

Lesson- 9

INTERESTING CONVERSATION TO BEGIN TEACHING OF REPRODUCTION IN ANIMALS

Vigyan was passive and deep in some thought.

TEACHER: What is it that is worrying you?

VIGYAN: Sir, we learnt that amoeba divides by binary fission during asexual reproduction.

TEACHER: Yes, that's right. But what is in your mind?

VIGYAN: That means the baby amoebae have no mother to care for them.

TEACHER: This is correct. Mother amoeba divides into two daughter cells by fission.

VIGYAN: Is it true for all unicellular organism?

TEACHER: No, not in all organisms. I will show you some unicellular organisms that do not divide by fission. Let us carry out an experiment. Yeast is a unicellular organism and reproduces by budding.

Let us try and see for ourselves.

MATERIALS REQUIRED:

Yeast Powder, Warm sugar solution (2 spoons of glucose in 50 mL warm water), microscope (with highpower), glass slide, cover slip, dropper, forceps.

WHAT TO DO:

Take the warm sugar solution in a test tube and shake well. Add a pinch of yeast powder and shake. Keep in a warm place for 24 hrs. (use a thermocol box).

Using a dropper, take one drop of this solution and put it on the glass slide. A drop of methylene blue may be used to stain the yeast for better view. Put a cover glass on the yeast drop and focus under the microscope. Take help of your teacher to focus.

Repeat the above mentioned activity after 24 hrs.

OBSERVATION:

You will see large number of small oval or round yeast cells at initial stage. After 24 hrs. many in budding stage as shown in the diagram. The buds in the slide may be seen attached to the parent cell. While still on the parent cell, these buds grow and in turn produce buds. Thus a chain of cells are formed. Observe the diagram carefully and then make sketch of your own slide

ACTIVITY -2

Reproduction is the most fascinating & unique property of all living organism. Shristhi, Prakriti and Vigyan were trying to recollect the process of reproduction in animals.

Let us revise the stages of reproduction in humans.

a. Observe the picture given below. Do you find something common in all of these? What are such



b. Given below is a summary of sequence of events that occur in humans during reproduction (and also in all those that you have identified in section A). study the flow chart care fully.

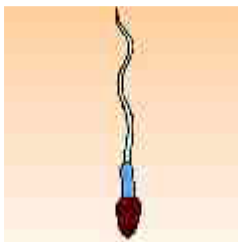
Testis - sperms -- of	Fusion leading -- to fertilization	Formation of -- Zygote	Repeated division Division of Zygote
Ovary - Ovum, 1	2	3	4

WHAT TO DO:

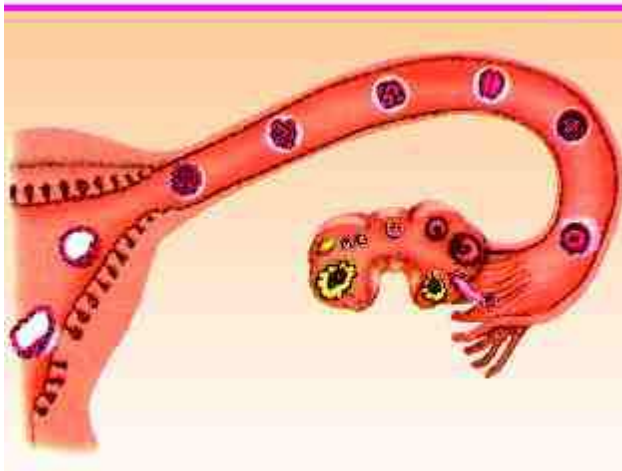
A set of diagrams representing various stages of human reproduction are given below.
Select the diagram representing the stages between 1 to 8 in the flow chart given above



put the correct number in the boxes below each diagram.



c Your next challenge is to identify the correct place within the uterus for some of these stages of development. Given below is the diagram of human uterus where three sites are marked as A, B, and C, select the correct site (out of A,B,C) for stages 4, 7 and 8.



What I have learnt

1. Animals sexually may be egg laying or oviparous or viviparous, Cats, Dogs, Humans give birth to young ones.
2. Fusion of sperm and Ovum results in the formation of zygote.
3. Fertilisation is internal in viviparous animals & the embryo develops within the uterus.
4. When fully developed the young one is born.

