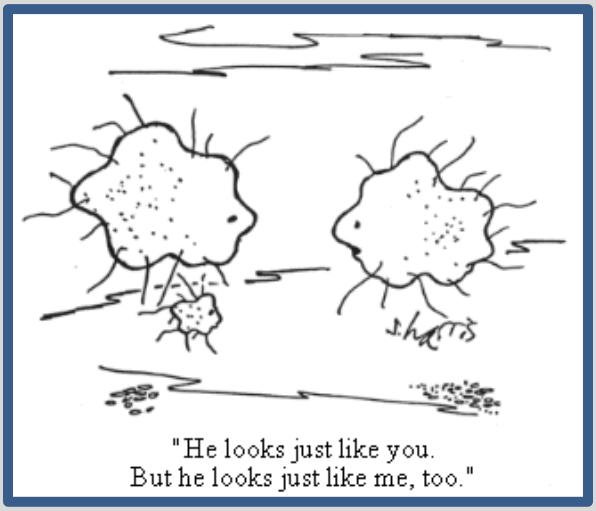
REVIEW: Asexual Reproduction

Asexual Reproduction

- ✓ *Genes* come *from 1 PARENT.*
- ✓ Offspring are *IDENTICAL* (*clone*)
- ✓ There is *NO VARIATION*!

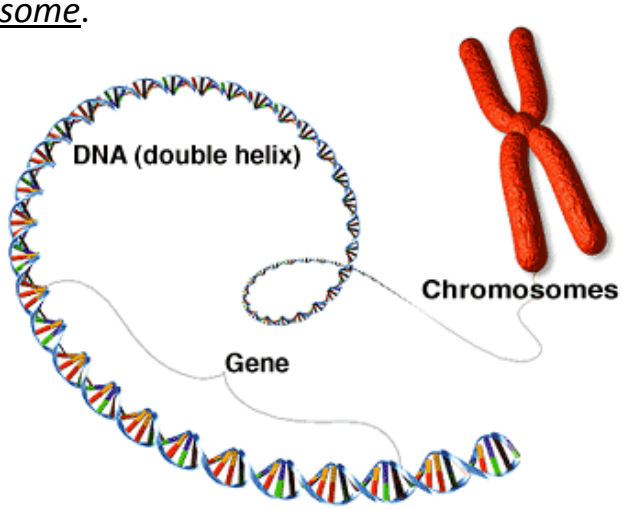


Genes

- ✓ Specific *SEQUENCE of DNA on a chromosome*.

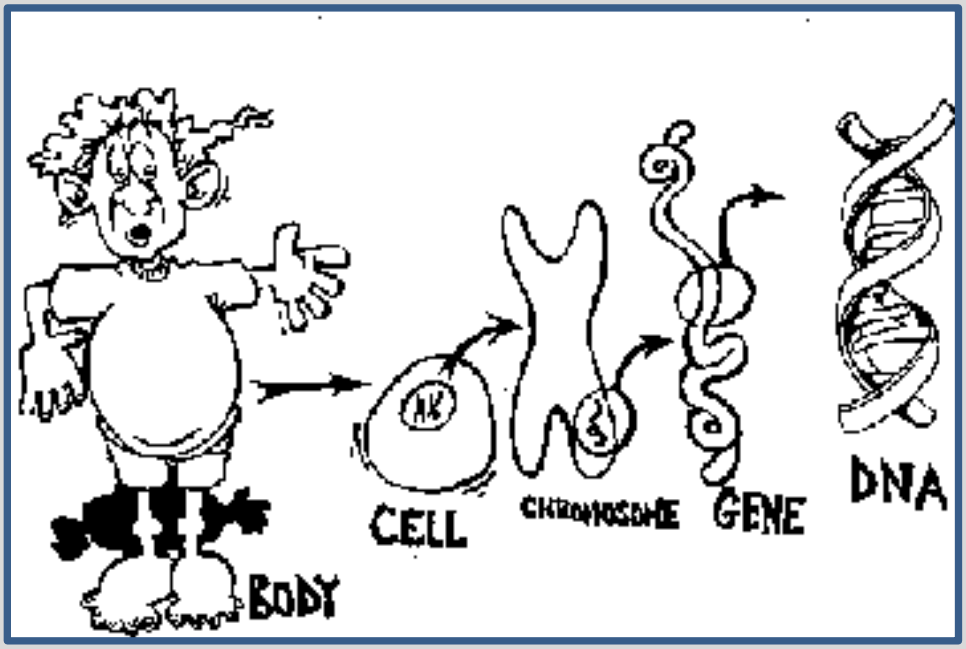
Chromosomes

- ✓ Package of *genetic material*
- ✓ Contains *MANY GENES*
- ✓ *Coiled up DNA*



We have *46 chromosomes in our body cells*.

Genetic information is ***in the NUCLEUS***



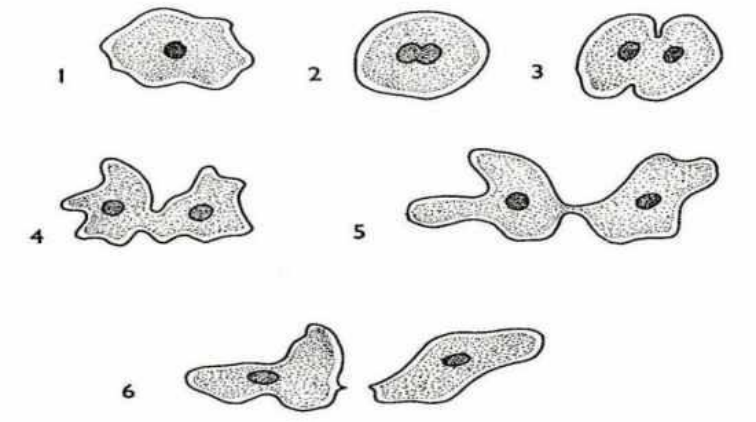
- ✓ ***DNA is in a GENE***
- ✓ ***GENES are on CHROMOSOMES***
- ✓ ***CHROMOSOMES are in the NUCLEUS***

Types of Asexual Reproduction

1. Binary Fission

- ✓ *DNA is replicated* (copied)
- ✓ Cytokinesis (*cytoplasm splits equally*)

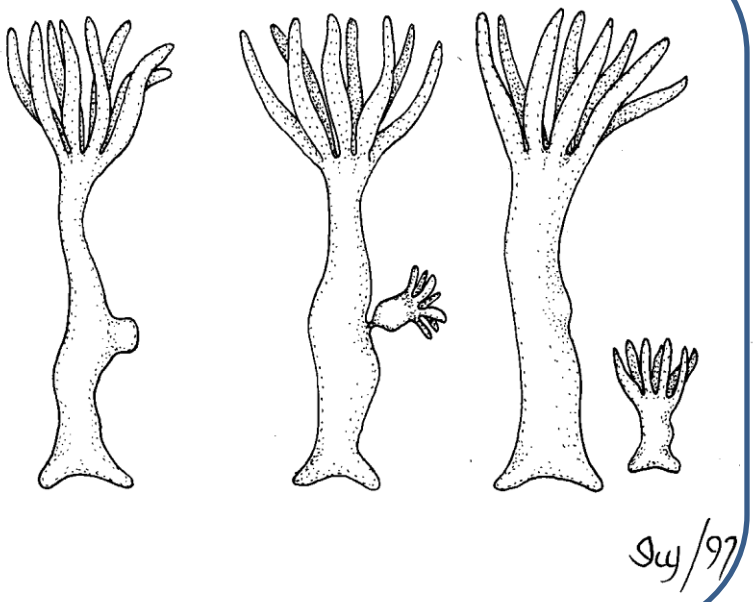
Ex: bacteria



2. Budding

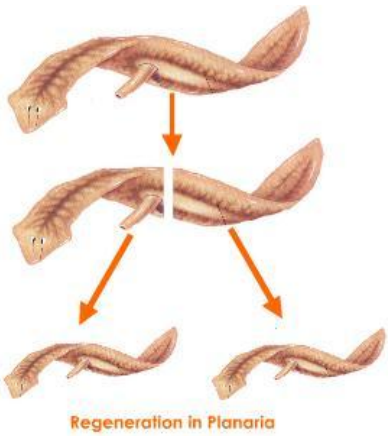
- ✓ Mitosis
- ✓ Unequal cytoplasm split

Ex: yeast (unicellular)
Hydra (multicellular)



3. Regeneration

- ✓ New organism develops from severed parts

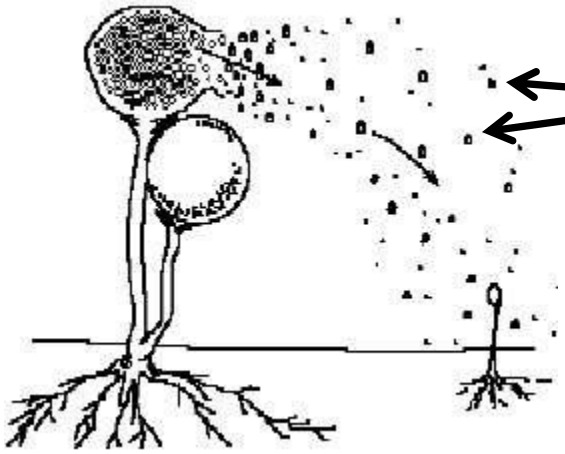


Undifferentiated Tissue = tissue that *can grow into any part* of the organism

Ex: *starfish*

4. Sporulation

✓ *production of SPORES*



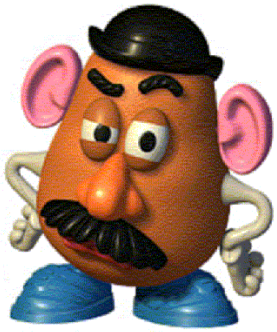
★ **Spores** are *Reproductive Cells* that *result in a CLONE* of the PARENT

Ex. *Fungi*

5. Vegetative Propagation

✓ *New plants grow from PART of the PARENT* PLANT

Ex: *potato*



Two examples of <u>Vegetative Propagation:</u>

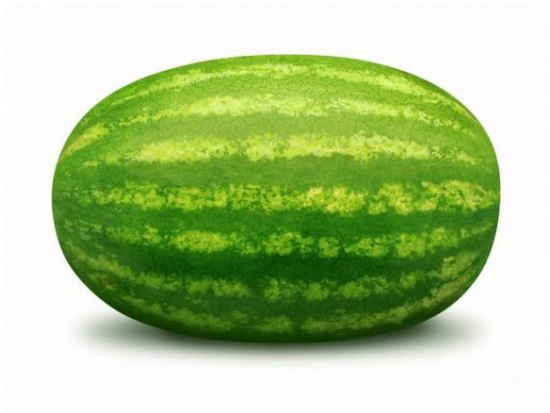
Cutting

Cutting a piece of a plant
and
planting it.
(Mr. Roberto's fig tree)

Grafting

A piece of a plant is attached
to
another plant

*"**<u>Farmers</u>** use <u>Vegetative Propagation</u>*
to
<u>GROW IDENTICAL PLANTS</u>
that
<u>people really want</u>!"



6. Cloning

✓ Making *genetically IDENTICAL offspring*.

✓ From *cell of SINGLE PARENT*