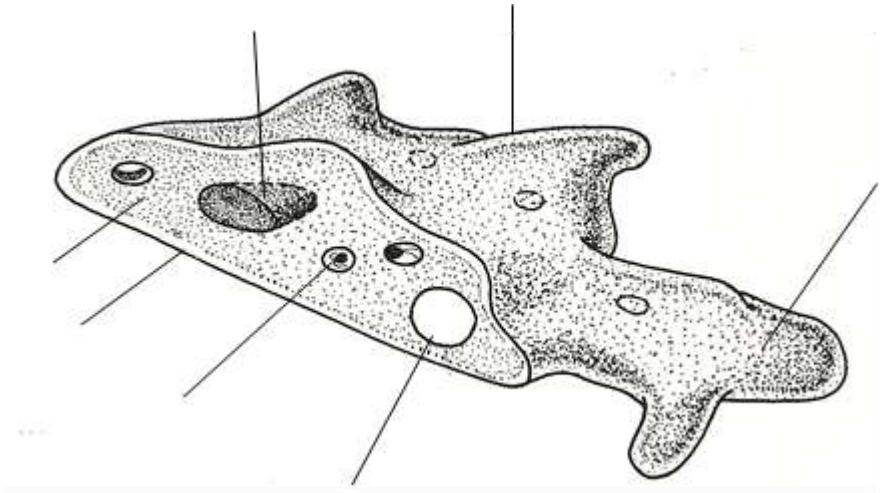
Amoeba

Amoeba proteus is a microscopic living organism which consists of a single cell. Like most plant and animal cells, it has cytoplasm, nucleus, cell membrane and a variety of inclusions in the cytoplasm. It is about 0.3 mm across and inhabits the mud at the bottom of fresh water ponds. Although it is just a single cell, it exhibits all the essential functions of any living organism.

Structure of amoeba *(lable the picture)*



_____ controls the entry and exit of substances into and out of the cytoplasm

_____ is the substance in which all the chemical reactions necessary for life are carried out.

_____ is a clear gel-like layer enclosing the endoplasm which is more fluid and contains granules and other inclusions.

_____ controls most of the reactions taking place in the cell and plays a vital part in cell division.

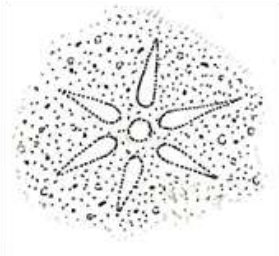
_____ a protuberance from the surface of the amoeba into which the cytoplasm flows; in this way the amoeba moves about over the mud at the bottom of the pond.

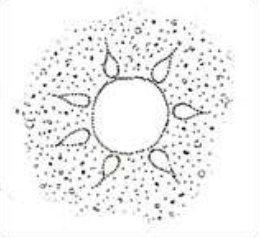
Microscopic organisms are taken into the cytoplasm with a drop of water forming a temporary vacuole called _____; these organisms are then digested.

The concentration of solutes in the cytoplasm is greater than that in the surrounding fresh water, so water tends to enter the cytoplasm by osmosis via the partially permeable cell membrane. This excess water collects in the _____ which swells and discharges its contents to the outside from time to time.

Osmoregulation

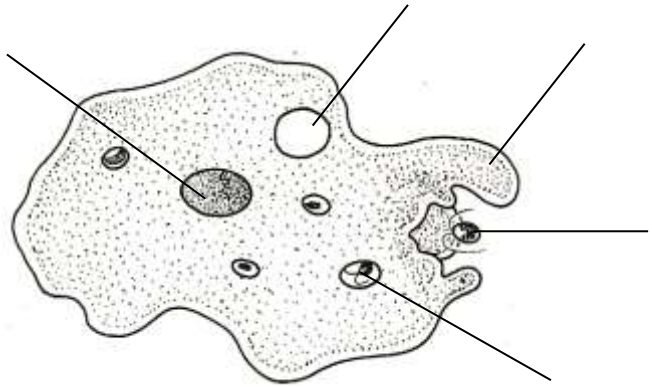
Amoebas live in fresh water. Their cytoplasm contains a greater concentration of solutes than their surroundings and so they absorb water by osmosis. The excess water is collected into a contractile vacuole which swells and finally expels water through an opening in the cell membrane.



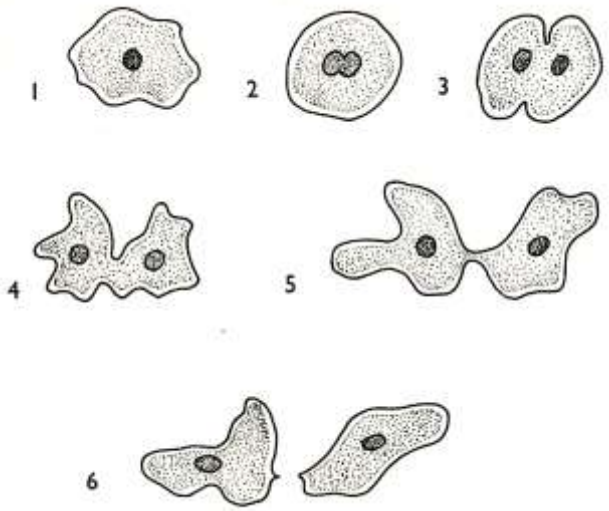


Protozoa

Feeding amoeba



Reproduction of amoeba



Movements of amoeba