents**

1. Report at once mishaps, cuts, burns scalds, and chemicals in the mouth or on the clothes to the teacher. Nothing may be tasted unless instructed by the teacher.
2. Any chemical on the skin or clothes must be washed away with plenty of water.

### **Fire Precaution**

1. Do not panic in the event of a fire. Remain calm, alert your teacher and try to extinguish the fire.
2. If your clothes catch fire, the flames should be immediately smothered by rolling on the floor.
3. Ordinary fires of paper, shavings, etc can be put out by water.
4. Water is useless in putting out burning oil. Oil fires must be smothered with sand or earth, or by the use of foam extinguisher.
5. If the fire is due to gas or electricity, the first action is clearly turned off the main tap or switch.
6. Pupils should evacuate in an orderly manner in the event of the fire becoming uncontrollable

### **Fine for damage done to apparatus & fittings**

1. Students will have to pay half the cost of apparatus or instruments or fittings broken or damage by them or buy specified items use in the laboratory.

### **Special Rules (physics laboratory)**

1. Delicate instruments must be handled with care.
2. Pupils are not permitted to carry out any experiment involving direct use of main current.
3. Before carrying out any experiment, count and check all items. Any damage or shortage should be reported to the teacher.
4. Before carrying out any experiment concerning electrical circuits double-checking of the circuit by teacher is necessary.
5. At the end of the experiment pupils must dismantle all set-ups or circuits and keep all parts order

## **Special Rules (Chemistry & Biology laboratory)**

1. Pupils should never use sodium, potassium, and phosphorous or concentrated acid unless specially instructed.
2. Prevent outbreak of fire. Do not put glowing wood or paper in the wastebasket. See that the Bunsen burner does not burn back.
3. Pupils should never taste chemicals without permission.
4. Pupils should never mix chemicals aimlessly, nor carry out any experiments or other that those described in the instructions.
5. Pupils should take apparatus or chemicals out of the laboratory.
6. The bottles, which contain hazardous chemicals, like ether, chloroform, formalin, etc, should be tightly fastened after use.
7. Sharp or pointed apparatus must be handled with care.
8. Ether, alcohol, carbon disulphide, etc, should be kept away from Bunsen burner to avoiding catching fire or explosion easily.
9. Do not lay the stopper of the reagent bottle on the table but replace it after use.
10. Point your test tube away from you and others in the laboratory.
11. Replace reagent bottles and apparatus in their proper places.
12. Chemicals poured out or taken out of the bottle should not be returned to the reagent bottles.
13. A reagent bottle should be poured with the label covered by the palm of the hand to avoid staining the label
14. Use the fume cupboard to prevent the escape of poisonous or unpleasant gases and vapors into the laboratory.
15. Take care to avoid the breakage of apparatus, e.g. by not leaving pipettes sticking out from the table.
16. Concentrated acids must not be poured. A dropper should be used. Always add concentrated acid to a substance, not vice versa.
17. Water, gas, electricity and chemicals must NOT be wasted. Avoid waste of all kinds. All materials must be used economically.

## **Cleanliness**

1. All apparatus must be cleaned and put back to its proper place after the practical session.
2. Throw all solid wastes (match-sticks, wooden splinter) into the wastebasket.
3. Pour liquids only, never solids, down the sink and flush with plenty of water.
4. Let hot article, like test tubes, cool before storing them in the proper places.
5. The laboratory should be kept clean at all times.