

**ACADEMIC PLANNER 2019-2020**

**CLASS X  
SCIENCE**

Date/day	CONTENTS	EXPERIMENT/ACTIVITY
<b>April 1-15</b>		
<b>No. of days-11</b>		
<b>Phy.</b>	<b>Chap-12 : Electricity</b>	
	Electric current, potential difference, circuit diagram, Ohm's law	To verify Ohm's Law.
<b>Chem.</b>	<b>Chap-1 : Chemical Reactions &amp; Equations</b>	
	Balancing a chemical equation	To perform & observe the following reactions & classify them into
	Types of chemical reactions - Combination reaction	(a) combination reaction
	Decomposition reaction, Displacement reaction .	(b) decomposition reaction
		(c) displacement reaction
		(d) double displacement reaction
<b>Bio.</b>	<b>Chap- 6 : Life processes</b>	
	Nutrition, Autotrophic Nutrition in plants and Heterotrophic	To prepare a temporary mount of a leaf peel to show stomata
	Nutrition in human beings	
<b>April 16-30</b>		
<b>No. of days-11</b>		
<b>Phy.</b>	<b>Chap-12 : Electricity</b> : Arrangement of resistance-in series & in parallel	
<b>Chem.</b>	<b>Chap -1 : Chemical Reactions and Equations</b>	
	Types of chemical reactions- double displacement , precipitation,	
	oxidation & reduction ( redox) , Application of oxidation in daily life: corrosion and rancidity	
<b>Bio.</b>	<b>Chap-6 : Life Processes</b>	
	Types of respiration , respiratory system,	To show experimentally that carbondioxide is given out during respiration
	transportation - structure of heart, blood vessels , lymph	
	<b>UNIT TEST- I Science (03-05-2019)</b>	<b>SYLLABUS</b> <b>CHAPTER-1 CHEMICAL REACTIONS AND EQUATIONS</b> <b>CHAPTER-6 LIFE PROCESSES</b> <b>CHAPTER-12 ELECTRICITY (till topic covered)</b>
<b>MAY 1-15</b>		
<b>No. of days-11</b>		
<b>Phy.</b>	<b>Chap-12 : Electricity</b> : Heating effects of electric current ,electric power	

	<b>Chap-14 : Sources of energy:</b>	
	Good sources of energy ,fossil fuels, thermal power plant,hydro power plant,bio mass, wind energy,alternative sources of energy,solar energy	<b>(EXTRA CLASSES :CHAPTER WILL BE COVERED)</b>
<b>Chem.</b>	<b>Chap -2 : Acid, Bases and Salts</b>	
	Definitions of acids and bases, examples & uses, physical properties, indicators, strength of acids & bases	
<b>Bio.</b>	<b>Chap. 6 Life Processes-</b> Transportation in plants, transport of water and food, excretion in human beings and in plants	
<b>SUMMER VACATION</b>		<b>ONLINE ASSESSMENTS OF CHAPTERS COVERED (EDUCOSOFT)</b>
<b>July 1-15</b>		
<b>No. of days-12</b>		
<b>Phy.</b>	<b>Chap-13 Magnetic Effects of Electric Current:</b>	1) To determine the equivalent resistance of two resistances when connected in parallel. 2) To determine the equivalent resistance of two resistances when connected in series.
	Magnetic field & magnetic field lines	
<b>Chem.</b>	<b>Chap- 2 Acids, bases and salts:</b> Chemical properties of acids and bases	To study the properties of acids & bases by reaction with
	a) Reaction of acid & bases with metals, metal carbonates, metal bi-carbonates	(1) Litmus solution
	b) reaction of metallic oxide with acids & reaction of non metallic oxide with bases	(2) Zn metal
	c) Reaction of acids and bases with each other	(3) Solid sodium carbonate
<b>Bio.</b>	<b>Chap-7 : Control and coordination</b>	
	Nervous system, reflex action, human brain, action caused by brain	
<b>July16- 31</b>		
<b>No. of Days-13</b>		
<b>Phy.</b>	<b>Chap-13 Magnetic Effects of Electric Current</b>	
	magnetic field due to current carrying conductor,magnetic field due to a current carrying coil or solenoid	
<b>Chem.</b>	<b>Chap-2 Acids, Bases and Salts-</b>	To find the pH of the following solutions using a pH paper.
	pH and its importance.	(1) Dil. HCl
	chemicals from common salts- sodium hydroxide, bleaching powder, baking soda,	(2) Dil.NaOH solution
	washing soda, POP ( Plaster of Paris)	(3) Dil. Ethanoic acid
		(4) Lemon juice
		(5) Water
		(6) Dil. Sodium bicarbonate
<b>Bio.</b>	<b>Chap-7 : Control and Coordination</b>	
	Coordination in plants, immediate response to stimulus, movement due to growth hormones in animals	<b>PRACTICAL SKILLS ASSESSMENT-I</b>

<b>Aug 1-15</b>		
<b>No. of days-10</b>		
<b>Phy.</b>	<b>Chap-13 contd</b> .Force on current carrying conductor, Fleming's L.H.R, electromagnetic induction, Fleming's R.H.R, direct current	
<b>Chem.</b>	<b>Chap-3 Metals and Non-Metals-</b> Physical Properties of metals and non-metals	To observe the action of Zn, Fe, Cu, Al on following salts-
	Chemical properties: Reaction of metals with air, water and acids, Reaction with metal salt solution	ZnSO <sub>4</sub> , FeSO <sub>4</sub> , CuSO <sub>4</sub> , Al <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub>
	Reactivity series , Reaction between metals & non metals	And arrange the metals in order of decreasing reactivity
<b>Bio.</b>	<b>Chap-8 How Do Organisms Reproduce</b>	
	Variation and its importance, asexual reproduction - fission , fragmentation,regeneration,budding	
<b>Aug.16-31</b>		<b>ONLINE ASSESSMENTS OF CHAPTERS COVERED (EDUCOSOFT)</b>
<b>No. of days-13</b>		
<b>Phy</b>	<b>Chap-13</b> - alternating current, domestic electric circuit.	
<b>Chem.</b>	<b>Chap-3 -Metals and Non Metals (contd)</b>	
	Ionic bond and Ionic compounds, Properties of Ionic compounds	
<b>Bio.</b>	<b>Chap-8 How Do Organisms Reproduce</b>	
	vegetative propagation, spore formation	
<b>Sep 1-15</b>		
<b>No. of days-10</b>		
<b>Phy</b>	<b>Chap-10 Light-</b> Reflection & Refraction:Reflection of light, spherical mirrors	
<b>Chem.</b>	<b>Chap-3 -Metals and Non Metals (contd.):</b> Metallurgy, corrosion of metals & Its prevention	
	<b>Chap-4 Carbon &amp; its compounds</b>	
	Bonding in carbon, saturated & unsaturated compounds,	
<b>Bio.</b>	<b>Chap-8 How do organisms reproduce</b>	
	sexual reproduction in plants and in human beings	<b>REVISION and NOTE BOOK ASSESSMENT-I</b>
<b>Sep 16-30</b>	<b>Half Yearly examinations (16 SEPT-30 SEPT. 2019 )</b>	
<b>No. of days-13</b>		
		<b>HALF YEARLY EXAM: 23TH SEPTEMBER 19 (SCIENCE)</b>
		<b>Chap-1 Chemical Reactions and Equations</b>
		<b>Chap-2 Acid bases and salts</b>
		<b>Chap-3 Metals &amp; Non metals</b>
		<b>Chap- 6 Life processes</b>
		<b>Chap-7 Control &amp; coordination</b>
		<b>Chap-8 How do organisms reproduce? ( Half)</b>
		<b>Chap-12 Electricity</b>
		<b>Chap-13 Magnetic effects of electric current</b>

		<b>Chap-14 Sources of energy</b>
<b>Oct 1-15</b>		To Determine the focal length of Concave mirror and Convex lens by obtaining the image of distant object.
<b>No. of days-6</b>		To study the following properties of acetic acid
<b>Phy</b>	<b>Chap-10 Light</b> : Mirror formula , image formation,Refraction	(1) odour
<b>Chem.</b>	<b>Chap-4 Carbon &amp; its compounds</b>	(2) solubility in water
	Homologous Series, Nomenclature of carbon compounds	(3) effect on litmus
	Chemical properties of carbon compounds	(4) reaction with sodium bi carbonate
<b>Bio.</b>	<b>Chap- 9 Heredity &amp; Evolution</b>	
	Heredity, Mendel contribution, trait expression,	To study binary fission, budding in yeast with the help of prepared slides
		<b>ONLINE ASSESSMENTS OF CHAPTERS COVERED (EDUCOSOFT)</b>
<b>OCT 16-31</b>		
<b>No. of days-11</b>		

<b>Phy</b>	<b>Chap-10 Light contd.</b>	
	<b>Refractive index</b>	1) To trace the path of ray of light passing through a rectangular glass slab. 2) To draw the images of an object formed by a convex lens when placed at various position.
<b>Chem.</b>	<b>Chap-4 Carbon and its compounds (contd).</b>	
	Properties of Ethanol and Ethanoic acid	1) To study saponification reaction for preparation of soap 2) To study the comparative cleaning capacity of a sample of soap in soft & hard water
<b>Bio.</b>	<b>Chap- 9 Heredity &amp; Evolution</b>	
	Sex determination. Evolution, acquired & inherited traits Speciation , classification , evidences of evolution	To identify the different parts of an embryo of a dicot seeds.( Pea, gram & Red kidney bean)
<b>Nov 1-15</b>		
<b>No. of days-11</b>		
<b>Phy.</b>	image formation in lenses, lens formula , power of lens	
		To trace the path of ray of light passing through a glass prism.
<b>Chem.</b>	<b>Chap-4 Carbon and its compounds (contd).</b>	
	Soaps & Detergents, Hard water and soft water, cleansing action of soaps.	
<b>Bio.</b>	<b>CHAP 15 OUR ENVIORNMENT</b>	
	Addition of waste, ecosystem,its components, food chain & Effect of activities on environment, ozone layer, its depletion, garbage management	
<b>Nov.16-30</b>	<b>PREBOARD I EXAMINATION ( 16 Nov -27 Nov)</b>	
<b>No. of days-13</b>		<b>SCIENCE (20TH NOVEMBER 2019) SYLLABUS CHAPTERS 1,2,3,4,6,7,8,9,10,12,13,14,15</b>
<b>Phy</b>	<b>Chap-11 contd.</b> Dispersion of light refraction in prism,	
<b>Chem.</b>	<b>Chap -5 Periodic Classification of Elements</b>	
	Doberneir's Triads, Newlands classification, Mendeleev classification.	
<b>Bio.</b>	<b>Revision</b>	
<b>Dec.1-15</b>		
<b>No. of days-11</b>		
<b>Phy</b>	<b>Chap-11 Human eye and colourful world:</b> structure of human eye, defects of vision.	
<b>Chem.</b>	<b>Chap-5 contd.</b> Modern classification- properties of groups and periods,	
<b>Bio.</b>	<b>Chap 16 Management of Natural Resources -</b>	
	reduce, recycle, reuse, need for resource management, forests & wild life, stake holders,	<b>PRACTICAL SKILLS ASSESSMENT-II</b>



	Ch- 6 Electricity
	Ch-13 Magnetic effects of electric current
	Ch- 6 Sources of energy
<b>PRE-BOARD I - Science (20 NOV 2019)</b>	<b>CHAPTERS 1,2,3,4,6,7,8,9,10,12,13,14,15</b>
<b>Pre Board -II 2 Jan-13 Jan 2020 (6 JAN 2020-Science) and board Examination (MARCH 2020)</b>	<b>Complete Syllabus</b>

