

Subject : Science
Grade : IX
Year : 2019-20



Year Planner

Text book used: NCERT

Month& No. of Teaching Days	Units	Sub Units	Objectives	Activities Planned	Evaluation
Mar-Apr (15)	PHY: Ch-8 Motion (till 8.3)	<ul style="list-style-type: none"> Uniform and non-uniform Motion. 	<ul style="list-style-type: none"> Understand uniform and non- uniform motion of objects through study of graphs. 	<ul style="list-style-type: none"> Textbook activity. 	Worksheet-1A (Phy & Chem)
	BIO: Ch-5 Fundamental unit of life	<ul style="list-style-type: none"> What are living organisms made up of? What are cells made up of? 	<ul style="list-style-type: none"> Know the structural organization of cell Learn the process by which food and water moves across the cell. 	<ul style="list-style-type: none"> Temporary mount of onion peel cells (LA) Percentage of water imbibed by raisins. (LA) 	Worksheet-1B (Bio)
	CHEM: Ch-1 Matter in our Surroundings. (till 1.3)	<ul style="list-style-type: none"> Characteristics; states of matter. 	<ul style="list-style-type: none"> Understand about the different types of matter 	<ul style="list-style-type: none"> Textbook activities. 	
June (15)	PHY: Ch-8 Motion (8.4 onwards)	<ul style="list-style-type: none"> Derivations and graphical analysis 	<ul style="list-style-type: none"> Understand uniform and non- uniform motion of objects through study of graphs. 	<ul style="list-style-type: none"> Textbook activities. 	Slip Test-1
	CHEM: Ch-1 Matter in our Surroundings. (1.4 onwards)	<ul style="list-style-type: none"> Inter-change, evaporation and boiling. 	<ul style="list-style-type: none"> Define melting, boiling, sublimation and evaporation. Understand about latent heat 	<ul style="list-style-type: none"> Melting of ice. Boiling point of water (LA). Sublimation (LA). 	Worksheet-2A (Phy & Chem)
	PHY: Ch-9 Force and Laws of Motion. (Introduction)	<ul style="list-style-type: none"> Laws of motion 	<ul style="list-style-type: none"> Understanding the first law of motion 	<ul style="list-style-type: none"> Textbook activity. 	
			<ul style="list-style-type: none"> Identify and state functions 	<ul style="list-style-type: none"> Observation of Permanent slides: 	

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	BIO:Ch-6 Tissues.	<ul style="list-style-type: none"> Animal tissues and Plant tissues 	<ul style="list-style-type: none"> of various types of tissues Explain structural and functional characteristics of various types of simple and complex tissues. 	<ul style="list-style-type: none"> Parenchyma tissues in plants (LA). Sclerenchyma tissues in plants (LA). Striped muscle fibers and nerve cells in animals (LA)- Observe the growing roots of an onion. 	Worksheet-2B (Bio)
July (24)	PHY: Ch-9 Force and laws of Motion (cont).	<ul style="list-style-type: none"> Conservation of momentum 	<ul style="list-style-type: none"> Understand the Newton's three Laws of motion Learn the concepts of Conservation of Momentum 	<ul style="list-style-type: none"> Textbook activity To verify Newton's third law of motion i.e. spring balance activity(LA) 	Slip test -2 Worksheet- 3A (Phy & Chem)
	CHEM: Ch-2 Is matter around us pure?	<ul style="list-style-type: none"> Solutions, Mixtures, Physical and chemical changes 	<ul style="list-style-type: none"> Identify various types of solutions Learn how to separate components of mixtures. 	<ul style="list-style-type: none"> To prepare Solution, Suspension and Colloidal solution (LA). To prepare mixture and compound (LA). To classify physical and chemical changes (LA). 	
	BIO: Ch-15 Improvement in food resources .	<ul style="list-style-type: none"> Improvement in crop yield, Animal husbandry 	<ul style="list-style-type: none"> Describe various activities for improving crop yield. Discuss the various means of Crop Protection Management 	<ul style="list-style-type: none"> Textbook activity Test presence of starch (LA). 	Worksheet-3B (Bio) Periodic Test-I

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August (22)	PHY:CH-10 Gravitation.	<ul style="list-style-type: none"> • Universal law of gravitation, Free fall, Mass and weight • Thrust and pressure Archimedes principle, • Relative density. 	<ul style="list-style-type: none"> • Explain universal law of gravitation, force of gravity, acceleration due to gravity. • Describe thrust pressure and Archimedes principle 	<ul style="list-style-type: none"> ➤ Textbook activity. ➤ To find the minimum force required ➤ To move a wooden block using spring balance (LA). ➤ To calculate the density of a solid using spring balance (LA). ➤ To measure the loss of weight of a solid when immersed in water. (LA) ➤ Pressure exerted by a cuboid (LA). 	Worksheet-4A (Phy) Slip test-3 Multiple assessment -1
	BIO: Ch -14 Natural Resources		<ul style="list-style-type: none"> ➤ Study about Air, Rain, Water & Minerals. ➤ Explain Bio Geochemical cycles. ➤ Discuss about Ozone layer. 	<ul style="list-style-type: none"> ➤ Textbook activity 	Worksheet-4B (Bio) Portfolio – 1 Slip Test - 4 Subject Enrichment Evaluation -1
Sept(18)					Revision Worksheet-1 Half Yearly Examinations (PT-2)
Oct (18)	PHY: Ch-11 Work and Energy	<ul style="list-style-type: none"> • Work, Types of energy, Power. 	<ul style="list-style-type: none"> • Define work and energy • Verify laws of conservation of energy. • Identify the types of energy 	<ul style="list-style-type: none"> ➤ Text book activity 	Worksheet- 5A (Phy & Chem)

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			<ul style="list-style-type: none"> Understand concepts of Power and Commercial units of energy 		
	CHEM: Ch-3 Atoms and molecules (till 3.2.3)	<ul style="list-style-type: none"> Laws of Chemical Combinations and atoms 	<ul style="list-style-type: none"> Define the laws of chemical combination, conservation of mass and constant proportion 	<ul style="list-style-type: none"> Text book activity To verify laws of conservation of mass (LA) 	
	BIO: Ch.7 Diversity in living organisms	<ul style="list-style-type: none"> Classification of plant Kingdom. 	<ul style="list-style-type: none"> Recognize the existence of diversity in living organisms and establish relationship between classification and evaluation. Understand the characteristics of the plant kingdom. 	<ul style="list-style-type: none"> Study characteristics of Spirogyra, Agaricus, Moss, Fern, Pinus and Angiosperms. <p>To observe external features of root, stem, leaf and flowers of Mono and Dicot plants.</p>	Worksheet-5B (Bio) Multiple Assessment- 2
Nov (25)	CHEM: Ch.3 Atoms and molecules.	<ul style="list-style-type: none"> What is a molecule? What is an ion? Writing chemical formulae. Molecular mass and mole concept 	<ul style="list-style-type: none"> Understand the Concept of molecules, ions, valency & mole concept. 	<ul style="list-style-type: none"> Textbook Activities/ Solving numericals based on mole concept 	Worksheet-6A (Chem) Portfolio - 2
	BIO: Ch-7 Diversity in living organisms	<ul style="list-style-type: none"> Animal kingdom 	<ul style="list-style-type: none"> Learn the classification and know their characteristics. 	<ul style="list-style-type: none"> Textbook activity. To observe the specimens of earthworm, cockroach, bony fish, bird (LA). 	Worksheet-6 (Bio) Slip Test 5
Dec (22)	PHY: Ch-12 Sound .	<ul style="list-style-type: none"> Characteristics of sound, reflection of sound, Echo, Range 	<ul style="list-style-type: none"> Understand the nature of sound, reflection 	<ul style="list-style-type: none"> Reflection of sound (LA). Velocity of pulse using slinky (LA). 	Worksheet-7A (Phy & Chem)

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		of hearing, <ul style="list-style-type: none"> • Application of Ultra-sound & structure of human ear 			Slip Test 6
	CHEM: Ch-4 Structure of Atom	<ul style="list-style-type: none"> • Atomic Models 	<ul style="list-style-type: none"> • List the postulates of Dalton's atomic theory. • Explain concepts of atomic mass and atomicity. 	➤ Textbook activity.	
	BIO: Ch. 13 Why do we fall ill.	<ul style="list-style-type: none"> • Health and its failure • Diseases and its causes • Infectious Diseases • Principles of treatment 	<ul style="list-style-type: none"> • Classify communicable diseases from non-communicable diseases. • Their prevention and treatment. • Explain the causes and kinds of diseases. 	➤ Life cycle of mosquito (LA).	Worksheet-7 B (Bio)
Jan (21)	CHEM: Ch-4 Structure of Atom	<ul style="list-style-type: none"> • Valency, isotopes, isobars 	<ul style="list-style-type: none"> • Know the different theories put forward to understand the structure of atom. • Calculate the valency of different types of elements. 	➤ Textbook activity February to be added	Subject Enrichment Evaluation 2 Worksheet-8A(Chem) Worksheet-8B(Bio) Periodic Test-3 Revision Worksheet 2