

Delhi Public School Ghaziabad
Class XII
Biology
Lesson plan - Chapter 7 – Evolution

Unit	Genetics and evolution (Ch. Evolution)
Class Transaction	Total: 03 periods
Pre-requisite for the course	This lesson requires: • Basic knowledge of the origin of life. • Basic knowledge of evolution and evidences of evolution
Assessment of qualifying knowledge	• Written test • Lab activity • Online quiz
Objective	To provide students with knowledge of the origin of life, theories of evolution, evidences of evolution, adaptive radiation, biological evolution, Hardy-Weinberg law, origin and evolution of man
Learning Outcomes	<u>KNOWLEDGE</u>- Students will know and understand the origin of life, theories of evolution, evidences of evolution, adaptive radiation <u>SKILLS</u>- Students would be able to Understand mechanism of biological evolution, Hardy-Weinberg law, origin and evolution of man 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 , MID TERM EXAMINATION, HALF YEARLY EXAMINATION, ANNUAL BOARD 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 18 marks and is provided by CBSE.

Day 1:
a. Students will be shown a ppt and will be made aware of the evolutionary biology and evolution, Big Bang theory, formation of early atmosphere on earth.
b. Students will be told about the theories of origin of life on earth.
c. Students will be told about the Stanley Miller's experiment.
Guided practice: DOL 1
a. Students will be made to draw diagrams to show Stanley Miller's experiment.
b. Students will be made to describe how S.L.Miller created early atmospheric conditions in a laboratory.
Summarize and check for understanding: DOL 2
a. Oral questioning based on the day's teaching.
Discussion on the topic in groups: How life originated in extreme environment.
Communication, collaboration and brainstorming: Students develop effective communication skills and learn to put across their views.
Independent practice: DOL2
a. Students will be asked to revise the work done in class.
b. Students will be asked to draw diagram to show Stanley Miller's experiment.

Day 2:
a. Students will be shown a ppt and will be made aware of the observations of Darwin.
b. Students will be told about the Darwin's theory of natural selection.
c. Students will be made aware of evidences of evolution.
Guided practice: DOL 1
a. Students will be made to recall observations of Darwin.
b. Students will be asked to list advantages of fossils.
c. Students will be asked to make a flow chart to list all evidences of evolution.

d. Students will be asked to list all the differences between Darwin's theory of natural selection and Lamarck's theory of inheritance of acquired characters.
Summarize and check for understanding: DOL 2
a. Oral questioning based on the day's teaching
b. Discussion on the topic in groups – Darwin's theory of natural selection and Lamarck's theory of inheritance of acquired characters.
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 Darwin's theory of natural selection.
c. Students will be asked to describe Lamarck's theory of inheritance of acquired characters.

Day 3:
a. Students will be shown a ppt and will be made aware of Hardy Weinberg Law.
b. Students will be told about saltation, founder's effect.
c. Students will be made aware of types of natural selection.
Guided practice: DOL 1
a. Students will be made to draw a diagram to show types of natural selection.
b. Students will be asked to list all evidences of evolution and factors affecting Hardy Weinberg Equilibrium.
c. Students will be asked to explain evolution of man.
Summarize and check for understanding: DOL 2
a. Oral questioning based on the day's teaching
b. Discussion on the topic in groups – Hardy Weinberg Equilibrium in a population.
Communication, collaboration and brainstorming: Students develop effective communication skills and learn to put across their views.
c. Independent practice: DOL 3
a. Students will be asked to revise the work done in class.
b. Students will be asked to explain evolution of man.
c. Students will be asked to list all factor affecting Hardy Weinberg Law.

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

