

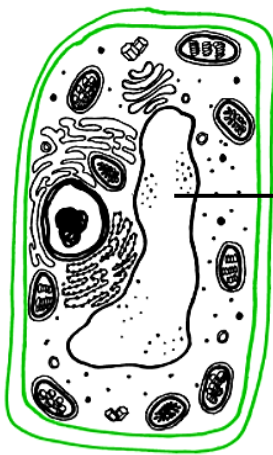
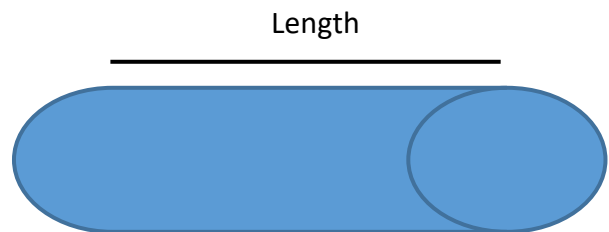
INFORMATION SHEET

INFORMATION: Water moves by osmosis when there is a water potential gradient, i.e. water moves from a high water potential to a low water potential. Adding a solute, e.g. sugar or salt, lowers the water potential of a solution. The greater the water potential gradient, the more water that moves by osmosis. When water enters plant tissue by osmosis, the tissue feels firm because cells are **turgid**. Conversely, when water leaves plant tissue by osmosis, the tissue feels soft because cells have lost water and are **flaccid**.

A cork borer is able to cut cylinders of potato



Cork borer used in laboratory
to cut cylinders from a potato



Vacuole of a potato cell. When
filled with sap the vacuole
enlarges causing an increase in
the overall size of the cell