

Delhi Public School Ghaziabad
Class XI
Biology
Lesson plan based on DOL
Chapter 10 – Cell Cycle and cell division

Unit	Cell: Structure and function (Chapter 10 – Cell cycle and cell division)
Class Transaction	Total: 2 periods
Pre-requisite for the course	This lesson requires Basic knowledge of cell structure. Knowledge of importance of cell division. Knowledge of cell cycle regulation
Assessment of qualifying knowledge	Written test Lab activity Oral questioning
Objective	Students would be able to understand cell cycle and different stages of cell cycle: mechanism of mitosis and meiosis, basic differences between mitosis and meiosis
Learning Outcomes	<u>KNOWLEDGE-</u> <i>Students will know and understand</i> 1. Interphase and its stages 2. Mitosis and its stages 3. Meiosis and its stages 4. Differences between mitosis and meiosis <u>SKILLS-</u> <i>Students would be able to</i> Understand importance of meiosis and mitosis Ability to identify stages of mitosis and meiosis Ability to prepare slide of onion root tip to study mitosis 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	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.

use any other too.)	<i>Introduction of the topic-</i> ppt and Digital Content would be shared <i>Guided practice followed by Independent Practice-</i> NCERT questions to be discussed in the classroom. Techniques to be used: Quiz MCQ Peer Assessment Case Studies Lab Activities Any Other
Resources	Text Book: NCERT text book Reference Book CBSE Exemplar DPSG Spiral
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 INTERNAL ASSESSMENT - Practical – 30 marks
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> High order thinking questions to be done Encouragement for referring other resources <i>For low scoring students:</i> Spiral questions Peer education

	PCC classes <i>For differently abled students:</i> Call parents at regular intervals Provide grade-up classes Encourage and motivate them at every level.
Marks	The weightage of whole unit is 15 marks and is given by CBSE.

Day 1:
a. Students will be made aware of stages of interphase
b. Students will be told about the significance of mitosis
c. Students will be told about the stages of mitosis.
Guided practice: DOL 1
a. Students will be made to list stages of interphase.
b. Students will be made to draw diagram to make cell cycle.
c. Students will be asked to describe and discuss in groups significance of mitosis and explain stages of mitosis.
Communication and brainstorming: Students develop effective communication skills and learn to put across their views.
Creativity and innovation: Students use the knowledge given in class and create projects and models and perform research to give innovative solutions to the problem studied.
Summarize and check for understanding: DOL 2
a. Oral questioning based on the day's teaching.
Independent practice: DOL 3
a. Students will be asked to revise the work done in class.
b. Students will be asked to describe importance of cell cycle and mitosis.

Day 2:
a. Students will be made aware of differences between mitosis and meiosis.
b. Students will be told about the stages of prophase I.
c. Students will be made aware of importance of meiosis and crossing over.
Guided practice: DOL 1
a. Students will be made to recall steps of prophase 1.
b. Students will be asked to describe stages of meiosis.
Summarize and check for understanding: DOL 2

a. Oral questioning based on the day's teaching
b. Discussion on the topic in groups – Importance of meiosis to restore number of chromosomes over generations.
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 process of mitosis.
c. Students will be asked to describe and discuss in groups about production of gametes by meiosis.

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