intro

Cells----> all living organisms
Tissues----> group of cells
Organs----> group of tissues
Organ systems----> group of organs
Organism----> group of cells

Imp discoveries

1665	Robert Hooke	cells (cork)
1674	Leeuwe-nhoek	living cells (pond)
1831	Robert Brown	nucleus
1839	Purkinje	coined the term "-protoplasm"
1838-39	Schleiden & Schwann	cell theory
1855	Virchow	cell theory
1940	-	discovery of electron microscope

CELL THEORY

~Cells are the basic structural unit of life
~Cells are the basic functional unit of life
~All cells arise from pre-existing cells

Definitions

Cell:	the structural and functional unit of life. every living organism is made up of cells
Unicel-lular organism:	organisms made of single cells that carry out all functions. Ex-amoeba, bacteria, Chlamydom-onas, etc. Usually prokaryotic
Multic-ellular organism:	organisms made of multiple cells. Ex- plants and animals. Usually eukaryotic
Cell organe-lles:	membrane bound organelles present in cells to support functions performed by it

Definitions (cont)

Diffusion:	movement of solid, liquid or gas particles from a region of higher to lower conc.
Osmosis:	movement of water particles from a region of higher to lower conc. thru a semi-permeable membrane
Cell division:	the process by which new cells are made
Mitosis:	process by which most of the cells divide for growth. Each mother/parent cell divides to form 2 identical daughter cells thats have the same no. of chromosomes as the mother cell (helps in growth and repair of tissues)
Meiosis:	a process where a single mother/parent cell divides twice, to produce four daughter cells that each contain half the original amount of chromo-somes. These cells are our sex cells – sperm in males, eggs in females (helps in reproduction)

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