

Asexual Reproduction

- one parent (One cell)
- one cell divides into two identical cells.

Sexual Reproduction

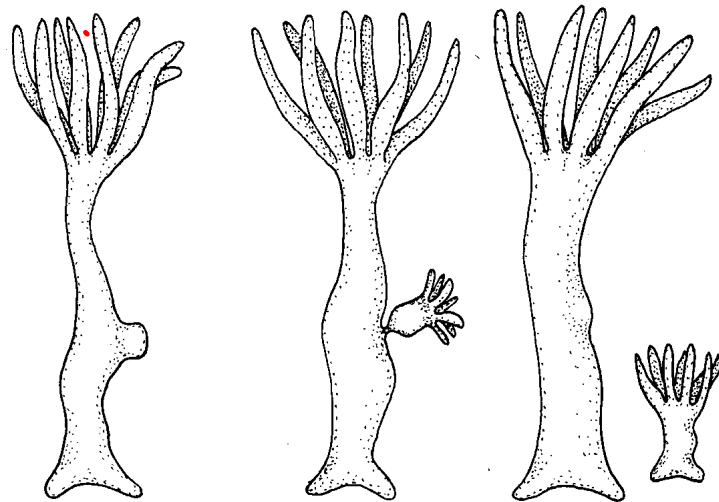
- two parents (Two different cells)
- two cells fuse to form a unique cell.

Asexual reproduction



Asexual Reproduction

- usually the method of choice for simple organisms (not always)
- the simplest form, the mother cell duplicates and becomes 2 daughter cells
- the offspring are identical to the parent

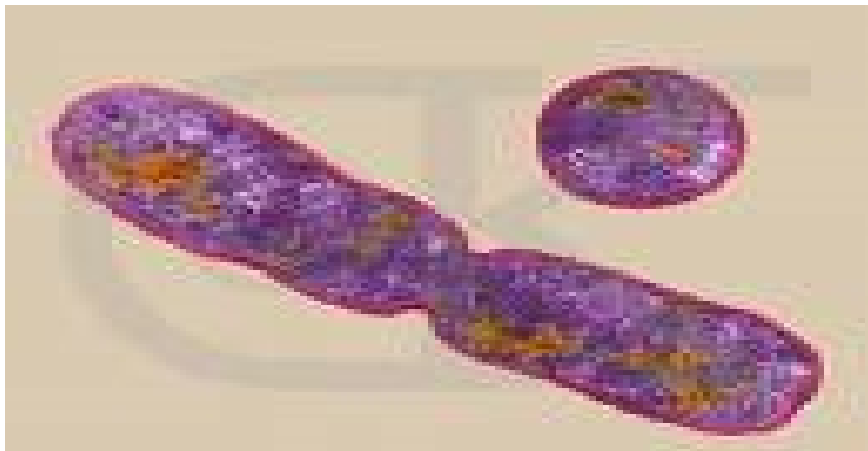


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Forms of Asexual Reproduction

1) **Binary fission** - the organism splits into two equal-size offspring.

ex . intestinal bacteria.



Forms of Asexual Reproduction

2) **Budding** - the offspring begin as an outgrowth of the parent. Eventually buds break off from the parent. ex: hydra, yeast, tapeworm



There are different types of tapeworms and their infections in the human body.

Some tapeworms are only a few inches long while others measure from 10 to 30 feet or more in length. Here are a few popular tapeworms:

The pork tapeworm – this tapeworm measures between 6 to 10 feet in length. When the pork meat is not cooked properly and it's consumed; the consumer becomes infected.

- The beef tapeworm – when the beef tapeworm is fully grown, it measures between 15 to 20 feet in length. Cattles contact the tapeworm worms by grazing on a grass contaminated by human waste and thus picking the eggs into their system. When humans in turn eat incompletely cooked beef, they also contract the tapeworm disease and the chain actions continues.

- The fish tapeworm – the longest fish tapeworm could measure up to 30 feet in length. It takes 5 to 6 weeks for the tapeworms to be fully matured. When human wastes of tapeworm infected people are discharged into fresh water, the tapeworm eggs hatches and are eaten by the water fleas. The fresh water fish now eats the infected water fleas, and the fish tapeworm parasite finally lodges in the muscles of the fish. When humans eat incompletely cooked fish, the parasites are released in the human intestine and the process continues. There are other kinds of tapeworms that are not much popular probably because humans do not consume the hosts' meat. There are the rat tapeworm, the dwarf tapeworm, and the dog tapeworm etc.

Forms of Asexual Reproduction

- 3) **Fragmentation**- a part of the organism breaks off from the parent and forms a new organism.



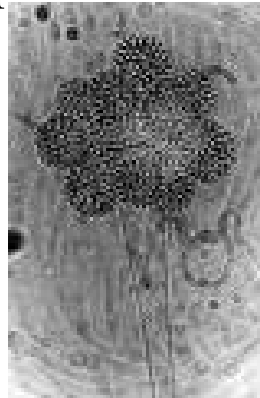
ex. starfish, algae

<http://en.wikipedia.org/wiki/Starfish#Reproduction>



Forms of Asexual Reproduction

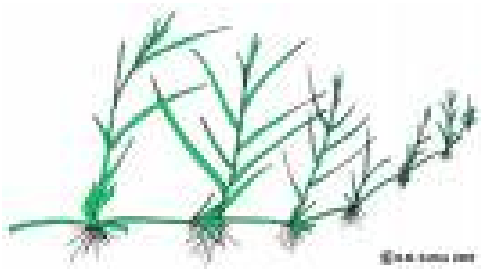
4) **Spore formation** - the organism undergoes cell division to produce a duplicate cell. The spore is usually housed within the parent cell



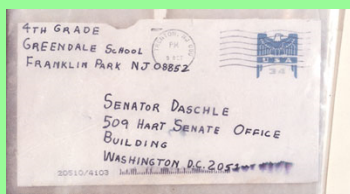
ex. penicillium mould

Forms of Asexual Reproduction

5) **Vegetative Reproduction:** a section of plant is used to grow a new plant. The section does not need to be removed from the original plant.



ex. quaking aspen, spider plant ●



The 2001 anthrax attacks in the United States, also known as Amerithrax from its Federal Bureau of Investigation (FBI) case name, occurred over the course of several weeks beginning on Tuesday, September 18, 2001, one week after the September 11 attacks.

Letters containing anthrax spores were mailed to several news media offices and two Democratic U.S. Senators, killing five people and infecting 17 others. According to the FBI, the ensuing investigation became "one of the largest and most complex in the history of law enforcement."^[1]

In sexual reproduction, genetic information from two cells is combined to produce a new organism. Usually, sexual reproduction occurs when two specialized sex cells unite to form a fertilized egg called a zygote.

Sexual Reproduction

- common in multicellular organisms
- genetic info comes from 2 sources
- offspring not exactly like parents



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D) Conjugation Forms of Sexual Reproduction

~~- form of sexual reproduction~~

- can occur in bacteria
- two bacteria cells come in contact with one another and share plasmids

↳ genetic material



Hermaphrodites

- an organism that creates both male and female sex cells
- it is not common for them to self-fertilize
- Figure 4, p 203 in textbook

<http://www.youtube.com/watch?v=MpblUehi9Dk&feature=fvsr>



<http://www.cbc.ca/sports/amateur/story/2009/09/10/sp-iaaf-athletics-semenya.html>



<http://www.youtube.com/watch?v=OTbnhMNviuA>

