

SALWAN PUBLIC SCHOOL, RAJENDRA NAGAR

CLASS – X

LESSON PLAN

CHAPTER-8: How do organisms reproduce?

CHAPTER-1:	Science : (HOW DO ORGANISMS REPRODUCE)
Class Transaction (2-3 days)	Lesson Plan - I Total: 4 periods (approx. 35 min each) Sub Topic: DNA copying, Types of asexual reproduction Sub-Topic: Introduction of the chapter + Do organism creates exact copies of themselves? Sub-Topic: Importance of variation Sub-Topic: Modes of reproduction used by single organisms Fission. Fragmentation, regeneration. Sub-Topic: Budding, vegetative propagation and spore formation
Pre-requisite for the course (KNOWLEDGE)	This lesson requires: • Basic knowledge of the reproduction and variation. • Understand different modes of asexual reproduction in single organisms. • Skill acquisition in students making diagrams of Fission, Fragmentation, regeneration, budding, vegetative propagation and spore formation in different organisms.
Learning Objectives	Students will be able to: • explain the significance of DNA copying mechanism in the process of reproduction. • illustrate the importance of variations in populations. • recall the asexual reproductive methods of reproduction in plants. • explain the asexual reproductive methods of reproduction in animals. • understand the basic differences in different asexual methods of reproduction
Teachers' activity	Introduction: Teacher will introduce the topic by asking various questions from previous knowledge: • Analytical skills (scrutinizing an observation) • To identify asexual type of reproduction in different single organisms by showing permanent slides of binary fission, multiple fission and budding in yeast and hydra to students. • Several specimens of plants such as -potato tuber and onion bulb will be shown in the class to arouse interest regarding asexual

	mode of reproduction. • Open discussion will be held in the class to discuss the different types of asexual reproduction in the class. • After showing the slides and specimens and discussion one crossword puzzle activity will be conducted regarding mode of reproduction and by relating identifying features of specific parts where they are found. • Evidence-based active-learning instructional strategies: real life examples of asexual reproductive methods • Problem solving (investigating and applying established principles to justify an observation)-Why fungus grows on bread when it kept under moist conditions for 3-4 days? Example- Activity:-Students will be asked to put a bread of slice in warm and moist place and after putting it for 3-4 days. They will have to bring the slice of bread so that fungal colonies will be visualized with the help of magnifying lens individually. Concept insight Hyphae of the bread mould (Rhizopus) are not reproductive parts where as tiny blob-on-a-stick structures are involved in reproduction. The blobs are sporangia, which contain cells, or spores, that can eventually develop into new Rhizopus individuals means more fungal colonies Activity:-Cuttings of Money plant will be shown to students in class. They can be told to keep them in small glass bottles at homes to observe the roots which for the purpose of vegetative propagation. Concept insight: Plants parts like roots stem and leaves can develop into new plants under appropriate conditions which is called as vegetative propagation. Critical thinking and collaboration (Competitive evaluation of given information)
Students' Learning Outcomes	Students would be able to: • appreciate the significance of DNA copying mechanism in the process of reproduction. • illustrate the importance of variations in populations. • know the asexual reproductive methods of reproduction in plants. • explain the asexual reproductive methods of reproduction in animals. • understand the basic differences in different asexual methods of reproduction.
Assessment	• Continuously monitor student progress by asking oral questions. • Providing active involvement of students in their own learning by giving daily Practice Problems in the class. • Peer assessment in Lab Activities: by Slide preparation.

	• Written tests
Self-Study, Assignments, Homework	• Self-Study (Independent Practice)-The teacher would ensure that each student should bring NCERT Book and tries to be independent at the work as well as be under the teacher's guidance. • Guided practice followed by Independent Practice (Question Bank): On completion of the chapter, students will be answering the following revision questions: Q.1 What is the importance of DNA copying? Q2 Differentiate between binary fission and multiple fission. Q3 Contrast between fragmentation and regeneration. Q4 Define budding. Name two organisms which reproduces by the process of budding. Q5 What are the advantages of vegetative propagation? Homework: The students, with the help of the teacher, will solve the questions from NCERT back exercise in their notebook.