

Investigating the effects on plant cells when these are immersed in solutions of different water potentials

Introduction:

Unlike animal cells, plant cells possess a cellulose cell wall which allows to be firm and rigid. If placed in pure water or a dilute solution the pure water or dilute solution has a higher water potential than the cytoplasm of the plant cell thus resulting in the movement of water into the cell through its partially permeable cell membrane by osmosis. The cell becomes turgid. If however the plant cell is placed in a concentrated salt solution the reverse occurs and water will leave the cell by osmosis causing the cell membrane to pull away from the cell wall as it shrinks. The process is called plasmolysis and the cell is said to be plasmolysed.

Take a look at the video below to learn more:

https://www.youtube.com/watch?v=k1O9jBHgsxs&feature=emb_logo