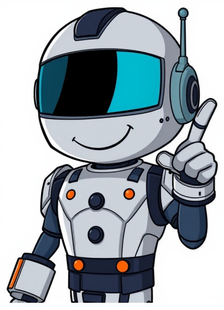
I'm not a bot



Reproduction is crucial for the continuation of life and species diversity, enabling living organisms to produce similar offspring and maintain their genetic makeup. This biological process allows individuals to pass on their characteristics and traits to their progeny, ensuring the survival and adaptation of their kind.In plants, reproduction occurs in two primary ways: asexual and sexual. Asexual reproduction involves methods such as fragmentation, budding, spore formation, and vegetative propagation, which enable plants to produce new individuals without the involvement of seeds. For example, algae reproduce through fragmentation, while yeast reproduces by producing small buds.Sexual reproduction, on the other hand, involves the production of seeds, which contain genetic material from both parents. This process allows for greater genetic diversity and is essential for the evolution of plant species. Vegetative propagation in plants can also occur naturally or be artificially induced through techniques such as cutting and grafting.Cutting involves taking a section of a stem and planting it in soil to produce a new individual, while grafting involves joining a piece of one plant's stem onto another plant's root system to create a new plant. These methods are commonly used by gardeners to propagate plants and can be an effective way to reproduce plants.Vegetative propagation involves grafting two plants of the same species together, where a bud or stem cutting from one plant is inserted into a groove of the second plant called stock. This method allows for the development of fruit-bearing trees and other varieties.Additionally, layering can be used to produce new plants. A lower branch of the plant is bent down and covered with moist soil after removing a ring of bark from the stem. New roots develop over time, and the plant is separated from the mother plant.Vegetative propagation offers several advantages, including the ability to produce large quantities of new plants in a short amount of time. The newly reproduced plants retain the exact characteristics of their parent plant, making it an ideal method for creating disease-resistant and drought-tolerant varieties.Furthermore, vegetative propagation allows for faster growth rates compared to seed-grown plants, requiring less attention during the early stages of growth.Tissue culture involves cutting growing tips from plants and planting them in an artificial medium. This medium provides all necessary nutrients and plant hormones for growth. Once roots develop, they are planted in suitable soil, allowing the new plant to grow into a whole new individual.In contrast, sexual reproduction involves the fusion of male and female gametes, resulting in the formation of a zygote. This cell then divides and redivides, eventually giving rise to a new individual.Flowers play a crucial role in this process, consisting of four parts: sepals, petals, stamens, and carpel. The stamen produces pollen grains, while the pistil contains ovules with egg cells.There are two types of flowers: unisexual and bisexual. Unisexual flowers have only one reproductive part, whereas bisexual flowers possess both stamens and pistils. Pollination occurs when pollen grains are transferred from anther to stigma, allowing for fertilization to take place.Fertilization involves the fusion of male and female gametes, resulting in the formation of a zygote. This process is essential for seed production and fruit development.Seeds contain the embryo, which develops into roots, shoots, and cotyledons. Cotyledons store food for the seedling, providing nutrients during its early stages of growth.Finally, fertilization by seed dispersal involves the scattering of seeds once they dry out. This process allows seeds to spread and colonize new areas, ensuring the survival and propagation of plant species.The different methods of seed dispersal play a vital role in the survival of plants. Various organisms help the seeds to reach a suitable medium for germination, far away from the parent plant. The seeds can be dispersed through wind, water, animals, and the explosion of fruits.Some plants have winged seeds that are carried by the wind, while others have tufts of hair that help them ride on the wind. For instance, the seeds of drumsticks and maple trees have wings, which enable them to float through the air. On the other hand, the seeds of milkweed, silk cotton, and Devil's tree have tufts of hair that allow them to cling to the wind.Seeds that are dispersed by water have a spongy coat or a layer of fiber that make them light. This property enables them to float on water, and the flowing water carries them away to distant places. The coconut is a classic example of this type of seed dispersal.Birds, monkeys, and other animals also play a significant role in seed dispersal. They eat the fruit of many plants and then throw away the seeds. Some plants have fruit or seeds with hooks, bristles, or spines that get attached to the fur of animals or to our clothes, which helps to carry them a long distance before they fall off or are brushed off.The fruits of some plants, such as the rubber tree, balsam, lady finger, and night jasmine, explode when they ripen. This sudden bursting of the fruit scatters the seeds away from the parent plant, ensuring their survival.Fragments of plants can develop into new plants through various methods of reproduction. Fungus, moss, and fern reproduce by forming spores, a type of asexual reproduction. A flower consists of four main parts: sepals, petals, stamen, and pistil. Spirogyra reproduces through fragmentation, yeast reproduces through budding, while money plants reproduce vegetatively through stem cutting. Sugarcane is an odd one out as it reproduces sexually, unlike potato and rice which reproduce vegetatively, and rose also reproduces vegetatively. Unisexual flowers contain either male or female reproductive parts, whereas bisexual flowers have both on the same flower.Flowers are colorful due to light absorption and reflection, while fragrance comes from volatile chemicals that evaporate. A rose plant can be grown from a branch through stem cutting, as it reproduces by vegetative propagation. Reproduction involves producing new similar organisms from parents, and this process occurs in plants like sweet potato and dahlia.Pollen grains participate in the reproduction process and are present in anthers. Fertilization takes place in the ovary, where male and female gametes fuse together. Bryophyllum leaves reproduce asexually through vegetative propagation. The given figure shows self-pollination, as pollen grains from the anther of one flower are transferred to the stigma of the same flower.Buds form on yeasts during reproduction. Spores are produced by fungi, ferns, and mosses under unfavorable conditions. Stamen and pistil are the male and female reproductive parts present in flowers. Pollen grains do not die due to their tough protective coat. Pollination occurs in plants like vallisneria and hydrilla through water. Fruit is the ripened ovary of a flower, containing seeds inside. Bananas are fruits without seeds, as they develop from one parent only without seed production.Student receives flower with whorls, struggles to name parts - NCERT Exemplar Class 8 Science A student was given a flower by his teacher. He was asked to pick the different whorls of the flower using forceps. He carefully pulled each part and laid them on chart paper in a sequence, naming them W, X, Y, Z (from outer to inner whorl). However, he found it difficult to name them.Dispersion in Plants occurs when fruits explode or burst, leading to seeds dispersing across various distances. This process prevents overcrowding, ensuring each seed has sufficient resources for growth. Without dispersion, plants would compete fiercely for sunlight, water, and space, hindering their survival.Flower Structure:A flower consists of several parts:1. **Sepals**: The outermost, green, leaf-like structures that protect the flower when it's in bud form.2. **Petals**: Colorful, scented structures that attract insects for pollination and lie inside sepals.3. **Stamen**: Male reproductive organs consisting of filaments and anthers, containing pollen grains that eventually ripen and release male gametes.4. **Pistil**: The female reproductive part, comprising stigma (pollen reception), style (connecting stigma to ovary), and ovary (storing seeds).Fertilisation in plants is the process by which sexual reproduction takes place, resulting in the formation of a zygote. This process begins when pollens are deposited on the stigma of a flower, where they germinate and grow into pollen tubes containing male gametes. The pollen tube reaches the ovary of the flower, and the male gametes fuse with the female gamete or egg present in the ovule, resulting in a fertilised egg cell called a zygote.###ARTICLE1. Looking forward to seein everyone at the meeting tomorow and discussin our strategies in detail. 2. By which method of reproduction did the algae spread so rapidly, it is observed that a pond with clear water was covered up with a green algae within a week.3. Which of the following parts of a sexual reproduction choose the correct answer from below: flower (i), seed (ii) and fruit (iii) are all essential for it.4. The ovaries of different flowers may contain many ovules.5. True for sexual reproduction in plants is that plants are obtained from seeds, fertilisation can occur only after pollination, two plants are always essential, and only insects are agents of pollination.6. The fusion of male and female gametes is called fertilisation.7. Which among the following have hairs on seed: cotton, aak, maple or drumstick.8. Two individuals are needed for sexual reproduction.9. Grafting is a mode of vegetative reproduction where scion and stock are used.10. The male reproductive part of a flower is called stamen while female reproductive part is pistil.

Why is reproduction important for plants class 7. Why is reproduction important. Why is reproduction important class 7 short answer cbse. Why is reproduction important class 7 short answer. Why is reproduction important in living organisms class 7. Why is pollination important for sexual reproduction in plants class 7. Why is reproduction necessary for organisms class 7. Why is reproduction important class 7 science. Why is reproduction necessary for living organisms class 7th. What is reproduction class 7. Why is reproduction important class 7 answer. Why is reproduction important for organisms class 7. Why is reproduction important class 7th.