

CBSE CLASS 10 SCIENCE SYLLABUS 2024-25

No	Unit	Marks
I	Chemical Substances-Nature and Behaviour	25
II	World of Living	25
III	Natural Phenomena	12
IV	Effects of Current	13
V	Natural Resources	05
	Total Marks	80

Unit I: Chemical Substances - Nature and Behaviour

Chapter 1: Chemical Reactions and Equations

- Chemical equation, Balanced chemical equation, implications of a balanced chemical equation, types of chemical reactions: combination, decomposition, displacement, double displacement, precipitation, endothermic exothermic reactions, oxidation, and reduction.

Chapter 2: Acids, bases, and salts:

- Definitions of acids, bases, and salts in terms of furnishing of H^+ and OH^- ions,
- General properties, examples, and uses, neutralization,
- Concept of pH scale (Definition relating to the logarithm not required), importance of pH in everyday life
- Preparation and uses of Sodium Hydroxide, Bleaching powder, Baking soda, Washing soda, and Plaster of Paris.

Chapter 3: Metals and nonmetals:

- Properties of metals and non-metals
- Reactivity series
- Formation and properties of ionic compounds
- Basic metallurgical processes
- Corrosion and its prevention.

Chapter 4: Carbon compounds:

- Covalent bonding in carbon compounds.
- Versatile nature of carbon.
- Homologous series.
- Nomenclature of carbon compounds containing functional groups (halogens, alcohol, ketones, aldehydes, alkanes, and alkynes)
- Difference between saturated hydrocarbons 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.

Unit II: World of Living

Chapter 5: Life Processes

- The Basic Concepts of life processes in plants and animals.
- Nutrition
- Respiration
- Transportation
- Excretion

Chapter 6: Control and coordination in animals and plants

- Tropic movements in plants
- Introduction of plant hormones
- Control and coordination in animals:
- Nervous system
- Voluntary, involuntary, and reflex action
- Chemical co-ordination: animal hormones.

Chapter 7: How Do Organisms Reproduce

- Reproduction in animals and plants (asexual and sexual)
- Reproductive health - need and methods of family planning.
- Safe sex vs HIV/AIDS.
- Childbearing and women's health.

Chapter 8: Heredity

- Heredity
- Mendel's contribution- Laws for inheritance of traits:
- Sex determination: Brief introduction:

Unit III: Natural Phenomena

Chapter 9: Light Reflection and Refraction

- Reflection of light by curved surfaces
- Images formed by spherical mirrors, the center of curvature, principal axis, principal focus, focal length, mirror formula (Derivation not required), and magnification.
- Refraction Laws of refraction, refractive index.
- Refraction of light by spherical lens
- Image formed by spherical lenses
- Lens formula(Derivation not required)
- Magnification.
- Power of a lens.

Chapter 10: The Human Eye and The Colorful World

- Functioning of a lens in the human eye
- Defects of vision and their corrections
- Applications of spherical mirrors and lenses.
- Refraction of light through a prism
- Dispersion of light, scattering of light, and applications in daily life

(Excluding the color of the sun at sunrise and sunset).

Unit IV: Effects of Current

Chapter 11: Electricity

- Electric current, potential difference, and electric current.
- Ohm's law Resistance, Resistivity, Factors on which the resistance of a conductor depends.
- Series combination of resistors, parallel combination of resistors, and their applications in daily life.
- Heating effect of electric current and its applications in daily life.
- Electric power, Interrelation between P, V, I, and R.

Chapter 12: Magnetic Effects of Electric Current

- Magnetic field, field lines, field due to a current carrying conductor, field due to current carrying coil or solenoid
- Force on the current carrying conductor, Fleming's Left Hand Rule,
- Direct current.
- Alternating current: frequency of AC.
- Advantage of AC over DC.
- Domestic electric circuits.

Unit V: Natural Resources

Chapter 13: Our environment:

- Eco-system
- Environmental problems, Ozone depletion
- Waste production, and their solutions.
- Biodegradable and non-biodegradable substances.