

SUBJECT: SCIENCE
TOPIC: REPRODUCTION IN ANIMALS

DIARY- LESSON PLAN

Pre- Content/Content /Post –content	Learning Outcome/objectives	
	<u>General</u>	<u>Specific</u>
<u>Pre –Content :</u> Students know the process of reproduction in plants and animals. They will be able to recall what is meant by reproduction and what its importance is. Teacher will motivate the students to introduce the lesson. The life process like nutrition, respiration, excretion and circulation help an organism to remain alive. But all organisms grow old and ultimately die. Reproduction is a process which is essential for the survival of a species on this earth. The production of new individuals from their parents is known as reproduction. In fact reproduction is one of the most important characteristics of living organisms. <u>Content :</u> • Reproduction an important life process. • Sexual and asexual reproduction. • Sexual reproduction. • Reproductive organs. • Asexual reproduction – Budding and binary fission. • Cloning. <u>Post Content:</u> The students at the end of this chapter will be able to comprehend the following concepts: • Reason out why living things need to reproduce. • Comprehend how babies are formed inside the mother's body and the changes a mother's body undergoes during pregnancy. • Associate with problems of teenage pregnancy.	Students will be able to :- • conceptualize reproduction as an important life process • conceptualize the process of sexual reproduction in human beings • explore the process of asexual reproduction • conceptualize the process of metamorphosis in frog. • explore the process of cloning	Students will be able to :- • evaluate the importance of reproduction for continuation of species. • compare the types of reproduction in living beings(animals) • develop the definition of sexual reproduction. • conceptualize the meaning of new terms like fertilization, zygote and embryo. • synthesize the steps from fertilization to the development of embryo in sequence. • evaluate the significance of male and female reproductive organs. • explore the role of female in nurturing a baby. • draw neat and labeled diagrams of male and female reproductive systems. • comprehend the significance of asexual reproduction • compare the budding in hydra and binary fission in Amoeba. • synthesize the stages of metamorphosis in frog • draw well labeled diagram of metamorphosis in frog • develop the concept of cloning with the help of an example of sheep Dolly.

Home Work / Assignments-

- Exercise questions
- Extra questions
- Worksheets

Teacher's Activity	Student's Activity	Teacher's Observation and Remedial Action taken
Teacher will: initiate the discussion about the importance of reproduction and ask students about the reproduction in Plants which they have studied in class VII. show a video on fertilization (How we are born?) show permanent slides on Amoeba (binary fission) and yeast (budding) <u>Annexure 9 (A) :</u> will guide the students to prepare microscopic slides of yeast (asexual reproduction) explain the process of metamorphosis with a help of a video. show diagrammatic representation on cloning.	Students will: comprehend and take part in the class discussion. discuss on the process of fertilization. observe the slides and draw the diagrams <u>Annexure 9 (a) :</u> prepare the slides of yeast and observe the cells under the microscope draw a well-labeled diagram of metamorphosis in frogs. discuss the process of cloning.	

Teaching Aids – Blackboard, Chart, Textbook, ICR and material required for the activity.

Methodology / Innovative Methods: Activity based teaching, Know to Unknown, Discussions.

Interdisciplinary Links – English – It will improve the power of expression while explaining the activity and also vocabulary. Art – Neatness in drawing diagrams.

HOD

Coordinator

Vice-Principal

Principal

Annexure 9 (A), 9 (a)
ACTIVITY NO. 9 – ASEXUAL REPRODUCTION

Subject	Science
Class	VIII
Chapter/Unit	Reproduction in Animals
Topic	Study the mode of reproduction in yeasts.
Time	30 minutes
Nature of Activity	Group

What will I learn (Learning Outcome)?

Will develop the concept of asexual reproduction.

Skills: Analyzing and Creating

What I have to do?

To study the mode of reproduction in yeasts.

What do I require?

A beaker, warm water, sugar, dehydrated yeast powder, micro-slide, dropper, glass cover (cover slip), Compound microscope.

What do I need to know?

The type of reproduction in which only a single parent is involved is called asexual reproduction. Since new individuals develop from the buds in hydra, this type of asexual reproduction is called budding.

➤ **Teacher's Activity**

Teacher will-

1. explain the types of asexual reproduction in living organisms.
2. make arrangements for this activity
3. make pairs of the students and will explain the steps of the activity.
4. ensure that each participant of the pair performs the activity on his/her own.

How will I proceed?

➤ **Student's Activity**

1. Take some warm water in a beaker.
2. Dissolve a spoonful of sugar in it.
3. Now add about 1g of dehydrated yeast powder into the solution and stir it.
4. Keep the beaker in a warm place for about an hour.
5. With the help of a dropper, place a drop of the solution on a clean micro-slide.
6. Place a cover slip on it taking care that air bubbles do not enter beneath the cover slip. Observe the slide under the microscope. Record the observation in the space given below.

What have I observed?

What have I learnt?

Yeasts grow well in a solution containing _____ kept in warm conditions. A bulb-like projection develops on the adult yeast cell called the _____. The bud grows in size, detaches from the adult cell and forms a new yeast cell. Sometimes, buds may remain attached on the yeast cell and another bud may arise from it appearing like a chain of buds. This method of asexual reproduction by formation of buds is called _____. Another organism which reproduces by budding is _____.

What am I curious to learn?

- Let us observe the permanent slide showing budding in Hydra and compare it with the slide of yeast cells.
- Let us observe the permanent slides of reproduction in other organisms, such as Spirogyra, Amoeba, Paramecium, etc. Note down the type of reproduction you observe in them.

Let me evaluate myself

1. What are the two modes of reproduction?

2. Is yeast an autotroph or a heterotroph? Give reason to support your answer.

3. How is reproduction in hydra different from that in amoeba?

4. What would happen if we conduct the above activity in cold water?

5. State whether the following statements are true or false. If false, correct the statement.

- a) Yeast is a fungus that has heterotrophic mode of nutrition.
- b) Yeast can reproduce by budding and binary fission.
- c) The buds remain attached to the parent yeast cell and appear like a chain of cells.
