

Subject : Science
 Grade : VIII
 Year : 2018 - 19

Year Planner

Text book used: NCERT

Month & No. of Teaching Days	Units	Sub- Units	Objectives	Activities Planned	Evaluation
March-April/18	Biology: L.1 - Crop Production & Management Chemistry: L.3- Synthetic Fibres & Plastics	<ul style="list-style-type: none"> • Agricultural practices • Basic practices of crop production • Preparation of soil • Sowing • Adding manure & fertilizers • Irrigation, Harvesting & Storage • Synthetic fibres & their types • Characteristics of Synthetic fibres • Plastics – characteristics & properties • Plastics and the Environment 	<ul style="list-style-type: none"> • Classify crops based on different factors. • Identify the different practices followed in agriculture • Explain the nitrogen cycle and nitrogen fixation. • Familiarizing with Animal Husbandry. • Know the properties of different synthetic fibres • Recognize the difference between thermoplastics & thermosetting plastics • Learn about the characteristics of plastics • Suggest steps to reduce environmental degradation due to plastics 	Videos on modern techniques of agriculture <ul style="list-style-type: none"> • flame test • Testing various materials – for action of water, reaction on heating, effect of flame, etc. 	Worksheet -1
June/20	Biology: L-8- Cell - Structure and Functions	<ul style="list-style-type: none"> • Discovery of the cell • Cell structure & functions • Organisms show variety in cell number, shape & size • Parts of the cell Comparison of Plant and Animal cells 	<ul style="list-style-type: none"> • Explain the discovery of the cell • Recognize the cell as basic unit of life • Describe the structure of the cell and the functions of cell organelles • Recognize the variety seen in cells • Differentiate between plant and animal cells • Describe the nature of the cell membrane • Draw & label plant and animal cells 	<ul style="list-style-type: none"> • Use of microscope • Preparation of a slide • Observation of permanent slides 	Worksheet-2 Slip Test 1
	Physics: L-11- Force and Pressure	<ul style="list-style-type: none"> • Force – A push or a Pull • Exploring forces 	<ul style="list-style-type: none"> • Define force & pressure • Discuss the effects of force • Describe the different types of forces 	To show the presence of atmospheric pressure	Worksheet -3

		<ul style="list-style-type: none"> Force can change the state of motion & the shape of an object Contact forces & Non-contact forces Pressure exerted by liquids and gases Atmospheric pressure 	<ul style="list-style-type: none"> Explain how liquids and gases exerts pressure List the applications of pressure in daily life 	Liquids exert pressure in all directions	Slip test 2
	Chemistry: L-18 Pollution of Air & Water	<ul style="list-style-type: none"> Air pollution & Water pollution How do air and water get polluted? Case study – The Taj Mahal Greenhouse Effect Water purification 	<ul style="list-style-type: none"> Identify the various natural or man-made causes of pollution. Devise methods to control and reduce pollution. Explain the Greenhouse effect. Describe methods to purify water. 	<ul style="list-style-type: none"> Videos on pollutions To test the quality of water from various sources using litmus papers 	
July/24	Physics: L-12- Friction	<ul style="list-style-type: none"> Force of friction Factors affecting friction Friction: A necessary evil Increasing and reducing friction wheels Fluid friction 	<ul style="list-style-type: none"> Define force of friction. Distinguish between different types of friction. List the factors affecting friction. Discuss the merits & demerits of friction and list some ways to control it. 	<ul style="list-style-type: none"> Demonstration of friction between rough & smooth surfaces of moving objects in contact. 	Revision Worksheet-1 PT - 1
	Biology: L-2- Microorganisms: Friend & Foe	<ul style="list-style-type: none"> Where do microorganisms live? Microorganisms and us Harmful microorganisms Food preservation Nitrogen fixation Nitrogen cycle 	<ul style="list-style-type: none"> Classify microorganisms. Describe the different ways in which microbes are useful. List the diseases caused by microbes in humans, animals & plants. Explain how food can be preserved. Generalize the steps in the nitrogen cycle. 	<ul style="list-style-type: none"> Setting of curd Yeast fermentation Observation of drop of water under the microscope Observation of different slides of microbes 	Worksheet 4
August/22	Physics:	<ul style="list-style-type: none"> Do liquids conduct electricity? Chemical effects of electric current 	<ul style="list-style-type: none"> Identify the chemical effects of electricity. Describe the process of electrolysis. 	<ul style="list-style-type: none"> To test the conductivity of 	Worksheet 5

	L.14- Chemical Effects of Electric Current	<ul style="list-style-type: none"> Electroplating 	<ul style="list-style-type: none"> List the uses of electrolysis & electroplating. 	<p>lemon juice & vinegar</p> <ul style="list-style-type: none"> Electrolysis of water Electroplating 	
	Biology: L-7- Conservation of Plants & Animals	<ul style="list-style-type: none"> Deforestation & its causes Conservation of forest and wildlife Endemic species Wildlife sanctuary National park Red Data Book Migration Reforestation 	<ul style="list-style-type: none"> Explain what biodiversity is and why it should be preserved. Understand the role of forests in protecting biodiversity. Describe the effects of deforestation. List the animals that are in danger and explain how wild life is conserved. 	Chart making- Endangered plants & animals	Worksheet 6
September / 10	Revision	Revision	Half Yearly Examination		Subject Enrichment Assessment-I Revision Worksheet-2
October/ 15	Chemistry: L.4- Materials: Metals & Non-Metals	<ul style="list-style-type: none"> Physical properties of Metals & Non-Metals Chemical properties of Metals & Non-Metals Uses of Metals & Non-Metals 	<ul style="list-style-type: none"> Identify the physical properties of metals & non-metals Recognize & differentiate the properties of metals & non-metals Understand the importance of displacement reaction List the uses of metals & non-metals 	To show malleability, conductivity, sonority of metals & non-metals Lab activities: Reaction of metals and Non-metals with oxygen and water	Worksheet 7
	Biology: L.10- Reaching the Age of Adolescence	<ul style="list-style-type: none"> Adolescence and Puberty Changes at Puberty Secondary sexual characters Role of hormones in initiating reproductive function Reproductive phase of life in Humans 	<ul style="list-style-type: none"> Describe the changes that occur during puberty Name the hormones & their functions Learn how to maintain physical, mental & social health during adolescence List the ill effects of drugs Explain how sex of the child is determined 	<ul style="list-style-type: none"> Posters on ‘Say No to Drugs’ 	Slip test 3

		<ul style="list-style-type: none"> • Role of hormones in completing the life history of insects & frog • Reproductive health • Say “NO” to Drugs 			
November /20	Physics: L.16- Light	<ul style="list-style-type: none"> • What makes things visible • Laws of reflection • Regular & diffused reflection • Reflected light can be reflected again • Multiple images • Sunlight – White or Coloured • What is inside our eyes? • Care of the Eyes • Braille System 	<ul style="list-style-type: none"> • Explain the nature of images formed by a plane mirror. • Demonstrate the laws of reflection. • Explain how light is refracted & dispersed. • Identify parts of the human eye and their functions. • Discuss about vision and defects of the eye. • List measures to have good eye sight. 	<ul style="list-style-type: none"> • Display of eye model • Dispersion of light by a prism • Calculating the number of images 	Worksheet 8 Slip test 4
	Physics: L.13- Sound	<ul style="list-style-type: none"> • Sound is produced by a vibrating body & humans • Sound needs a medium for propagation • Amplitude, Time Period & Frequency of a vibration • Audible & Inaudible sounds • Noise pollution. 	<ul style="list-style-type: none"> • Explain how sound is produced. • Describe the characteristics of sound. • Explain how humans produce and recognize sounds. • Discuss the effects of noise pollution & list ways to reduce it. 	<ul style="list-style-type: none"> • Demonstrating – Vibration is the cause of sound • Display of lab model of an ear 	Worksheet 9 Slip test 5
	Biology: L.9- Reproduction in Animals	<ul style="list-style-type: none"> • Modes of reproduction • Sexual reproduction • Male and Female Reproductive organs 	<ul style="list-style-type: none"> • Distinguish between asexual and sexual reproduction. • Explain how sexual reproduction occurs. 	<ul style="list-style-type: none"> • Study of sexual reproduction in Human beings 	
December /23	Chemistry: L.6- Combustion and Flame	<ul style="list-style-type: none"> • What is combustion? • How do we control fire? • Types of combustion • Flame and structure • Fuel and its efficiency 	<ul style="list-style-type: none"> • List the conditions necessary for combustion • Identify different sources and types of fuel • Generalize how fire can be controlled • Explain how fire extinguisher works • Recognize the zones in a candle flame 	<ul style="list-style-type: none"> • Experiments with candles- combustion of a wax candle • Necessity of ignition temperature 	Worksheet 10

			<ul style="list-style-type: none"> • Compare the efficiency of different fuels 	<ul style="list-style-type: none"> • Structure of a flame. 	
	Physics: L.17- Stars & Solar System	<ul style="list-style-type: none"> • The Moon • The Stars • Constellations • The Solar System • Some other members of the Solar System • Artificial satellites 	<p>Describe a few constellations</p> <ul style="list-style-type: none"> • Recognize the objects present in the solar system • List the characteristic features of planets • Explain about artificial satellites. 	<ul style="list-style-type: none"> • Collect three facts about space & celestial bodies 	Revision worksheet -3
January /17	Chemistry: L-5- Coal & Petroleum	<ul style="list-style-type: none"> • Coal • Story of coal • Petroleum • Natural gas <p>Some Natural Resources are limited</p>	<ul style="list-style-type: none"> • Identify natural resources. • Name & describe major kinds of natural resources. • Describe how coal & petroleum are formed. • Explain how fossil fuels pollute the environment. • Discuss how natural resources meet human need. 	Project – Recycling of paper	Slip Test 6 Periodic Test 3 Worksheet 11
	Physics: L-15- Some Natural Phenomena	<ul style="list-style-type: none"> • Lightning • Charging by rubbing • Types of charges and their interaction • Transfer of charge • Lightning safety • Earthquakes – causes and protection against it. • 	<ul style="list-style-type: none"> • Explain how lightning is produced in nature. • Discuss different ways of charging an object. • Describe how earthquakes occur • List safety measures to be taken during & after earthquakes. 	<ul style="list-style-type: none"> • Experiment to show positive & negative charge using comb & paper • Discussion on Sparks 	Subject Enrichment Assessment II
February/ 23		Revision			Worksheet 12 Revision Worksheet- 4
March/7			Annual Exam		