

Laboratory Management

- Objectives of teaching Science
- Importance/Significance of Laboratory
- Planning Science Laboratory
- Managing Science Laboratory

Objectives of teaching Science

- Imparting knowledge of fundamental principles and concepts in science. The pupils should be able to apply this acquired knowledge to their daily life. (Application Ability)
- Developing skills in handling and manipulating apparatus, arranging science fairs and exhibitions and preparing hand apparatus. (Skills of Experimentation)
- Development of abilities involved in problem-solving, organizing etc.
- Inculcating scientific attitude.
- Forming basis for career and later specialization.

Importance/Significance of Laboratory

- Achieving objectives of teaching science demands rigorous hands on experiences along with lectures in the classroom. So, there arises a need of laboratory where students can hypothesize, experiments and verify results, concepts and various laws.
- Equal time should be given to lab activity.

Planning Science Laboratory

- The number of pupils working at a time.(Size of the Lab)
- The minimum space necessary for each pupil for comfortable working.
- Limitation of number of science teachers in secondary schools.
- Need for ancillary accommodation for storage.
- Economic /Financial provision.

- Dimension of 45'x25' --- 40 students
- A storage-cum-preparation room $\longleftrightarrow$ laboratory $\Rightarrow$ improve the efficiency of working and preserving of apparatus.
- Movable tables with flat top – practical work & writing work.
- Dark room.
- Proper ventilation.
- Side benches with sinks, water and gas taps.
- Cupboards under these benches.
- 3' space should be left between the wall and tables.
- Two BB of 10'x4' should be there on each side of the lab.

Managing Science Laboratory

- Selection and maintenance of equipments.
 - The type of apparatus
 - The quantity of each item
- Arrangement of equipments.
- Care and Maintenance of the equipments.
 - Cleaning & washing apparatus
 - The iron articles-rubbing to prevent rusting
 - The wooden – painted
 - The brass – cleaned with Brasso
 - Lenses and Mirror – cleaned with tissue
 - A sheet laboratory rules/instruction should be hung

- Entry of Equipments in the Registers
 - Permanent Stock Register e.g. Iron stands, magnets, compasses etc.
 - Breakable Stock Register e.g. Flasks, beakers, thermometers etc.
 - Consumable Stock Register e.g. Chemicals etc.