



**BHAVAN'S BHAGWANDAS PUROHIT VIDYA MANDIR,  
NAGPUR**

**CURRICULUM PLAN  
(2023-24)**

**STD: IX      SUBJECT: BIOLOGY**

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**BHAVAN'S B.P. VIDYA MANDIR, NAGPUR**  
**CURRICULUM PLAN**  
**2023-24**  
**SUBJECT:- BIOLOGY**  
**STD:- IX**

Month	Weekly Dates	No. Of Periods	Topics	Sub-Topics	No.of Periods Required	Activities/ Smart Class Modules	Assignments & Evaluation	Learning Outcomes/Sustainable Development Goals/Skills Assessed
<b>APRIL</b>	5/4 – 8/4	02	Ch.5: Fundamental Unit of Life	5.1: What are living organisms made up of? 5.2: What is cell made up of? 5.3: What is the structural organization of a cell?	01	<b>EXPERIENTIAL LEARNING</b> To know the parts of compound microscope To make a temporary mount of onion peel To make a temporary mount of cheek cell	1. Read the chapter 2. Diagram practice will be given. 3. Questions given will be discussed.	Students will be able to recognize the structure and location of organelles in plant and animal cell. <b>21<sup>st</sup> Century skill</b> <b>Observation, psychomotor skill</b> <b>Hands on activity</b>
	10/4 – 15/4	03		5.2.1: Plasma membrane (Pg no 59) 5.2.1: Plasma membrane (Contd.)	01 01 01	<b>EBIXMODULES:-</b> Cell-Prokaryotic, eukaryotic, Shape, Diffusion, Osmosis. To demonstrate osmosis by using resins or any other substance.	1. Diagram practice will be given. 2. Questions given will be discussed	They will be able to co-relate the structure and functions of some organelles.- <b>Observational and Analytical skill</b> They will be able to differentiate between plant and animal cell.- <b>Analytical skill</b>
	17/4 -21/4	02		5.2.2: Cell wall 5.2.3: Nucleus Nucleus(contd)	01 01	To show them permanent slides of plant and animal cell. Comparison between Plant & Animal cell		Students will be able to relate the process of diffusion and osmosis to various events or activities that occur in day to day life. <b>Analytical skill, critical thinking</b>
	24/4 – 29/4	03			03	<b>EBIX MODULES:-</b> Modules on Cell organelles		Students will be able to state the importance and functions of Nucleus - <b>Recall</b> Students will be able to identify the cytoplasm

MAY	02/05-04/05	01		5.2.4:Cytoplasm	01			through the microscope- <b>observational skill</b>
JUN E	20/6- 24/6	02		5.2.5:Cell organelles	02			Students will be able to state the differences between RER and SER – <b>Analytical skill</b>
	26/6-30/6	02		Endoplasmic Reticulum	02			Students will be able to differentiate the role of Golgi Apparatus from Lysosomes – <b>Critical Thinking</b>
	10/7 – 15/7	03		Golgi Apparatus, Lysosomes, Plastids, Mitochondria,	03			Students will be able to state the similarities and differences between Mitochondria and Plastids – <b>Analytical skill</b>
JUL Y	17/7-7/7	03		Vacuoles, Cell Division	03			Students will be able to differentiate between Mitosis and Meiosis - <b>Analytical skill</b>
	17/7-22/7	02		Question & Ans Discussion				
	24/7-28/7			<b>REVISION OF PERIODIC TEST -I</b>				
AUG UST	1/8-5/8	02	Ch.06 Tissue	6.1: Are plants & animals made of same type of tissues?	02	<b>EXPERIENTIAL LEARNING</b> 1.Apical Meristematic tissue- Growth of root tips in onionbulb	2. Questions given will be discussed.	Students will be able to identify the tissue based on their location, function and structure.- <b>Observational skill</b>
	7/8-12/8	02		6.2:Plant tissues	02			

	14, 17/08- 19/8	03	6.2.1:Meristematic tissue.	03	2. To observe T.S of stem Under compound microscope by making a temporary mount	<b>PERIODIC TEST-02</b> <b>DATE: 04/09/2023</b> <b>Portion: Ch.06</b> <b>Tissues(till Plant</b> <b>Tissue)</b>	They will be able to recognize the parts of organism where a particular tissue is present - <b>Analytical skills, psychomotor skill.</b>
	21/8 - 26/8	03	2.2 Permanent tissue- Simple &permanent	03	3. Study of permanent slides having- Parenchyma, Collenchyma, Scler enchyma, to make a temporary mount of leaf peel to observe Stomata	Students will be able to classify different types of tissues in plants and animal - <b>Analytical skill</b>	
	28,29,31/ 08	02	6.2.2(ii) Complex Permanent Tissues	02			
<b>SEP</b>	1/9 - 2/9	01	<b>REVISION FOR PERIODIC TEST-II</b>	01	<b>EBIXMODULES:-</b> Plant tissues Vascular bundles		By drawing diagram of different types of tissues their- <b>drawing skills will be developed.</b> <b>Creativity, proportion, precision skill</b>
<b>TEM</b>	4/9-8/9	02	6.3Animal tissues 6.3.1 Epithelial tissues	02	A Study of permanent slides having- animal tissue		
	11/09- 16/09	02	6.3.1 Epithelial tissues(CONT'D.)	02	<b>EBIX MODULES:-</b> Connective tissues Muscular tissues Nervous tissues		
	18 SEPT- 21SEPT	02	<b>PORTION COMPLETION 18 TH</b> <b>SEPTEMBER 2023</b> <b>REVISION FOR HALF YEARLY</b> <b>EXAMINATION</b> <b>HALF YEARLY EXAMINATION:</b> 26 <sup>TH</sup> SEPTEMBER TO 11 <sup>TH</sup> OCTOBER 2023 <b>PORTION</b> Ch: 5 Fundamental unit of life Ch:6 Tissues(till Plant Tissue)	02			

OCT OBE R	12/10-14- 10	01	RECAPITULATION OF ANIMAL TISSUE (INTRODUCTION )AND EPITHELIAL TISSUE	01		
	16/10- 21/10	03	6.3.2 Connective tissues	03		Students will be able to classify different types of Connective tissues - <b>Analytical skill</b>
	25/10- 27/10	03	6.3.3 Muscular tissues	03		Students will be able to differentiate type s of Muscular tissues - <b>Analytical skill</b>
	30/10, 31/10					
NOV EMB ER	1/11 - 4/11,	02	6.3.4 Nervous tissues	02		Students will be able to draw a labelled diagram of a Nerve cell – <b>Creative skill</b>
	6/11-9/11	02	Que. & Ans. Discussion	02		
	10/11- 22/11		<u>DIWALI VACATION</u>  10/11/2023 TO 22/11/2023			
	23/11 - 25/11,	01	Ch15.Impr ovement in food resource  Introduction 15.1 Improvement in Crop Yield	01		Students will be able to classify different types of tissues in plants and animal - <b>Analytical skill</b>
	28/11-				<u>ACTIVITIES:-</u> 1. Activity to select good quality of seeds	

DEC EMB ER	30/11  1.2,4/12- 8/12 11/12 – 16/12	01  03 03	15.1.1 Crop variety improvement  15.1.2 Crop production management  1. Nutrient management	01  03 03	2. Activity to identify various cereals, pulses, oil seeds  <b>EBIXMODULES:-</b> Pollution by fertilizers Plant breeding, Effects chemical fertilizers	<b>PERIODIC TEST-03</b>  <b>PORTION: TISSUES (ONLY ANIMAL TISSUE)</b>  <b>DATE: 11/12/2023</b>	Students will learn various terms related to food production.  They will be able to recognize the pictures related to various sources of food and steps in food production.- Students will be able to identify different types of farm produce depending upon their nutritive value and crop seasons in which they are cultivated. <b>Observation and critical thinking skills</b> Students will be able to compare the ancient techniques and modern methods in the field of agriculture ( Use of fertilizer and manures)and animal husbandry.- <b>Hands on activity, Environmental sensitivity under SDG , Collaborative learning skill</b> <b>Environmental sensitivity under SDG</b> Students will appreciate the development in science and technology in the field of agriculture and animal husbandry in order to increase the production. Students will be able to state the benefits of Apiculture, and the importance of Bees in the environment – <b>Environmental sensitivity under SDG</b>
JAN UAR Y	1/1 – 6/1  8/1 – 13/1  16/1 – 20/1  22/1 -25/1  29/1 -31/1	03  02 02 02 01 01	15.1.3 Storage of grains 15.2 Animal husbandry 15.2.1 Cattle farming) 15.2.2 Poultry farming 15.2.3 fish production- Marine fishery Inland fishery 15.2.4 Bee keeping Que. & Ans. Discussion <b>PORTION COMPLETION DATE:20/2/23</b>  <b>REVISION FOR ANNUAL</b>	03  02 02 02 02 01	2. Activity to identify various cereals, pulses, oil seeds  <b>EBIXMODULES:-</b> Irrigation ,Soil improvement, Mixed cropping, Rotation of crops, Weed control Weeding in the school garden 2. Emasculation, bagging Activity to be demonstrated  To make them grow different crops in trays in definite row pattern.  <b>Visit to a nearby fisheries centre and poultry farm whichever is feasible.</b>  <b>EBIX MODULES:-</b> Storage of grains Fumigation		

FEB RUA RY	5/2 - 9/2 12/2 - 17/2	02 03	EXAMINATION  ANNUAL EXAMINATION FROM 2/3/24-15/03/24				They will be able to identify the ways in which we can ensure better quality and quantity of food from plants and animals.
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**SESSION 2023-24**

**STD: IX**

**SUBJECT: BIOLOGY**

**LIST OF EXPERIMENTS:-**

- 1: Preparation of stained temporary mounts of (a) onion peel, (b) human cheek cells & to record observations and draw their labeled diagrams.
- 2: Identification of Parenchyma, collenchyma and Sclerenchyma tissues in plants, striped, smooth and cardiac muscle fibers and nerve cells in animals, from prepared slides. Draw their labeled diagrams.






















BHAVAN'S B. P. VIDYA MANDIR, NAGPUR

CURRICULUM PLAN

SESSION: 2023-24

SUBJECT: BIOLOGY

STD.: IX

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Art - Integrated Activity/Project/Subject Enrichment (2023-2024)

Subject: Science Class: IX

Topic: Portfolio

Sub-topic: Notebook

Nature of Task: Individual

Task: Post Content

Skills Assessed: Regularity, Punctuality and Neatness.

Learning Objectives: Students will learn to-

- 1) Highlight their best work.
- 2) Display their skills and potentials in writing
- 3) Complete their work-on regular basis with neatness and punctuality.
- 4) Determine their learning standard and other requirements for their grades.

Procedure: Students will be asked to-

- 1) Write intertext questions, NCERT questions and extra questions in portfolio.
- 2) They will be asked to draw neat and well labelled diagrams.
- 3) Regular and timely submissions
- 4) Do the corrections wherever asked



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Art - Integrated Activity/Project/Subject Enrichment (2023-2024)

Assessment Criteria:

Regularity  
Punctuality  
Neatness.

Duration of the Task:

Annual.

Follow up / Feedback:

Teachers will guide the students in case of incorrect answers and improper drawings or labellings

Assessment Rubric:

Regularity - 02  
Completion Punctuality - 02  
Neatness - 01  
Total 05

Subject Coordinator's: Name and Signature

CL : Sandhya Deshpande

SKN : Neha Gavrichar

ASHTI: Manisha B, Tabassum A, Vijaya P

TMN : Prachi Samarth

KORADI: Pooja Bhagat

CHB: Shivani Yadav

AB

MOUDA: Madhucima Mukherjee

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Subject: Biology . Class: IX  
Topic: Subject Enrichment  
Sub-topic: Practicals

Nature of Task: Individual

Task: Post Content

Skills Assessed: Observation, analysis, reasoning, understanding drawing.

Learning Objectives: 1) To enable the students understand various concepts in science through hands on activity.  
2) To make the students aware about the experimental setup required for the process.  
3) To make the students realize the principle of every experiment performed.

Procedure: 1) Teacher will demonstrate the exp. by making the experimental setup.  
2) She will ask the students to observe the results and note them in their observation book.  
3) Students will perform the exp., note down the observations, draw diagrams, draw inference and note it down in their practical record.



Assessment Criteria: 1) Understanding  
2) Reasoning  
3) Regularity  
4) Neatness.

Duration of the Task: 45 min

Follow up / Feedback: Teacher will take rounds and will guide the students if they face any difficulty in doing the experiment. She will also guide them by writing the procedure, observation and inference incase they need any help.

Assessment Rubric: Regularity - 02  
Completion - 02  
Neatness - 01  
Total 05

Subject Coordinator's: Name and Signature

CL : Sandhya Deshpande & SKN : Neha Gaurchar &

ASHTI: Tabassum A. (Co-ord), Bhagwashree W., Manisha B. TMN : Pushpita C.P., Prechis

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Subject: Biology (1.1.1) Class: IX

Topic: Sikkim's Cuisine and its Nutrients (Improvement in FOOD RESOURCES)

Sub-topic: Nutrient Management

Nature of Task: Group Activity.

Task: Cuisine Preparation & Scrap Book Preparation  
(ART INTEGRATED ACTIVITY)

Skills Assessed: Creativity, presentation, knowledge  
Craftsmanship

Learning Objectives: Students will be able to learn  
about various cuisines of Sikkim.

They will become aware about the various  
ingredients used and their nutritional value.

They will also become aware about the  
geographical conditions required for growing the  
crops.

Procedure: A class of students will be divided

into 6 groups depending upon the strength  
of the class. They will be asked to do research

on the various famous cuisines of Sikkim,  
their ingredients and nutritional value.

They will select one cuisine for their group  
and divide the work amongst the fellow students

one child who is interested in cooking will prepare  
the dish. Second one will collect nutritional value,

Third child will collect information for ingredients,

Fourth will find out the regional name of the ingredient used

Fifth will prepare the cover page and the sixth one will write  
about recipe preparation and collectively make a Scrap Book



Assessment Criteria: Creativity, Presentation,  
Knowledge, Craftsmanship, Groupdynamics.

Duration of the Task: Two Weeks

Follow up / Feedback: Students will be explained about  
the activity in detail.

They will be guided by the teacher from  
time to time and accordingly students  
will work on the project.

Assessment Rubric: Culinary Skill – 2m  
Scrap Book – 2m  
Presentation – 1m  
Total – 5m.

Subject Coordinator's: Name and Signature

CL : MBE Sandhya Deshpande & SKN : Neha Gaurihar

ASHTI: Manisha Botikar MBotikar ASHTI TMN : Prachi Samarth IP

KORADI: Pooja Bhagat PHB CHB: Shivani Yadav SHY  
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