CHOITHRAM SCHOOL, MANIK BAGH, INDORE

ANNUAL CURRICULUM PLAN SESSION 2017 – 2018

CLASS: XI

SUBJECT: CHEMISTRY

Month &	Theme/ Sub-theme	Lea	arning Objectives	Activities	Expected Learning	Assessment
Working Days		Subject Specific	Behavioural	&Resources	Outcomes	
		(Content Based)	(Application based)			
June/12	Some basic concepts	After studying this	1. Appreciate the role of chemistry in	Volumetric	students have learnt	Assignment
	of chemistry	unit students will be	different spheres of life like supply of	analysis/laboratory	\square \square \square \square explain the	Half yearly examination
	Importance and scope	able to	food, contribution to better health	equipment	characteristics of three	
	of chemistry, Matter	1. define chemistry	and sanitation, saving environment,	Previous years	states of matter;	
	and its classification,	2.describe the terms	increasein comforts, pleasure and	question papers,	\square \square \square \square classify	
	element, compound	mole and molar mass	luxuries, synthetic fibre, building	practice work	different substances into	
	and mixture. Law of	3. express	materials etc.	sheets.	elements, compounds	
	conservation, Law of	concentration of	2. Appreciate the importance of		and mixtures;	
	constant proportion,	solution in various	concentration of solution in preparing		\square \square \square \square explain	
	Law of multiple	ways like strength	injections, saline or solutions for		various laws of	
	proportion .postulates	,molarity, molality,	researches. etc.		chemical combination;	
	of Daltons atomic	masss %, volume%			\square \square \square \square \square appreciate	
	theory, Relative	,ppm and mole			significance of	
	atomic mass,	fraction			atomicmass, average	
	calculation of	4. determine empirical			atomic mass,molecular	
	molecular mass,	formula and molecular			mass and formula	
	formula mass,	formula for a			mass;	
	Concept of mole,	compound from the			□ □□ □ describe the	
	Ways of expressing	given experimental			terms – mole andmolar	
	concentration such as	data;			mass;	
	strength ,molarity,	5.develop logical			□ □ □ □ □ □ calculate t	
	molality, mass and	thinking through			mass per cent	
	volume percentage	various problems,			ofdifferent elements	

	,ppm ,mole fractons and stochiometric calculation and limiting reagent.	6.perform stochiometric calculation. 7. explain various laws of chemical Combination			constituting acompound; □ □ □ perform the stoichiometric calculations. 9. students learnt that though chemistry can be regarded as greatest benefactor of humanity, yet it can prove to be a blessing or a curse for humanity depends upon the uses to which it is put and how a relative balance is maintained between benefits and problem caused by progress of chemistry	
July/14	Structure of atom Discovery of electron, discovery of proton, Thomson's atomic model, Rutherford's scattering experiment, wave nature of EM radiations, photoelectric effect, black body radiation,atomic	After studying this unit students will be able to • Know the discoveries done in the field of structure of atom like: discovery of electron, proton and neutron. • Know various	After studying this unit students will be able to Observe details in a more scientific way and will become more open in expressing their ideas after learning how the scientists draw conclusions through a very small detail. Appreciate and Demonstrate the use of various low frequency and high frequency waves to situations like detection of fractures by X-rays, relieve of muscle pain	Problem solving Writing electronic configurations of various molecules and ions	 the discoveries done in the field of structure of atom like: discovery of electron, proton and neutron. various theories put forth for structures of atom. the nature of 	Assignment and Half yearly examination

spectra, Bohr's model of atom, Dual nature of atom, Heisenberg's uncertainty principle, quantum mechanical model, quantum numbers, Pauli's exclusion principle, Aufbau's principle, electronic configuration of ions, Hund's rule of maximum multiplicity.	theories put forth for structures of atom. • Understand the nature of EM waves and terminologies associated with it. • Understand the process of radioactivity. • Know and understand the black body radiations and photoelectric effect. • Learn the study of atomic spectra and its types . • Relate the failure of one atomic model to overcome the drawbacks of the same to frame a new theory.	 by infra red etc. Develop a sense of maturity regarding failures in life as to how one failure leads to a new path of success. Develop an attitude to simplify things and frame some logical norms for any kind of dealings in life like filling of electrons in a very organized and a set norm does not lead to any confusion. 	EM waves and terminologies associated with it. • the process of radioactivity. • the black body radiations and photoelectric effect. • the study of atomic spectra and its types. • To relate the failure of one atomic model to overcome the drawbacks of the same to frame a new theory. • Heisenberg's uncertainity principle and have enhanced the ability to solve numericals. • the principle of working out the electronic
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Know and	configuration
understand	and will be able
Heisenberg's	to understand
uncertainity	various
principle and	properties of a
enhance the	number atoms .
numerical	
solving ability.	To Develop a
	sense of
• Know the	maturity
principle of	regarding
working out	failures in life as
the electronic	to how one
configuration	failure leads to a
and will be	new path of
able to	success.
understand	
various	To Appreciate
properties of a	and
number atoms	Demonstrate the
	use of various
·	low frequency
	and high
	frequency waves
	to situations
	like detection of
	fractures by X-
	rays, relieve of
	muscle pain by
	infra red etc.
	mila loa cic.
	Atomic spectra :
	Emission
	spectra,
	Absorption
	spectra,
	opera,

continuous spectra, line spectra, band spectra. Failure of Rutherford's model of atom, overcoming the failure through Bohr's model for hydrogen atom, deriving mathematical relation of energy of an electron by Bohr's theory, numerical solving to calculate the energy of an electron. Dual behaviour of matter: de Broglie Equation, its	<u>, </u>			
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electron . Dual behaviour of matter : de Broglie Equation, its			energy of an	
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of matter : de Broglie Equation, its				
Broglie Equation, its				
Equation, its				
Equation, its			Broglie	
			Equation, its	
			derivation, and	
numericals			numericals	
			TT ' 1 ',	
• Heisenberg's			• Heisenberg's	
uncertainity			uncertainity	
principle, its			principle, its	
significance and				
numericals			numericals	

 _		
	related to it .	
	Quantum	
	mechanical	
	model of an	
	atom ,Quantur	1
	numbers,	
	Pauli's	
	exclusion	
	principle: no	
	two electrons i	n
	an atom can	
	have all the fo	ır
	quantum	
	numbers same	
	Aufbau's	
	principle : in	
	ground state of	
	an atom, the	
	electrons are	
	added	
	progressively	0
	the various	
	orbitals in	
	increasing order	er
	of energies.	
	Hund's rule of	
	maximum	
	multiplicity.	
	Stability of	
	completely	
	filled and Half	_
	filled Orbitals	
	configuration	
	various atoms	-
	Turious acomis	

				stabilities due to exchange energy and symmetrical distribution of electrons.	
elements Significance of classification, brief history of the development of periodic table, modern periodic law and the present form of periodic trends in properties of elements –atomic radii, ionic radii, inert gas radii, Ionization enthalpy, electron gain enthalpy, electronegativity, valency. Nomenclature of elements with atomic number greater than 100. unit st able to unit st able to unit st able to • Ur nee • Kr cor gro of ele • Kr cor gro of cor gro of ele • Kr cor gro of cor gro of ele • Kr cor gro of cor gro of ele • Kr cor gro of cor gro of ele • Cor po dra of cor of ele ele ele ele of ele ele ele ele ele of	students will be to Inderstand the eed of classifying ements. Inow how the oncept of rouping elements a accordance to deir properties led to the evelopment of eriodic Table. In ompare the obstitive points and rawbacks of revious models of classification of ements e.g. laws of triads and etaves, lendeleev's law will be all will be all to the end of the classification of ements. In ow how the oncept of the county of the classification of eriodic Table. They are the obstitute points and though the classification of ements e.g. laws of triads and exception properties led the classification of ements e.g. laws of triads and exception the classification of ements e.g. laws of triads and exception the classification of ements e.g. laws of triads and exception the classification of ements e.g. laws of triads and exception the classification of ements e.g. laws of triads and exception the classification of ements e.g. laws of triads and exception the classification of ements e.g. laws of triads and exception the classification of ements e.g. laws of triads and exception the classification of ements e.g. laws of triads and exception the classification of ements e.g. laws of triads and exception the classification of ements e.g. laws of triads and exception the classification of ements e.g. laws of triads and exception the classification of ements e.g. laws of triads and exception the classification of ements e.g. laws of triads and exception the classification of ements e.g. laws of triads and exception the classification of ements e.g. laws of triads and exception the classification of ements e.g. laws of triads and exception the classification of ements e.g. laws of triads and e.g. laws of triads e.	understand and appreciate the importance of classification and will learn how to proceed to study, analyze and solve a problem through a systematic and sequential approach. They will develop the skills of analysis, classification (sorting) and critical thinking. will also develop analytical ritical thinking through thtful study of the pattern of assification and the exties of elements followed scussion on normal & otional trends in the	Problem solving activity	Students have developed an understanding about the need & importance of classification of elements and knowledge of historical back ground of the classification of elements. With the help of the above information and subsequent discussion held thereon they have developed an insight into significance of	Assignment, practice questions

periodic	they can get success in life.	arranging things
classific		systematically so
designin		that further
modern		studies become
classific		easier and
• understa		effective.
Periodic		They have
understa	, and the second	developed the
significa		skills of analysis,
atomic n		sorting, arranging
and elec		through the study
configur		of this chapter
the basis		and now critically
periodic	OI	think before
classific	ion:	explaining
• name the		reasons about
\bullet matter the with $Z >$		particular pattern
accordin		of classification.
IUPAC		Students can
	nira.	
nomencl		predict periodic
• classify		position of elements and can
into s, p, blocks a		
their ma		predict probable
		trends in
characte		properties of the
• recogniz		elements in terms
periodic		of their metallic/
physical	na	non-metallic
chemica		nature, ionization
propertie	OI	enthalpy, size,
elements		electro affinity,
• compare		electronegativity,
reactivit		nature of
elements		compounds etc.
correlate	t with	They can explain

		thair agayamanaa :			the periodic	
		their occurrence in			the periodic	
		nature;			trends in the	
		• explain the			properties of the	
		relationship			elements.	
		between ionization				
		enthalpy and				
		metallic character;				
		use scientific				
		vocabulary				
		appropriately to				
		communicate ideas				
		related to certain				
		important properties				
		of atoms e.g., atomic/				
		ionic radii, ionization				
		enthalpy, electron				
		gain enthalpy,				
		electronegativity,				
		valence of elements.				
Aug+	Chemical bonding/	After studying this	Students will	1.drawing electron	Students have learnt	Practice questions
september/14days	ionic ,covalent,	unit students will be	appreciate how	dot structure	1. KÖssel-Lewis	
	coordinate bond.	able to	chemical bonding	2.predicting and	approach to chemical	
	Lewis dot	 understand KÖssel- 	keeps atoms together	drawing shapes of	bonding;	
	representation,	Lewis approach to	that are necessary for	organic	• the octet rule and its	
	various theories to	chemical bonding;	their existence.	compounds using	limitations,	
	explain geometry of	• explain the octet rule	 Appreciate chemical 	VSEPR theory	.to draw Lewis	
	molecules like	and its limitations,	bonds lends itself to		structures of simple	
	VSEPR, VBT and	draw Lewis	discovering some		molecules;	
	MOT ,hybridization	structures of simple	important appreciation		• to explain the	
	involving s,p,d,f	molecules; explain	of our surroundings.		formation of	
	orbital's, hydrogen	the formation of	 Students will then be 		differenttypes of bonds;	
	bonding	differenttypes of	challenged to think		• describe the VSEPR	
		bonds;	about the chemical		theory and predict the	
		• describe the VSEPR	bonds that are		geometry of simple	
		theory and predict the	essential to the		molecules;	

	<u> </u>	<u> </u>	
geometry of simple	functioning of our	• explain the valence	
molecules;	body. What bonds	bond approach for the	
• explain the valence	exist among atoms	formation of covalent	
bond approach for the	within our bodies that	bonds;	
formation ofcovalent	are sustaining us?	• predict the directional	
bonds;		properties of covalent	
• predict the		bonds;	
directional properties		• explain the different	
of covalent bonds;		types of hybridisation	
• explain the different		involving s, p and	
types of hybridisation		d orbitals and draw	
involving s, p and		shapes of simple	
d orbitals and draw		covalent molecules;	
shapes of simple		• describe the molecular	
covalent molecules;		orbital theory of	
• describe the		homonuclear diatomic	
molecular orbital		molecules;	
theory of homonuclear		• explain the concept of	
diatomic molecules;		hydrogen bonding	
• explain the concept			
of hydrogen		student have learnt and	
		appreciate that	
		chemical bonds lends	
		itself to discovering	
		some important	
		appreciation of our	
		surroundings. For	
		instance, understanding	
		how the significant	
		bonding of H ₂ O leads to	
		unique properties of	
		water, chemical	
		bonding occurs around	
		us and in us leads to a	
		description of the	
		description of the	

					processes necessary for our survival. If we're able to understand the bonds that result from electrons then we can understand the chemical reactions that take place that sustain us.	
september/06days	Redox reaction/1. oxidation ,reduction, redox reaction, oxidising agent, reducing agent . mechanism of redox reactions by electron transfer and oxidation numberconcept. identification of oxidant andreductant. classification of redox reaction into various types. balancing chemical equations	After studying this unit students will be able to 1. define the terms oxidation ,reduction, redox reaction, oxidising agent, reducing agent . 2. explain mechanism of redox reactions by electron transfer and oxidation numberconcept. 3. use the concept of oxidation number to identify oxidant and reductant. 4. classify redox reaction into various types. 5. balance chemical equations using oxidation number and half reaction method.	After studying this unit students will evaluate that like variable oxidation states variation in in life allow us to exhibit our various hidden character	1.Balancing of Redox reaction 2.Problem solving activity	Students have learnt 1.to define the terms oxidation ,reduction, redox reaction, oxidising agent, reducing agent . 2. the mechanism of redox reactions by electron transfer and oxidation numberconcept. 3.to use the concept of oxidation number to identify oxidant and reductant. 4.to classify redox reaction into various types. 5. to balance chemical equations using oxidation number and half reaction method. 6.students have learnt to evaluate that like various oxidation states of atoms variation in	Practice questions will be given

September +October/07	Equilibrium i/dynamic nature of equilibrium ,law of chemical equilibrium .Dynamic nature of equilibrium., law of equilibrium. expression for eq. constant. factors effecting equilibrium.	After studying this unit students will be able to 1. identify dynamic nature of equilibrium. 2. state the law of equilibrium. 3. write expression for eq. constant. 4. explain various factors that effect equilibrium.	Children will be able to: Appreciate and explain the scientific reason behind the following phenomena from daily life: Clothes dry quicker when the fan is on or if there is a breeze. In Chennai or Kolkata (Coastal areas) why do we sweat more on a humid day? How is oxygen carried by haemoglobin in blood? How does blood help in the removal of CO2 from the tissues? How do sweet substances cause tooth decay? On the basis of their knowledge and understanding they will be able to create awareness about above phenomena and hence cope up and guide people to do the same in justified manner.	i.Numerical based on the topic 2.concentration time graph	life also allow us to exhibit our various hidden character Students have learnt .to identify dynamic nature of equilibrium. 2. to state the law of equilibrium. 3. to write expression for eq. constant. 4. to explain various factors that effect equilibrium. 5. Appreciate and explain the scientific reason behind the various phenomena from daily life: They developed awareness about these phenomena and hence cope up and guide people to do the same in justified manner.	Practice questions assignment
November/07days	. Equilibrium ii	After studying this unit student will be able to .classify substance as acids or bases .describe pH scaleUnderstand common ion effect and	1. They will apply their knowledge of significance of pH in daily life 2. They will evaluate the importance of equilibrium in life so as to maintain balance in various aspects and stages of life.	Qualitative analysis	Students have learnt 1. to classify substance as acids or bases 2.describe pH scale. 3.to Calculate solubility product 4. apply concept of common ion effect and	assignment

		solubility productCalculate solubility productapply concept of common ion effect and solubility product in qualitative analysis			solubility product in in daily life like in purification of salt 5they also developed various life skills and values 6. to apply their knowledge of significance of pH in daily life while choosing eatables, drinks, cosmetics and medicines.	
05days	Thermodynamics	After studying this	Children will be able to –	Numerical	Students have learnt .to	Assignment, practice
	: system	unit student will be	1. Appreciate and realize the justified	Problem solving	\Box \Box explain the terms	questions and worksheets
	andsurroundings	able to	use of energy and will create	activity	system and	
	close,	\square \square explain the	awareness about conservation of		surroundings	
	open and isolated	terms : system	energy		2.discriminate between	
	systems;	andsurroundings	2. Devise new techniques to conserve		close ,open and isolated	
	internal energy,	2.discriminate	energy and start using renewable		systems;	
	work	between close,	means of energy		3.explain internal	
	and heat;	open and isolated	3. The concept of change in state will		energy, work	
	e first law of	systems;	make them realize about the		and heat;	
	thermodynamics	3.explain internal	importance of various factors,		□ □ □ state first law of	
	calculation of energy	energy, work	personal qualities, family, friends etc.		thermodynamics and	
	changes as work and heat	and heat; □ □ □ state first law of	to have a desirable transformation in		express	
	contributions		4. They will be able to channelize		it mathematically; □ □ □ calculate energy	
	in chemical systems;	thermodynamics and express	their energy in productive and useful		changes as	
	state functions: <i>U</i> , <i>H</i> .	it mathematically;	fields and works.		work and heat	
	state functions. U, H . ΔU and ΔH ;	$\Box \Box \Box$ calculate energy			contributions	
	standard states for	changes as	them appreciate the importance of		in chemical systems;	
	standard states for ΔH ;	work and heat	discipline, regularity, order while		explain state functions:	
		contributions	working in any field to complete a		U, H.	
	enthalpy changes for	Continuuolis	working in any field to complete a		\cup , Π .	

various types of	in chemical systems;	task.	\square \square correlated U and
reactions;	explain state		ΔH ;
Hess's law of	functions: <i>U</i> , <i>H</i> .		7.define standard states
constant heat	\square \square correlate U and		for ΔH ;
summation;	ΔH ;		8.calculate enthalpy
extensive	7.define standard		changes for
and intensive	states for ΔH ;		various types of
properties;	8.calculate enthalpy		reactions;
spontaneous and	changes for		9.state and apply Hess's
nonspontaneous	various types of		law of
processes;	reactions;		constant heat
entropy as a	9.state and apply		summation;
thermodynamic state	Hess's law of		
function	constant heat		between extensive
and apply it for	summation;		and intensive
spontaneity;	\Box \Box \Box differentiate		properties;
Gibbs energy change	between extensive		
ΔG);	and intensive		spontaneous and
□ establish	properties;		nonspontaneous
relationship between	\square \square \square define		processes;
ΔG and spontaneity,	spontaneous and		11.explain entropy as a
ΔG and	nonspontaneous		thermodynamic state
equilibrium constant.	processes;		function
	11.explain entropy as		and apply it for
	a		spontaneity;
	thermodynamic state		12.explain Gibbs
	function		energy change
	and apply it for		ΔG);
	spontaneity;		
	12.explain Gibbs		relationship between
	energy change		ΔG and spontaneity, ΔG
	ΔG);		and
	\square \square \square establish		equilibrium constant.
	relationship between		14. to use energy
	ΔG and spontaneity,		judiously.

		ΔG and equilibrium constant.			15.developed various skills and values required to achieve success in life .	
10days	Organic chemistry	After studying this	Student will use various methods to	Writing names of	Students have learnt	Assignment/worksheets
-	some basic concepts	unit student will be	purify organic compounds and	organic	1.the reasons for tetra	
		able to	appreciate the use of this technique in	compounds	valence of carbon and	
		1.understand reasons	day to day life for various purposes		shapes of organic	
		for tetra valence of	and for welfare of society.		molecules;	
		carbon and			\square \square \square \square write	
		shapes of organic			structures of organic	
		molecules;			molecules in various	
		\Box write structures of			ways;□ classify the	
		organic molecules in			organic compounds;	
		various			\square \square \square \square \square name the	
		ways; □ classify the			compounds according	
		organic compounds;			to IUPAC system of	
		\square \square name the			nomenclature and also	
		compounds according			derive their structures	
		to IUPAC system of			from the given names;	
		nomenclature and also			\Box the concept of	
		derive their structures			organic reaction	
		from the given names;			mechanism;	
		\Box understand the			\square \square \square \square \square explain the	
		concept of organic			influence of electronic	
		reaction mechanism;			displacements on	
		\square \square explain the			structure and reactivity	
		influence of electronic			of organic compounds;	
		displacements on			\square \square \square \square recognize the	
		structure and			types of organic	
		reactivity of organic			Reactions.	
		compounds;			8.Student have learnt	
		\Box recognize the			how the pure substances	
		types of organic			are obtained by using	

		Reactions.			various techniques and	
					appreciate the use of these technique in day	
					to day life like	
					separating drugs from	
					blood, use of fractional	
					distillation in separating	
					crude oil in petroleum	
					industry,use of TLC	
					technique in forensic	
					department in order to	
					solve suspicious matter.	
December	HYDROCARBON	After studying this	After studying this unit students	1.writing names of	Students have learnt	Assignment, practice questions
10days		unit students will be	will be able to	hydrocarbons	\square \square \square \square name	
		able to	1.to encourage judicious use of non	2.Draw isomers of	hydrocarbons according	
		\square name	renewable sources	hydrocarbons	toIUPAC system of	
		hydrocarbons	2. to appreciate use of hydrocarbons		nomenclature;	
		according to IUPAC	for health care and industrial			
		system of	purpose		and write structures of	
		nomenclature;	3.to discourage excessive use of		isomers of alkanes,	
		\Box \Box recognize and	harm ful chemicals and to think for		alkenes, alkynes and	
		write structures of	the alternating solution.		aromatic hydrocarbons;	
		isomers of alkanes,			□ □ □ about various	
		alkenes, alkynes and aromatic			methods of preparation of hydrocarbons.	
		hydrocarbons;			\Box \Box \Box \Box distinguish	
		\Box \Box learn about			between	
		various methods of			alkanes, alkenes,	
		preparation of			alkynes and aromatic	
		hydrocarbons.			hydrocarbons on the	
		\Box distinguish			basis of physical and	
		between			chemical properties;	
		alkanes, alkenes,			\square \square \square \square \square draw and	
		alkynes and aromatic			differentiate between	
		hydrocarbons on the			various conformations	

	-f -d
basis of physical and	of ethane;
chemical properties;	
□ □ □ draw and	the role of
differentiate between	hydrocarbons as sources
various conformations	of
of ethane;	energy and for other
\Box \Box appreciate the	industrial applications;
role of hydrocarbons	□ □ □ □ predict the
as sources of	formation of the
energy and for other	addition products of
industrial	unsymmetrical alkenes
applications;	and alkynes on the basis
\Box predict the	of electronic
formation of the	mechanism.
addition products of	
unsymmetrical	the structure of
alkenes and alkynes	benzene, explain
on the basis of	aromaticity and
electronic mechanism.	understand mechanism
\Box \Box comprehend the	of electrophilic
structure of benzene,	substitution reactions of
explain aromaticity	benzene;
and understand	□ □ □ □ predict the
mechanism	directive influence of
of electrophilic	substituent's in
substitution reactions	monosubstituted
of benzene;	benzene ring;
\Box predict the	10.student have
directive influence of	developed concern for
substituent's in	our future generation by
monosubstituted	appreciating judious use
benzene ring;	of petroleum and
\square \square \square learn about	natural gas and
carcinogenicity and	practicing in their own
toxicity	life.They also realized

					the tragic side effects of excessive use of insecticides likeDDT in world war ii and felt importance of cheaper alternate to it like BHC or gammexane.	
		After studying this	Children will be able to:	Discussion on	Students have learnt	Practice questions
05days	Hydrogen	unit students will be	1. Analyse the properties of	hydrogen	1.to explain how	assignment
		able to	hydrogen relative to rest of the	economy	different elements	
		1.explain how	elements so as to enhance their		combine with hydrogen	
		different elements	analytical skills.		to form ionic, molecular	
		combine with	2. Critical thinking will be developed		and non stoichiometric	
		hydrogen to form	when children will discuss the		Compounds.	
		ionic, molecular and	properties of hydrogen and reason of			
		non stoichiometric	its abundance on earth only in		an understanding of its	
		Compounds.	combined state and not in Free State.		properties can lead to	
		\Box describe how an	This is how they will be able to		the production of useful	
		understanding of its	create awareness about importance of		substances, and new	
		properties can lead to	gravity.		technologies;	
		the production of	3. The strange and absurd nature of		3. □ □ □ understand the	
		useful substances, and	hydrogen will make them understand		structure of water and	
		new technologies; 3. □ understand the	about advantages and disadvantages of such qualities in life.		use the knowledge for	
		structure of water and	4. Property of hydrogen as the		explaining physical and Chemical properties;	
		use the knowledge for	lightest element shall make them		\Box \Box \Box \Box explain how	
		explaining physical	appreciate and correlate the quality of		environmental water	
		and Chemical	being lighthearted with the reach to		quality depends on a	
		properties;	people.		variety of dissolved	
		\Box explain how	5. The behavior and properties of		substances; difference	
		environmental water	water will make them analyse and		between 'hard' and 'soft'	
		quality depends on a	evaluate the qualities needed to		water and learn about	
		variety of dissolved	become universally acceptable,		water softening;	
		substances; difference	adorable and useful.		\square \square about heavy	

between 'hard			water and its	
'soft' water ar			importance.	
about water s			$\Box \Box \Box$ the structure of	
			hydrogen peroxide,	
knowledge al	pout		learn its	
heavy water a	and its		preparatory methods	
importance.			and properties leading	
	stand the		to the	
structure of h	ydrogen		manufacture of useful	
peroxide, lear	rn its		chemical and cleaning	
preparatory n			of environment;	
and propertie	s leading		\square \square meaning of	
to the			certain terms e.g.,	
manufacture	of useful		electron-deficient,	
chemical and	cleaning		electron precise	
of environme			,electron-rich, hydrogen	
	stand and		8. student have	
use certain te	rms e.g.,		developed various	
electron-defic	G '		qualities required to	
electron preci	se		enhance various life	
electron-rich			skill and values.	
hydrogen				
07days s-block/ general S-BLOCK		Problem solving	students have learnt to	Practice questions
characteristics of the ELEMENTS	3	8	\Box appreciate the	assignment
alkali metals and After studying	ng this		general trends in the	0
their compounds; unit students			chemistry of <i>p</i> -block	
□ manufacture, able to			elements.	
properties and uses of 1.describe the	e general		$\Box \Box \Box$ describe the	
industrially important characteristic			trends in physical and	
sodium and calcium alkali metals			chemical properties of	
compounds including compounds;			group 13 and 14	
Portland cement;	lescribe the		elements.	
□ biological manufacture,			\Box explain anomalous	
significance of properties and	1 0			
sodium, industrially in	d uses of		behavior of boron and	

	potassium,	sodium and calcium		☐ ☐ describe allotropic	
	1 *			forms of carbon.	
	magnesium and calcium.	compounds including Portland cement;			
	carcium.	′		□ □ □ chemistry of some	
		□□□ appreciate the		important compounds	
		biological significance		of boron,carbon and	
		of sodium,		silicon;	
		potassium,		$\Box \Box \Box$ list the important	
		magnesium and		uses of group 13 and 14	
		calcium.		elements and	
_	D11 1/ 1		D 11	theircompounds	2
January	P block/ general	After studying this	Problem solving	students have learnt to	Practice questions
14days	trends in the	unit students will be		\Box appreciate the	assignment
	chemistry of <i>p</i> -block	able to		general trends in the	
	elements,	\Box appreciate the		chemistry of <i>p</i> -block	
	trends in physical and	general trends in the		elements.	
	chemical properties	chemistry of <i>p</i> -block		\Box \Box describe the	
	of group 13 and 14	elements.		trends in physical and	
	elements,	\Box \Box describe the		chemical properties of	
	anomalous behavior	trends in physical and		group 13 and 14	
	of boron and carbon;	chemical properties of		elements.	
	allotropic forms of	group 13 and 14		\Box explain anomalous	
	carbon,	elements.		behavior of boron and	
	chemistry of some	□ □ explain anomalous		carbon;	
	important compounds	behavior of boron and		□ □ describe allotropic	
	of boron,carbon and	carbon;		forms of carbon.	
	silicon,	□ □ describe allotropic		\square \square know the	
	important uses of	forms of carbon.		chemistry of some	
	group 13 and 14	\square \square know ten		important compounds	
	elements and	chemistry of some		of boron,carbon and	
	theircompounds.	important compounds		silicon;	
		of boron,carbon and		\square \square list the important	
		silicon;		uses of group 13 and 14	
		\square \square list the		elements and	
		important uses of		theircompounds	
		group 13 and 14			

		elements and				
		theircompounds.				
8days	States of matter/ existence of different	After studying this unit students will be	After studying this unit students will be able to	Numerical	Students have learnt 1.to explain the	Practice questions ,assignment
	states of matter in	able to	Appreciate and apply gas laws in		existence of different	
	terms of balance	1.explain the	real life situations and study of		states of matter in terms	
	between	existence of	behaviour of ideal and real gases		of balance between	
	intermolecular forces	differentstates of	enable them to develop a feeling of		intermolecular forces	
	and thermal energy of		remaining consistent in all types of		and thermal energy	
	particles,	ofbalance between	circumstances.		ofparticles.	
	laws governing	intermolecular forces			2. to explain the laws	
	behavior of ideal	and thermal energy			governing behavior of	
	gases,	ofparticles.			ideal gases;	
	gas laws in various	2. explain the laws			3. apply gas laws in	
	real life situations,	governing behavior of			various real life	
	behavior of real	ideal gases;			situations;	
	gases.	3. explain the			4. to explain the	
	conditions required	behavior of real gases.			behavior of real gases.	
	for liquefaction of	4. describe the			4. to describe the	
	gases,	conditions required			conditions required for	
	continuity in gaseous	for liquefaction of			liquefaction of gases;	
	and liquid state,	gases;			5.students realize that	
	gaseous state and	5.differentiate			there is continuity in	
	vapours.	between gaseous state			gaseous and liquid	
	_	and vapours.			state;	
		_			6.students have learnt to	
					differentiate between	
					gaseous state and	
					vapours.	
					7.Students have	
					developed	
					understanding of the	
					cause of altitude	
					sickness and felt the	
					necessity of oxygen	

			cylinder at high altitude.	
			8.They also developed	
			life skills and values.	
February	Revision			