

YEAR PLAN 2018-19
Grade X BIOLOGY

The academic year is divided into **two** sessions

Session one: June 2018 to October 2018

Session two: November 2018 to March 2019

Continuous Assessment: June, July, September, October, November

First Term Exam: August 2018

Model Exam 1: December 2018

Model Exam 2: January 2019

Please check the **index page** in the notebooks for Continuous Assessment marks.

Aim:

- To acquire the knowledge of the economic importance of plants and animals.
- To develop an understanding of the interdependence of plants and animals so as to enable pupils to acquire a clearer comprehension.

Enduring understanding:

- To realize the importance and effect of the interrelationship of life and that any change can cause an imbalance.
- To understand, united we stand, divided we fall.

Practical record submission: November 2018

Duration	Topics	Specific learning objectives	Activities and project work / Record work	Resources
June	10.Nervous system 11. Sense organs	To understand structure of Neuron, divisions of nervous system. To be able to explain structure and functions of the various parts of brain, spinal cord. To identify parts of human eye and ear and relate its functions.	Study of structure of the brain and sense organs with the help of models and biovisual charts.	Biology textbooks of various publishers http://biology.clc.uc.edu/courses/bio105.html
	8.Circulatory system MONTHLY TEST	To understand basic composition of blood To identify types of blood cells and specific function. To identify parts of heart, understand working of the heart, types of blood vessels and differences in structure and function and major blood vessels.Criteria for Blood grouping, process of blood clotting.	Examinations of blood smear under a microscope. Study the structure of heart with help of chart and multimedia.	Biology textbooks of various publishers and microscopic slides and bio visual charts. Multimedia presentation. http://biology.clc.uc.edu/courses/bio105.html
July	PLANT PHYSIOLOGY 4.Absorbtion by roots 5.Transpiration 6.Photosynthesis Class Test	To relate special characteristics of root hairs to function. To be able to understand and explain imbibition, diffusion, osmosis, osmotic pressure, root pressure, turgidity, plasmolysis, deplasmolysis, importance of root hairs. To study about transpiration and its significance, effects of external conditions on transpiration, general idea of Cohesive and Adhesive forces and transpiration full. Adaptations in plants to reduce transpiration. Nature and significance of photosynthesis. Experiments to show the importance of various	Demonstration of osmosis through thistle funnel experiment, potato osmoscope, some experiments on absorption and conduction of water in the plants. Experiments demonstrating transpiration in plants, use of photometer, and its limitations. Experiments to show the necessity of light, chlorophyll, carbon dioxide, formation of starch and output of oxygen.	Biovisual charts. http://www.cpcb.nic.in/ Past paper Question Bank

		factors in photosynthesis.		
	7.Chemical Coordination in Plants	To study the physiological effects of Auxins, Gibberellins, Cytokinins, Abscisic acid and Ethylene.	Discussion with relevant examples	Board work http://biology.clc.uc.edu/courses/bio105.htm
August First Term Exam followed by Onam Vacation				
September	7.Chemical Coordination in Plants (cont..d)	A basic understanding of the tropic movements in plants- phototropism, geotropism, hydrotropism, thigmotropism and chemotropism	Experiments to demonstrate tropic movements	Board work, Demonstration of experiments
	3. Genetics, Mendel's laws of inheritance and sex linked inheritance of diseases.	To understand the fundamentals of Genetics, understanding of terms used in the study of Genetics. Monohybrid and Dihybrid crosses conducted by Mendel.	Study of inheritance of some characters by making the inheritance charts. Inheritance of colour blindness and hemophilia	Biovisual charts. Board work Problems related to monohybrid, dihybrid cross and sex linked inheritance.
October	9.Excretory system Class Test	Elementary study of structure and function of kidney, structure of a nephron, steps of urine formation.	Model of kidney, Excretory system.	Biovisual charts.
	12.Endocrine system Class Test	Location of the main endocrine glands, names of hormones, disorders caused by hyper and hypo secretion.	To locate the endocrine glands.	Biovisual charts. Biology textbooks of various publishers http://biology.clc.uc.edu/courses/bio105.htm
November	13.Reproductive system and Embryonic development 15. Human population. Revision	Study of functions of organs and accessory glands, structure and function of gametes, fertilization, implantation, placenta, foetal membranes, gestation and parturition, identical and fraternal twins to be explained briefly. Problems posed by the increase in population in India; need for adopting control measures- population control. Sources of different types of pollution, their effects on animals, plants, environment and measures to control pollution.	Study of hormones and their main functions in the body with the help of a table. Study of reproductive system with the help of charts. Seminars	Biology textbooks of various publishers http://www.cpcb.nic.in/ Past paper Question Bank
December	First model examination			
January	Second model examination			
February	Second model examination Revision Study holidays			
March	ICSE BOARD EXAMINATION			
<p><i>FACILITATORS : Mrs Juhi Sivakumar, Mrs Aanandi Krishna and Ms Josephine Joseph</i> <i>Textbook: Concise Biology-10</i> <i>Publisher: Selina</i> Approved by the Principal</p>				