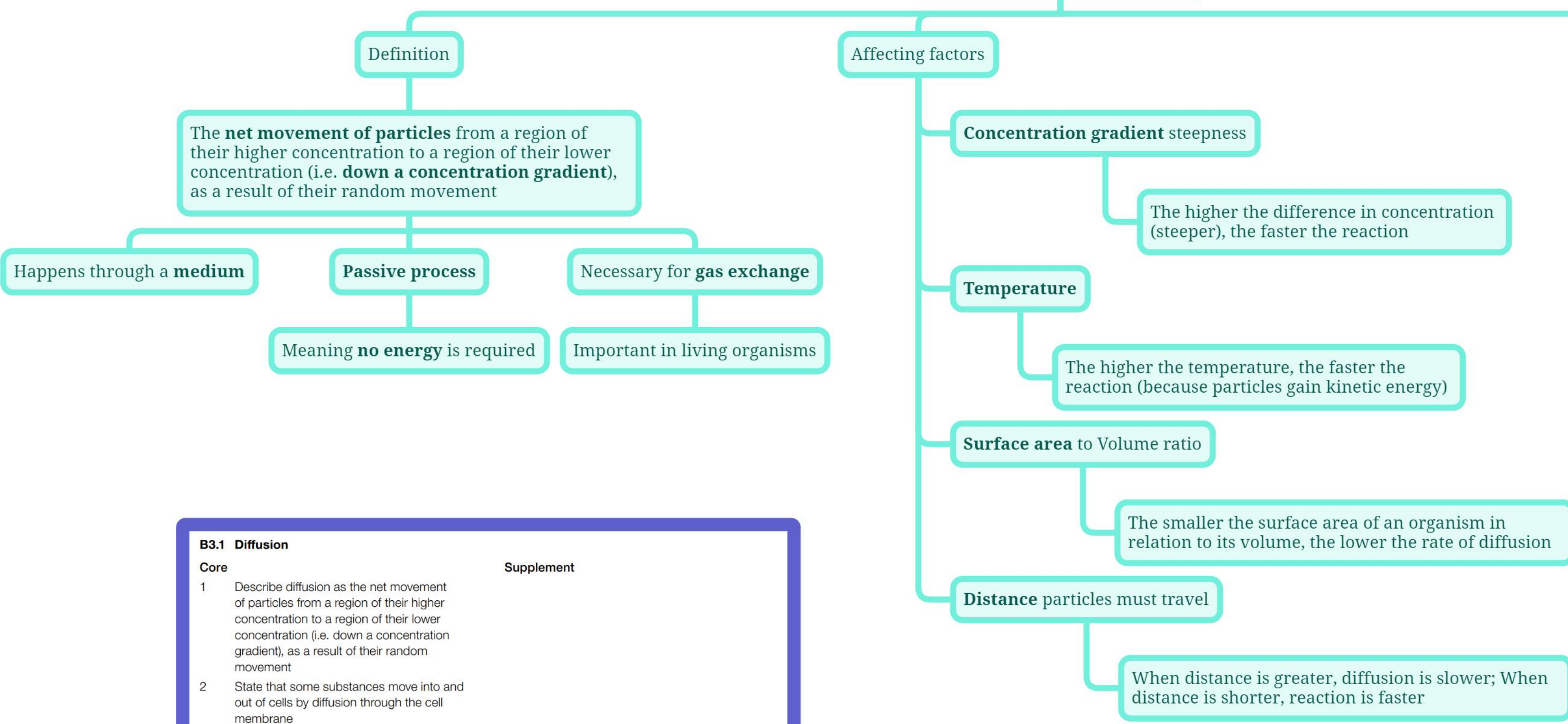


B3 - Movement into and out of cells

B3.1 Diffusion



B3.1 Diffusion

Core

- Describe diffusion as the net movement of particles from a region of their higher concentration to a region of their lower concentration (i.e. down a concentration gradient), as a result of their random movement.
- State that some substances move into and out of cells by diffusion through the cell membrane
- Describe the importance of diffusion of gases and solutes in living organisms

Supplement

- Investigate the factors that influence diffusion, limited to: surface area, temperature, concentration gradient and distance

B3.2 Osmosis

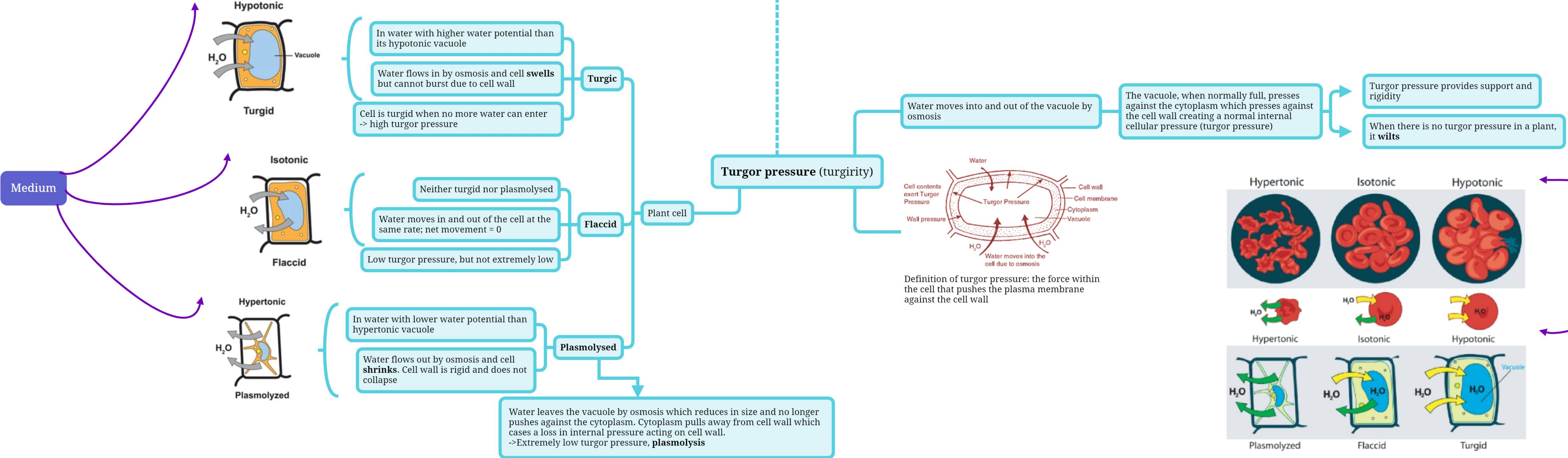
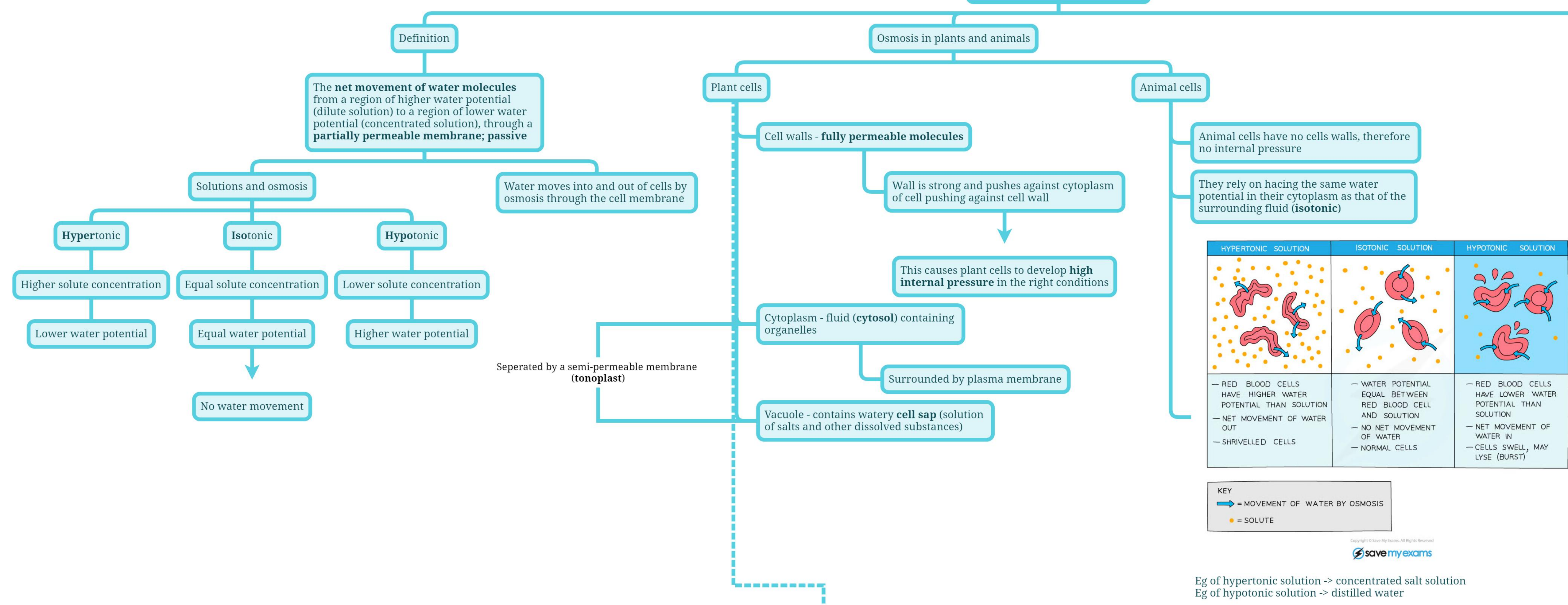
Core

- State that water diffuses through partially permeable membranes by osmosis
- State that water moves into and out of cells by osmosis through the cell membrane
- Investigate and describe the effects on plant tissues of immersing them in solutions of different concentrations

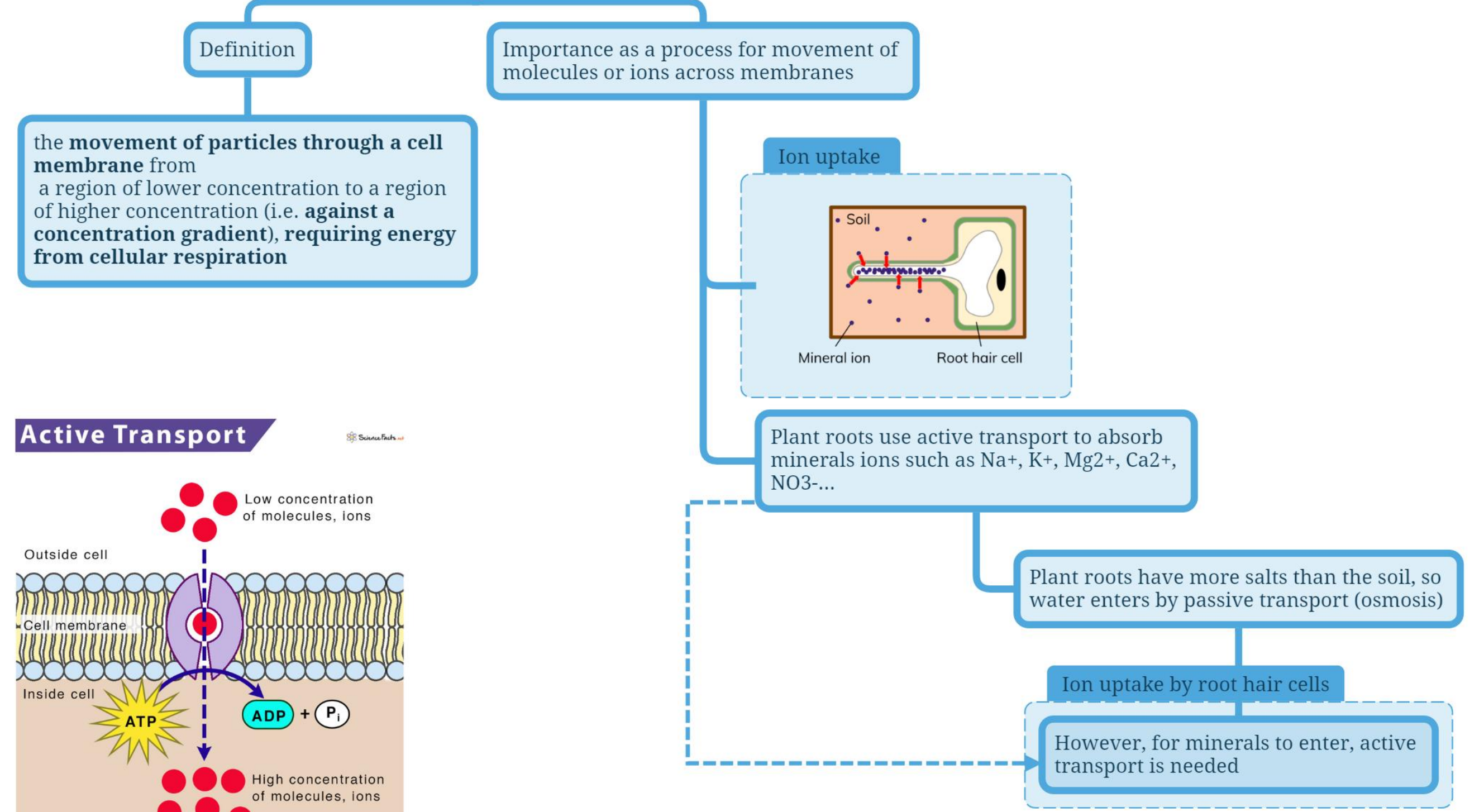
Supplement

- Describe osmosis as the net movement of water molecules from a region of higher water potential (dilute solution) to a region of lower water potential (concentrated solution), through a partially permeable membrane
- Explain the effects on plant cells of immersing them in solutions of different concentrations by using the terms: turgid, turgor pressure, plasmolysis, flaccid

B3.2 Osmosis



B3.3 Active transport



Supplement

- Describe active transport as the movement of particles through a cell membrane from a region of lower concentration to a region of higher concentration (i.e. against a concentration gradient), using energy from respiration
- Explain the importance of active transport as a process for movement of molecules or ions across membranes, including ion uptake by root hairs

