

MOVEMENT OF SUBSTANCES

DIFFUSION

- net movement of molecules from a region of higher concentration to a region of lower concentration down a concentration gradient

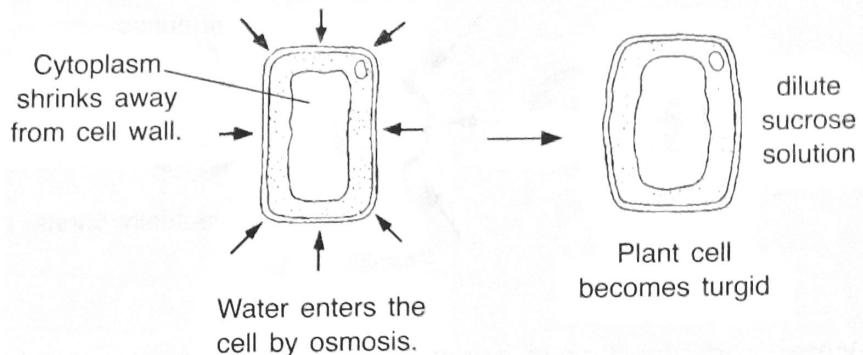
OSMOSIS

- net movement of water molecules from a region of higher water potential to a region of lower water potential through a partially permeable membrane

OSMOSIS IN PLANT CELLS

high surrounding w.p.

- water molecules enter the cell by osmosis
- the cell expands and becomes turgid as the cellulose cell wall prevents it from bursting
- this is because the surrounding solution has a higher water potential than the cell sap.



low surrounding w.p.

- water molecules move out of the cell by osmosis
- the cell becomes flaccid
- the cytoplasm shrinks away from the cellulose cell wall and the cell becomes plasmolysed
- this is because the surrounding solution has a lower water potential than the cell sap

