

SCIENCE
(Code No. 086)

CLASS IX

Deleted Portion (Theory)

- **Under Unit I: Matter-Nature and Behaviour**

- **Matter in Our Surroundings:** Definition of matter; solid, liquid and gas; characteristics - shape, volume, density; change of state-melting (absorption of heat), freezing, evaporation (cooling by evaporation), condensation, sublimation.

- **Under Unit II: Organization in the Living World**

- **Diversity in Living Organisms:** Diversity of plants and animals-basic issues in scientific naming, basis of classification. Hierarchy of categories / groups, Major groups of plants (salient features) (Bacteria, Thallophyta, Bryophyta, Pteridophyta, Gymnosperms and Angiosperms). Major groups of animals (salient features) (Non-chordates upto phyla and chordates upto classes).

- **Under Unit III: Motion, Force and Work**

- **Floatation:** Thrust and Pressure. Archimedes' Principle; Buoyancy; Elementary idea of Relative Density.
- **Sound:** Nature of sound and its propagation in various media, speed of sound, range of hearing in humans; ultrasound; reflection of sound; echo and SONAR. Structure of the Human Ear (Auditory aspect only).

- **Under Unit V: Food Production**

- **Improvement in Food Resources:** Plant and animal breeding and selection for quality improvement and management; Use of fertilizers and manures; Protection from pests and diseases; Organic farming.

- **DELETED PRACTICALS**

1. Separation of the components of a mixture of sand, common salt and ammonium chloride (or camphor).
2. Determination of the melting point of ice and the boiling point of water.
3. Verification of the Laws of reflection of sound.
4. Determination of the speed of a pulse propagated through a stretched string/slinky (helical spring).
5. Study of the characteristics of *Spirogyra*, *Agaricus*, Moss, Fern, Pinus (either with male or female cone) and an Angiospermic plant. Draw and give two identifying features of the groups they belong to.
6. Observe the given pictures/charts/models of earthworm, cockroach, bony fish and bird. For each organism, draw their picture and record:
 - a) one specific feature of its phylum.
 - b) one adaptive feature with reference to its habitat.
7. Study of the external features of root, stem, leaf and flower of monocot and dicot plants.

- **Internal Assessment**

Theme: Natural Resources: Balance in nature

Unit IV: Our Environment

Physical resources: Air, Water, Soil. Air for respiration, for combustion, for moderating temperatures; movements of air and its role in bringing rains across India.
Air, water and soil pollution (brief introduction). Holes in ozone layer and the probable damages.

Bio-geo chemical cycles in nature: Water, Oxygen, Carbon and Nitrogen.