Aim: How do cells make new cells?

Do Now: What happens when you cut a worm in half? Why do you think you can grow new skin over a cut on you hand but you can't grow new fingers?

Homework: Read Text Book pages 284-287. Answer questions 4, 5, 6 and 7on page 287

What is reproduction?

Reproduction is the process by which organisms produce more of their own kind.

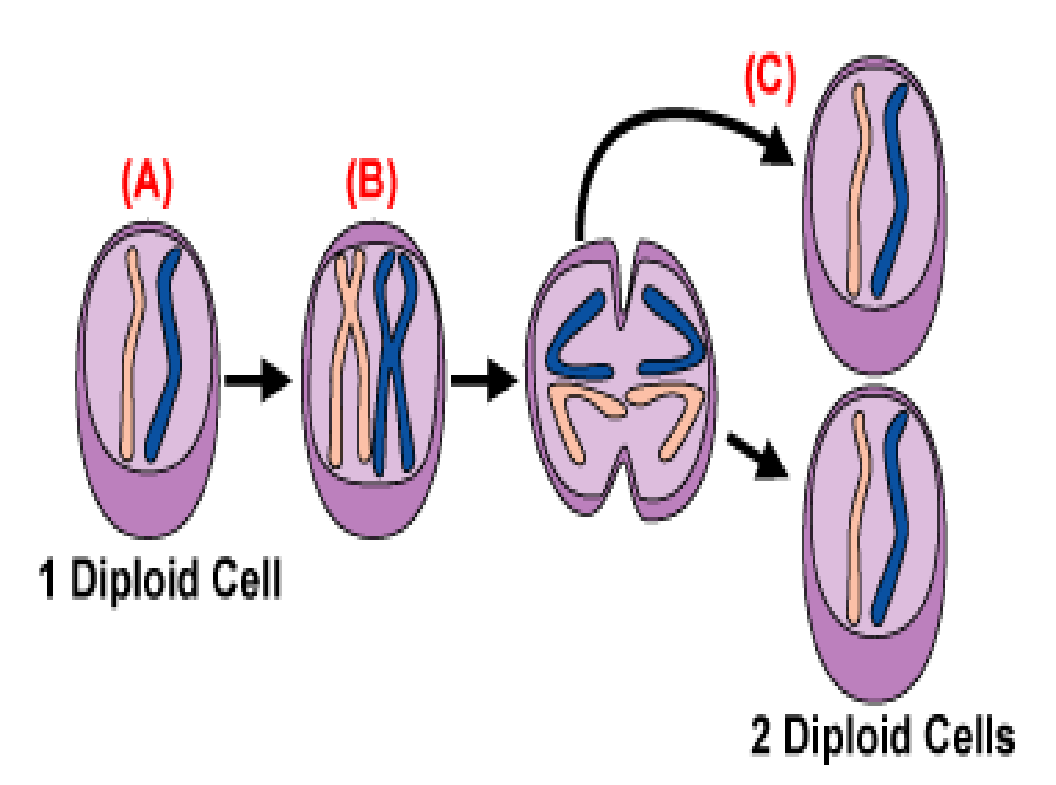
- Think about it – Without reproduction, all life on earth would no longer exist.

What is Asexual Reproduction?

- Only one parent is involved.
- Offspring are genetically identical to their parents.
- All cells that come from a single cell are genetically identical to it and to each other; they are all clones.

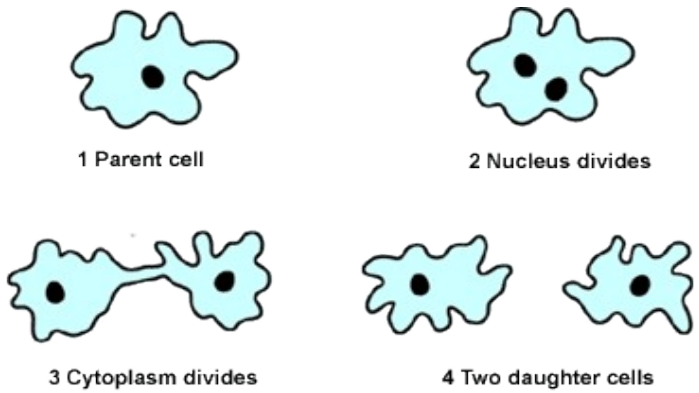
Types of Asexual Reproduction

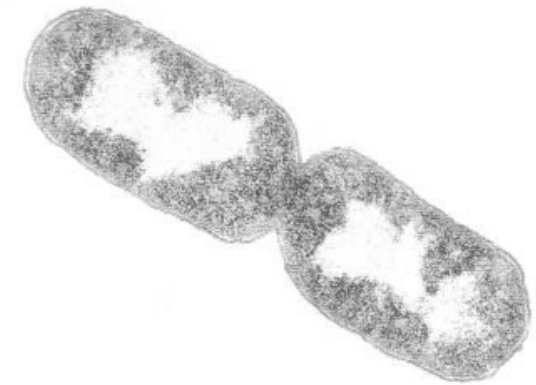
1. **<u>Mitosis</u>** - is the exact duplication of the nucleus of a cell so as to form two identical nuclei during cell division.



Types of Asexual Reproduction

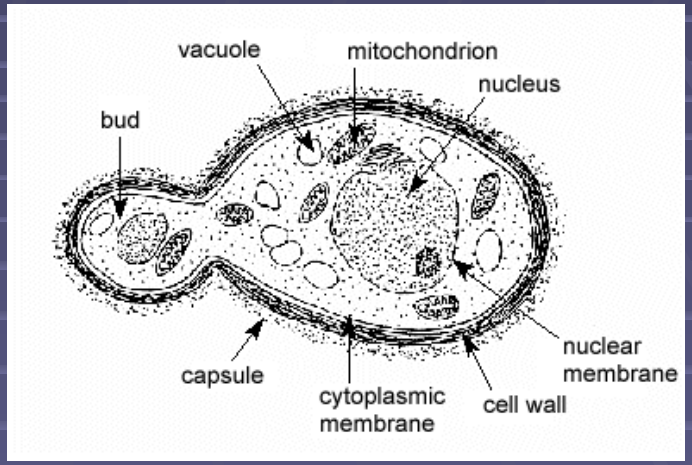
2. **<u>Binary Fission</u>** - occurs in one-celled organisms such as the ameba and paramecium. The nucleus divides by mitosis and the cytoplasm divides, forming 2 new daughter cells of equal size.





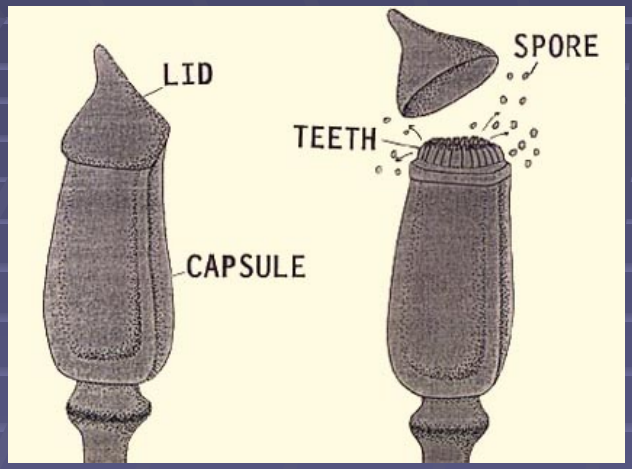
Types of Asexual Reproduction

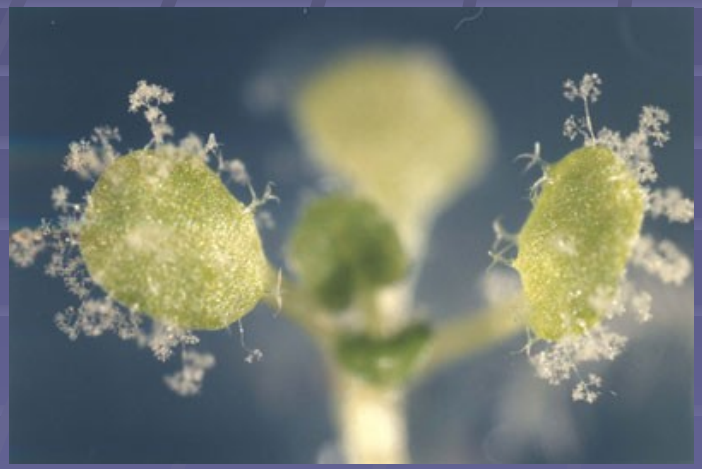




3. **<u>Budding</u>** - Occurs in Hydra and yeast. The division of cytoplasm is unequal so one of the daughter cells is larger than the other. The daughter cells can separate or remain attached.

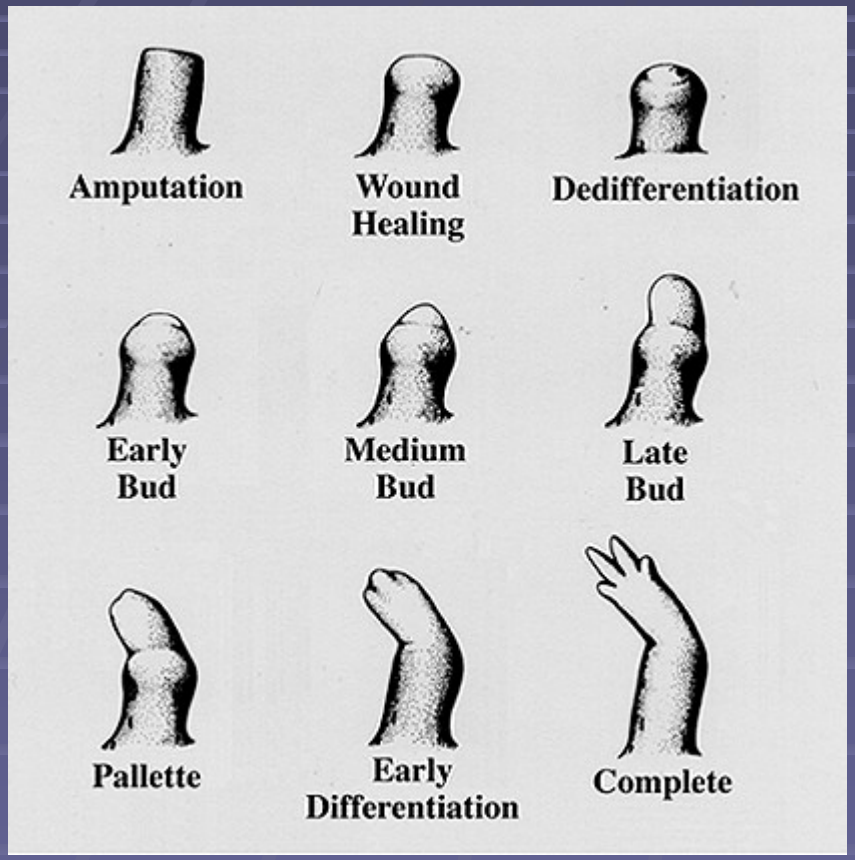
Types of Asexual Reproduction





4. **<u>Sporulation</u>** - occurs in molds, mosses, etc
   - Spores are produced in large numbers by mitosis.
   - Spores are surrounded by a tough coat to help them survive harsh environmental conditions.

Types of Asexual Reproduction



5. **<u>Regeneration</u>** - Refers to the replacement or regrowth of lost or damaged body parts

Types of Asexual Reproduction

6. **Vegetative Propagation** – Occurs only in plants (vegetative). New plants develop from the roots, stems, or leaves of the parent plant.



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