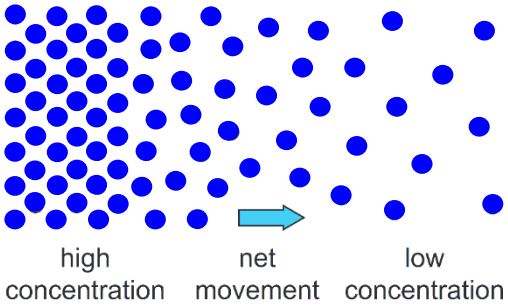
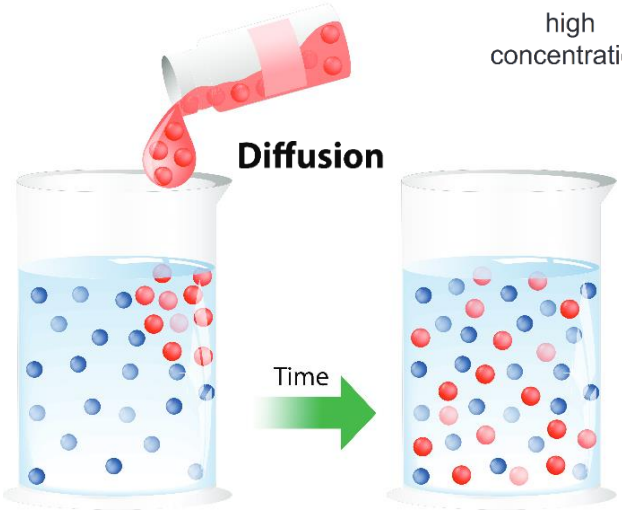
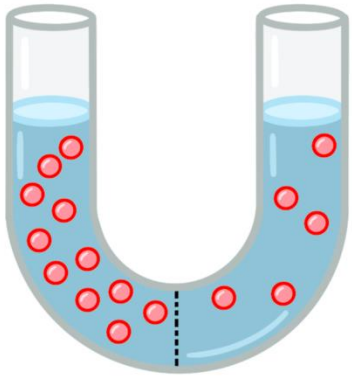
TOPIC: ELECTROLYTE BALANCE

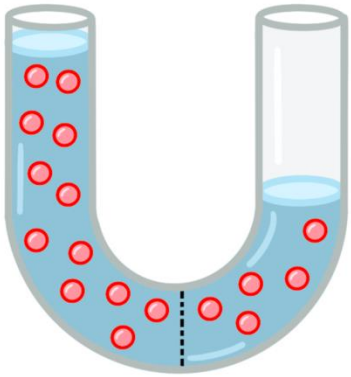
- ***Solutes*** – substance dissolved in a solution
  - □ ***Electrolyte*** – compound that dissociates ions in water, like NaCl Na^+ and Cl^-
- ***Concentration gradient*** – difference in concentration of a solute over an area
- ***Diffusion*** – net movement of molecules or atoms from an area of high concentration to an area of low concentration
- ***Osmosis*** – movement of water across membrane from low solute concentration to high solute concentration
- ***Selective permeability*** – solutes can/can't cross the membrane due to the presence/absence of transport proteins

EXAMPLE:









- ***Osmolarity*** – concentration of a solute measured as of moles of dissolved solute per liter
  - □ ***Hyperosmotic*** – higher osmolarity than another solution
  - □ ***Isosmotic*** – two solutions of the same osmolarity
  - □ ***Hypoosmotic*** – lower osmolarity than another solution
- ***Osmoconformers*** – marine organisms that are isosmotic with their environment
- ***Osmoregulators*** – organisms that actively regulate the osmolarity of their internal environment
- ***Anhydrobiosis*** – adaptation that allows organisms like tardigrades to survive without water

EXAMPLE: