

# Annual curriculum plan

## Session (2020-21)

CLASS - XII

Subject: chemistry

**Education vision:** To be a teacher that impacts the lives of many students in positive ways. A teacher must be willing to be vulnerable, to grow and increasing her capacity. I want have that burning desire to do the best for my students and this desire is the centre of my education vision. I believe that by doing a great job with small things, great things happen. A teacher helps their students to know their potentials she assist them to have maximum outcome and utilization of their potential. To help them to realize that they have ability to be a great generation.

- To see each student as an individual unique learner.
- Students will be open minded critical thinker.
- Students will be balanced.
- They will by reflective and will explore their surroundings and environment for achieving all their goals.

April to September

Chapter No	Transaction strategy/pedagogy	Learning Objective/ Skills to be developed	CORE SKILLS/ ART INTEGRATION/ INTERDISCIPLINARY LINKAGES
<b>Unit 1 Solid State</b> Classification of solids based on different binding forces: molecular, ionic, covalent and metallic solids, amorphous and crystalline solids (elementary idea). Unit cell in two dimensional and three dimensional lattices, calculation of density of unit cell, packing in solids, packing efficiency, voids, number of atoms per unit cell in a cubic unit cell, point defects.	Lecture cum discussion. OLab activities. A short quiz. Concept mapping. Predict–observe–explain Pen paper test Online Quizzes Assignment on Google class room Sharing video based on concept	Students will be able to <ul style="list-style-type: none"> <li>• Types of binding forces</li> <li>• Differentiate between Crystalline and amorphous solids</li> <li>• Defects in solids</li> <li>• Packing in solids</li> <li>• Count the number of atoms per unit cell</li> </ul>	• Core Skills: Observation skills, Awareness Analytical skills, and Problem solving skill.  • Art Integration: To make 3D model of NaCl with ball and sticks  Interdisciplinary linkage: Mathematics
<b>Unit II: Solutions</b> <ul style="list-style-type: none"> <li>• Types of solutions, expression of</li> <li>• concentration of solutions of solids in liquids,</li> </ul>	Lecture cum discussion. OLab activities. A short quiz. Concept mapping. Predict–observe–explain	Students will be able to <ul style="list-style-type: none"> <li>• Identify the Types of solutions,</li> <li>• Find out the</li> </ul>	• Core Skills: Observation skills, Awareness Analytical skills, and Problem solving skill.  • Art Integration: List out the applications of Henry’s law and colligative prop

<ul style="list-style-type: none"> <li>solubility of gases in liquids, solid solutions,</li> <li>colligative properties - relative lowering of vapour pressure, Raoult's law, elevation of boiling point, depression of freezing point, osmotic pressure,</li> <li>determination of molecular masses using colligative properties,</li> <li>Deleted Portion</li> <li>abnormal molecular mass,</li> <li>Van't Hoff factor.</li> </ul>	<p>Pen paper test.          Oral test          Practice numerical regularly          Giving opportunities to share their ideas.          Online Quizzes          Assignment on Google class room          Sharing video based on concept</p>	<p>concentration of solutions of solids in liquids,</p> <ul style="list-style-type: none"> <li>To understand the concept of solubility of gases in liquids,</li> <li>To understand colligative properties - relative lowering of vapour pressure, Henry's law and its applications              Raoult's law, elevation of boiling point, depression of freezing point, osmotic pressure,</li> <li>To solve numerical based on colligative properties ,</li> </ul>	<p><b>Interdisciplinary linkage: Mathematics.</b></p>
<p><b>Unit III: Electrochemistry</b></p> <ul style="list-style-type: none"> <li>Redox reactions, conductance in electrolytic solutions,</li> <li>specific and molar conductivity,</li> <li>variations of conductivity with concentration,</li> <li>Kohlrausch's Law,</li> <li>electrolysis</li> <li>EMF of a cell,</li> <li>standard electrode potential , Nernst equation and its application to chemical cells,</li> <li>Relation between Gibbs energy change and EMF of a cell,</li> <li>fuel cells,</li> <li>corrosion</li> <li>Deleted Portion</li> <li>Lead accumulator, fuel cells, corrosion, law of electrolysis</li> </ul>	<p>Lecture cum discussion.          OLab activities.          A short quiz.          Concept mapping.          Predict–observe–explain          Pen paper test.          Oral test          Practice numerical regularly          Giving opportunities to share their ideas.          Online Quizzes          Assignment on Google class room          Sharing video based on concept</p>	<p>Students will be able</p> <ul style="list-style-type: none"> <li>To identify Redox reactions</li> <li>To understand the concept of, conductance in electrolytic solutions, specific and molar conductivity, variations of conductivity and will be able to solve numerical based on the concept,</li> </ul>	<ul style="list-style-type: none"> <li><b>Core Skills:</b>              Observation skills, Awareness Analytical skills, and Problem solving skill.</li> <li><b>Art Integration:</b>              List out the redox reactions. Make a chart showing an Electrolytic with reactions involved at cathode and anode</li> <li><b>Interdisciplinary linkage: Mathematics.</b></li> </ul>

<ul style="list-style-type: none"> <li>• (elementary idea), dry cell-electrolytic cells and Galvanic cells,</li> </ul>		<ul style="list-style-type: none"> <li>• To understand the Kohlrausch's Law, Faraday's laws of electrolysis .</li> <li>• To calculate EMF of a cell, and standard electrode potential,</li> <li>• To understand the Nernst equation and its application to chemical cells,</li> <li>• To derive relation between Gibbs energy change and EMF of a cell,</li> </ul>	
<p><b>Unit IV: Chemical Kinetics</b></p> <ul style="list-style-type: none"> <li>• Rate of a reaction (Average and instantaneous),</li> <li>• factors affecting rate of reaction: concentration, temperature, catalyst;</li> <li>• order and molecularity of a reaction,</li> <li>• rate law and specific rate constant,</li> <li>• integrated rate equations</li> <li>• half-life (only for zero and first order reactions),</li> <li>• Deleted Portion</li> <li>• Concept of collision theory (elementary idea, no mathematical treatment), activation energy, Arrhenius equation.</li> </ul>	<p>Lecture cum discussion. OLab activities. A short quiz. Concept mapping. Predict–observe–explain Pen paper test. Oral test Practice numerical regularly Giving opportunities to share their ideas. Online Quizzes Assignment on Google class room Sharing video based on concept</p>	<p>Students will be able</p> <ul style="list-style-type: none"> <li>• To understand the meaning of Rate of a reaction (Average and instantaneous),</li> <li>• To explain the effect of change in concentration, temperature, and catalyst on the rate of reaction</li> <li>• To calculate the order of reaction</li> <li>• To tabulate the difference between</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Core Skills:</b> Observation skills, Awareness Analytical skills and Problem solving skill.</li> <li>• <b>Art Integration:</b> Plot graphs to show role of activation energy in determining the rate of reactions.</li> <li>• <b>Interdisciplinary linkage:</b> Mathematics.</li> </ul>

		<p>molecularity and order of a reaction,</p> <ul style="list-style-type: none"> <li>• To write the rate law expression</li> <li>• To derive integrated rate equations .</li> <li>• To calculate the half-lifetime of the reactions</li> </ul>	
<p><b>Unit V: Surface Chemistry</b></p> <ul style="list-style-type: none"> <li>• Adsorption - physisorption and chemisorption,</li> <li>• factors affecting adsorption of gases on solids,</li> <li>• colloidal state distinction between true solutions, colloids and suspension;</li> <li>• lyophilic, lyophobic multi-molecular and</li> <li>• macromolecular colloids;</li> <li>• properties of colloids; Tyndall effect, Brownian movement, electrophoresis, coagulation,</li> <li>• Deleted Portion</li> <li>• emulsion - types of emulsions, catalysis: homogenous and</li> <li>• heterogeneous, activity and selectivity of solid catalysts;</li> </ul>	<p>Lecture cum discussion. OLab activities. A short quiz. Concept mapping. Predict–observe–explain Pen paper test. Oral test Practice numerical regularly Giving opportunities to share their ideas. Online Quizzes Assignment on Google class room Sharing video based on concept</p>	<p>Students will be able</p> <ul style="list-style-type: none"> <li>• To understand Adsorption and its types .</li> <li>• To Tabulate difference between physisorption and chemisorption,</li> <li>• To explain factors affecting adsorption of gases on solids, between true solutions, colloids and suspension; lyophilic, lyophobic multi-molecular and macromolecular colloids;</li> <li>• To understand the properties of colloids; Tyndall effect, Brownian movement,</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Core Skills:</b> Observation skills, Awareness and Problem solving skill.</li> <li>• <b>Art Integration:</b> List out the applications of colloids in daylife.</li> <li>• <b>Interdisciplinary linkage:</b> Mathematics.Biology</li> </ul>

		<ul style="list-style-type: none"> <li>• To understand Zeta potential and Hardy Schulze rule.</li> <li>• To explain the process of electrophoresis,</li> <li>• To understand various methods coagulation,</li> </ul>	
<p><b>Deleted Unit</b></p> <p><b>Unit V: General Principles and Processes of Isolation of Elements</b></p> <ul style="list-style-type: none"> <li>• Principles and methods of extraction</li> <li>• - concentration, oxidation, reduction</li> <li>–</li> <li>• electrolytic method and refining;</li> <li>• occurrence and principles of extraction of aluminium, copper, zinc and iron</li> </ul>	<p>Lecture cum discussion.</p> <p>Lab activities.</p> <p>A short quiz.</p> <p>Concept mapping.</p> <p>Predict–observe–explain</p> <p>Pen paper test.</p> <p>Oral test</p> <p>Practice numerical regularly</p>	<p>Students will be able</p> <ul style="list-style-type: none"> <li>• To understand the Principles and methods of extraction - concentration, oxidation, reduction - electrolytic method and refining;</li> <li>• To understand and explain Ellingham diagram.</li> <li>• To use Ellingham diagram to select the reducing reagent for the reaction. .</li> <li>• occurrence and principles of extraction of aluminium, copper, zinc and iron.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Core Skills:</b> Observation skills, Awareness Analytical skill and Problem solving skill.</li> <li>• <b>Art Integration:</b> List out the applications of metals</li> <li>• <b>Interdisciplinary linkage:</b> Mathematics.</li> </ul>

<p><b>Unit VI: Group -15 Elements:</b> General introduction, electronic configuration, occurrence, oxidation states, trends in physical and chemical properties; Nitrogen preparation properties and uses; compounds of Nitrogen: preparation and properties of Ammonia and Nitric Acid.</p> <p><b>Group 16 Elements:</b> General introduction, electronic configuration, oxidation states, occurrence, trends in physical and chemical properties, dioxygen: preparation, properties and uses, classification of Oxides, Ozone, Sulphur -allotropic forms; compounds of Sulphur: preparation properties and uses of Sulphur-dioxide, Sulphuric Acid: properties and uses; Oxoacids of Sulphur (Structures only).</p> <p><b>Group 17 Elements:</b> General introduction, electronic configuration, oxidation states, occurrence, trends in physical and chemical properties; compounds of halogens, Preparation, properties and uses of Chlorine and Hydrochloric acid, interhalogen compounds, Oxoacids of halogens (structures only). <b>Group 18 Elements:</b> General introduction, electronic configuration, occurrence, trends in physical and chemical properties, uses.</p> <p><b>Deleted Portion</b></p> <p><b>Preparation and properties of Phosphine, Sulphuric Acid: industrial process of manufacture, Oxides of Nitrogen</b></p>	<p><b>Lecture cum discussion.</b></p> <p><b>OLab activities.</b></p> <p><b>A short quiz.</b></p> <p><b>Concept mapping.</b></p> <p><b>Predict–observe–explain</b></p> <p><b>Pen paper test.</b></p> <p><b>Oral test</b></p> <p><b>Practice numerical regularly</b></p> <p><b>Giving opportunities to share their ideas.</b></p> <p><b>Online Quizzes</b></p> <p><b>Assignment on Google class room</b></p> <p><b>Sharing video based on concept</b></p>	<p><b>Students will be able</b></p> <ul style="list-style-type: none"> <li>• <b>To write electronic configuration,of Group 16 elements</b></li> <li>• <b>To find out the oxidation states</b></li> <li>• <b>To explain trends in physical and chemical properties,</b></li> <li>• <b>To understand Preparation, Properties and uses of dioxygen, ,</b></li> <li>• <b>To differentiate between allotropes of Sulphur .</b></li> <li>• <b>To show preparation Properties and uses of Sulphur-dioxide,</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Core Skills:</b> Observation skills, Awareness and Problem solving skill.</li> <li>• <b>Art Integration:</b> List out the applications of p- block</li> <li>• <b>Interdisciplinary linkage:</b> Mathematics. Biology.</li> </ul>
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<p>(Structure only); Phosphorus - allotropic forms, compounds of Phosphorus: Preparation and properties of Halides and Oxo acids (elementary idea only).</p>			
		<ul style="list-style-type: none"> <li>• To write the electronic configuration, oxidation states, of group 17 elements</li> <li>• Explain trends in physical and chemical properties.</li> <li>• To understand Preparation, properties and uses of Chlorine and Hydrochloric acid, interhalogen compounds,</li> <li>• To write electronic configuration, of Group 18 elements.</li> <li>• To explain trends in physical and chemical properties, uses.</li> </ul>	
<p><b>Unit VII: ‘d’ and ‘f’ Block Elements</b></p> <ul style="list-style-type: none"> <li>• General introduction, electronic configuration, occurrence and characteristics of transition metals,</li> <li>• general trends in properties of the first row transition metals –</li> <li>• metallic character,</li> </ul>	<p>Lecture cum discussion. OLab activities. A short quiz. Concept mapping. Predict–observe–explain Pen paper test. Oral test Practice numerical</p>	<ul style="list-style-type: none"> <li>• To write electronic configuration,</li> <li>• To understand the characteristics of transition metals</li> <li>• To explain general trends in properties</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Core Skills:</b> Observation skills, Awareness and A Problem solving skill.</li> <li>• <b>Art Integration:</b> List out the applications of d-block</li> <li>• <b>Interdisciplinary linkage: Mathem</b></li> </ul>

<ul style="list-style-type: none"> <li>• ionization enthalpy, oxidation states,</li> <li>• ionic radii,</li> <li>• colour,</li> <li>• catalytic property,</li> <li>• magnetic properties,</li> <li>• interstitial compounds, alloy formation,</li> <li>• Deleted Portion</li> <li>• Chemical reactivity of lanthanoids, Actinoids -Electronic</li> <li>• configuration, oxidation states and comparison with lanthanoids.</li> <li>• Preparation and properties of <math>KMnO_4</math> and <math>K_2Cr_2O_7</math></li> </ul>	<p>regularly Giving opportunities to share their ideas. Encouraging individual response. Bringing affective, psychomotor and cognitive development. Laying stress on understanding the concept. Online Quizzes Assignment on Google class room Sharing video based on concept</p>	<p>of the first row transition metals - metallic character, ionization enthalpy, oxidation states, ionic radii, colour, compounds, alloy formation,</p>	
<p><b>Unit VIII: Coordination Compounds</b></p> <ul style="list-style-type: none"> <li>• Coordination compounds - Introduction,</li> <li>• ligands,</li> <li>• coordination number,</li> <li>• colour</li> <li>• , magnetic properties</li> <li>• shapes,</li> <li>• IUPAC nomenclature of mononuclear</li> <li>• coordination compounds. Bonding, Werner's</li> <li>• theory, VBT,</li> <li>• CFT;</li> <li>• Deleted portion</li> </ul> <p>Structure and stereoisomerism, importance</p>	<p>Lecture cum discussion. O Lab activities. A short quiz. Concept mapping. Predict-observe-explain Pen paper test. Oral test Practice numerical regularly Giving opportunities to share their ideas. Encouraging individual response. Bringing affective, psychomotor and cognitive development. Laying stress on understanding the concept. Online Quizzes</p>	<ul style="list-style-type: none"> <li>• To understand the ligands,</li> <li>• To find out the coordination number,</li> <li>• To understand concept of colour, magnetic properties and shapes,</li> <li>• To do IUPAC nomenclature of mononuclear coordination compounds</li> <li>• To understand Werner's theory,</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Core Skills:</b> Observation skills, Awareness and Problem solving skill.</li> <li>• <b>Art Integration:</b> Make a ppt on theories involve In coordination compounds.</li> <li>• <b>Interdisciplinary linkage:</b> Mathematics.</li> </ul>

of coordination compounds (in qualitative analysis, extraction of metals and biological system).	Assignment on Google class room Sharing video based on concept	VBT, and CFT; <ul style="list-style-type: none"> <li>Understand the importance of coordination compounds</li> </ul>	
<b>October to December</b>			
<b>Unit IX: Haloalkanes and Haloarenes</b> <ul style="list-style-type: none"> <li>Haloalkanes: Nomenclature, nature of C-X bond,</li> <li>physical and chemical properties,</li> <li>mechanism of substitution</li> <li>reactions, optical rotation.</li> <li>Haloarenes: Nature of C-X bond,</li> <li>substitution reactions</li> <li>(Directive influence of halogen in monosubstituted compounds only).</li> <li>Deleted Portion</li> <li>Uses and environmental effects of - dichloromethane,</li> <li>trichloromethane, tetrachloromethane, iodoform, freons, DDT.</li> </ul>	Lecture cum discussion. OLab activities. A short quiz. Concept mapping. Predict–observe–explain Pen paper test. Oral test Practice numerical regularly Giving opportunities to share their ideas. Encouraging individual response. Bringing affective, psychomotor and cognitive development. Online Quizzes Assignment on Google class room Sharing video based on concept	<ul style="list-style-type: none"> <li>To do nomenclature,</li> <li>To explain nature of C-X bond,</li> <li>To solve reasoning based question</li> <li>physical and chemical properties,</li> <li>To step out the mechanism of substitution reactions,</li> <li>To explain optical rotation, directive influence of halogen compounds</li> </ul>	<ul style="list-style-type: none"> <li><b>Core Skills:</b> Observation skills, Awareness and Problem solving skill.</li> <li><b>Art Integration:</b> Write mechanism of sn1 and sn2 on a chart paper.</li> <li><b>Interdisciplinary linkage:</b> Mathematics.Biology</li> </ul>
<b>Unit X: Alcohols, Phenols and Ethers</b> <ul style="list-style-type: none"> <li>Alcohols: Nomenclature, methods of preparation,</li> <li>physical and chemical properties (of</li> </ul>	Lecture cum discussion. OLab activities A short quiz. Concept mapping. Predict–observe–	<ul style="list-style-type: none"> <li>To do nomenclature of alcohols and phenol.</li> <li>To understand,</li> </ul>	<ul style="list-style-type: none"> <li><b>Core Skills:</b> Observation skills, Awareness and Problem solving skill.</li> <li><b>Art Integration:</b> Make a chart to show mechanism Of reactions.</li> </ul>

<p>primary alcohols only),</p> <ul style="list-style-type: none"> <li>• identification of primary, secondary and tertiary alcohols</li> <li>• , mechanism of dehydration</li> <li>• Phenols: Nomenclature, methods of preparation, physical and chemical properties, acidic nature of phenol, electrophilic substitution reactions, uses of phenols.</li> <li>• Ethers: Nomenclature, methods of preparation, physical and chemical properties, uses.</li> <li>• Deleted Portion</li> <li>• uses with special reference to methanol and ethanol.</li> </ul>	<p>explain Pen paper test. Oral test Practice numerical regularly Giving opportunities to share their ideas. Encouraging individual response. Bringing affective, psychomotor and cognitive development. Laying stress on understanding the concept. Online Quizzes Assignment on Google class room Sharing video based on concept</p>	<p>methods of preparation, physical and chemical properties of primary alcohols ,</p> <ul style="list-style-type: none"> <li>• To identify primary, secondary and tertiary alcohols,</li> <li>• To write the mechanism of dehydration,</li> <li>• To understand the electrophilic substitution reactions.</li> <li>• To do the nomenclature,</li> <li>• To understand the methods of preparation, physical and chemical properties, uses.</li> </ul>	<ul style="list-style-type: none"> <li>• Interdisciplinary linkage Mathematics Biology</li> </ul>
<p>Unit XI: Aldehydes, Ketones and Carboxylic Acids</p> <ul style="list-style-type: none"> <li>• Aldehydes and Ketones: Nomenclature,</li> <li>• nature of carbonyl group,</li> <li>• methods of preparation, physical and chemical properties,</li> <li>• mechanism of nucleophilic addition,</li> <li>• reactivity of alpha hydrogen in</li> </ul>	<p>Lecture cum discussion. O Lab activities. A short quiz. Concept mapping. Predict–observe–explain Pen paper test. Oral test Practice numerical regularly Giving opportunities to share their ideas. Encouraging</p>	<ul style="list-style-type: none"> <li>• Aldehydes and Ketones: Carboxylic Acids</li> <li>• To do Nomenclature,</li> <li>• To illustrate the nature of carbonyl group,</li> <li>• To understand the methods of preparation,</li> </ul>	<ul style="list-style-type: none"> <li>• Core Skills: Observation skills, Awareness and Problem solving skill.</li> <li>• Art Integration: List out the important aldehydes, Ketones and carboxylic acids Interdisciplinary linkage; Mathematics</li> </ul>

<p>aldehydes, uses.</p> <ul style="list-style-type: none"> <li>• Carboxylic Acids: Nomenclature, acidic nature,</li> <li>• methods of preparation, physical and chemical properties; uses.</li> </ul>	<p>individual response. Bringing affective, psychomotor and cognitive development. Laying stress on understanding the concept.</p>	<ul style="list-style-type: none"> <li>• To explain physical and chemical properties,</li> <li>• Show mechanism of nucleophilic addition,</li> <li>• Understand the reactivity of alpha hydrogen in aldehydes, and their uses.</li> <li>• To explain the acidic nature of carboxylic acids.</li> <li>• To distinguish between aldehydes, ketones and carboxylic acid.</li> </ul>	
<p><b>Unit XII: Organic compounds containing Nitrogen</b></p> <ul style="list-style-type: none"> <li>• Amines: Nomenclature, classification, structure,</li> <li>• methods of preparation,</li> <li>• physical and chemical properties, uses,</li> <li>• identification of primary, secondary and tertiary amines.</li> <li>• Cyanides and Isocyanides</li> <li>• Deleted Portion</li> <li>• Diazonium salts: Preparation, chemical reactions and</li> <li>•</li> </ul>	<p>Lecture cum discussion. O Lab activities A short quiz. Concept mapping. Predict-observe-explain Pen paper test. Oral test Practice numerical regularly Giving opportunities to share their ideas. Encouraging individual response. Bringing affective, psychomotor and cognitive development. Laying stress on</p>	<ul style="list-style-type: none"> <li>• To do Nomenclature,</li> <li>• To understand the classification, structure, methods of preparation,</li> <li>• To explain physical and chemical properties, uses,</li> <li>• To identify primary, secondary and tertiary amines.</li> </ul>	<ul style="list-style-type: none"> <li>• Core Skills: Observation skills, Awareness and Problem solving skill.</li> <li>• Art Integration: Make a power point presentation on Amines chemistry.</li> <li>• Interdisciplinary linkage</li> <li>• Mathematics.</li> </ul>

- **importance in synthetic organic chemistry.**

**understanding the concept.**

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<p><b>Unit XIII: Biomolecules</b></p> <ul style="list-style-type: none"> <li>Carbohydrates - Classification (aldoses and ketoses), monosaccharides (glucose and fructose), D-L configuration</li> <li>Proteins -Elementary idea of - amino acids, peptide bond, polypeptides, proteins, structure of proteins - primary, secondary, tertiary structure and quaternary structures (qualitative idea only), denaturation of proteins. Nucleic Acids: DNA and RNA.</li> <li><b>Deleted Portion</b></li> <li><b>Oligosaccharides (sucrose, lactose, maltose), polysaccharides (starch, cellulose, glycogen), importance of carbohydrates.</b></li> <li><b>Vitamins- classification and functions. Enzymes. Hormones -</b></li> <li><b>Elementary idea excluding structure.</b></li> </ul>	<p>Lecture cum discussion. OLab activities. A short quiz. Concept mapping. Predict-observe-explain Pen paper test. Oral test Practice numerical regularly Giving opportunities to share their ideas. Encouraging individual response. Bringing affective, psychomotor and cognitive development. Laying stress on understanding the concept.</p>	<ul style="list-style-type: none"> <li>To Classify carbohydrates (aldoses and ketoses), monosaccharides (glucose and fructose),</li> <li>To differentiate between D-L configuration</li> <li>To illustrate structures of carbohydrate.</li> <li>To understand the Importance of carbohydrates.</li> <li>To understand structure of amino acids, peptide bond, polypeptides, proteins</li> <li>To illustrate the , structure of proteins - primary, secondary, tertiary structure and quaternary structures</li> <li>To understand the basic structure and importance of Nucleic Acids: DNA and RNA</li> <li>Developing healthy eating habit.</li> </ul>	<ul style="list-style-type: none"> <li><b>Core Skills:</b> Observation skills, Awareness and Problem solving skill.</li> <li><b>Art Integration:</b> Make a chart showing structure Of different biomolecules. Make a balanced diet chart for you</li> <li><b>Interdisciplinary linkage:</b> Biology</li> </ul>
<p><b>Deleted Unit</b></p> <p><b>Unit XIV: Polymers</b></p> <ul style="list-style-type: none"> <li><b>Copolymerization,</b></li> </ul>	<ul style="list-style-type: none"> <li>Lecture cum discussion.</li> </ul>	<ul style="list-style-type: none"> <li>To understand the process of Copolymerization,</li> </ul>	<ul style="list-style-type: none"> <li><b>Core Skills:</b> Observation skills, Awareness and Problem solving skill.</li> </ul>

<ul style="list-style-type: none"> <li>• some important polymers:</li> <li>• natural</li> <li>• synthetic like polythene, nylon polyesters, bakelite, rubber.</li> </ul> <p>Biodegradable and non-biodegradable polymers.</p>	<ul style="list-style-type: none"> <li>• Lab activities.</li> <li>• A short quiz.</li> <li>• Concept mapping. Predict–observe–explain</li> <li>• Pen paper test.</li> <li>• Oral test</li> <li>• Practice structures regularly</li> <li>• Giving opportunities to share their ideas.</li> </ul>	<ul style="list-style-type: none"> <li>• understand the structures of some important polymers: entiate</li> <li>• To differentiate between natural and synthetic polymers ,. Biodegradable and non- biodegradable polymers.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Art Integration:</b> List out the applications of polymers in daylife.</li> <li>• <b>Interdisciplinary linkage:</b> Mathematics and Biology</li> </ul>
<p>Deleted Unit</p> <p>Unit XV: Chemistry in Everyday life</p> <ul style="list-style-type: none"> <li>• Chemicals in medicines - analgesics, tranquilizers antiseptics, disinfectants, antimicrobials, antifertility drugs, antibiotics, antacids, antihistamines.</li> <li>• Chemicals in food - preservatives, artificial sweetening agents, elementary idea of antioxidants. Cleansing agents- soaps and detergents, cleansing action.</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture cum discussion.</li> <li>• Lab activities.</li> <li>• A short quiz.</li> <li>• Concept mapping. Predict–observe–explain</li> <li>• Pen paper test.</li> <li>• Oral test</li> <li>• Practice numerical regularly</li> <li>• Giving opportunities to share their ideas.</li> </ul>	<p>Students will be able to</p> <ul style="list-style-type: none"> <li>• To understand Chemicals in medicines –</li> <li>• To understand the importance of analgesics, tranquilizers antiseptics, disinfectants, antimicrobials, antifertility drugs, antibiotics, antacids, antihistamines.</li> <li>• To understand preservatives,</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Core Skills:</b> Observation skills, Awareness and Problem solving skill.</li> <li>• <b>Art Integration:</b> Make a project on chemistry in everyday life. Make a list of medicines which should be kept in First Aid Box at your home</li> <li>• <b>Interdisciplinary linkage:</b> Mathematics and Biology</li> </ul>

	<ul style="list-style-type: none"><li>• Encouraging individual response.</li><li>• Bringing affective, psychomotor and cognitive development.</li><li>• Laying stress on understanding the concept.</li></ul>	<p>artificial sweetening agents, elementary idea of antioxidants.</p> <ul style="list-style-type: none"><li>• To explain the Cleansing agents- soaps and detergent and their cleansing action.</li><li>• Aware of eco friendly substances.</li></ul>	
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