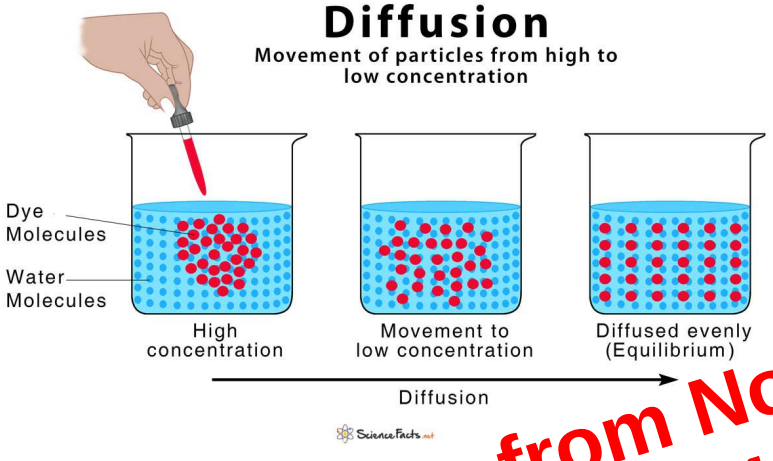
Movement in and out of the Cells

Course: Biology IGCSE 0610

Unit 2

2.1 Diffusion

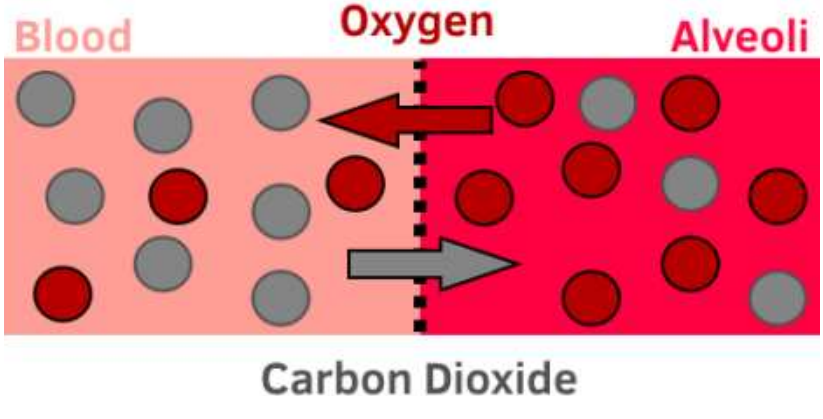
-Diffusion: A passive transport system in which particles move from a region of higher concentration to a region of lower concentration, down a concentration gradient through a partially permeable membrane.



-Factors affecting rate of diffusion:

- Particle Size: Greater particle size means slow rate of diffusion
- Diffusion distance: A smaller distance means diffusion will be quicker
- Permeability: A more permeable surface will allow more diffusion
- Concentration Gradient: A higher gradient means that diffusion will be quicker
- Temperature: Higher temperatures allow more diffusion
- Diffusion Medium: Diffusion is fastest is slowest in solids but fastest in liquids

-Examples of Diffusion in Animal Cells:



- Oxygen moves from alveolar air space in lungs to blood
- Carbon dioxide moves from blood to alveolar air space in the lungs
- Useful food substances move from bloodstream to small intestine
- Urea moves from bloodstream to kidney tubules