



# SANT NANDLAL SMRITI VIDYA MANDIR, GHATSILA

## SYLLABUS - CLASS - IX

SESSION - 2023 - 24

SUBJECT - BIOLOGY



MONTH	WORKING DAYS	NO. OF CLASSES	TOPIC TO BE TAUGHT	ACTIVITIES	LEARNING OUTCOME	VALUES IMPARTED
April	21	10	<b>Ch The fundamental unit of life</b> Introduction, structural organization of the cell Plasma membrane, cell wall, nucleus, cytoplasm Revision + periodic test 1	Terminology project based on the fundamental unit of life	1.Compare a prokaryotic cell with an eukaryotic cell. 2.Discuss about the characteristic features of eukaryotic organisms 3.Emphasize the importance of cell membrane and cell wall	1.Individuality 2.Cooperation 3.Co ordination 4.Unity and Staying together
May	9	03	<b>Ch The fundamental unit of life</b> continued Cell organelles	Temporary mount of onion peel and human cheek cells	1. Explain the structure of cell organelles	Patience while conducting experiments
June	11	05	Cell organelles and cell division	To study stages of cell division through permanent slides	1.To identify and understand the various stages of cell division and its role for sustenance of life	Continuous physical work
July	26	12	<b>Ch Tissues</b> – Plant tissues (introduction) Classification of plant tissues Meristematic tissue Simple permanent tissues Complex permanent tissues	To prepare a flowchart of classification of plant tissues	To identify and understand the features of meristematic tissues, parenchyma, sclerenchyma and collenchyma To understand structural, functional and locational differences between the different types of plant tissues	1.Coordination for a common cause 2 Critical observations 3. Division of labour 4. Integrity
August	24	12	Revision Periodic test 2			
Sept.	21	06	Revision Half yearly examination			



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Oct.	18	06	Animal tissues – Epithelial tissue, connective tissue, Muscular tissue, nervous tissue <b>Ch Improvement in food resources</b> – introduction + improvement in crop yield	To prepare a flowchart of classification of animal tissues To prepare a list of eminent agricultural scientists and their role in agricultural revolution	To identify various types of animal tissues. 1.explain plant breeding experiments 2.describe the improvements in crop yields 3.recall genetically modified crops 4.explain “organic system plan”, Plant pests and their control	1.Coordination for a common cause 2 Critical observations 3. Division of labour 4. Integrity 5.Individuality 6.values of new ideas and thoughts. 7. creativity resulting in innovation 8.values of appreciation of nature in a better way
Nov.	23	12	Crop production management nutrient management + irrigation Animal husbandry Revision periodic test 3	Collect information on hybrid and indigenous varieties of cows & buffaloes	To understand modern and traditional methods of irrigation and the benefits of modern methods To understand the need for development of hybrid varieties and their economic importance	Uniqueness Resource Management
Dec.	19	06	<b>Ch Natural resources</b> – air Water	Project on biogeochemical cycles and their importance	Express the necessity of resources Describe the method of rain water harvesting	1.Environmental sensitivity 2.Care and cleanliness of surroundings 3.Care for plants and animals 4.Adequate use of water and other natural resources
Jan.	22	12	Biogeochemical cycle Ozone layer and its depletion Pollution Revision	Project on pollution and its type and ways to reduce pollution	Identify the importance of fossil fuels like coal and petroleum.	1. Sense of awareness about importance of natural resources 2. Values of becoming a civilized individual
Feb.	22	08	Revision Annual examination			

Subject Teacher

Principal