DIRECTORATE OF EDUCATION, GNCT of Delhi
ANNUAL SYLLABUS (2026-27)
CLASS-10, SUBJECT: SCIENCE (086)

Unit No.	Unit	Marks
I	*Chemical Substances - Nature & Behaviour*	25
II	*World of Living*	25
III	*Natural Phenomena*	12
IV	*Effects of Current*	13
V	*Natural Resources*	05
	Total	**80**
	Internal assessment	**20**
	Grand total	**100**

Content

Unit –I Chemical Substances – Nature and Behaviour

Chapter-1: Chemical Reactions and Equations- Chemical reactions, Chemical equation, Balanced chemical equation, types of chemical reactions: combination, decomposition, displacement, double displacement, precipitation, endothermic exothermic reactions, oxidation and reduction.

Practical: Performing and observing the following reactions and classifying them into:

a) Combination reaction b) Decomposition reaction
c) Displacement reaction d) Double displacement reaction

(i) Action of water on quicklime (calcium oxide)
(ii) Action of heat on Ferrous sulphate crystals
(iii) Iron nails kept in Copper sulphate solution
(iv) Reaction between Sodium sulphate and Barium chloride solutions

The following topics are included in the syllabus but will be assessed only formatively to reinforce understanding without adding to summative assessments. This reduces academic stress while ensuring meaningful learning. Schools can integrate these with existing chapters as they align well. Relevant NCERT textual material is enclosed for reference.

Periodic Classification of Elements: Döbereiner's Triads, Newlands' Law of Octaves, Mendeléev's Periodic Table, Modern Periodic Table and the Modern, Metallic and Non metallic Properties.

Chapter-2: Acids, Bases and Salts-definitions in terms of furnishing of H^+ and OH^- ions, identification using indicators, chemical properties, examples and uses, neutralization, concept of pH scale (Definition relating to 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.

Practical :A)Finding the pH of the following samples by using pH paper / universal Indicator:

a) Dilute Hydrochloric acid b) Dilute NaOH solution
c) Dilute Ethanoic Acid Solution d) Lemon juice
e) Water f) Dilute hydrogen carbonate solution

B)Studying the properties of acids and bases (HCl & NaOH) by their reaction with:

a) Litmus solution (Blue/Red)
b) Zinc metal
c) Solid sodium carbonate

Chapter-3: Metals and Non-Metals- Properties of metals and non-metals; Reactivity series; Formation and properties of ionic compounds; Basic metallurgical processes; Corrosion and its prevention

Practical : Observing the action of Zn, Fe, Cu and Al metals on the following salt solutions:
a) $ZnSO_4$ (aq) (b) $FeSO_4$ (aq) (c) $CuSO_4$ (aq) (d) $Al_2(SO_4)_3$ (aq)
Arranging Zn, Fe, Cu and Al (metals) in the decreasing order of reactivity based on the above result.

Unit II: The World of the Living

Chapter-5: Life processes- 'Living Being'. Basic concept of nutrition, respiration, transport and excretion in plants and animals.

Practical: Preparing a temporary mount of a leaf peel to show stomata.

Practical: Experimentally show that carbon dioxide is given out during respiration.

Chapter-6: Control and co-ordination in animals and plants-Tropic movements in plants; Introduction of plant hormones; Control and co-ordination in animals: Nervous system; Voluntary, involuntary and reflex action; Chemical co-ordination: animal hormones.

Unit V: Natural Resources

Chapter-13: Our Environment- Eco-system, Environmental problems, Ozone depletion, waste production and their solutions. Biodegradable and non-biodegradable substances.

Unit III: Natural Phenomenon

Chapter-9: Light- Reflection and Refraction

Reflection of light by curved surfaces; Images formed by spherical mirrors, centre of curvature, principal axis, principal focus, focal length, mirror formula (Derivation not required), magnification, application of spherical mirrors.
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, application of spherical lenses.

Practical: Determination of the focal length of:
i) Concave mirror ii) Convex lens by obtaining the image of a distant object.

Practical: Tracing 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.

Chapter-10: The Human Eye and the Colourful World

Functioning of a lens in human eye, defects of vision and their corrections, Refraction of light through a prism, dispersion of light, scattering of light, applications in daily life (excluding colour of the sun at sunrise and sunset).
Practical: Tracing the path of the rays of light through a glass prism.

Note:

- **The above mid-term syllabus is to be completed by September 05, 2026.**
- **Revision of syllabus for Mid –Term Examination 2026**

Mid –Term Examination 2026

Unit I: Chemical Substances - Nature and Behaviour

Chapter-4: Carbon and its compounds- Covalent bonds-formation and properties of covalent compounds. Versatile nature of carbon, Hydrocarbons – saturated and unsaturated , Homologous series. Nomenclature of alkanes, alkenes, alkyne and carbon compounds containing functional groups (halogens, alcohol, ketones, aldehydes). Chemical properties of carbon compounds (combustion, oxidation, addition and substitution reaction). Ethanol and Ethanoic acid (only properties and uses), soaps and detergents.

Practical: Study of the following properties of acetic acid (Ethanoic acid):
i) odour ii) solubility in water
iii) effect on litmus paper/solution iv) reaction with Sodium hydrogen carbonate

Practical : Study of the comparative cleaning capacity of a sample of soap in soft and hard water.

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 its applications in daily life. Heating effect of electric current and its applications in daily life. Electric power, Interrelation between P, V, I and R.

Practical: Studying the dependence of potential difference (V) across a resistor on the current (I) passing through it and determine its resistance. Also plotting a graph between V and I.

Practical: Determination of the equivalent resistance of two resistors when connected in series and parallel.

Chapter-12: Magnetic effects of Current- Magnetic field, field lines, field due to a current carrying conductor, field due to current carrying coil or solenoid; Force on current carrying conductor, Fleming's Left Hand Rule, Direct current, Alternating current, frequency of AC, Advantage of AC over DC, Domestic electric circuits.

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Motor, Electromagnetic Induction, Electric Generator

Unit II: World of Living

Ch-7: Reproduction- Reproduction in animals and plants (asexual and sexual) reproductive health - need and methods of family planning. Safe sex vs HIV/AIDS. Child bearing and women's health.
Practical: Studying (a) binary fission in Amoeba, and (b) budding in yeast and hydra with the help of prepared slides.

Practical: Identification of the different parts of an embryo of a dicot seed (Pea, gram or red kidney bean).

Ch-8: Heredity– Heredity; Mendel's contribution- Laws for inheritance of traits: Sex determination: brief introduction.

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Evolution: Acquired and Inherited Traits, Speciation, Evolution and Classification, Tracing Evolutionary Relationships, Fossils, Evolution by Stages, Human Evolution

Note:

- The entire syllabus is to be completed by **December 05, 2026.**
- Revision of entire syllabus for ***Pre-board*** and **Annual Examination 2027.**
- **For more information kindly visit to CBSE Academic:**

https://cbseacademic.nic.in/web_material/CurriculumMain27/SecPart1/Science_SecP1_2026-27.pdf

Note for the Teachers:

1. The topics Periodic Classification of Elements; Heredity and Evolution; and Electric Effects of Electric Current will not be assessed in the year-end examination.
2. Learners may be assigned to read these topics/chapter and encouraged to prepare a brief write up in their Portfolio. Teachers should provide joyful and experiential opportunities. This may be for Internal Assessment and credit may be given for Periodic Assessment/Portfolio.
3.The NCERT text books present information in boxes across the book. These help students to get conceptual clarity. However, the information in these boxes would not be assessed in the year-end examination.

PRESCRIBED BOOKS:

- Science-Text book for class X- NCERT Publication
- Assessment of Practical Skills in Science- Class X- CBSE Publication
- Laboratory Manual-Science-Class X, NCERT Publication
- Exemplar Problems Class X – NCERT Publication
- Reading Material – Science – Class X (2026-27) – CBSE

Question Paper Design (Theory)
Class X (2026-27)
Subject: Science (086)

Theory (80 marks) **Duration :3 Hours**

S.No.	Competencies	Total
1.	Demonstrate Knowledge and Understanding	50%
2.	Application of Knowledge/Concepts	30%
3.	Formulate, Analyze, Evaluate and Create	20%

Note:

- Typology of Questions: VSA including objective type questions, Assertion – Reasoning type questions; SA; LA; Source-based/ Case-based/ Passage-based/ Integrated assessment questions.
- *An internal choice of approximately 33% would be provided.*

Internal Assessment: 20 Marks

- Periodic Assessment – 05 marks + 05 marks
- Subject Enrichment (Practical Work) – 05 marks
- Portfolio – 05 marks .

Suggestive verbs for various competencies

- Demonstrate Knowledge and Understanding:
  State, name, list, identify, define, suggest, describe, outline, summarize, etc.
- Application of Knowledge/Concepts:
  Calculate, illustrate, show, adapt, explain, distinguish, etc.
- Formulate, Analyze, Evaluate and Create:
  Interpret, analyze, compare, contrast, examine, evaluate, discuss, construct, etc.