SUBJECT : BIOLOGY

Sr. No.	Month	Chapters	Learning Outcomes
1	APRIL	Reproduction in Angiospermic Plants	The students will be able to Define and explain important types of sexual and asexual reproduction in plants. Explain types and importance of pollination. Explain development of endosperm, embryo, seed and fruit development.
2	MAY	Human Reproduction Reproductive Health	The students will be able to Define and explain important concepts in the human reproduction. Draw and explain structure of human male and female reproductive system. Explain the process of reproduction in human. To understand need and method of birth control. To explain infertility and assisted reproductive technologies. Students learnt to prevent themselves from different STDs.
3	JUNE	Principles of inheritance and variation	The students learnt to illustrate the monohybrid and dihybrid crosses and evaluate phenotypic and genotypic ratio in different generation. They learnt to analyse and infer the blood group present in them by the parental crosses The students understand the difference between Mendelian cross and chromosomal inheritance. The students learnt how change in chromosomal number or point mutation can cause different type of genetic disease
4	JULY	Molecular basis of inheritance Evolution	The students will understand the importance of DNA in all activities. The students learnt how DNA fingerprinting helps in Forensic sciences. The learners learnt about the human genomic project which helped in identifying and preventing many hereditary disease.
5	AUGUST	Biology and Human Welfare Strategies for	The students learnt to draw the life cycle of malarial parasite showing different stages at different host.

		enhancement in food production Microbes in human welfare	Students learnt to prevent themselves from different diseases by observing sign and symptoms. Students understood that different strategies in the improvement in food production. Learnt the way to conserve the exotic plants by tissue culture. The learners understood the role of microbes in sewage treatment , biogas production, preparation of antibiotics, enzymes, biofertilizers, etc.
6	SEPTEMBER	Biotechnology : Principles and processes Biotechnology and its application	The students learnt the process of r-DNA technology. The learners understood how the technology is used in large scale production of antibiotics, enzymes , etc. in industries. The students learnt about the different techniques which could be applied to transfer the genes. The students learnt about the gene therapy which enabled the medical scientist to replace the defective genes responsible for hereditary disease.
7	OCTOBER	Ecology and environment Organisms and population	The students learnt how adaptation allows organism to survive and replace in natural environment. The students have learnt to explain how single species will grow and regulate.
8	NOVEMBER	Ecosystem Biodiversity and its conservation	The students will be able to analyse the roles of organism as a part of interconnected webs, population, communities and ecosystem, They will be able to describe energy flow among population through food web and ecological pyramids. The will able to describe how energy from sunlight is transformed through an environment. The students will be able to biological diversity and its importance.
9	DECEMBER	Environmental Issues	The students will be able to Define and explain important concepts in the field of solid waste management, such as waste hierarchy, waste prevention, recirculation, municipal solid waste, etc. Understood the current evidence for global warming.

			Explain the factors forcing climate change, and the extent of anthropogenic influence.
10	JANUARY	REVISION PRE- BOARD EXAMINATIONS	
11	FEBRUARY		
12	MARCH		