

Cellular Organisation and Function

This section looks at the cell as the basic unit from which most living organisms are constructed. The parts of a cell are identified and their functions considered. Differences between plant and animal cells performing different functions within a plant or animal are discussed. The particular role of the cell membrane in the uptake or loss of water is examined. All living organisms are made up of cells. Know the diagram of both plant and animal cell, as well as labelling (editors note: will add pictures of above at a later date) Differences between plant and animal cells: Plant Cell Wall Animal no cell wall Permanent vacuole temporary vacuole chloroplast no chloroplast starch grains glycogen granules regular shape irregular shape Definitions Nucleus controls chemical reactions contains information to make living organism tells cell what to do Cytoplasm where chemical reactions take place Cell Membrane controls what comes in and goes out of cell Cell Wall made of cellulose gives cell strength and support Vacuole contains salt and sugar solution, called cell sap supports cell Chloroplast contains chlorophyll for photosynthesis Mitochondria release energy by cellular respiration A group of specialised cells working together are called tissue Osmosis and Diffusion Diffusion is the movement of molecules from an area of high concentration to an area of low concentration., until equilibrium is reached. Larger Molecules - slower rate of diffusion Osmosis is the movement of water molecules from an area of high concentration (weak solution) to an area of low concentration (strong solution), through a partially permeable membrane, until equilibrium is reached. when plant cell vacuoles swell up, cells become turgid when lacking water, the plant wilts, and the cells become flaccid when lots of water leaves, cytoplasm comes away from cell wall, this is called plasmolysis.

About the Author

Source: <http://crampuppy.com>