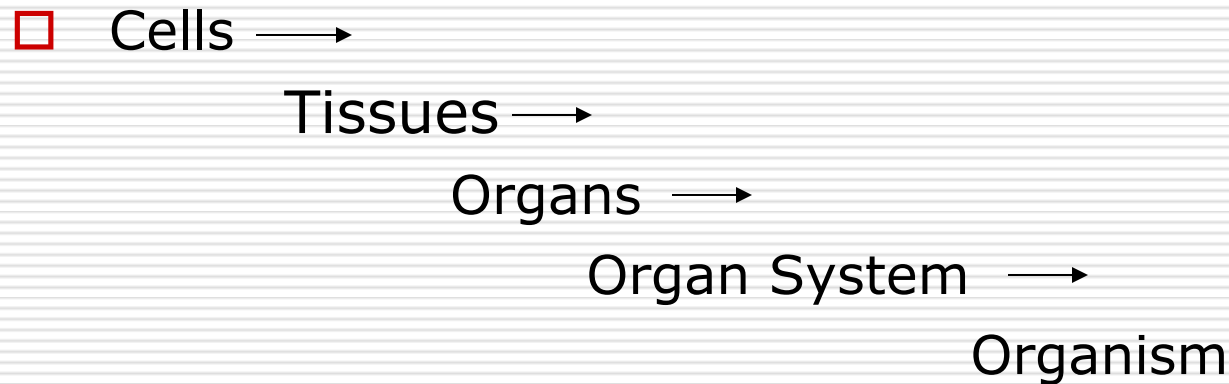


#11: Cell Theory

- All living things are made of cells.
- Cells are made by other cells
- Cells carry out all life functions

#12: Cell Organization



- Cells make up Tissue, Tissues make up Organs make up Organ Systems which make up the Organism.
-

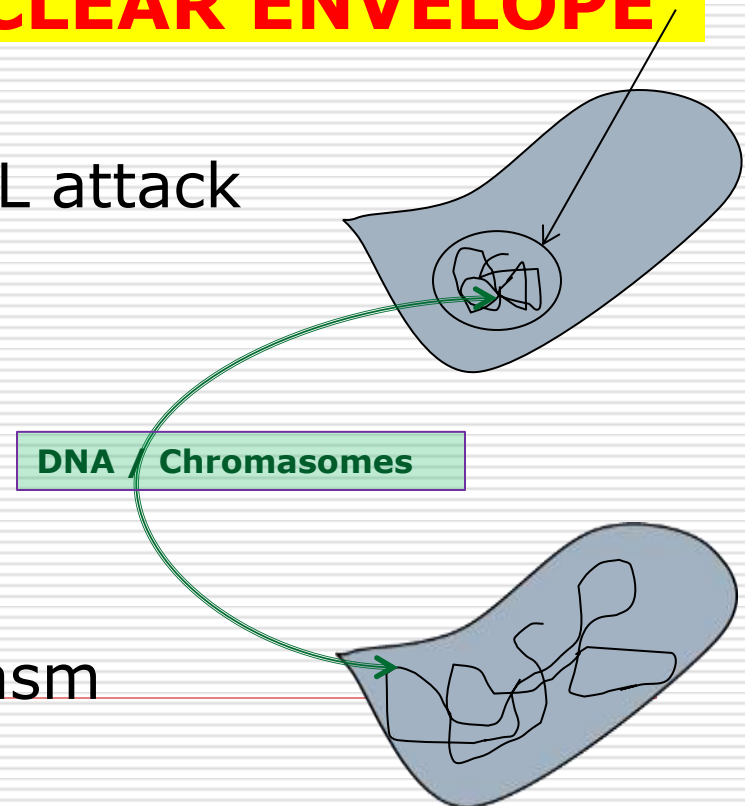
#13: Prokaryotic v. Eukaryotic

□ EUKARYOTIC:

- All modern Plants and Animals
- Have a **PROTECTIVE NUCLEAR ENVELOPE**
 - "Nuclear Membrane"
 - Helps keep DNA from VIRAL attack

□ PROKARYOTIC:

- Primitive first kind of cells
- **BACTERIAL CELLS**
 - **NO** Nuclear Membrane
 - DNA free floating in cytoplasm



14: Cytoplasm

- ❑ The “gel-like” substance in a cell that all the organelles (parts of the cell) are sort of floating in.
 - ❑ All cell funtions / life processes take place within the cytoplasm
 - ❑ Mostly water
-

15: Cell Membrane

- ❑ Surrounds and Protects the cell
 - ❑ Allows “stuff” (nutrients, water, waste) into and out of the cell
 - ❑ Has pores like “doors”
-

16: Cell Nucleus

- "Brain" of Cell

- Controls all cell functions

- Has the D.N.A. / Chromosomes

- Nucleolus

- Inside Nucleus / Makes RIBOSOMES
-

#17: Endoplasmic Reticulum (ER)

- ❑ “Highway” of the cell
 - ❑ Looks like a network of tubes
 - ❑ Allows stuff (nutrients/waste), to move around the cell from one area to another
 - ❑ “Rough ER”: has Ribosomes
 - RIBOSOMES MAKE PROTEIN
-

#18: Plant Cell vs. Animal Cell

- Only plant cells have –
 - Cell Wall (cellulose / fiber)
 - Chloroplasts (green chlorophyll for photosynthesis)
 - Only one very large vacuole
 - Plant Cells DO **NOT** have Lysosomes
 - LYSOSOMES BREAK DOWN OLD CELL ORGANELLE
 - “recycler” of the cell
-