

BCM SCHOOL

A Sr. Sec School Affiliated to CBSE, New Delhi

Annual Academic Calendar

Subject : BIOLOGY

Session :- 2020-2021

Class :-X

NCERT BOOK : TEXT BOOK OF SCIENCE

MONTH	TOPIC\Content	LEARNING OUTCOMES	SOURCES\RESOURCES	SUGGESTIVE ACTIVITIES
APRIL	LIFE PROCESSES NUTRITION 1) Autotrophic nutrition (photosynthesis) 2) Hetrotrphic nutrition Nutrition in human beings	After reading the text and watching videos the learner organisms on the basIs of their feeding habbits 2) will understand the process of formaton of food by plants 3)develop the knowledge of functioning of different enzymes in human body. 4) can sequentially arrange all the steps of digestion of food in humans.	NCERT BOOK OF SCIENCE FOR CLASS X https://youtu.be/VV7-s745Zuc https://youtu.be/KpG7h1Xd3GU https://youtu.be/qgXxfpq-Dow	1) To observe the process of photosynthesis in a variegated leaf. 2) to investigate the impact of open and closed stomata on plants.
	RESPIRATION Aerobic respiration Anaerobic respiration	After reading the text and watching the videos , the learner will 1) understand the significance of various steps in the breakdown of glucose	https://youtu.be/2uoCGTAWjl0 https://youtu.be/Uk9HI93YcQ4	1) identify and list at least ten activities that require energy , also identify the sources of energy in each case. 2) To make a short project on causes , effects and methods of protection of covid 19.
	Respiration in humans Respiration in plants	2) become more aware about covid _19 pendemic 3) can interpret the antagonistic nature of photosynthesis and respiration in plants.	https://youtu.be/jmQXiLAdtRM https://youtu.be/ZZXzo6ibUiI https://youtu.be/vkBZTj_lqYM	

MAY	TRANSPORTATION	After reading the text and watching the videos the learner	https://youtu.be/UYFXFCWfB6g	
	Structure and function of human heart	1) can identify the different components of transport system of humans		1) to identify the position of heart in human body.
	Double circulation	2) can draw the diagram of human heart and label its different parts,	https://youtu.be/SQua9qKoMfs	2) to identify the opening and closing of heart valves through lub -dub sound.
	Lymphatic system	3) able to make the flow chart of direction of movement of blood in human body	https://youtu.be/SQua9qKoMfs	
	Transport in plants	4) discover the mechanism of transport of water and food materials in plants.	https://youtu.be/SQua9qKoMfs	3) to observe the effect of less water on the plants.
	EXCRETION	After reading the text and watching videos , the learner		
	Structure and function of urinary system in humans	1) will understand the process of filtration of various waste products in human body	https://youtu.be/SQua9qKoMfs	
	Formation of urine	2) discover the importance of kidneys in removal of waste products and urine formation.		4) to interpret the relation between intake of water and micturition,
	Excretion in plants	3) evaluate the coordination and interdependence of different life processes for the survival of humans		5) to make an assignment on the process of dialysis.
JUNE	SUMMER VACATIONS			
JULY	HOW DO ORGANISMS REPRODUCE			
	Importance of reproduction, asexual reproduction Sexual reproduction in flowering plants	reproduction for an individual or for a species. 2) understand the different methods of asexual reproduction like fission, fragmentation, regeneration, budding and spore formation etc 3)	https://youtu.be/JID5SY_QmR4 https://youtu.be/B7yZtR5EnYw https://youtu.be/zdKqb06_nJ8	1) to observe vegetative propagation in bryophyllum, rose, money plant etc.

	Sexual reproduction in humans, reproductive health	1) understand the concept of sexual reproduction and its difference from asexual reproduction. 2) Correlate the changes in the appearance of flower from bud stage to fruit formation. of reproduction in order in humans. 2) identify the need for different contraceptive methods 3) analyse the need for balance sex ratio for a healthy	https://youtu.be/cV09glldeW8 https://youtu.be/cV09glldeW8 https://youtu.be/tMf5GNzEEjo https://youtu.be/r3j9opDfNy0 https://youtu.be/jPArGkgziiM	2) to observe the different parts of bisexual flower , identification of its different parts and relate their importance in plant reproduction
AUG	HEREDITY AND EVOLUTION Inherited traits , Mendel's law of inheritance How do traits expressed, sex determination	and classify them as inherited or acquired traits 2) construct monohybrid and dihybrid cross to calculate the ratios of offsprings possibility of male or female child to be born in human beings. 2) will gain the awareness of the fact that scientifically , male or father is	https://youtu.be/PRYr9jCuYII https://youtu.be/URy1xzErUK8 https://youtu.be/URy1xzErUK8 https://youtu.be/6ncwtfVw2ag https://youtu.be/2Zpmy7ovxM	1) Identify ten acquired and ten inherited traits in humans. 2) Identify and list five pairs of homologous and analogous traits in plants and in animals. 3) to study the evolutionary history of elephant and horse through evolutionary evidences.
SEPT	REVISION & MID TERM			
	OUR ENVIRONMENT			
			https://youtu.be/wuGwIus8mSw	
OCT	Biosphere, its components, biodegradable and non biodegradable	understand the definition of ecosystem and its components. 2. correlate the importance of biotic and abiotic components in all ecosystems	https://youtu.be/gPZJMcKROZE	To construct food chains having three , four and five trophic levels. To construct food web formed by interlinking of different food chains.
		3) understand the nutritional relationships among different organisms. 4) identify the unique characteristics of food chain and different factors that effect a food chain. 5) become aware about the importance and protection of ozone layer.	https://youtu.be/Wsh2O2Xe1G0	To calculate the amount of energy transferred among various trophic levels in a food chain. Make a project to create and circulate awareness among the society for protection of forests and ozone layer.
LIST OF PRACTICALS				
1) To show that CO ₂ is released during respiration				
2) To study the process of binary fission in amoeba and budding in yeast and hydra with help of prepared slides				

DELETED CHAPTERS

	CONTROL AND CORDINATION			
	Response and stimulus , neuron	After reading the text and watching videos, the learner will	NCERT BOOK OF SCIENCE FOR CLASS X	1) to interpret the feed back mechanism and its importance
	Structure of neuron	1) understand the meaning of stimulus and its corresponding response.		2) to discover the interdependency of different sensory receptors
	Transmission of impulse	receptors and their interdependency. Identify the different types of nerves		3) to observe the touch response in Mimosa pudica.
NOV	Reflex action, human brain	After reading the text and watching videos, the learner will 1) understand how a stimulus can create a reflex action in the body. 2) investigate and construct different types of reflex actions and reflex arc in response to different stimuli 3) able to analyse the diagram of human brain and relate its different parts with their functions.		1) to identify and differentiate conditioned and non conditioned reflexes. 2) to observe the changes in the body at the time of reflex action
	Endocrine system in humans	1) able to locate the positions of different endocrine glands in our body 2) co-relate the functions of different hormones in growth, metabolism and development of the body		
	Tropic movements in plants , phytohormones	1) understand the effect of concentration of different plant hormones on the growth , shoot and root development, on flowering and maturity of the plants.		3) to observe the nastic movements in sunflower and touch-me-not.

DEC	HEREDITY AND EVOLUTION Evolution, natural selection , acquired and inherited traits evolution, artificial selection , evolutionary heierarchy	selection with the help of given examples. selection and artificial selection by giving examples.	NCERT BOOK OF SCIENCE FOR CLASS X	
	MANAGEMENT OF NATURAL RESOURCES		NCERT BOOK OF SCIENCE FOR CLASS X	
	1)Importance of management of our resources	1) Understand the need for management of natural resources. 2) critically analyse the importance of forests and all the stake holders attach to it.	NCERT BOOK OF SCIENCE FOR CLASS X	1) identify , observe and pick five activities of your daily life that are wasting the natural resources.
	2) Forests and wild life	3) interpret the uses of coal and petroleum in present day scenerio.	NCERT BOOK OF SCIENCE FOR CLASS X	2) find and analyse the changes in life style and habbits to conserve the natural resources
	3) Water,Coal and petroleum			
	4) Management of resources			

***** These chapters will be assessed for internal assessment only and not to be assessed in board examination.**