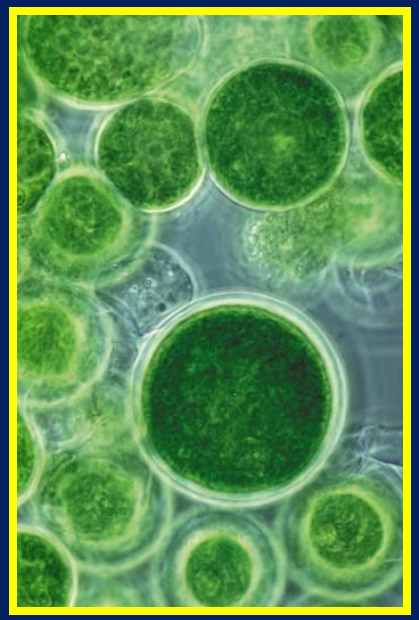
Protista Kingdom

Protista are mainly unicellular eurkaryotic cells that can be autotrophic or heterotrophic

Classification of Protista

Protista are classified according to how they obtain food: fungi-like protista; plant-like protista, and animal-like protista.

Slime Mold



Algae

Protozoans

Plant-Like Protista

Plant like protista include algae, diatoms, and kelp.

Phytoplankton

Animal-Like Protista

Animal like protista include unicellular paramecium and amoeba. Both are found in pond water, streams, and rivers.

Paramecium

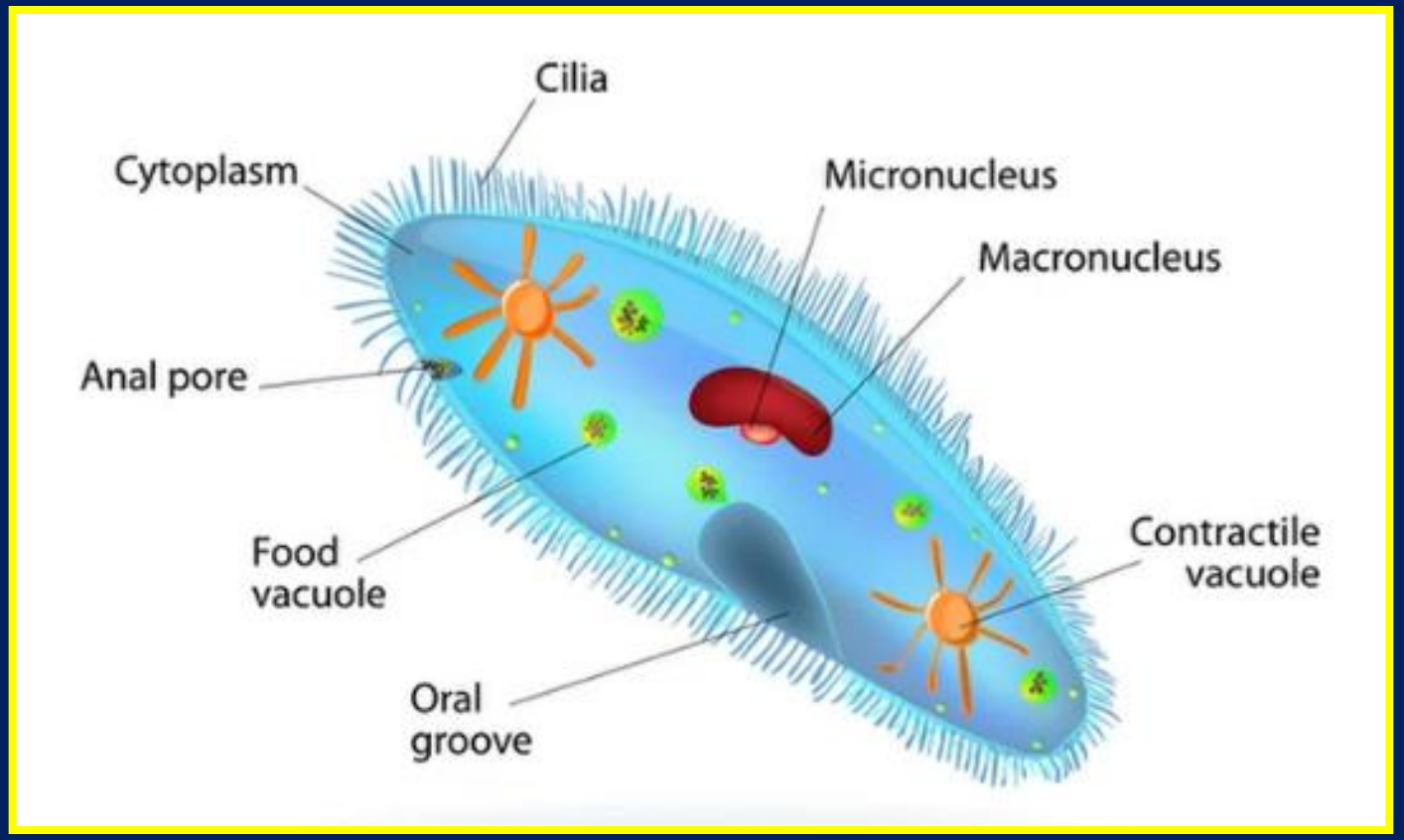
Amoeba

Paramecium

Paramecium are small, oval-shaped, unicellular eukaryotes that are covered with cilia or hair-like projections that help them swim through their aquatic environment.

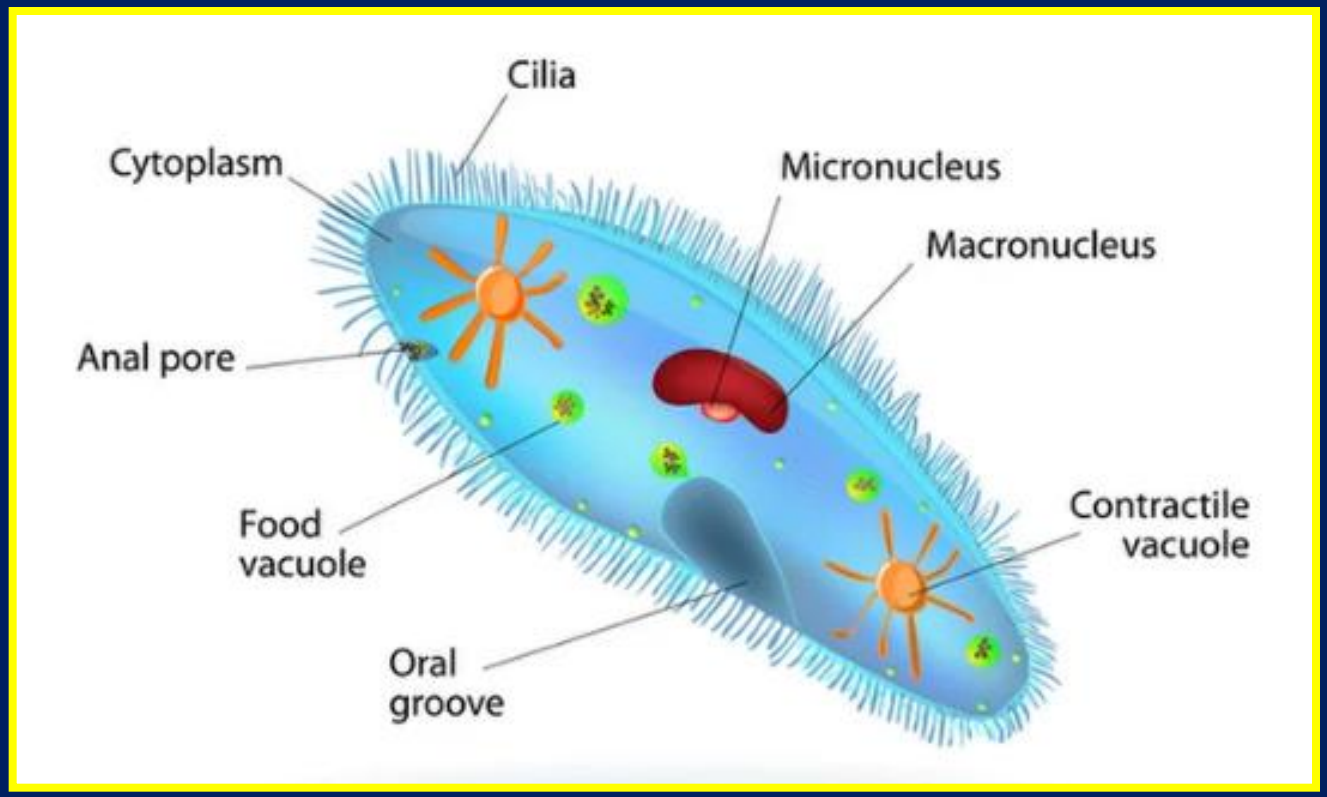
Paramecium

Paramecium also use their cilia to push food towards its mouth, called an oral groove.



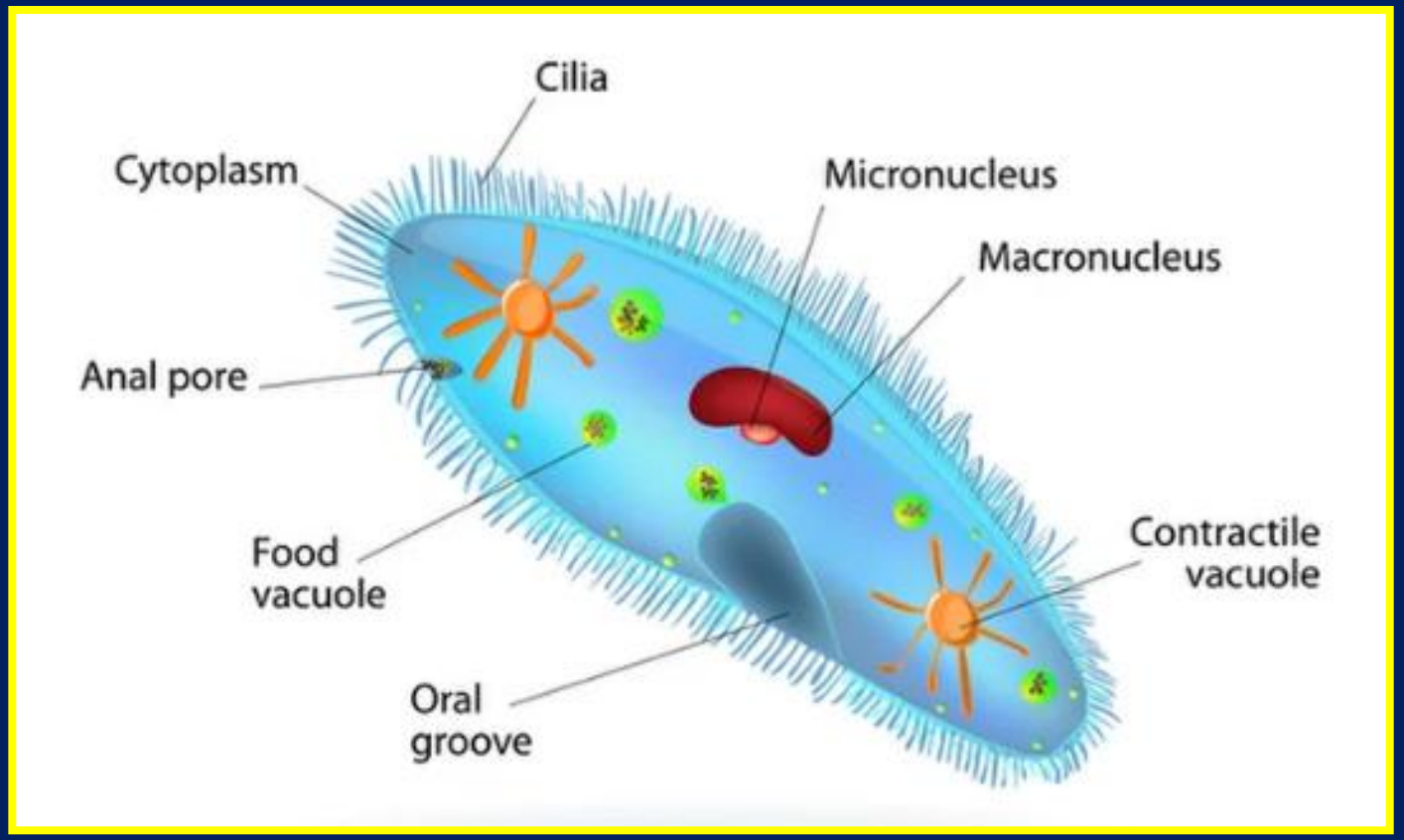
Paramecium

Once food is consumed, it is enclosed in a food vacuole and moved towards a lysosome that contains digestive enzymes to break down the food.



Paramecium

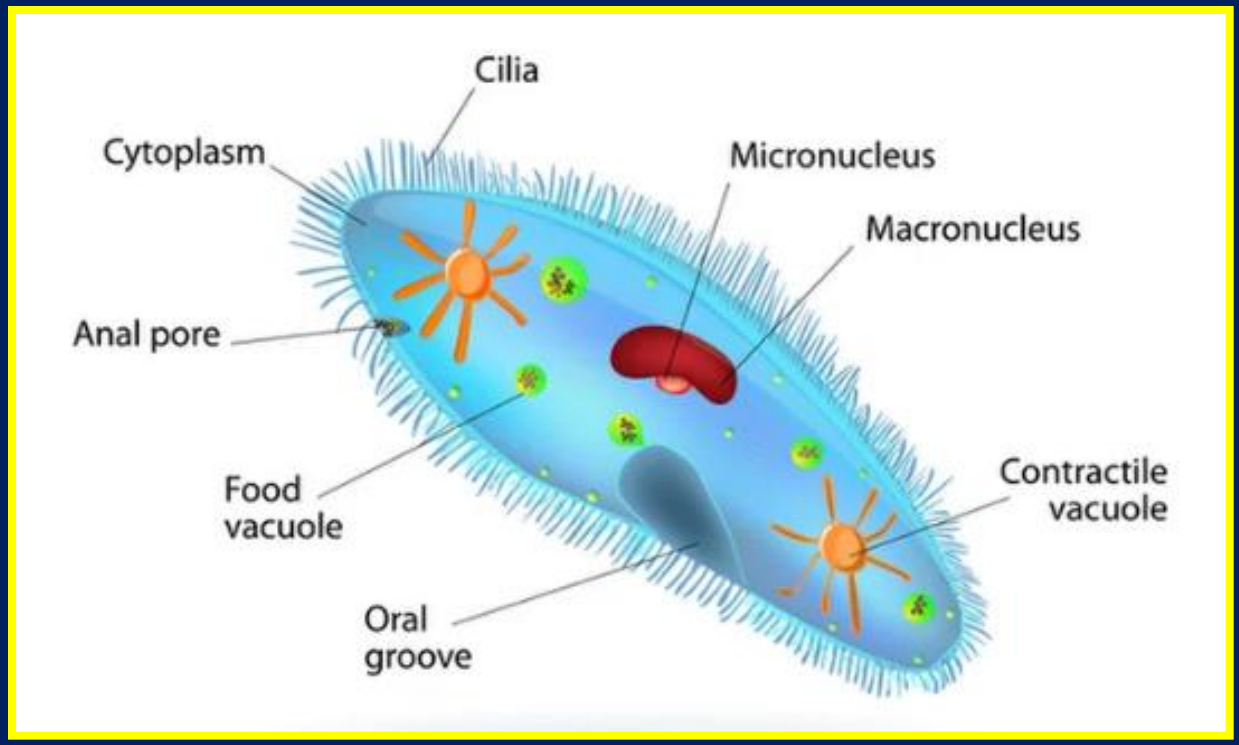
Contractile Vacuoles are used to expel excess water from the cells.



Contractile Vacuole

Paramecium

Paramecium also contain two types of nuclei. The micronucleus contains the hereditary chromosomes and the macronucleus contains a subset of the DNA that is actively used to code for protein production.

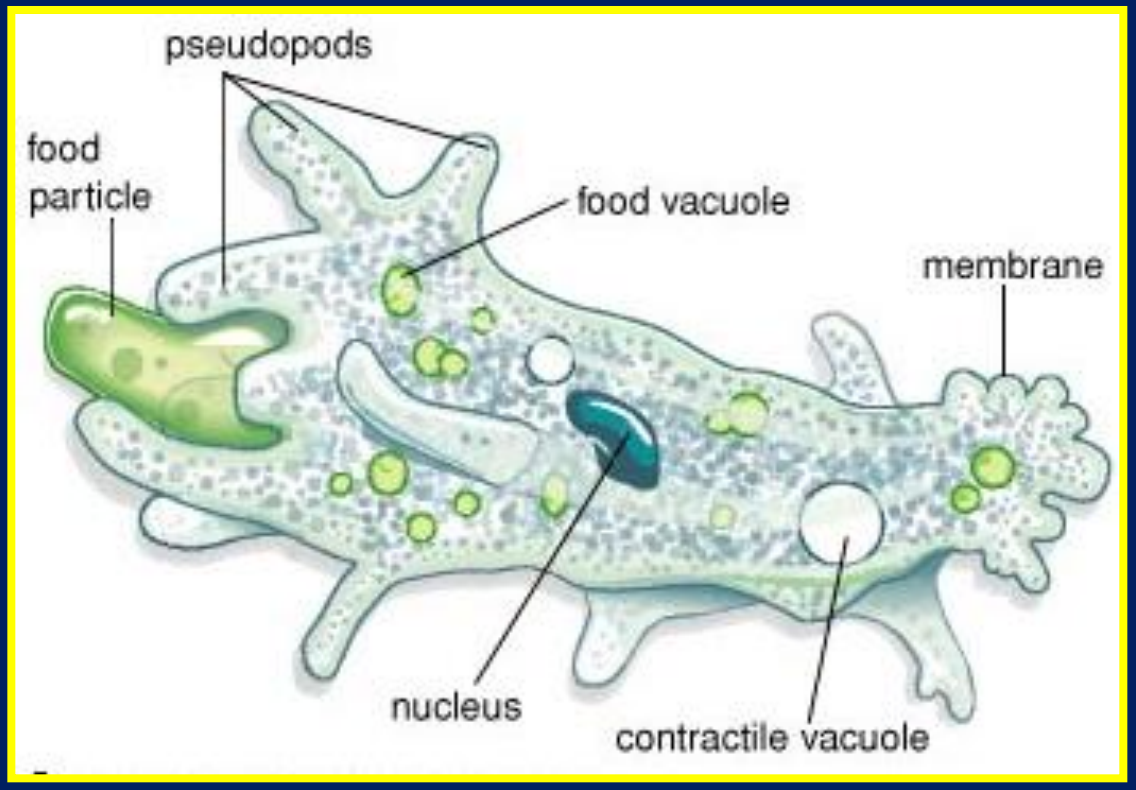


Amoeba

Amoeba are small, unicellular, eukaryotes that are capable of changing their shapes.

Amoeba

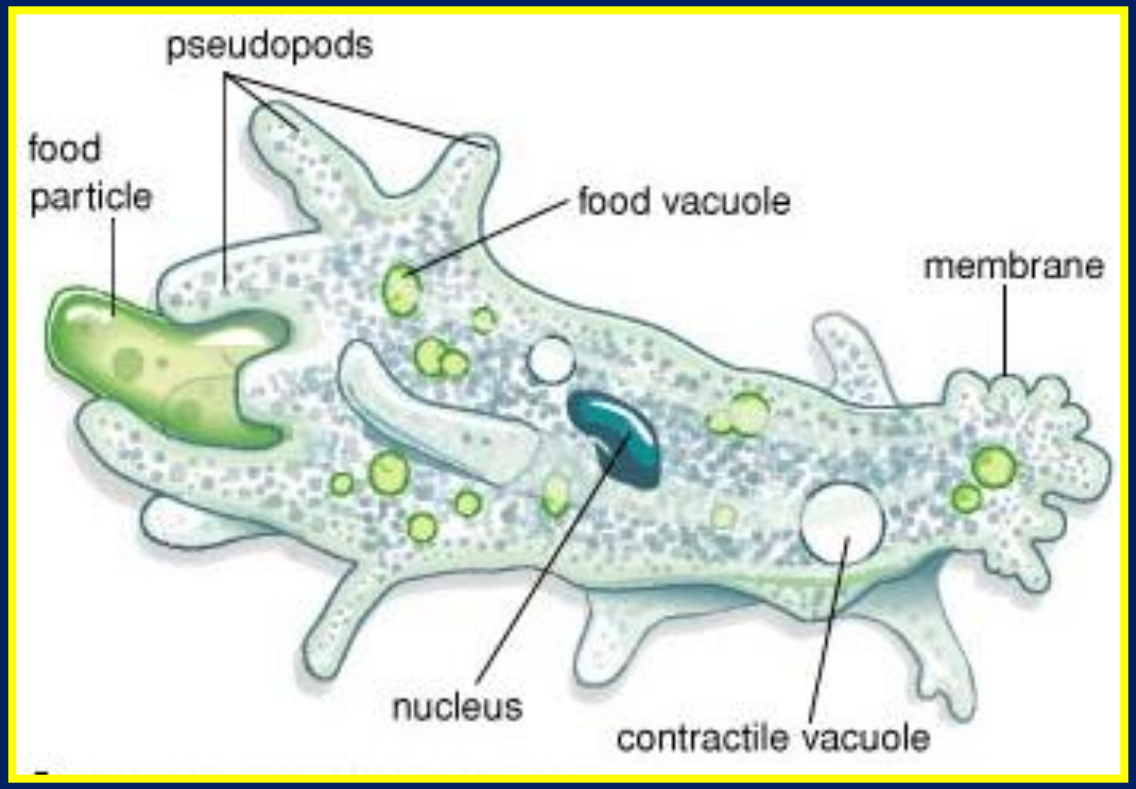
Amoeba move by shifting their cytoplasm to form pseudopods or “false feet”



Pseudopods

Amoeba

Amoeba also create pseudopods to engulf their prey and enclose them into a food vacuole so digestive enzymes can break down the food.



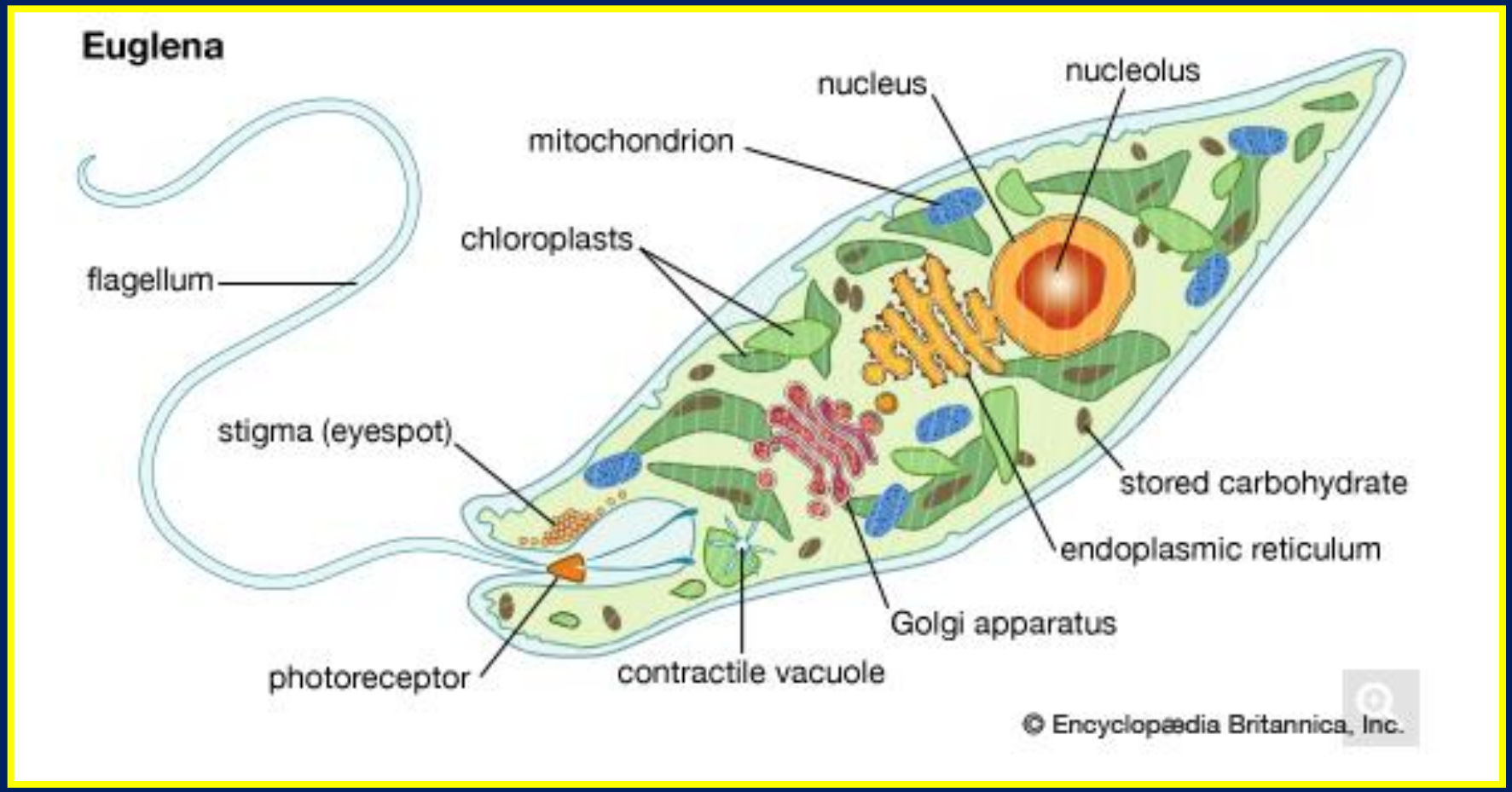
Amoeba eating

Euglena

Euglena are unicellular eukaryotes that are both plant-like, because it can photosynthesize, and animal-like because it can move and eat.

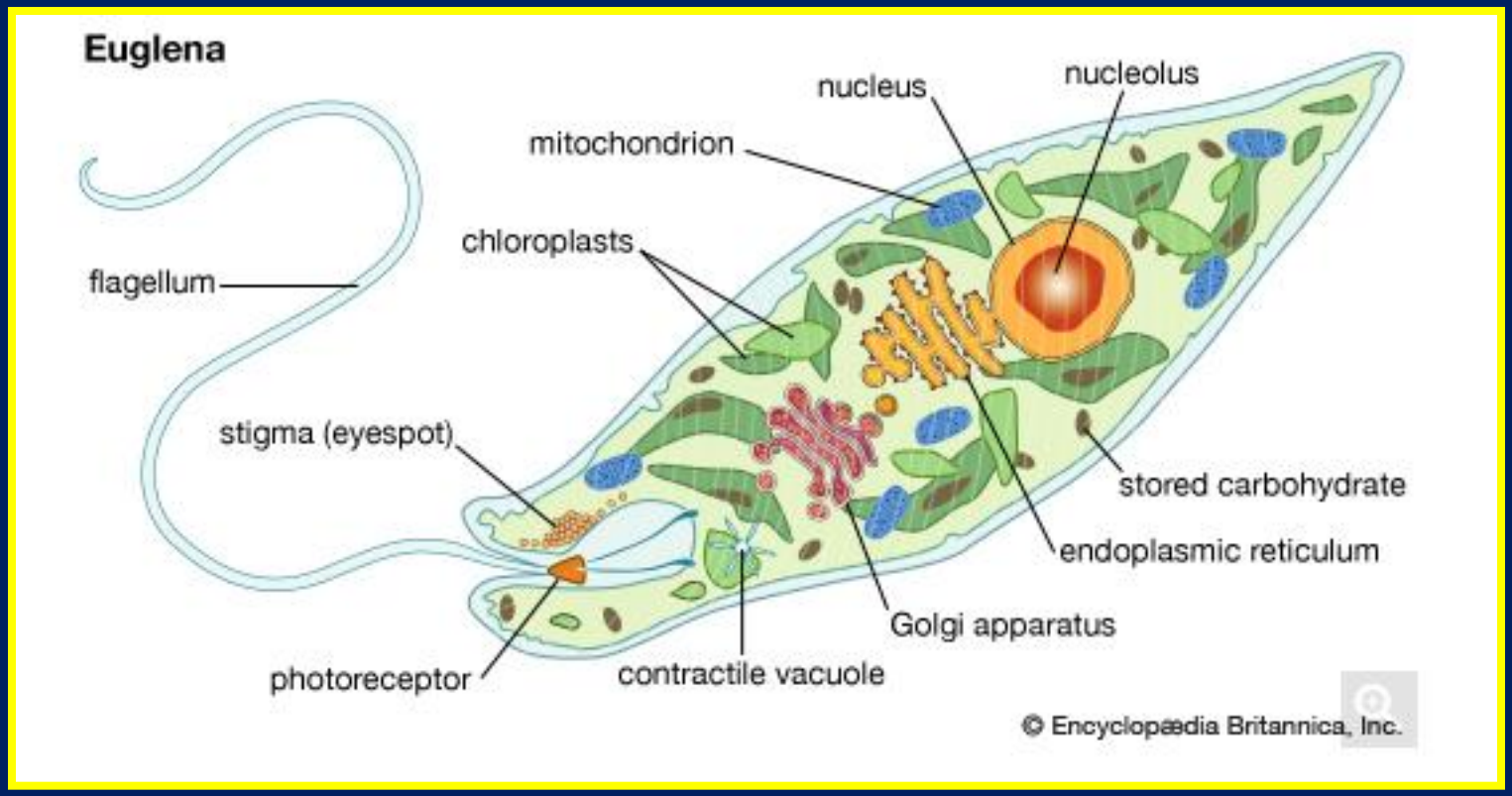
Euglena

Euglena move with the help of a flagellum.



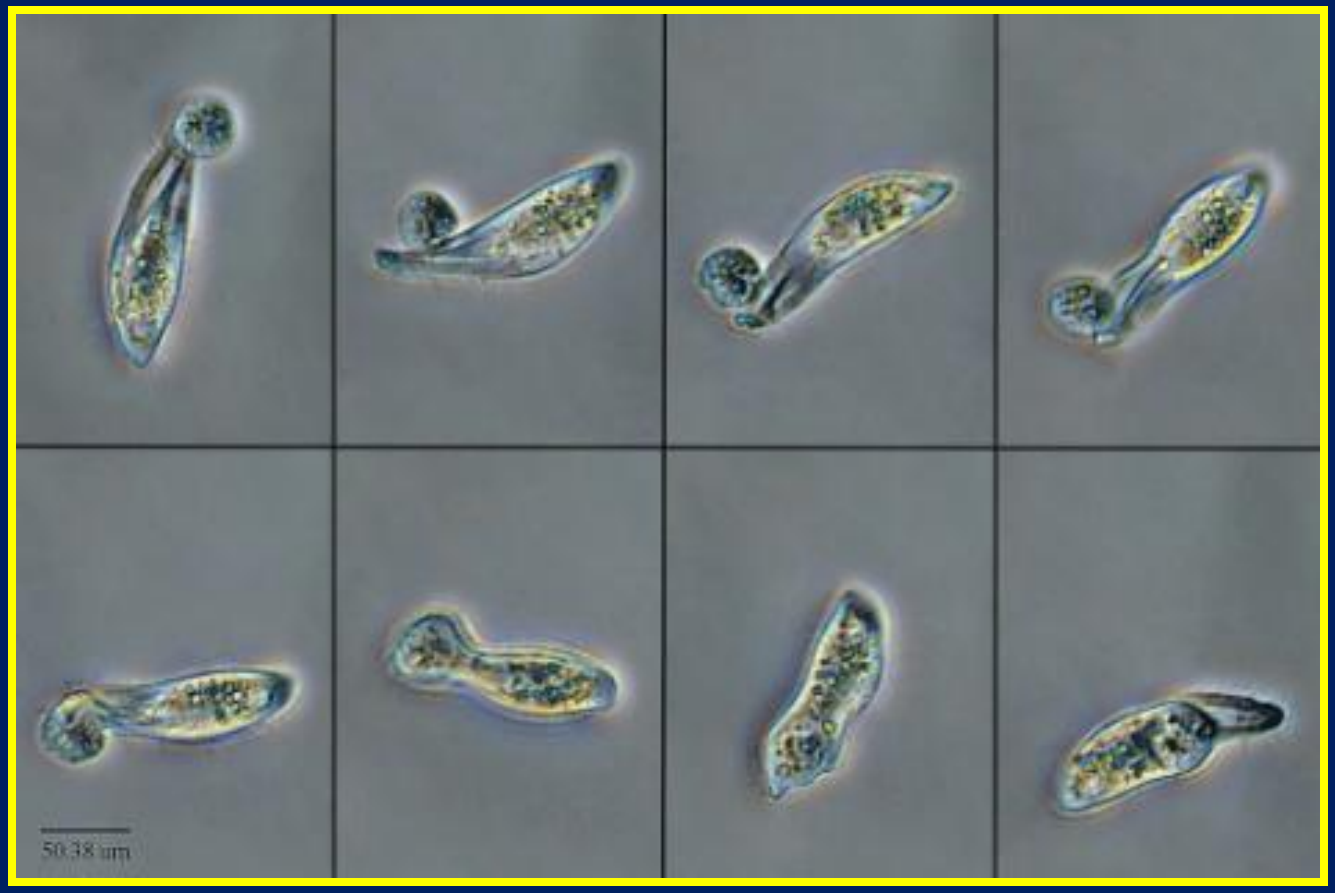
Euglena

At the base of the flagellum is an eyespot that can detect light so the euglena can move toward the light to photosynthesize using their many chloroplasts.



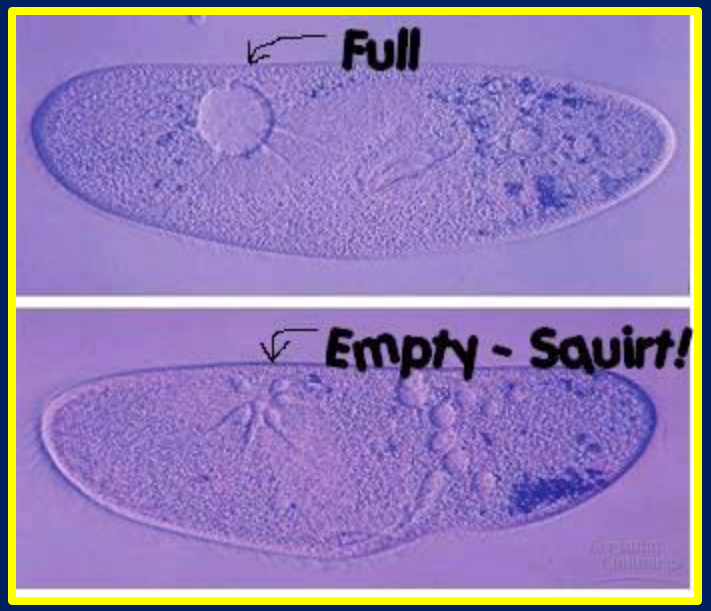
Euglena

When light is not available for photosynthesis, they can eat other Protista or bacteria by engulfing them.



Contractile Vacuole

Each of these protista cells contain a contractile vacuole that removes excess water from the cell.



Since these unicellular organisms live in fresh water environments, too much water can enter the cell by osmosis, causing the cell to burst.


amoeba, amoeba
ondalay, ondalay
adios
amoebas!