

How do Organisms Reproduce?



TRY YOURSELF

ANSWERS

1. Reproduction is a process by which living organisms are able to produce young ones of their own kind.
2. DNA copying or DNA replication produce similar copies of blue print involved in the process of reproduction.
3. Some examples of fission include bacteria, yeasts, diatoms, mycoplasmas, *Amoeba*, *Paramecium*, etc.
4. Differences between binary fission and multiple fission are as follows:

S. No.	Binary fission	Multiple fission
(i)	The parent organism splits to form two new organisms, e.g., <i>Amoeba</i> , <i>Paramecium</i> .	The parent organism splits to form many new organisms e.g., <i>Plasmodium</i> .
(ii)	The nucleus of the parent body divides only once to produce two nuclei.	The nucleus of the parent body divides repeatedly to produce many nuclei.

5. Fragmentation - *Spirogyra* and starfish
Regeneration - *Hydra* and *Planaria*
Budding - *Hydra* and yeast
6. Regeneration was first reported by Trembley (1740) in *Hydra*.
7. Budding is one of the method of asexual reproduction where a bulb-like projection called the bud, is formed on the parent body.
8. During the growth of the fungus, *Rhizopus*, small rounded, bulb - like structures develop at the top of the erect hyphae. Such structures are called sporangia.
9. A spore is a single or several celled reproductive structure that detaches from the parent and gives rise, directly or indirectly, to a new individual.
10. The layering method is used for the propagation of plants like jasmine, strawberry, raspberry, lemon, guava, *Hibiscus* (China rose) and *Bougainvillea*.

11. Grafting is a method in which the cut stems of two different plants (one with roots and other without roots) are joined together in such a way that the two stems join and grow as a single plant. This new plant will have the characteristics of both the original plants. It has been used in raising superior quality plants of mango, guava, pear, rubber, etc.
12. It is the development of an organism from an unfertilised egg. It occurs in rotifers, arthropods, some vertebrates, some birds, etc.
13. Tissue culture
14. The motile germ cell is called the male gamete and the germ cell containing the stored food is called the female gamete.
15. Due to fusion of germ cells from two different individuals, a single celled diploid structure, called zygote is formed and original number of chromosomes and DNA is restored.
16. Stamens and carpels constitute the essential parts of a flower while sepals and petals form the non-essential parts of a flower.
17. Pollen grain
18. Double fertilisation is mechanism involving two acts of fertilisation. One male gamete fuses with two polar nuclei; known as triple fusion and the other male gamete fuses with egg cell, known as syngamy.
19. Vagina
20. Seminal vesicles, prostate gland and Cowpers's gland.
21. Fallopian tube
22. Population explosion is the rapid growth of human population. Two main causes of human population explosion are: rapid decline in death rate and increase in longevity.
23. NACO-National AIDS Control Organisation.

