

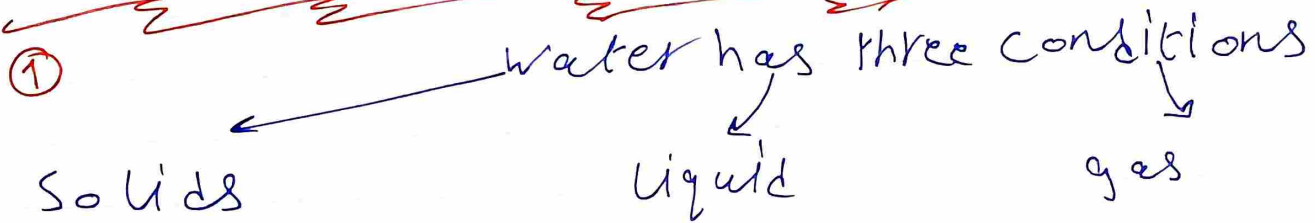
بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

Ecosystem and life sustainability

↳ water is very necessary for our life

↳ our cells contain water to do it's functions

* the general of water:



Ice, Snow

Water in seas, lakes
rivers and oceans
Ground water
(salt & fresh water)

Water Vapor

② water dissolves most of chemical compounds
like salt when dissolves in water (polar solvent)



③ Transport important material inside cell
to gain energy

④ extract the waste outside the cell

↳ Types of spheres on Earth planet:

1] Atmosphere:

like water vapour and the another elements in gaseous state

2] Geosphere:

in solid state in the cryosphere which refers to the frozen water in polar regions, icebergs and glaciers

3] Biosphere:

- * like humans, plant and animals
- * various, parasites and bacteria

4] hydrosphere:

water covers about 70% of Earth's surface

97%
saltwater

3%
Fresh water

* Egypt

has

- salt water
red sea - mediterranean sea
aqaba bay - sues bay - salt lake
- Fresh water
Nile river - fresh lakes

↳ Water cycle:

water is constantly moving from one place to another through many different paths that form closed system called:

water cycle = hydrological system

then it is capable of changing the Earth's surface physically - chemically - biologically

Steps:

1] Evaporation:

- * when water changes from liquid to gaseous condition
- * like water vapour rises to atmosphere
- * 90% of water vapour in the atmosphere is from oceans - seas - rivers - evaporate
- * 10% is from biological processes through transpiration of plant and human, animal breathing.

2] Condensation processes:

when water back again as liquid from gaseous condition
→ when water contain clouds in the ~~shape~~ shape of water drops

③ precipitation (rainfall)

When the mass of water drops be heavy and clouds cant carry it, Then throw it in the shape of rains

Snow ← ice → Cold

↳ it's the way to back water again from hydrosphere to geosphere

④ Surface runoff water:

when rains fall on the soil surface to soil deeply then to river or sedimentary rocks to contain groundwater.

Notes: Water vapour can cooperate with chemical compound like (CO_2) and contain acidic rains which decomposition of rock

