Reproduction in Animals
Reproduction & its Type

REPRODUCTION

Reproduction is the ability of living organisms to produce new organisms similar to them. It is one of the important characteristic of life.

(a) Importance of Reproduction:

(i) It is an important characteristic of living organisms.

(ii) It is an essential life process which helps in survival of species.

(iii) It helps im maintaining continuity of the race and group immortality.

(b) Types of Reproduction: Production of off springs by a single parent without the formation and fusion of gametes is called as asexual reproduction.

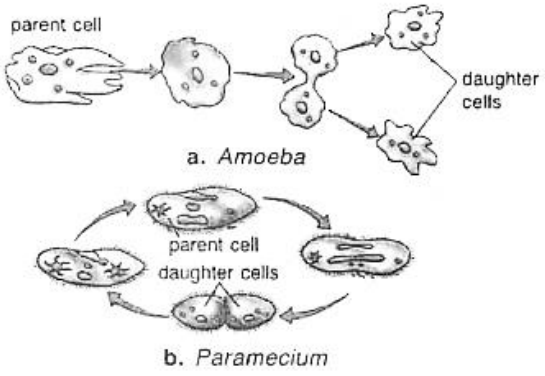
ASEXUAL REPRODUCTION

Types of Asexual Reproduction: Asexual reproduction takes place in the following principle ways:

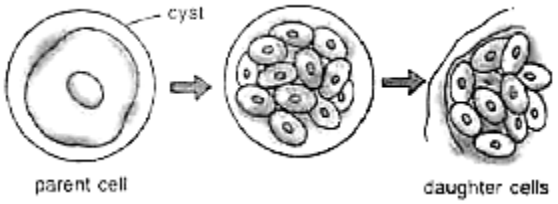
(a)Fission: It is the simplest form of reproduction in which unicellular organism either divides into two or many organsims.

It is also divided into two types

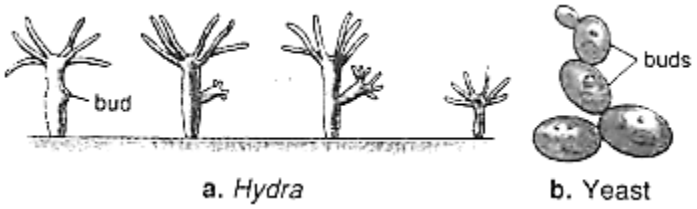
(i) **Binary fission:** It is a type of reproduction in which nuclear division is followed by the appearance of a constriction in the cell membrane, which gradually deeppens inward and divides the cytoplasm into two parts, each with one nucleus. Finally two daughter cells are formed e.g. Amoeba.



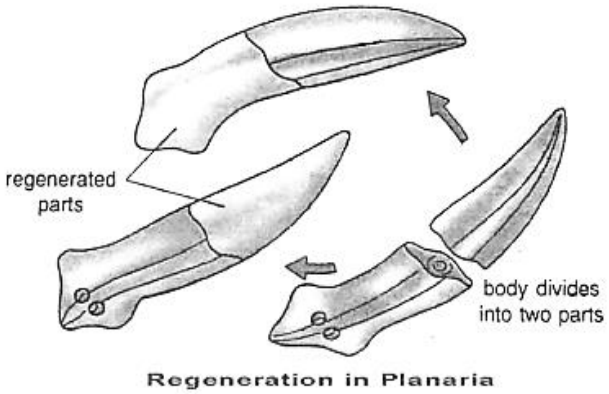
(ii) **Multiple fission:** Sometimes the nucleus divides several times, into many daughter nuclei. The daughter nuclei arrange at the periphery of the parent cell, and a bit of cytoplasm around each daughter nuclei is present. Nucleus develops an outer membrane. Finally the multinucleated body divides into many daughter cells. e.g. Plasmodium.



(b) Budding: Formation of a daughter individual from a small projection which is called as bud, arising on the parent body is called as budding.



(c) Fragmentation: It is a type of reproduction or the regeneration ability of the organism to replace their lost part. In this process an entire new organism can grow from certain pieces or cells of the parent organisms. e.g. Flatworm like Planari.



Regeneration in Planaria

(d) Spore formation: It is a process of reproduction most commonly found in fungi, some cocci and bacillus bacteria. During this process a structure called as sporangium is formed. In this structre nucleus divides several times and each nucleus with a little trace of cytoplasm forms a spore. These spores are then liberated out and develop into a new hyphae, e.g. Rhizopus.

Reproduction in Hydra :

- In this method an outgrowth (bud) is formed on the parent organism.
- The bud gradually grows in size and gets detached from the parent.
- Detached bud develops into an adult organism, similar to the parent Other example :- Yeast