

11/11/11

How do organisms reproduce?



A) How do organisms reproduce?

Organisms reproduce in two ways: asexually and sexually. Sexual reproduction involves the fusion of male & female gametes and can be seen in humans and many animals. Asexual reproduction involves the formation of new individuals from a single parent. It does not require any specialized organs.

Types of reproduction

Asexual reproduction

- 1) Single individual give rise to new individuals
- 2) Gametes are not formed
- 3) New individuals are identical to parent
- 4) It is extremely rapid, as it involves rapid mitosis.

Sexual reproduction

- 1) Two individuals form male & female gametes
- 2) Gametes are fused to form new individuals

- Gamete are formed.
- New individual is genetically similar but not identical to parents.
- It is useful to generate more variation in species.
- Adopted by higher organisms.

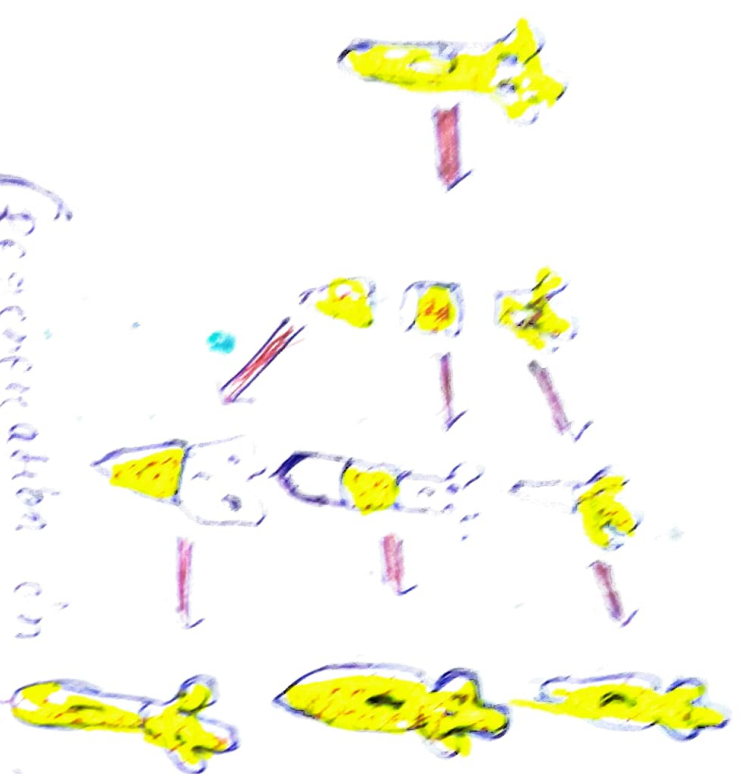
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In many plants, new plants develop from vegetative parts such as:

By roots → ex - dahlia, sweet potato.

By stem → ex - potato, ginger.

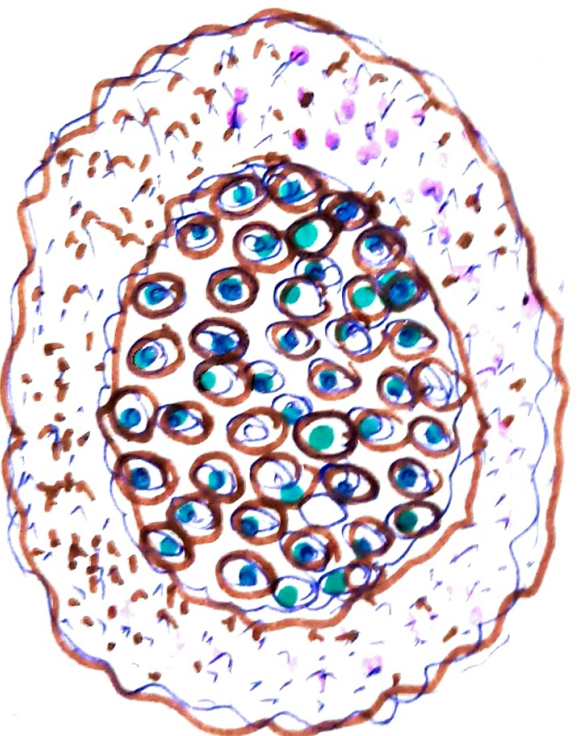
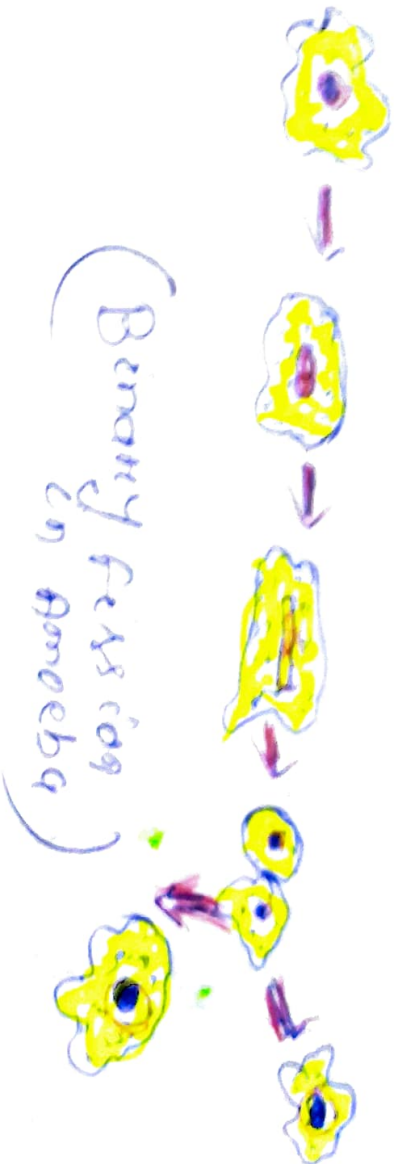
By leaves → ex - Bryophyllum (leaf nodes bear buds which develop plants).



(Regeneration in Planaria)



(Budding in Hydra)



(Multiple fission in Paramecium)



(H-piece)



(Fragmentation in Spirogyra)



(from an experiment with)

