

Chapter	Topic/Portion Deleted
1. Natural Phenomena	Functioning of a lens in human eye; problems of vision and remedies. Applications of spherical mirrors and lenses. (Page No 47– 54)
2. How things work	Direct current. Alternating current; frequency of AC. Advantage of AC over DC. Domestic electric circuits. (Page No 112 – 118)
3. Materials	<p>Metals and non-metals: Brief discussion of basic metallurgical processes. (Page No 210 – 220)</p> <p>Carbon Compounds: Nomenclature of Carbon Compounds containing functional groups (halogens, alcohol, ketones, aldehydes, alkanes and alkynes) difference between saturated hydro carbons and unsaturated hydrocarbons. Chemical properties of carbon compounds (combustion, oxidation, addition and substitution reaction) Ethanol and Ethanoic acid (Only properties and uses) soaps and detergents. (Page No 270 – 277, Page No 280 – 296)</p>
4. The world of the living	<p>Control and Co-ordination in plants and animals: Tropic movements in plants; Introduction to plant hormones; control and co-ordination in animals: voluntary, involuntary and reflex action, nervous system; chemical co-ordination : animal hormones. (Page No 345 – 361)</p>
	<p>Heridity and evolution: Basic concepts of evolution. (Page No 397 – 403)</p>
5. Natural Resources	<p>Conservation of natural resources: Management of natural resources. Conservation and judicious use of natural resources. Forest and wild life, coal and petroleum conservation. People’s participation. Chipko movement. Legal perspectives in conservation and international scenario.</p>
	<p>The Regional environment: Big dams: advantages and limitations; alternatives if any. Water harvesting. Sustainability of natural resources. (Page No 423 – 436)</p>
	<p>Sources of energy: Different forms of energy, leading to different sources for human use: fossil fuels, solar energy; biogas; wind, water and tidal energy; nuclear energy. Renewable versus non - renewable sources. (Page No 122 – 141)</p>

EXPERIMENTS

1. To find the pH of the following samples by using pH paper/universal indicator.
 - i) Dilute Hydrochloric acid
 - ii) Dilute NaOH solution
 - iii) Dilute Ethanoic acid solution
 - iv) Lemon juice
 - v) Water
 - vi) Dilute Sodium Bicarbonate Solution.

7. To determine the equivalent resistance of two resistors when connected in parallel.

8. To prepare a temporary mount of a leaf peel to show stomata.

15. To study the following properties of acetic acid (ethanoic acid):
 - i) odour
 - ii) solubility in water
 - iii) effect on litmus
 - iv) reaction with sodium bicarbonate

Revised SCIENCE

Class – 10

NATURAL PHENOMENA

Convergence and divergence of light. Images formed by a concave mirror; related concepts; centre of curvature; principal axis. Optic centre, focus, focal length. Refraction; laws of refraction.

Image formed by a convex lens; Appreciations of concept of refraction; velocity of light; refractive index; twinkling of stars; dispersion of light. Scattering of light.

HOW THINGS WORK

Effects of Current

Potential, Potential difference, Ohm's law; Series combination of resistors, parallel combination of resistors; Power: dissipation due to current; Interrelation between P, V, I and R.

Magnets: Magnetic field, field lines, field due to a current carrying wire, field due to current carrying coil or solenoid; Force on current carrying conductor, Fleming's left hand rule. Electromagnetic induction. Induced potential difference, Induced current.

MATERIALS

Chemical Substances - Nature and Behaviour

Acids, bases and salts: General properties, examples and uses.

Chemical reactions: Types of chemical reactions: combination, decomposition, displacement, double displacement, precipitation, neutralization, oxidation and reduction in terms of gain and loss of oxygen and hydrogen.

Metals and non-metals: Properties of common metals. Elementary idea about bonding.

Carbon Compounds: Carbon compounds, elementary idea about bonding.

Saturated hydrocarbons, alcohols, carboxylic acids (no preparation, only properties).

Some Important chemical compounds: Soap-cleansing action of soap.

Periodic classification of elements: Gradations in properties: Mendeleev periodic table.

THE WORLD OF THE LIVING

Our environment: Environmental problems, their solutions. Biodegradable, non-biodegradable, Ozone depletion

Life Processes: "living" things; Basic concept of nutrition, respiration, transport and excretion in plants and animals.

Reproduction : Reproduction in plants and animals. Need for and methods of family planning. Safe sex vs HIV, AIDS. Child bearing and women's health.

Heridity and evolution: Heridity; Origin of life: brief introduction;

Weightage to Content Area :

Unit	Topic	Marks
1	Light	12
2	The Human Eye	
3	Electricity	12
4	Magnetic Effects	
5	Periodic Classification	07
6	Chemical Reactions	
7	Metals and Non-Metals	10
8	Acids, Bases and Salts	
9	Carbon	06
10	Life Process	09
12	How do Organisms Reproduce	05
13	Heredity and Evolution	04
14	Our Environment	05
Total		70

Revised PRACTICALS 10

List of experiments

- To study the properties of acids and bases HCl & NaOH by their reaction with
 - Litmus solution (Blue/Red)
 - Zinc metal
 - Solid Sodium Carbonate
- To determine the focal length of
 - Concave mirror
 - Convex lens by obtaining the image of a distant object.
- To trace the path of a ray of light passing through a rectangular glass slab for different angles of incidence. Measure the angle of incidence, angle of refraction, angle of emergence and interpret the result.
- To study the dependence of current (I) on the potential difference (V) across a resistor and determine its resistance. Also plot a graph between V and I.
- To determine the equivalent resistance of two resistors when connected in series.
- To show experimentally that light is necessary for photosynthesis.
- To show experimentally that carbon dioxide is given out during respiration.
- To study (a) binary fission in Amoeba and (b) budding in yeast with the help of prepared slides.
- To determine the percentage of water absorbed by raisins.
- To prepare SO₂ gas, observe its following properties and draw inferences in respect of
 - odour
 - solubility in water
 - effect on litmus paper
 - action on acidified potassium dichromate solution.
- To observe the action of Zn, Fe, Cu and Al metals on the following salt solutions,
 - ZnSO₄(aq.)
 - FeSO₄ (aq.)
 - CuSO₄ (aq.)
 - Al₂(SO₄)₃(aq.)
 - Arrange Zn, Fe, Cu and Al metals in the decreasing order of reactivity based on the above result.