Cells Cheat Sheet

by malak_mohamed via cheatography.com/147241/cs/32005/

LIVING ORGANIZMS

All living organisms carry out seven life processes:-

Movement, Respiration, Sensitivity, Growth, Reproduction, Excretion, Nutrition (They all form the word **MRS.GREN**)

Any living organism is made of **cells**

All cells are made of **tissues**

All tissues are made of **organs**

All organs are made of **organ systems**

DEFENITIONS

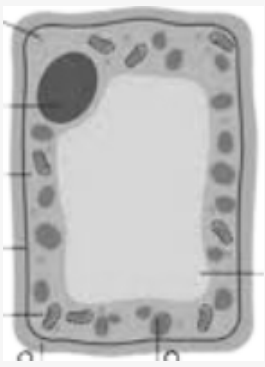
Life processes	A process that something does to stay alive. The life process that happens in all living things are (movement, reproduction, sensitivity, growth, respiration, excretion, and nutrition)
Movement	Going from one place to another, all organisms move or part of the
Respiration	A process in which substances release energy for an organism to use. All organisms respire. There are, however, different forms of respiration
Sensitivity	the ability to detect things in the surrounding. All organisms can sense certain changes in their surroundings
Growth	Increases in size. All organisms grow
Reproduction	A process in which organisms make more organisms like them. All organisms reproduce
Excretion	Getting rid of waste. All organisms excrete
Nutrition	is the substances that help organisms respire and grow. All organisms need nutrition

FUNCTIONS OF CELLS

Animal cells	It has a nucleus, cytoplasm, cell membrane, mitochondria, and ribosomes
plant cell	contains a cell wall, chloroplast, and large vacuole + cell membrane, nucleus, cytoplasm
Nucleus	Control the cell and gens
Cytoplasm	Where the chemical reactions happen
cell membrane	controls what goes in and out of the cell and gives the cell its shape
Mitochondria	Helps in respiration
Ribosomes	Makes energy
Vacuole	Contains cell sap
cell wall	made of cellulose that supports the cell
Chloroplast	Absorbs sunlight for the photosynthesis process

DIFFUSION

PLANT CELLS



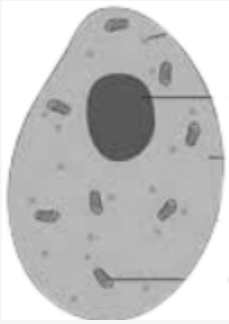
It consists of a**nucleus, cell membrane, cytoplasm, cell wall, vacuole, chloroplasts**

Gas exchange at the alveoli — oxygen from the air to the blood, carbon dioxide from the blood to the air.
Gas exchange for photosynthesis — carbon dioxide from the air to leaf, oxygen from leaf to air.
Gas exchange for respiration — oxygen from the blood to tissue cells, carbon dioxide in the opposite direction.
A high Diffusion Rate leads to a short distance, large surface area, and big concentration difference.
High temperatures **increase** diffusion; large molecules **slow** diffusion.

SURFACE AREA: VOLUME RATIO (SA: V)

Surface area of a cuboid= length x height / length x width / height x width
Volume of a cuboid = length x width x height
SA : V RATIO = surface area / volume

ANIMAL CELLS



It consists of a **nucleus, cell membrane, cytoplasm,mitochondria, ribosomes**