

Delhi Public School Ghaziabad
Class XI
Biology
Lesson plan based on DOL
Chapter 8 – Cell: The basic unit of life

Unit	Cell: Structure and functions (Ch. – Cell: The basic unit of life)
Class Transaction	Total: 04 periods
Pre-requisite for the course	This lesson requires: • Basic knowledge of a cell • Basic knowledge of cell theory • Basic knowledge of prokaryotic and eukaryotic cell
Assessment of qualifying knowledge	• Written test • Lab activity • Online quiz
Objective	• To provide students with knowledge of the cell, cell theory, differences between prokaryotic and eukaryotic cell
Learning Outcomes	<u>KNOWLEDGE</u>- <i>Students will know and understand</i> Cell theory, structure and functions of all cell organelles <u>SKILLS</u>- <i>Students would be able to</i> Understand cell envelope and its modifications Understand mechanism of intracellular transport of substances Competencies developed in students: collaborative learning, critical thinking and problem solving, character building, communication, citizenship
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Transaction would proceed in the following manner- 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. Introduction of the topic- ppt and Digital Content would be shared Guided practice followed by Independent Practice- NCERT questions to be discussed in the classroom. Techniques to be used: Student - teacher interaction, collaborative learning, independent research, differentiated teaching, peer learning
Resources	NCERT text book, Reference Book, CBSE Exemplar, DPSG Spiral www.learncbse.in/cbse-notes/ https://mycbseguide.com www.examfear.com
Self Study, Home Work, Assignments	Independent Practice: Students would do the given questions in their spirals. 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	UNIT TESTS , HALF YEARLY EXAMINATION, ANNUAL EXAMINATION
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 high scoring students:</i> Encouragement for referring other resources

	<i>For low scoring students:</i> Peer education, Provide grade-up classes, <i>For differently abled students:</i> Call parents at regular intervals, Provide PCC classes, Encourage and motivate them at every level.
Marks	Weightage of whole unit is 15 marks and is provided by CBSE.

Day 1:
- Students will be shown a ppt and will be made aware of the cell, cell theory. - Students will be told about the differences between prokaryotic and eukaryotic cells. - Students will be told about the cell envelope and its modifications.
Guided practice: DOL 1
- Students will be made to list differences between prokaryotic and eukaryotic cells. - Students will be made to discuss in groups and describe how cell envelope interacts with the outside world.
Critical thinking, collaboration, communication and problem solving: Helps students to think critically and solve the given problem
Summarize and check for understanding: DOL 2
Oral questioning based on the day's teaching.
Independent practice: DOL 3
Students will be asked to revise the work done in class.

Day 2:
- Students will be shown a ppt and will be made aware of the basic concepts of endomembrane system. - Students will be told about the structure and functions of endoplasmic reticulum, golgi bodies, lysosomes and vacuoles. - Students will be made aware of intracellular transport.
Guided practice: DOL 1
- Students will be made to recall functions of lysosomes, endoplasmic reticulum, golgi bodies and vacuoles. - Students will be asked to describe mechanism of intracellular transport. - Students will be asked to make a diagram to show intracellular transport and role of all organelles involved. - Students will be asked to differentiate between rough and smooth endoplasmic reticulum.
Collaboration and communication: Students learn to work in collaboration to achieve a common goal. They learn to manage time and divide and delegate work and responsibilities.
Summarize and check for understanding: DOL 2
a. Oral questioning based on the day's teaching
b. Discussion on the topic in groups – mitochondria, chloroplast and peroxisomes are

not considered to be part of endomembrane system.
Communication, collaboration and brainstorming: Students develop effective communication skills and learn to put across their views
Independent practice: DOL 3
a. Students will be asked to revise the work done in class.
b. Students will be asked to describe structure and function of all parts of endomembrane systems.

Day 3:
a. Students will be shown a ppt and will be made aware of structure and function of mitochondria.
b. Students will be told about structure and function of plastids.
c. Students will be made aware of ribosomes and cytoskeleton.
d. Students will be able to understand structure and function of cilia and flagella.
Guided practice: DOL 1
a. Students will be made to differentiate between cilia and flagella.
b. Students will be asked to list all the functions of plastids and cytoskeleton.
c. Students will be asked to discuss in groups about the interconversion of plastids in plants.
Communication, character and citizenship: Group discussion helps to develop interpersonal skills, respecting and valuing views of others
Summarize and check for understanding: DOL 2
Oral questioning based on the day's teaching
Discussion on the topic in groups – Importance of cytoskeleton.
Communication, collaboration and brainstorming: Students develop effective communication skills and learn to put across their views.
Independent practice: DOL 3
a. Students will be asked to revise the work done in class.
b. Students will be asked to draw diagram of sectional view of chloroplast.
c. Students will be asked to draw diagram of sectional view of cilia.

Day 4:
e. Students will be shown a ppt and will be made aware of structure and function of centrosome.
f. Students will be told about structure and function of nucleus and nucleolus.
g. Students will be made aware of types of chromosomes.
h. Students will be able to understand microbodies.
Guided practice: DOL 1
d. Students will be made to differentiate between structure of centriole and cilia.

e. Students will be asked to list all the different types of chromosomes.
f. Students will be asked to discuss in groups about satellite chromosome.
Communication, character and citizenship: Group discussion helps to develop interpersonal skills, respecting and valuing views of others
Summarize and check for understanding: DOL 2
a. Oral questioning based on the day's teaching
g. Discussion on the topic in groups – Movement of polar molecules across the membrane.
Communication, collaboration and brainstorming: Students develop effective communication skills and learn to put across their views.
Independent practice: DOL 3
d. Students will be asked to revise the work done in class.
e. Students will be asked to draw a diagram to show structure of chromosome.

Closure of the lesson
Summarizing the lesson by mind mapping
Giving them revision worksheets