

CHOITHRAM SCHOOL NORTH CAMPUS

ANNUAL PEDAGOGICAL PLAN (GRADE XI SUBJECT- BIOLOGY TERM-I)

STEP-I: IDENTIFYING THE PROBLEMS

CHAPTERS	WHAT ARE THE PROBLEMS	COMPLIATION OF PROBLEMS	CATEGORISATION OF PROBLEMS
<p>Human physiology Chapter-17: Breathing and Exchange of Gases Chapter-18: Body Fluids and Circulation</p>	<p>Students find difficulties to –</p> <ol style="list-style-type: none"> 1. understand Respiratory volumes and capacities 2. analyse the Oxygen dissociation curve 3. solve the Assertion and Reason <p>LP-1</p> <ol style="list-style-type: none"> 1. Sometimes students lose concentration in the class. 2. They do not do practice at home. 3. Sometimes they do not show interest in the topic. 4. They don't have reading and writing habit. 5. They remain absent 	<p>Knowledge Application Analysis</p>	<p>SUBJECTIVE PROBLEMS :</p> <ol style="list-style-type: none"> 1. Find difficulty to define respiratory volumes and capacities. (Knowledge) 2. Find difficulty to solve/ calculate some numerical problems related to volumes and capacities. (Application/ Analysis) 3. Find difficulty to analyse oxygen dissociation curve (Analysis). 4. Find difficulty to explain and discuss oxygen dissociation curve. (Understanding) 5. Difficulty in solving the Assertion and Reason questions (Application/ Analysis) <p>BEHAVIORAL PROBLEMS</p> <ol style="list-style-type: none"> 1. Lack of practice, interest, 2. Lack of Concentration 3. Lack of reading and writing habit 4. Absenteeism 5. Mugging up content 6. Casual attitude

<p>Diversity in living organisms Chapter-1: The Living World Chapter-2: Biological Classification Chapter-3: Plant Kingdom Chapter-4: Animal Kingdom</p>	<p>Students find difficulties to-</p> <ol style="list-style-type: none"> 1. learn and write Binomial nomenclature- scientific names. 2. explain Division of fungi 3. illustrate, differentiate and summerize the life cycle of bryophytes and Pteridophytes. 4. give examples of bryophytes and pteridophytes 5. solve the Assertion and Reason questions. <ol style="list-style-type: none"> 1. Sometimes students lose concentration in the class. 2. They do not do practice at home. 3. Sometimes they do not show interest in the topic. 4. They don't have reading and writing habit. 	<p>Knowledge Understanding Application Analysis</p>	<p>SUBJECTIVE PROBLEMS :</p> <ol style="list-style-type: none"> 1. Students face problem to learn and write scientific names. (Knowledge) 2. Find difficulty to Classify division of fungi. (Understanding) 3. Find difficulty to explain division of fungi. (Analysis) 4. Find difficulty to Differentiate division of fungi. (Analysis) 5. Find difficulty to differentiate and draw different stages of Life cycles of bryophytes and Pteridophytes. (Application/ Analysis) 6. They face problem to compare distinguishing features of different phyla. (Analysis) 7. They face problem to summarize Life cycles of bryophytes and Pteridophytes. (Understanding) 8. They fail to give examples of bryophytes and Pteridophytes. (Understanding) <p>BEHAVIORAL PROBLEMS</p> <ol style="list-style-type: none"> 1. Lack of practice, interest, 2. Lack of Concentration 3. Lack of reading and writing habit 4. Absenteeism 5. Mugging up content 6. Casual attitude

	5. They remain absent		
Structural Organization in Animals and Plant Chapter-5: Morphology of Flowering Plants Chapter-6: Anatomy of Flowering Plants	1. Students find difficulty to write, describe, explain and illustrate Floral formula and to draw Floral diagrams. 1. Some times they loose concentration in the class 2. Students do not do practice at home 3. Remain absent	Knowledge Understanding Application	SUBJECTIVE PROBLEMS : 1. Find difficulty to write/ describe/explain floral formulae in technical language based on floral diagrams of different flowers. (Knowledge and Understanding) 2. Face problem to draw and illustrate floral diagram. (Application) BEHAVIORAL PROBLEMS 1. Lack of practice, interest, 2. Lack of Concentration 3. Lack of reading and writing habit 4. Absenteeism 5. Mugging up content 6. Casual attitude
Cell: Structure and Function Chapter-8: Cell-The Unit of Life Chapter-10: Cell Cycle and Cell Division	1. Students find difficulty to understand, analyse and interpret different Stages of Meiosis 1. Some times they loose concentration in the class 2. Students do not do practice at home 3. Remain absent	Knowledge Application Analysis	SUBJECTIVE PROBLEMS : 1. Students are unable to Name, lable and define various stages of prophase I of meiosis. (Knowledge) 2. They Face problem to link/connect the various stages. (Analysis) 3. They are unable to analyse, interpret, the various stages of Meiosis. (Analysis) 4. Find difficulty to draw various stages though diagrams. (Application)

			BEHAVIORAL PROBLEMS <ol style="list-style-type: none"> 1. Lack of practice, interest, 2. Lack of Concentration 3. Lack of reading and writing habit 4. Absenteeism 5. Mugging up content 6. Casual attitude

CHOITHRAM SCHOOL NORTH CAMPUS

ANNUAL PEDAGOGICAL PLAN (GRADE XI SUBJECT- BIOLOGY TERM-I)

STEP-2 : DESIGNING KPI

ANNUAL PEDAGOGICAL PLAN STEP-2 : DESIGNING KPI											
(GRADE XI BIOLOGY)											
KPI NAME	KPI DEFINITION AND NO.	WHERE ARE WE NOW? (scale & description)	KPI GOAL	KPI LIMIT	WHAT WE NEED TO DO?	HOW WILL IT BE ACHIEVED	KPI MEASUREMENT	REVIEW	KPI REPORTING	KPI ACHIEVEMENT	KPI IMPROVEMENT
1. Knowledge Skill in class XI students	To develop the ability to recall the learned information.	40 % of the students are able to- define respiratory volumes and	50%	±2	We will make students - 1. to Understand respiratory volumes and	-Lecture methods Explanation -Content reading at	CLASS TEST after every chapter Containing- True/false	after chapter /LP	at the end of term		

	<p>KPI-01</p>	<p>capacities.</p> <p>remember scientific names.</p> <p>describe floral formulae in technical language based on floral diagrams of different flowers.</p> <p>-Name, Lable and define various stages of prophase I of meiosis.</p>		<p>capacities. 2. to Understand how to write floral formula 3. Put more emphasis on technical terms for floral formula 4. to understand and learn various stages of prophase I of meiosis. 5. to practice of identifying diagrams.</p>	<p>home</p> <p>-ppt and Digital Content</p> <p>-Online resources</p> <p>-Worksheets including knowledge based questions</p> <p>-board diagrams</p> <p>Practice sheet about various typology of questions</p> <p>-Motivation and continuous follow up will be</p>	<p>MCQs</p> <p>Fill in the blanks</p> <p>Lable</p> <p>Match column etc</p> <p>ASSIGNMENT S-NCERT textual questions and exercises -Oral questioning -One minute questions</p>			
--	----------------------	--	--	--	--	---	--	--	--

						taken from the students regarding practice of the concepts.					
<p>2. Understanding (comprehension) skill in class XI students</p>	<p>To enhance their skill of understanding so they will be able to understand, interpret and summarize the concepts learned in the knowledge phase in their own words.</p> <p>KPI-02</p>	<p>40% students are able to understand, interpret and summarize the concepts learned in the knowledge phase in their own words. And are able to explain and discuss oxygen dissociation curve/summarize Life cycles of bryophytes and</p>	50%	±2	<p>1. We will make the students to understand oxygen dissociation curve</p> <p>2. We will make them to</p>	<p>Lecture methods</p> <p>Explanation</p> <p>Charts</p> <p>Graph</p> <p>Discussion</p> <p>Reading</p> <p>Presentation</p> <p>Worksheets including understanding based questions</p>	<p>Class test after every chapter</p> <p>Assignments-NCERT textual questions and exercises</p> <p>-Oral questioning</p> <p>One minute questions</p>	after chapter /LP	at the end of term		

Pteridophytes. /**Classify** division of fungi/**to give examples** of bryophytes and Pteridophytes.

understand how to classify the division of fungi on different criteria.
3. We will make them to learn examples of bryophytes

					and pteridophytes.						
3. Application Skill in class XI students	To Enhancing their application skill to apply facts, ideas and concepts in to another context to answer the application based questions KPI-03	50 % of the students are able to solve the application based questions. They are able to solve/ calculate numerical problems related to volumes and capacities. They are able to explain Life cycles of bryophytes and Pteridophyte	60%	±3	We will make students - 1. How to solve numerical based on respiratory volumes and capacities. 2. We will make students to practice the diagrams for developi	Lecture methods - Explanation - concept maps - case studies - ppt and Digital Content - Worksheets including application based questions /numerical questions - board diagrams Practice	Class test after every chapter Assignments- N C E R T textual questions and exercises -Oral questioning Group discussion concept maps case studies questions	after chapter /LP	at the end of term		

		<p>s.</p> <p>They are able to draw floral diagram/various stages of meiosis through diagrams.</p>			<p>ng their drawing skills.</p> <p>3. We will facilitate them how to draw floral diagrams and various stages of meiosis</p>	<p>sheet about various typology of diagrams</p> <p>-Lab practicals</p> <p>Motivation and continuous follow up will be taken from the students regarding practice of the concepts.</p>				
4. Analysis skill in class XI students	To enhance their skill of analysis where students are finally able to break down the concepts into	40 % of the students were able to- analyse oxygen dissociation curve/ various	50%	±3	1. We will help the students to unde	<p>Lecture methods</p> <p>Explanation</p> <p>Discussion in the class</p> <p>-case</p>	<p>.</p> <p>Class test after every chapter</p> <p>Assignments- N C E R T textual questions and exercises</p> <p>-Oral</p>	after chapter /LP	at the end of term	

<p>individual parts, think critically to draw a connection between the broken parts, analyze, draw inferences and make attributions.</p> <p>KPI-04</p>	<p>stages of Meiosis</p> <p>-to solve the Assertion reasoning questions.</p> <p>explain division of fungi/ various stages of Meiosis</p> <p>differentiate division of fungi/different stages of Life cycles of bryophytes and Pteridophytes./ various stages of Meiosis</p> <p>-to analyse</p>		<p>stand and analyse the oxygen dissociation curve/ various stages of Meiosis.</p> <p>2. We will make the students to understand the divis</p>	<p>studies</p> <p>ppt and Digital Content</p> <p>-Worksheets including Analysis/graph based questions</p> <p>Motivation and continuous follow up will be taken from the students regarding practice of the concepts.</p>	<p>questioning</p>			
---	---	--	---	--	--------------------	--	--	--

the

ion
of
fungi
so
that
they
would
be
able
to
explain
and
differentiate
and
Life
cycle
s of
bryophytes
and

Pteridophytes
s./ various
stages of
Meiosis

Lesson Plan 1
Class – XI
Subject: BIOLOGY

Topic: Respiratory volumes and capacities, 2. Oxygen dissociation curve

KPI DEFINITION ADDRESSED TO THE LESSON PLAN

KPI 1- Knowledge skill -To develop the ability to recall the learned information.

KPI 2-Understanding - To strengthen in- depth understanding of some complex scientific concepts

KPI 3- Application skill- To Enhancing application skill to apply facts, ideas and concepts in to another context to answer the application based questions

KPI 4-Analysis skill- To enhance their skill of analysis where students are finally able to break down the concepts into individual parts, think critically to draw a connection between the broken parts, analyze, draw inferences and make attributions.

PLACEMENT OF OBJECTIVES, INSTRUCTIONAL ACTIVITIES AND ASSESSMENT

TOPIC/S- 1. Respiratory volumes and capacities, 2. Oxygen dissociation curve

START DATE-

	KNOWLEDGE	UNDERSTANDING	APPLICATION	ANALYSIS	SYNTHESIS	EVALUATION
OBJECTIVES	SP 1	SP 4	SP 2 SP 3 SP 4	SP 2 SP 3 SP 4	-	-
ACTIVITIES	ACT 2 ACT 3 ACT 4 ACT 5 ACT 6 ACT 9	ACT 2 ACT 3 ACT 4 ACT 5	ACT 2 ACT 3 ACT 7 ACT 8 ACT 9	ACT 2 ACT 3 ACT 7 ACT 8 ACT 9	-	-
ASSESSMENT	A1, A 2, A 3	A1, A 2, A 3	A1, A 2, A 3	A1, A 2, A 3	-	-

Brief Description of the lesson: This topic emphasizes on various Respiratory volumes and capacities. Respiratory (pulmonary) volumes are an important aspect of pulmonary function testing because they can provide information about the physical condition of the lungs. Respiratory capacity (pulmonary capacity) is the sum of two or more volumes. The lung capacities of different animals vary based on their activities. E.g., the lung capacity of cheetahs is much higher than humans. This is because they require a large amount of oxygen for their muscles that help them to run fast. The lung capacity of elephants is also higher due to their large body size. Oxygen dissociation curve. The oxygen dissociation curve is a graph showing the percentage saturation of oxyhaemoglobin at various partial pressures of oxygen. The curve shows the equilibrium of oxyhaemoglobin and haemoglobin at various partial pressures. In the lungs, the partial pressure of oxygen is high.

UN Sustainable Goals to be achieved (if any): Good health and wellbeing.

Objectives:

I - Specific Objectives

To enable the students to-

SP 1 **Define** respiratory volumes and capacities. **KPI 1**

SP 2 **Solve/ calculate** numerical problems related to volumes and capacities. **KPI 3**

SP 3 **Analyse** oxygen dissociation curve **KPI 4**

SP 4 **Explain and discuss** oxygen dissociation curve. **KPI 2**

SP 5 **Solve** the reasoning questions. **KPI 3**

II - Behavioral Objectives

To enable the students to-

B 1 practice the concept learnt in the class at home

B 2 develop Interest in the topic

B 3 develop reading and writing habit

B 4 be regular in the school

Process / Activities

Activity (to introduce the lesson)

ACT 1 *Brain Storming*-The class would start with a discussion on what the students have already learnt in the previous classes and hence what is it that they would learn now. They would also be told the significance of the topic that they would be studying.

ACT 2 Explanation method

ACT 3 lecture method

ACT 4 Worksheets including various typology of questions

ACT 5 Two ways interaction

ACT 6 Reading topic at Home

ACT 7 concept maps

ACT 8-case studies

ACT 9- Oral Questioning

Digital Content to be used:

www.learncbse.in/cbse-notes/

<https://mycbseguide.com>

www.examfear.com

Expected Learning Outcomes

Students will be able to

Students will be able to:

1. *Students will know and understand about* respiratory volumes and capacities. oxygen dissociation curve.
2. *Students would be able to Define* respiratory volumes and capacities
3. **They would be able to Solve/ calculate** numerical problems related to volumes and capacities.
4. **They would be able to Solve Assertion and reasoning Questions.**
5. **They would be able to Analyze** oxygen dissociation curve.
6. **They would be able to explain and discuss** oxygen dissociation curve.

Assessment Activity:

A 1 Class Test Question paper Containg- True /false MCQs Fill in the blanks Lable Match column etc

A 2 Assignments- N C E R T textual questions and exercises

A 3 Oral questioning, One minute questions

Review of the Lesson Plan: To be done when the lesson gets over

Problems faced –

Success-

Failure-

Real Learning Outcomes-

Students Response / Participation-

Teachers Learning to be added.