

Subject : Science
Grade : X
Year : 2018-19

Year Planner

Text book used: NCERT

Month & No. of Teaching Days	Units	Sub- Units	Objectives	Activities Planned	Evaluation
Mar (15)	Ch 12 (P): Electricity	<ul style="list-style-type: none"> • Current • Electric Potential • Ohm's law 	<ul style="list-style-type: none"> • To know the meaning of the concepts electric current and circuit. • Understand what electric potential and potential difference is. • Illustrate ohm's law. 	Lab activity: To study the dependence of potential difference (v) across a resistor on their current (I) passing through it and determine its resistance. Also plot a graph between V and I.	Worksheet-1A (P & C)
Apr (9)	Ch 6 (B): Life processes	<ul style="list-style-type: none"> • Nutrition • Respiration 	<ul style="list-style-type: none"> • Identify vital life processes • Describe the different modes of nutrition • Explain about the respiratory organs and the mechanism of respiration. 	Lab activity: To Prepare a temporary mount of a leaf peel to show stomata. Lab activity: To show experimentally that carbon dioxide is given out during respiration.	Worksheet-1B (Bio) Slip Test-1
June (22)	Ch 12 (P): Electricity	<ul style="list-style-type: none"> • Factors on which resistance of a conductor depends • Resistance of a system of resistors • Heating effect of electric current 	<ul style="list-style-type: none"> • List factors on which the resistance of a conductor depends on. • Discuss the resistance of a system of resistors. • Demonstrate heating effects of electric current. • Understand effective resistance in series and parallel and its heating effect. 	Lab activity : To determine the equivalent resistance of two resistors when connected in series and parallel.	Worksheet-2A (P & C) Worksheet-2B (Bio) Slip Test-2
	Ch 1 (C): Chemical reactions Ch 6 (B): Life processes Ch 14 (B): Sources of Energy	<ul style="list-style-type: none"> • Chemical equations • Types of chemical reactions • Transportation Excretion • Conventional Sources of Energy 	<ul style="list-style-type: none"> • Know what chemical changes are. • Write equations to represent a chemical reaction • Understand types of reactions, oxidation and reduction and its and its effects. 	Lab activity: To perform and observe the following reactions and classify them into: (i) Combination, (ii) Decomposition (iii) Displacement, (iv) Double displacement	Worksheet-3A (P & C) Worksheet-3B (Bio)

			<ul style="list-style-type: none"> • Understand the process of transportation of substances in plants and humans; excretion in animals. • Students will understand our energy requirements and ways to improve the efficiency of energy and exploit new sources of energy. 	<p>Text book activities: To show the movement of transpiration in trees</p> <p>Text book activities: Based on conventional and non – conventional sources of energy.</p>	
July (24)	<p>Ch 2 (C): Acids, Bases and Salts</p> <p>Ch 13 (P): Magnetic effects</p>	<ul style="list-style-type: none"> • Action of acids and bases • pH and its importance • Salts <p>Magnetic field Generation and rules</p>	<ul style="list-style-type: none"> • Differentiate between properties of acids, bases and salts and also about p • H indicators. • Understand magnetic field lines around straight line and circular conductors. 	<p>Lab activity: To study the properties of an acid and base by their reactions with</p> <ul style="list-style-type: none"> • Litmus solution (blue/ red) • Zinc metal/ solid sodium carbonate. 	<p>Worksheet-4A (P & C)</p> <p>Worksheet-4B (Bio)</p> <p>Slip test -3</p>
	Ch 7(B): Control and Coordination	<ul style="list-style-type: none"> • Nervous system • Coordination in plants • Hormones in animals 	<ul style="list-style-type: none"> • Explain the structure and function of nervous system in human beings. • Describe reflex action. • Recognize the process of coordination in plants. • Discuss various tropic movements in plants. • Locate the major endocrine glands in the human body. 	<p>Text book activity: To study the response of the plant to the direction of light.</p>	<p>Revision Worksheet-1</p> <p>Periodic Test -I</p>
Aug (21)	Ch 13 (P): Magnetic effects	<ul style="list-style-type: none"> • Electromagnetic induction • Motor and generator 	<ul style="list-style-type: none"> • To familiarize students with concepts of magnetic induction and its applications. 	<p>Class activity : To determine that current carrying conductor produces magnetic effect.</p>	<p>Worksheet-5A (P & C)</p> <p>Worksheet-5B (Bio)</p>
	Ch 3 (C): Metals and Non metals	<ul style="list-style-type: none"> • Properties of metals and non-metals • Reactivity series <p>Extraction of metals</p>	<ul style="list-style-type: none"> • Distinguish between the physical properties of Metals and Non-Metals. • Explain the chemical properties of Metals and Non-Metals. • Identify Acids and Bases by chemical reaction. • Understand the mechanism of 	<p>Lab activity: To observe the action of Zinc, Iron, Copper, Metals on the salt solutions such as ZnSO₄, FeSO₄, CuSO₄, Al₂(SO₄)₃.</p>	<p>Worksheet-6A (P & C)</p> <p>Worksheet-6B (Bio)</p> <p>Slip test-4</p> <p>Revision Worksheet-2</p>

			displacement Reactions. <ul style="list-style-type: none"> List out the uses of Metals and Nonmetals. 		
	Ch 5 (C): Periodic classification (Introduction)	classification of elements	Realize the need for the classification of elements.	Class activity: To study Mendeleev and Mosley's periodic table with the help of chart.	Subject Enrichment Evaluation-1
	Ch 8 (B): How do organisms reproduce. (Introduction)		<ul style="list-style-type: none"> Identify the different modes of reproduction by unicellular organisms. Discuss sexual reproduction in plants. Explain sexual reproduction in humans. 		
Sept(10)	Half Yearly Examination (PT-2)				
	Ch 5 (C): Periodic Classification	<ul style="list-style-type: none"> Classifications Trends 	<ul style="list-style-type: none"> Understand how to classify elements in an order. 	Class activity	
	Ch 8(B): How do organisms reproduce? (Introduction)	<ul style="list-style-type: none"> Importance of variation. Modes of reproduction Reproductive health 	<ul style="list-style-type: none"> Understand the process of reproduction in plants and animals; Know the various methods of family planning; Understand the importance of Women's health. 	Lab activity: To study (a) Binary fission in Amoeba. (b) Budding in yeast.	Worksheet-7A (P & C) Worksheet-7B (Bio)
Oct (15)	Ch 9(B): Heredity and Evolution	<ul style="list-style-type: none"> Heredity Sex determination Evolution Speciation Evolution and Classification 	<ul style="list-style-type: none"> Identify "DNA as the genetic material". Learn about Mendel's Laws of Inheritance. Know the mechanism of sex determination. Discuss theory of Darwinism & Lamarckism. Understand the process of human evolution. 	Lab activity: To identify the different parts of an embryo of a dicot seed (Pea, gram, or red kidney bean).	

	Ch 4(C): Carbon and its Compounds (Introduction)	Saturated and unsaturated compounds	<ul style="list-style-type: none"> • Understand the importance of Carbon in nature. 		Slip Test- 5
	Ch.10(P): Light (Reflection)	Reflection of light, Spherical mirrors, Uses of mirrors	Recognize the formation of images through spherical mirrors.	Lab activity : To determine the focal length of concave mirror by obtaining the images of a distant object.	
Nov (19)	Ch 4(C): Carbon and its compounds	<ul style="list-style-type: none"> • Nomenclature • Properties of acids, • alcohol and soap 	<ul style="list-style-type: none"> • To make students understand how carbon compounds are formed. • Learn about the preparation of soaps. 	Lab activity : To study saponification reaction for the preparation of soap.	Worksheet-8A (P & C) Worksheet-8B (Bio)
	Ch 10(P): Light (Refraction)	<ul style="list-style-type: none"> • Refraction • Spherical lenses 	<ul style="list-style-type: none"> • Understand concepts of refraction through prism, gas slab and lens. 	Lab activity : To trace the path of a ray light passing through a rectangular glass slab for different angles of incidence.	Slip Test -6
	Ch 15(B): Our environment	<ul style="list-style-type: none"> • Eco system • Activities affecting our environment 	<ul style="list-style-type: none"> • To create awareness among the students about the eco system, environmental problems, waste production and their solutions. • Differentiate biodegradable and non- biodegradable substances. 	Text book activities To collect information about pesticides from news paper reports.	Revision Worksheet- 3 Periodic test- III
Dec (21)	Ch 11(P): Human eye and colorful world	<ul style="list-style-type: none"> • Parts of human eye • Corrections • Atmospheric refraction • Scattering 	Understand the concepts of human eye and its effects.	Class activity To trace the path of a way of light through glass prism.(concept of rainbow formations).	Worksheet-9A (P & C) Worksheet-9B (Bio)
	Ch 16(B): Management of natural resources	<ul style="list-style-type: none"> • Need to manage resources • Forests and wild life • Water for all • Coal and Petrol 	Understand the need for conservation and judicious use of natural resources; forests and wild life, coal and petroleum conservation.	Text book activities To make a collage on natural resources.	Subject Enrichment Evaluation-2 Revision Worksheet-4 & 5