

Chemistry Syllabus: NCERT

Month	Unit/Chapter/Topic	PEDAGOGY TOOLS	E- Content	Learning Outcomes/Skills
April	CH-1 Chemical Reactions and Equations-I	"TOOLS: Lecture method, brainstorming, Chalk and board, Questioning.	https://youtu.be/wU-scVoYv68?si=c95sWH4QKgxKBU54	• Characteristics of physical and chemical change. • Balancing of chemical equations. • Distinguish between combination, decomposition, displacement, double displacement, exothermic, and endothermic reactions.
May	CH-1 Chemical Reactions and Equations-II	ACTIVITY- Demonstration of a set of reactions including - burning of magnesium wire, reaction of barium chloride and magnesium sulphate solution, reaction of iron nail and copper sulphate solution, heating of lead nitrate and -identify their type and characteristics of reactions accompanied with chemical change."		• Identify substances reduced/oxidized, oxidizing/reducing agents. • Effects of oxidation (rancidity). • Corrosion and methods of prevention. SKILLS: Scientific attitude, Observation, Experimentation, Analysis, Conclusion.
June	SUMMER VACATION			
July	CH-2 Acids, Bases and Salts	TOOLS: Lecture method, brainstorming, Chalk and board, Questioning, Demonstration method. ACTIVITY- To test whether the given solution is acid or a base using various indicators like litmus, phenolphthalein, methyl orange etc.	https://www.youtube.com/live/qTE65j9pqJ4?si=szOuMPAAAsScgidrK	• Indicators and their types. • Chemical properties of acids and bases. • pH scale, its strength, and importance. SKILLS: Scientific attitude, Observation, Analysis, Conclusion.
August	CH-3 Metals and Non-Metals	Metal and non metal TOOLS: Chalk and board method, Explanation and discussion, demonstration method, concept mappings and flow charts	https://www.youtube.com/live/2iuiuQ89gM?si=aFYJPvu0CQs1QeNC https://www.youtube.com/live/GefEQI5FI8g?si=QwR0mL5TYHmw4I0	• Physical and chemical properties of metals and non-metals. • Reactivity towards air, water, and acids. • Properties of ionic compounds. SKILLS: Critical thinking, Interpretation.

		ACTIVITY : To identify the product formed when a metal reacts with a metal salt, in order to list metals in order of their reactivity."		
September	TERM-1 EXAMINATION			
October	CH-4 Carbon and its Compounds	Carbon Compounds TOOLS: Explanation and discussion, lecture method, chalk and board , flowcharts. ACTIVITY: Outline physical and chemical properties of ethanol to ethanoic acid, in order to detect their presence given an unknown compound.	https://youtu.be/juOtm3KZlIg?si=9yyBNW44z1ezgY2L https://youtu.be/fg2WWLnQX8I?si=bJ1jPEaq0m90mwLQ	- Carbon: tetravalency, catenation, covalent bonds, homologous series, IUPAC nomenclature. - Structures of various carbon compounds. SKILLS: Scientific attitude, Critical thinking, Collaboration.
Nov-Feb	EXAMS			

LAB/HANDS ON ACTIVITIES

- Finding pH of various samples (HCl, NaOH, Ethanoic acid, Lemon juice, Water, Hydrogen Carbonate).
- Studying properties of acids and bases (HCl & NaOH) with Litmus, Zinc, Sodium Carbonate.
- Performing/observing reactions: Combination, Decomposition, Displacement, Double Displacement, quicklime action, heat on ferrous sulphate, iron nails in copper sulphate, sodium sulphate and barium chloride.
- Observing action of Zn, Fe, Cu, Al on salt solutions (ZnSO₄, FeSO₄, CuSO₄, Al₂(SO₄)₃).
- Arranging metals in order of reactivity.
- Studying properties of acetic acid (odour, solubility, effect on litmus, reaction with Sodium Hydrogen Carbonate).