

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?

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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.
