



Unit 4 :- Facilities and equipment for Science Teaching.

- 4.1 Science laboratory
- 4.2 Science museum, Science fair, Science club, School garden.
- 4.3 Audio-Visual aids and Improvised apparatus.
- 4.4 Reference books, teacher's hand book, News papers, Magazines etc.

Unit 5 : Science Teacher - His attitude, cut look, creativity and nature.

Unit 6 : Core content of Science.

6.1 Physics.

6.1.1 Measurement - Length, area, volume, time, Units - fundamental and derived.

6.1.2 Motion - Laws of motion, types of motion linear & Rotational.

6.1.3 Work and energy -

6.1.4 Light - Sources, characteristics of light Reflection and Refraction.

6.1.5 Sound.

6.1.6 Magnetism

6.1.7 Electricity - Static and current.

6.1.8 Electronics - Basic concepts.

6.2 Chemistry.

6.2.1 Periodicity and periodic table.

6.2.2 Properties of matter - Physical & Chemical.

6.2.3 Atom structure - Electronic configuration Atomic number, Atomic weight, concept of Isotopes, Radio activity.

6.2.4 Chemical bonds, Chemical reactions & Chemical equilibrium.

6.2.5 Methods of purification of substance.

6.2.6 Mole concept gram - atomic wt. and gram, molecular weight, Molar mass.

6.2.7 Oxidation and Reduction.

6.2.8 Study of elements S, P, Cl, Na, Mg, Zn, Hg, Fe.

6.2.9 Introduction to organic Chemistry. Characteristics of organic compounds. Nomenclature of organic compounds. Saturated and unsaturated hydrocarbons.

6.3 Biology.

6.3.1 Living things Characteristics of living things, Preservation of living things.

6.3.2 Ecosystem.

6.3.3 Cell and its structure - DNA, RNA, Genes, chromosomes, Cell - Division - Mitosis.

6.3.4 Classification - Plants and animals.

- 6.3.5 Study of plants and their parts like root, stem, leaf, flower.
- 3.5 Systems in Human body - digestive, respiratory, circulatory, reproductive.
- 3.6 Life Histories of mucor, spirogyra and Dhatura.
- 3.8 Life histories of Ameoba, earth worm, frog.

Methodology for lower classes.

Demonstration, Laboratory.

Techniques - question - answer, observation, collection, A.V. aids Concept attainment model.

For Higher Classes.

Demonstration, Laboratory, Heuristic, Project.

Techniques - Question - answer, A.V. Aids.

Advanced Organizer model, Inquiry training model.

6.4 Practical work in Science.

6.4.1 Importance, Organizer, Precautions and Evaluation.

Area C Planning for teaching and Evaluation in Science.

Unit 7 :-

- 7.1 Planning, Year Plan, Unit plan, and daily lesson plan.
- 7.2 Tools of Evaluation - Written test, Unit tests, achievement tests, diagnostic tests.
- 7.3 Practical examination in Science.

Area D : Practical work for internal assessment -

- 1) Preparation of unit plan & unit test.
- 2) Preparation of an achievement test for 100 marks with a blue print.
- 3) Review of one Science text book. (Std.- V to Xth.)  
(any two from above)

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