

DELHI PUBLIC SCHOOL GHAZIABAD
CLASS – XII
CONSOLIDATED LESSON PLAN
CHAPTER-14 Biomolecules

Unit	Biomolecules
Class Transaction	Total:5 periods
Pre-requisite for the course	This lesson requires Define the biomolecules like carbohydrates, proteins and nucleic acids; Classify carbohydrates, proteins, nucleic acids and vitamins on the basis of their structures.
Assessment of qualifying knowledge	1. Written test 2. HW notebook
Objective	Students would be able to understand the types BIOMOLECULES
Learning Outcomes	<u>KNOWLEDGE</u>- <i>Students will know and understand</i> 1. Classification of carbohydrates ,Structure properties and uses of Biomolecules 2. proteins – types, of protein structure and properties of aminoacids 3. Vitamins 4.D.N.A and R..N.A <u>SKILLS</u>- <i>Students would be able to</i> 1. Understand and differentiate between Proteins ,Carbohydrates, 2. Learn classification and sources of Vitamins 3. Learn structure and uses of D.N.Aand R.N.A
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Transaction would proceed in the following manner- <i>Brain Storming</i>-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. <i>Communication and brainstorming:</i> <i>Students develop effective communication skills and learn to put across their views.</i> <i>Introduction of the topic-</i> ppt and Digital Content would be made by students. <i>Collaboration:</i><i>Students learn to work in collaboration to achieve a common goal. They learn to manage time and divide and delegate work</i>

	and responsibilities. Creativity and innovation <i>Students use the knowledge given in class and create projects and models and perform research to give innovative solutions to the problem studied. Guided practice followed by Independent Practice- NCERT questions to be discussed in the classroom. : Helps students to think critically and solve the given problem</i> <i>Guided practice followed by Independent Practice- NCERT questions to be discussed in the classroom.</i> Techniques to be used: Daily Practice Problem MCQ Peer Assessment Character and citizenship: <i>Group discussion helps to develop interpersonal skills, respecting and valuing views of others</i> HOTS Any Other								
Resources	Text Book: NCERT text book for Mathematics Reference Book 1. CBSE Exemplar 2. DPSG Spiral 3. Previous year questions								
Self Study, Home Work, Assignments	Independent Practice: Students would do the given questions in their H.W. notebooks as mentioned in the monthly planner. It is also advised that the students come to the class with proper background knowledge of the topic under discussion. They can refer to the resources stated above.								
Assessments	3 UNIT TESTS <table> <tr> <td>UNIT TEST -</td> <td>30, 35,35 Marks</td> </tr> <tr> <td>MID TERM EXAMINATION</td> <td>70 Marks</td> </tr> <tr> <td>HALF YEARLY EXAMINATION</td> <td>70 Marks</td> </tr> <tr> <td>PRE BOARD EXAMINATION</td> <td>70Marks</td> </tr> </table>	UNIT TEST -	30, 35,35 Marks	MID TERM EXAMINATION	70 Marks	HALF YEARLY EXAMINATION	70 Marks	PRE BOARD EXAMINATION	70Marks
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Addressing Classroom Diversity	Due to various social backgrounds and multiple intelligences, the classroom might be a diverse arena. The following techniques can be used for various groups:								

	<i>For higher scoring students:</i> • Spiral Level 3 questions to be done • Encouragement for referring other resources <i>For lower scoring students:</i> • Spiral Level 1 to be completed • Peer help to be provided • Provide grade-up classes(PCC) <i>For differently abled students:</i> • Ignore spelling mistakes and formulae,if not written • Call parents at regular intervals • Provide grade-up classes • Encourage and motivate them at every level.
Marks	The weightage would be given by CBSE.

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CLASS XII
LESSON PLAN
Unit-14
Biomolecules
(Based on DOL)

Anticipatory Set: Facilitator introduces the topic **Biomolecules**

Objective:

-
- Given questions based on the topic. learners will be able to do the conceptual questions.
 - To make students able to solve questions based on the topics to be discussed
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Techniques to be used:

- Peer Assessment
- Quiz
- Case Study
- PPT

Materials required and Teaching Aids: Smart Class Modules, blackboard, chalk, duster, NCERT book

Strategy

Student – teacher interaction, collaborative learning, independent practice

DAY 1

- The students will be shown a PPT and will be made aware of **Carbohydrates** Classification (aldoses and ketoses), monosaccharides (glucose and fructose)
- The students will be told about the uses of the compounds in day to day life.
- The students would be given practice on simple questions based

GUIDED PRACTICE

The students will solve selected questions from NCERT book of exercise in their notebook in the class with the help of their teacher. .(**CRITICAL THINKING**

SUMMARIZE AND CHECK FOR UNDERSTANDING

Some questions will be asked based on the day's teaching and doubts will be cleared.

(COMMUNICATION)

INDEPENDENT PRACTICE – Students will do the leftover questions of exercise . in assignment copy

DAY 2

*The students will be made to learn the Preparation of carbohydrates.

GUIDED PRACTICE

The students will solve selected questions from NCERT book of exercise in their notebook in the class with the help of their teacher. .(**CRITICAL THINKING**

SUMMARIZE AND CHECK FOR UNDERSTANDING

Some questions will be asked based on the day's teaching and doubts will be cleared. .

(COMMUNICATION)

INDEPENDENT PRACTICE – Students will do the leftover questions of exercise in their Assignment notebook

DAY 3

*The students will be explained D-L configuration oligosaccharides (sucrose, lactose, maltose), polysaccharides (starch, cellulose, glycogen);

*The exercise would be undertaken , questions from NCERT will be discussed along with the discussion of solved examples given.

GUIDED PRACTICE

The students will solve selected questions from NCERT book of exercise in their notebook in the class with the help of their teacher. . (CRITICAL THINKING)

SUMMARIZE AND CHECK FOR UNDERSTANDING

Some questions will be asked based on the day's teaching and doubts will be cleared.(COMMUNICATION)

INDEPENDENT PRACTICE – Students will do the left over questions of exercise in their assignment notebook.

DAY 4

The students will be explained about the structure of starch and its components.

- The exercise would be undertaken , questions from NCERT will be discussed along with the discussion of solved examples given.

GUIDED PRACTICE

The students will solve selected questions from NCERT book of exercise in their notebook in the class with the help of their teacher. CRITICAL THINKING)

SUMMARIZE AND CHECK FOR UNDERSTANDING

Some conceptual questions will be asked based on the day's teaching and doubts will be cleared.
(COMMUNICATION)

INDEPENDENT PRACTICE – Students will do the leftover questions of exercise in their assignment notebook.

DAY 5

* The students will be explained **Proteins** -Elementary idea of - amino acids, peptide bond, polypeptides

*The students will be explained Classification of aminoacids.

*Proteins, structure of proteins - primary, secondary, tertiary structure and quaternary structures (qualitative idea only),

*The exercise would be undertaken , questions from NCERT will be discussed along with the discussion of solved examples given.

- *Explain the difference between DNA and RNA; **Hormones Vitamins** - Classification and functions.
- • The exercise would be undertaken , questions from NCERT will be discussed along with the discussion of solved examples given.

GUIDED PRACTICE

The students will solve selected questions from NCERT book of exercise in their notebook in the class with the help of their teacher.(CRITICAL THINKING)

SUMMARIZE AND CHECK FOR UNDERSTANDING

Some conceptual questions will be asked based on the day's teaching and doubts will be cleared.(COMMUNICATION)

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