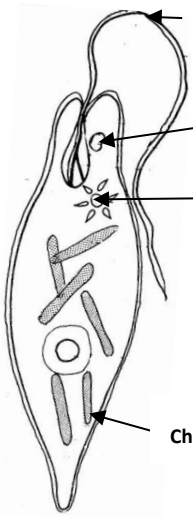
chloroplast
contractile vacuole
flagellum
eye spot
heterotrophic
autotrophic

Unicellular Organisms

Unicellular organisms are found almost anywhere there is water. Some are autotropic and produce their own food by photosynthesis, while others are heterotrophic and must eat food produced by other organisms. The structures within a unicellular organism tells us a lot about their way of life.

Euglena



Flagellum - beats for movement

Eye spot - senses light

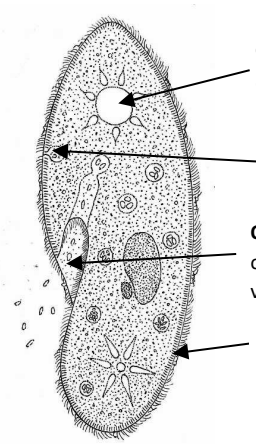
Contractile vacuole - regulates amount of water in organism

Chloroplast - site of photosynthesis

Autotrophic: it has an eyespot to sense light, a flagellum to help it move towards the light and chloroplasts for photosynthesis.

It lives in fresh water ∴ water is continually entering cell by osmosis, so it has contractile vacuoles to pump out excess water and prevent the cell exploding.

Paramecium



Contractile vacuole - regulates amount of water in organism

Anal pore - waste material exits the organism

Oral groove - food enters organism and forms a food vacuole

Cilia - hair like structures which beat to move the organism

Heterotrophic: it has cilia which pulsate, moving the organism towards food. The food moves into the oral groove, forming a food vacuole, which enters the organism where food is digested. The waste leaves the organism via an anal pore.

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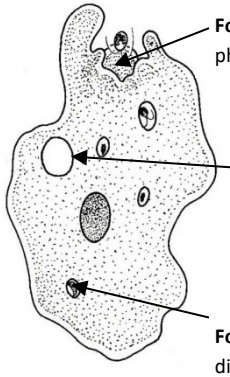
Amoeba



Food - food is ingested by phagocytosis

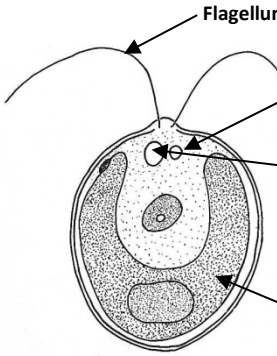
Contractile vacuole - regulates amount of water in organism

Food vacuole - contains digesting food

Heterotrophic: moves by pseudopodium - a temporary protrusion or retractile process of the cytoplasm and feeds by phagocytosis.

It lives in most moist Environments ∴ water is continually entering cell by osmosis, so it has contractile vacuoles to pump out excess water and prevent the cell exploding.

Chlamydomonas



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anal pore
oral groove
cilia
food vacuole
phagocytosis
pseudopodium