

SUBJECT: BIOLOGY
CLASS – IX

2020-2021

Book: Science and Technology (NCERT)

MONTH	TOPICS	SUB-TOPICS	LEARNING OUTCOMES	INNOVATIVE PEDAGOGY	PRACTICALS
April	Improvement in food resources				
May	Improvement in food resources				
July	Cell - the fundamental unit of life	Compound microscope, discovery of cell, osmosis, plasmolysis,	<ul style="list-style-type: none">To make them comfortable in understanding the concept of using	<ul style="list-style-type: none">Interactive discussion on discovery of cell, osmosis, plasmolysis and comparison between	To prepare stained temporary mount of human cheek cells to record the

					Arts
September	Tissues	Animal tissues, epithelial tissues, connective tissue - blood, lymph, tendons ligaments, bone, cartilage muscular tissue, nervous tissue.	<ul style="list-style-type: none"> To help them in understanding complex structure of animal tissues with the help of live examples of their body actions. 	<ul style="list-style-type: none"> Using visual aid through smart board. Hands on activity to observe slide of various tissues under microscope 	To study permanent slides of Striped muscle fibers and nerve cells. Record their observations draw labeled diagrams

MONTH	TOPICS	SUB-TOPICS	LEARNING OUTCOMES	INNOVATIVE PEDAGOGY	PRACTICALS
October	Why do we fall ill	Signs and Symptoms, Organ and Tissue Specific Manifestation, Principles Of	<ul style="list-style-type: none"> To help them out in distinguishing between Sign and Symptom and 	The survey of family case history and discussion	

November	Why do we fall ill?	Treatment, Antibiotics and Vaccines, Immunization.	<p>acute and chronic diseases.</p> <ul style="list-style-type: none"> To make them to think and research about infectious and non-infectious diseases. 	<p>about various diseases are used</p> <p>The distinction between Various topics like symptoms and sign and acute and chronic diseases.</p>	<p>A group of four students will script a role play for a disease and will act to show the symptoms, sign.</p>
December	Performing Art Integration	Role Play to learn Symptoms of various types of diseases	<ul style="list-style-type: none"> To develop skill of observing diseases and their symptoms with the help of Role play. 		Performing Art Integration
January	Natural Resources	Air, role of atmosphere, air pollution, water - a wonder liquid, water pollution, minerals and soil, bio – geochemical cycle	<ul style="list-style-type: none"> To develop skill of observing and drawing Bio-geochemical cycles 	Drawing various biogeochemical cycles and discussion about nutrient cycling.	To Study the characteristics of Earth worm, Cockroach, Bony fish and Bird. Draw diagram and record identifying features.

January	Revision/Periodic Test-III	Assignments and Sample Papers.			
February	Final Exam				