

The Orchid School
Baner
Syllabus Overview 2015- 2016
Std VII
Subject : Science

Month	Lesson / Content / Name of the Book	Expected Learning Objective	Activities/FAs Planned
	<p>Lesson 1 : NUTRITION IN PLANTS Sub Unit 1 : Nutrition and Its Types ; Sub Unit 2: Autotrophic Nutrition In Plants</p>	<ul style="list-style-type: none"> ●Student will be able to define Nutrition and State different types of Nutrition. ●Student will be able to define Autotrophic Nutrition and explain its importance in Plants and State different types of Heterotrophic Nutrition. 	
	<p>Lesson 1 : NUTRITION IN PLANTS Sub Unit 3 : Synthesis of Food Other Than Carbohydrates By Plants. Sub Unit 4 : Heterotrophic Nutrition</p>	<ul style="list-style-type: none"> ●Student will be able to explains the Importance of Carbohydrates, Nitrogen,in plants. ●Student will be able to define Heterotrophic Nutrition. 	<ul style="list-style-type: none"> ●Experimental investigation on presence of starch in a leaf . ●Understanding the nutrition in Amoeba and Hydra through cutting and pasting.
	<p>Lesson 1 : NUTRITION IN PLANTS Sub Unit 5: Replenishing In The Soil</p>	<ul style="list-style-type: none"> ●Student will be able to explains the process of Nitrogen fixation in Soil. 	<ul style="list-style-type: none"> ●Experimental investigation

Lesson 2 : NUTRITION IN ANIMALS
Sub Unit 1 : Introduction
Sub Unit 2 : Nutrition In Amoeba
,Hydra & Frog .

●Student will be able to explains the processes involved in nutrition in animal. Student describes the Nutrition in Amoeba ,Hydra & Frog

●Experimental investigation

	<p>Lesson 2 : NUTRITION IN ANIMALS Sub Unit 2 : The Human Digestive System Sub Sub Unit : Digestion In Mouth Sub Sub Unit : Digestion In The Stomach</p>	<ul style="list-style-type: none"> ●Student will be able to explain the working of digestion in the mouth & in the stomach . 	
	<p>Lesson 2 : NUTRITION IN ANIMALS Sub Sub Unit : Digestion In The Small Intestine Sub Sub Unit : Assimilation & Egestion Sub Unit : Ruminants</p>	<ul style="list-style-type: none"> ●Student will be able to explain the working of digestion in the small intestine . ●Student will be able to define Ruminants with examples. 	
	<p>REVISION WEEK & FA 3 { PEN AND PAPER }</p>		
FA 1			
	<p>Lesson 3 : STRUCTURE OF MATTER Sub Unit : What is Matter Made Up of ? Sub Unit : Elements & Compounds Sub Unit : Mixtures</p>	<ul style="list-style-type: none"> ●Student will be able to explain about Matter, ●Student will be able to differentiate between Elements, Compounds ●Student will be able to differentiate between Elements, Compounds and Mixture. 	

JULY

<p>Lesson 3 : STRUCTURE OF MATTER Sub Unit : Tools For Chemical Communication -Symbols Formulae and chemical equations</p>	<ul style="list-style-type: none"> ●Student will be able to explain the need of Symbol of different elements. ●Student will be able to explain different steps involved in writing formula and chemical equations. 	<ul style="list-style-type: none"> ● To find the difference in the properties of compound and mixture.
<p>Lesson 4 : ANIMAL FIBRES Sub Unit : Climate & Clothes Sub Unit : Natural Fibres Sub Unit : Wool Sub Unit: Silk</p>	<ul style="list-style-type: none"> ●Student will be able to differentiate between different types natural & Animal Fibres. ●Student explains the process involved in changing the fibre to wool, cocoon to silk. 	<ul style="list-style-type: none"> ● To differentiate Natural silk and Wool from artificial fibres.(discussion)
<p>Lesson 5 : Heat & Its Effects Sub Unit : What is heat ? Lesson 6 : FLOW OF HEAT Sub Unit : Conduction Sub Unit : Convection</p>	<ul style="list-style-type: none"> ●Student will be able to explain heat and its effect, expansion in solids, liquids and gases, ●Student will be able to explain more about temperature and its measurement. ●Student will be able to explain the transfer of heat through Conduction, Convection mechanism of transfer of heat and its effect in daily life. 	<ul style="list-style-type: none"> ●Reading a Thermometer and to show the process of Conduction.
<p>Lesson 5 : Heat & Its Effects Sub Unit: Radiation Lesson 7 : ACIDS,BASES & SALTS Sub Unit : Acids & Bases -Their important properties</p>	<ul style="list-style-type: none"> ●Student will be able to explain the transfer of heat through Radiation, mechanism of transfer of heat and its effect in daily life. ●Student will be able to differentiate between acids, bases and salts. 	<ul style="list-style-type: none"> ● Experimental investigation on acids, bases and salts, Neutralisation.
<p>Lesson 7 : ACIDS,BASES & SALTS Sub Unit : The preparation & uses of Salts</p>	<ul style="list-style-type: none"> ● Student will be able to Use and state the types of Indicators, meaning and importance of neutralization reaction. 	<ul style="list-style-type: none"> ● Experimental investigation on acids, bases and salts, Neutralisation.

AUG	<p>Lesson 8 : PHYSICAL & CHEMICAL CHANGES Sub Unit : Physical & Chemical Changes Sub Unit : Characteristics of Chemical Reactions Sub Unit : Separating a solid from a solution</p>	<ul style="list-style-type: none"> ●Student will be able to differentiate between the reversible and irreversible changes. ●Student will be able to explain different types of Chemical Reactions ●Student will be able to explain different types of process of separating a solid from a solution 	<ul style="list-style-type: none"> ● Do hands on activities to understand the nature of Chemical Reactions
	<p>Lesson 9: WEATHER , CLIMATE & ADAPTATION Sub Unit : Weather Sub Unit : Climate Sub Unit : Effect of The Sun on Climate Sub Unit : Climate & Adaptation</p>	<ul style="list-style-type: none"> ●Student will be able to explain various adaptation based on climatic changes. 	<ul style="list-style-type: none"> ●Try to predict the adaptations based on the climate with the help of example images.
	<p>REVISION WEEK</p>		
FA 2			
	<p>Lesson 15 :WINDS,STORMS & CYCLONES Sub Unit : Natural Disasters Air Pressure Sub Unit : High Speed Wind Causes Reduced Pressure Sub Unit : Air expands On Heating</p>	<ul style="list-style-type: none"> ●Student will be able to explain about Natural Disasters like Thunderstorms, Cyclones and Tornadoes,Air pressure 	<ul style="list-style-type: none"> ● Sundial. Calculating time based on shadow.

SEPT	Lesson 15 :WINDS,STORMS & CYCLONES Sub Unit : Wind Currents Sub Unit : Thunderstorms ,Cyclnes & Tornadoes Cyclone Forecasting &Warning	●Student will be able to explain about various Natural Disasters like Thunderstorms, Cyclones and Tornadoes,Air pressure	
	LESSON 10 : SOIL Sub Unit : Composition Of Soil Sub Unit : Formation Of Soil	●Student will be able to explains about composition & formation of soil	●Experimental Investigation
	LESSON 10 : SOIL Sub Unit : Soil Profile Sub Unit : Types Of Soil Sub Unit : Properties Of Soil Soil & Crops Sub Unit : Soil As A Natural Resource	●Student will be able to explain about types of soil,its properties and study of soil as a natural resource.	●Experimental Investigation
	REVISION WEEK		
SA 1			

OCT	<p>Lesson 18 :WATER -A NATURAL RESOURCE Sub Unit : Our Natural Resources Sub Unit : Renewable Resources Sub Unit : Water - A Renewable Resource</p>	<p>●Student will be able to explain about forms of Water, Sources of Water, Water Management, Importance of Water to Plants and Animals.</p>	
	<p>Lesson 18 :WATER -A NATURAL RESOURCE Sub Unit : Shortage Of Water Sub Unit : States Of Water Sub Unit : The Water Cycle Groundwater Sub</p>	<p>●Student will be able to explain about Water Cycle ●Student will be able to explain about conservation of Water</p>	<p>●Creating a logo depicting water scarcity. ●Collage of posters showing water conservation</p>
	<p>Lesson 20 :WASTE WATER MANAGEMENT Sub Unit : Wastewater & Sewage Sub Unit : Importance of drainage & Sanitation Sub Unit :The Sewage System Sewage Treatment Sub Unit : Alternate Sewage Disposal Methods</p>	<p>●Student will be able to explain meaning of Sewage, ●Student will be able to explain the Wastewater treatment Plant and Sewage Disposal</p>	<p>●Field trip to forest, Wastewater treatment plant.</p>
	<p>Lesson 20 : MOTION & TIME Sub Unit: Standard Units Sub Unit : Measurement Of Time Sub Unit : Speed Uniform Motion</p>	<p>●Student will be able to explain the need & how to measure time . ●Student will be able to explain why things move .</p>	<p>●Experimental Investigations</p>
	<p>Lesson 16 : LIGHT Sub Unit: Rectilinear Propagation of Light Sub Unit : Reflection Of Light Sub Unit : Real and Virtual Images</p>	<p>●Student will be able to explain Properties of Light ●</p>	<p>●Experimental Investigations , making of Rainbow, Research on natural phenomenon related to light.</p>

NOV			
	Lesson 16 : LIGHT Sub Unit : Spherical Mirrors Sub Unit : Lenses Sub Unit : Spectrum	<ul style="list-style-type: none"> ●Student will be able to explain Image formation by mirrors and lenses. ●Student will be able to describe formation of spectrum. 	
	REVISION WEEK		
FA 3			
DEC	Lesson 17 :ELECTRIC CURRENT & ITS EFFECTS Sub Unit : Electric Current & Circuit Sub Unit : Effects Of Electric Current	<ul style="list-style-type: none"> ●Student will be able to explain symbols of Electric Components, 	
	Lesson 17 :ELECTRIC CURRENT & ITS EFFECTS Sub Unit : Effects Of Electric Current	<ul style="list-style-type: none"> ●Student will be able to explain Heating and Magnetic Effects of Electric Currents, 	
	Lesson 17 :ELECTRIC CURRENT & ITS EFFECTS Sub Unit : The Electromagnet	<ul style="list-style-type: none"> ●Student will be able to explain Function of Electromagnet and Electric Bell 	<ul style="list-style-type: none"> ●Making of simple electrical circuit and electromagnet.
	Lesson 11 : RESPIRATION Sub Unit : Respiration In Plants	<ul style="list-style-type: none"> ●Student will be able to Describe the process of respiration in plants 	

JAN	Lesson 11 : RESPIRATION Sub Unit : Respiration In Animals	●Student will be able to explain the process of respiration in animals	
	Lesson 11 : RESPIRATION Sub Unit : The Respiratory System In Humans	●Student will be able to explain the process of respiration in Humans	● Making a model - mechanism of breathing through lungs .
	Lesson 11 : RESPIRATION Sub Unit : Types Of Respiration	●Student will be able to explain the types of respiration	
	REVISION WEEK		
FA 4			
	Lesson 12 : TRANSPORTATION OF MATERIALS IN PLANTS & ANIMALS Sub Unit : Transportation of materials in plants Sub Unit : Transportation of materials in animals	●Student will be able to explain the process of Transportation of materials in Plants	● Experimental Investigation Transpiration and leaves.

FEB	<p>Lesson 12 :REPRODUCTION IN PLANTS Sub Unit : Asexual Reproduction in Plants Sub Unit : Vegetative Reproduction</p>	<ul style="list-style-type: none"> ●Student will be able to explain the process of Asexual Reproduction in Plants ●Student will be able to explain the process of Vegetative Reproduction in Plants 	
	<p>Lesson 12 :REPRODUCTION IN PLANTS Sub Unit : Artificial Methods Of Vegetative Reproduction</p>	<ul style="list-style-type: none"> ●Student will be able to explain the process of Vegetative Reproduction 	
	<p>Lesson 12 :REPRODUCTION IN PLANTS Sub Unit : Sexual Reproduction</p>	<ul style="list-style-type: none"> ●Student will be able to explain the process of Sexual Reproduction in Plants 	<ul style="list-style-type: none"> ●Experimental Investigation Vegetative reproduction in potato or onion .
MAR	<p>LESSON 19: OUR FORESTS Sub Unit : Forests Wealth Sub Unit :Producers,Consumers & Decomposers Sub Unit : Food Chain</p>	<ul style="list-style-type: none"> ●Student will be able to explain the food chain ●Student will be able to explain the importance of conservation of our forests 	
	<p>LESSON 19: OUR FORESTS Sub Unit : Balance In Nature Sub Unit : Forest Conservation</p>	<ul style="list-style-type: none"> ●Student will be able to explain the importance of conservation of our forests 	
	<p>REVISION WEEK</p>		
	<p>REVISION WEEK</p>		

	REVISION WEEK		
SA 2			