

PROTISTS

EUGLENA, AMOEBEA, PARAMECIUM,
VOLVOX



What is a Protist?

- An organism from the Kingdom Protista
- Very diverse group of single-celled organisms.
- Eukaryotic (they all have a nucleus)
- Less complex than plants or animals



Common Protists

Draw Table below on Page 15

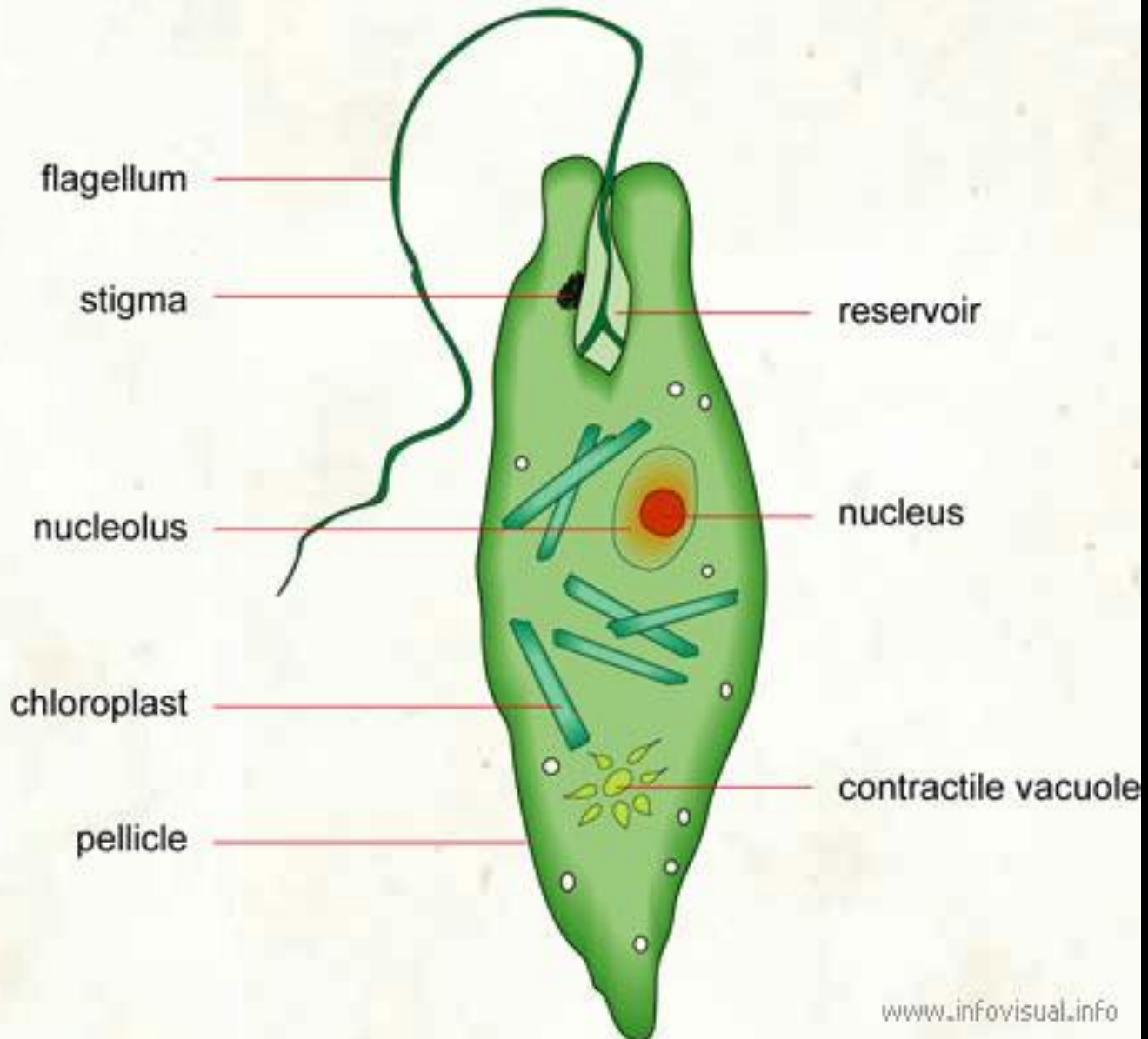
Protist Name	Sketch	Movement	Food source (Energy)	Unique Structure
Euglena				
Amoeba				
Paramecium				
Volvox				

EUGLENA

- Single-celled Protists that live in fresh water.
- Captures food by eating other organisms
- Some contain chlorophyll



STRUCTURE OF A EUGLENA



More Info on Euglenas



- Eyespot helps them sense light.
- Waste- Contractile Vacuole holds excess water and removes it from the cell.
- Movement- Flagella
- [video](#)

More Info on Euglenas

- Reproduction-
Asexual (binary fission)
- Specialized Needs-
shape does changes easily so it can move around
- <http://bio.rutgers.edu/euglena/>

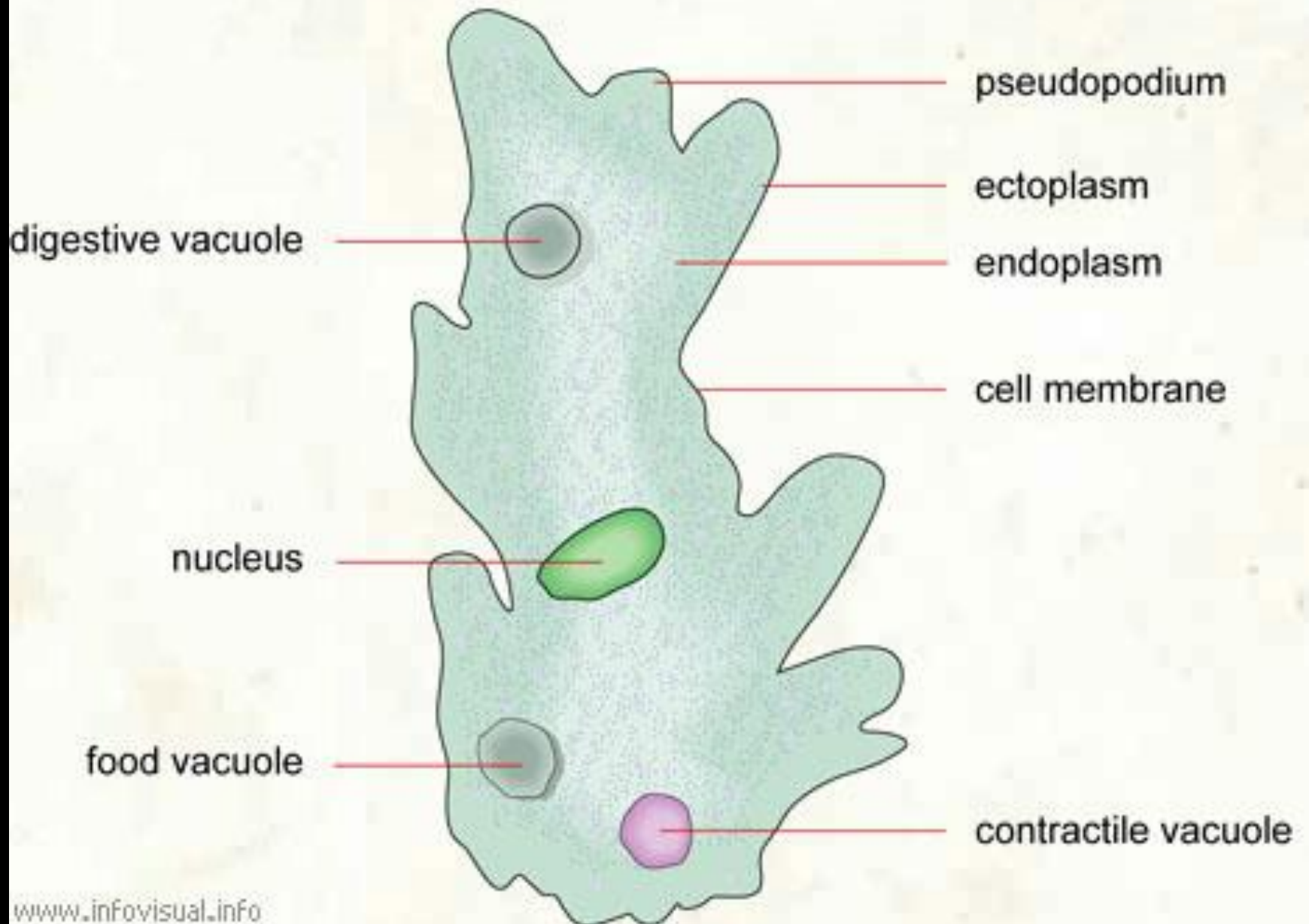


AMOEBA



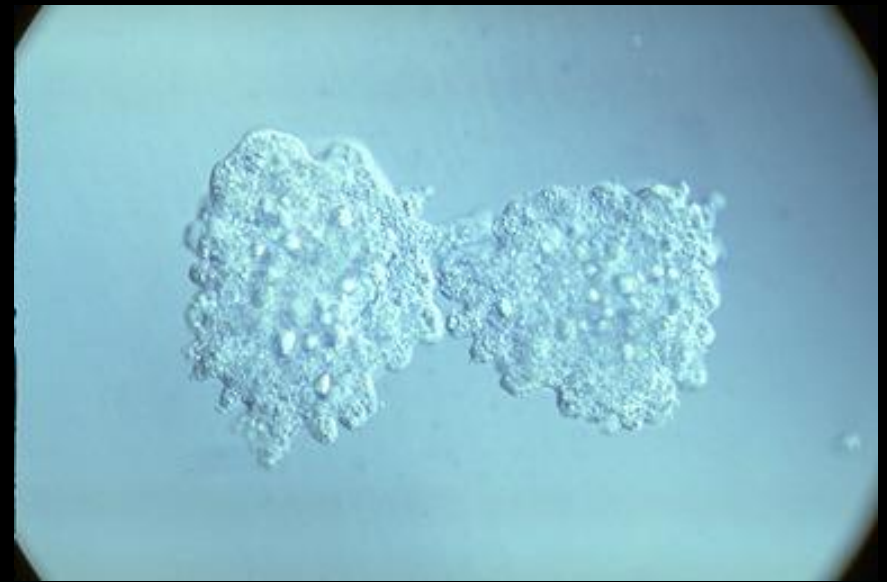
- Found in freshwater and salt water around a lot of dead and decaying material.
- Are parasites, they get energy by invading other organisms

STRUCTURE OF AN AMOEBA

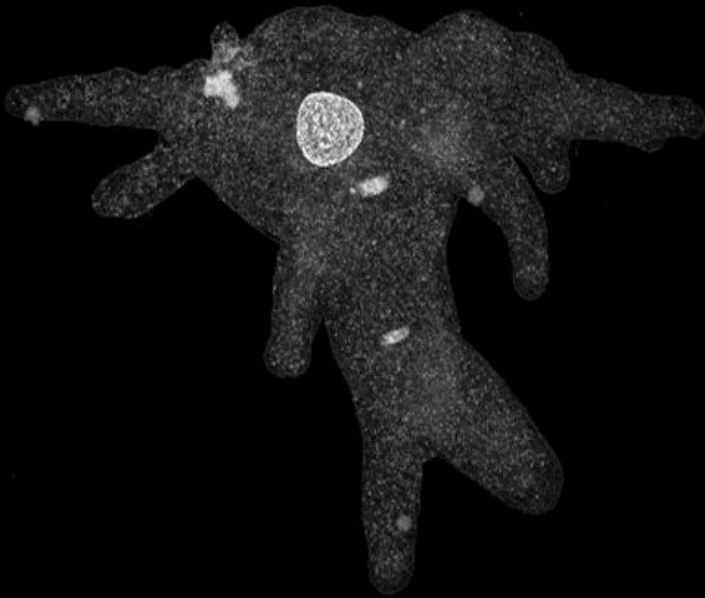


More Info on Amoebas

- Waste- Contractile Vacuole holds excessive waste
- Movement- pseudopodia (false feet)
- [amoeba video](#)

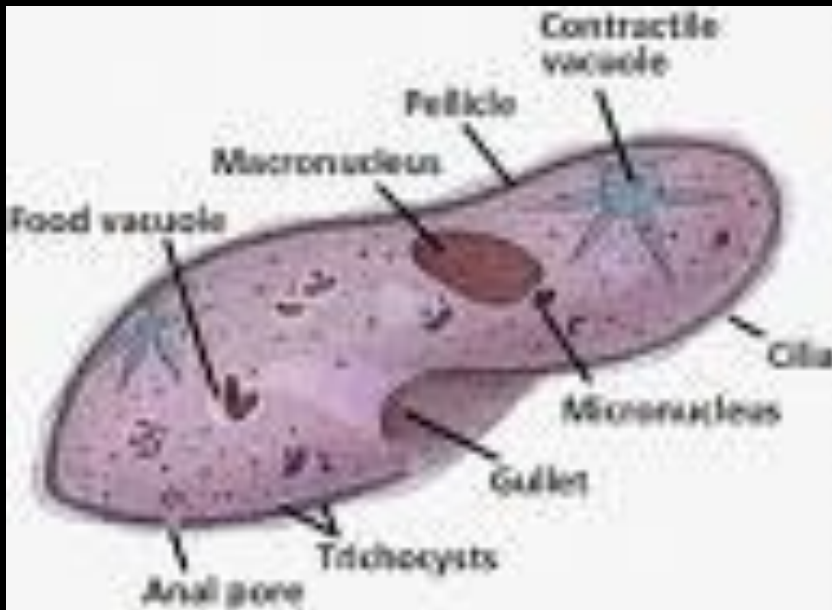


More Info on Amoebas



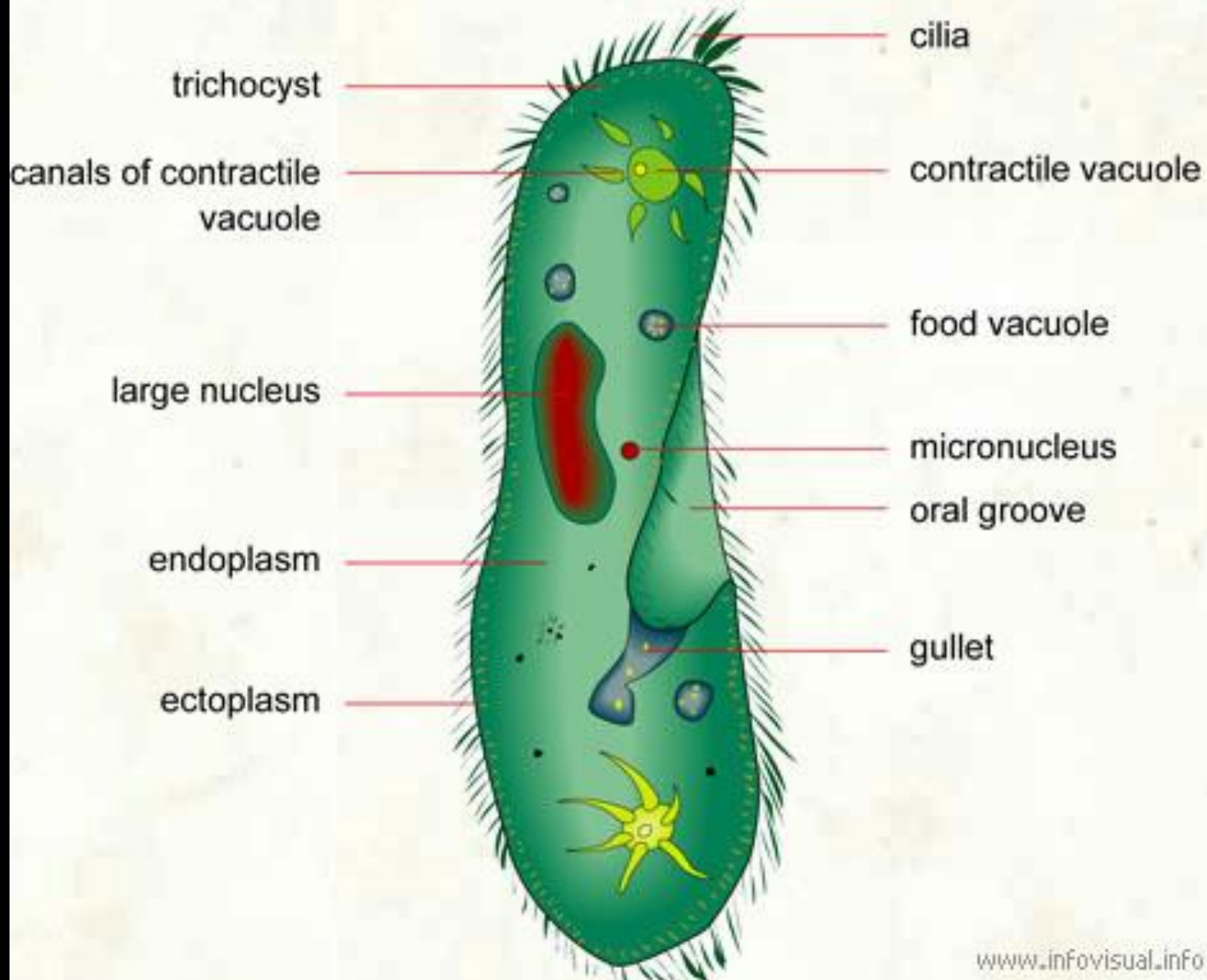
- Reproduction-
Asexual (binary fission)
- Specialized Needs-
n/a

PARAMECIUM



- Found in freshwater. This is a single celled organism but is more complex than other organisms.
- Cilia sweep food into food passageway.
- [VIDEO](#)

STRUCTURE OF A PARAMECIUM



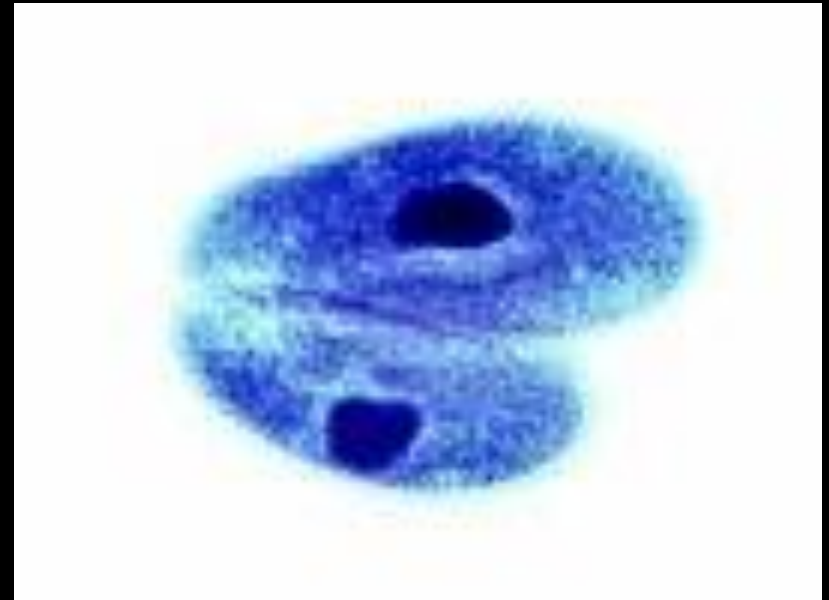
Paramecium Continued...

- Waste- Anal Pore
(food waste is removed) and Contractile Vacuole
(water waste)
- Movement- Cilia
(tiny hairs that move back and forth.)

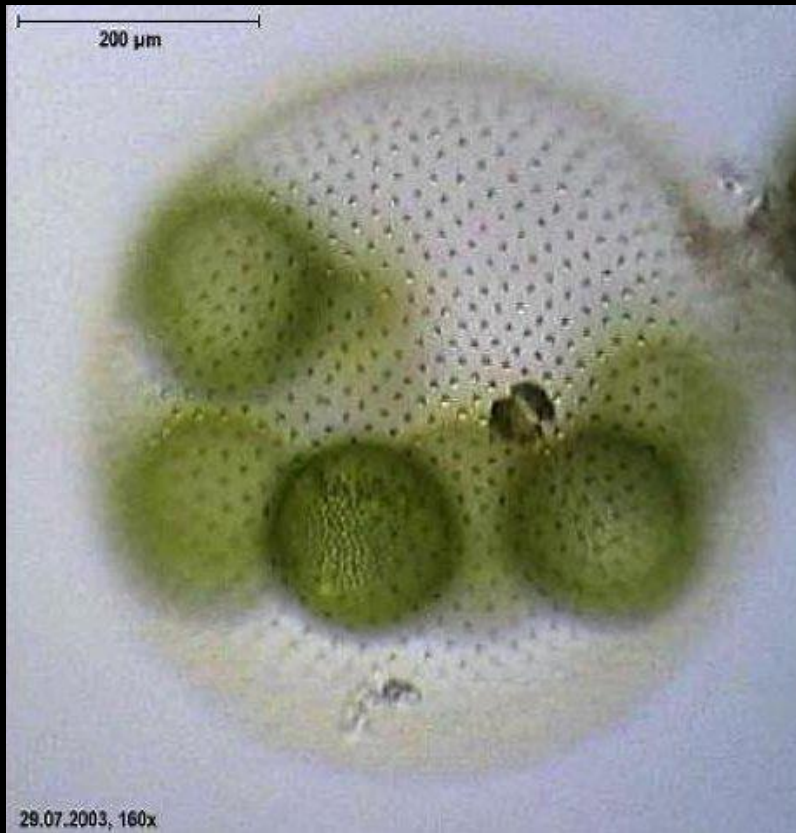


Paramecium Continued...

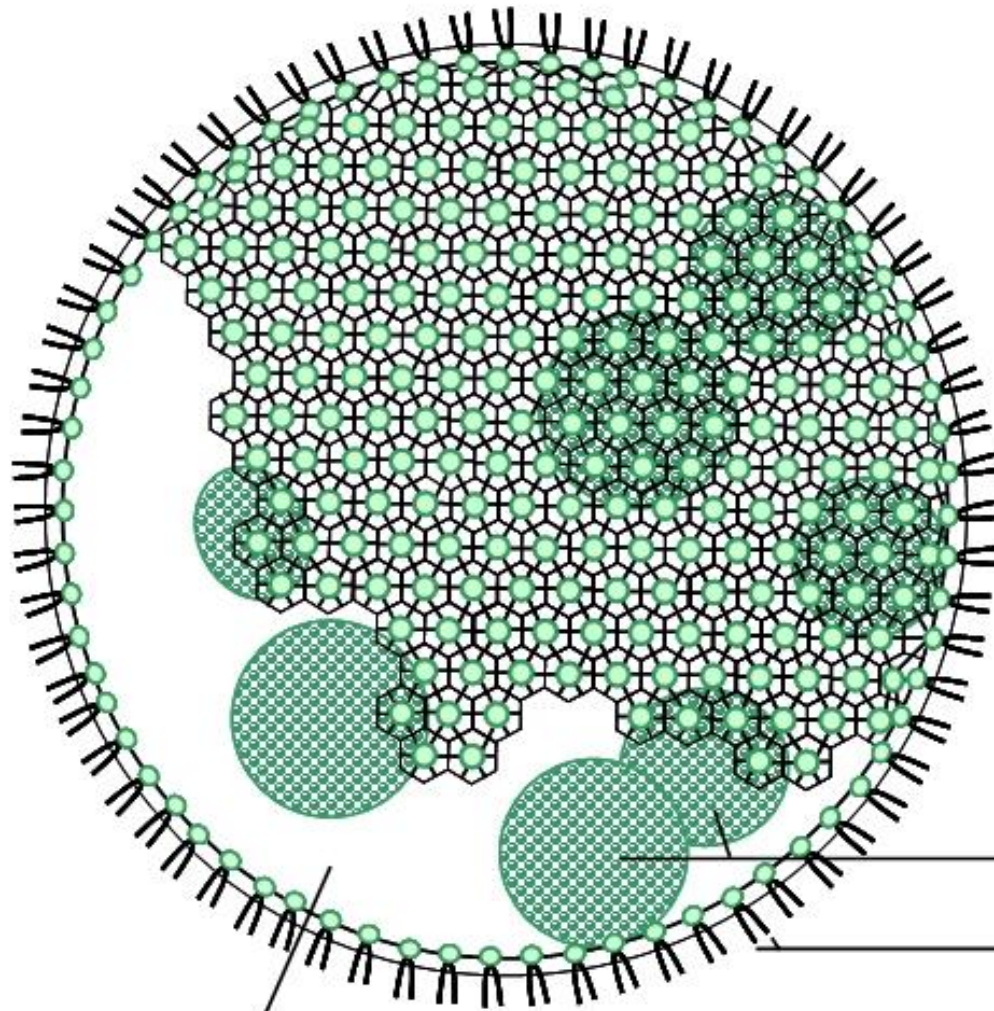
- Reproduction-
Sexual (two
Parents)
- Special features-
Two nuclei
(Macronucleus and
Micronucleus)



VOLVOX



- Found in ponds ditches and puddles.
- Composed of a colony of more than 50,000 tiny cells
- Often times called algae.



Volvox

Volvox is a hollow ball of 500 - 50 000 cells, called a colony or coenobium, each with a pair of hair-like appendages called flagella. The flagella beat in synchrony, allowing the colony of cells to swim. One pole is the anterior (head) end as this always leads. Each cell possesses a green chloroplast containing the green pigment chlorophyll. Chlorophyll captures energy from sunlight which *Volvox* uses to make the food it needs by photosynthesis.

Daughter colonies

Flagella (one pair per cell)

Cells removed to show
fluid-filled interior

Single cell



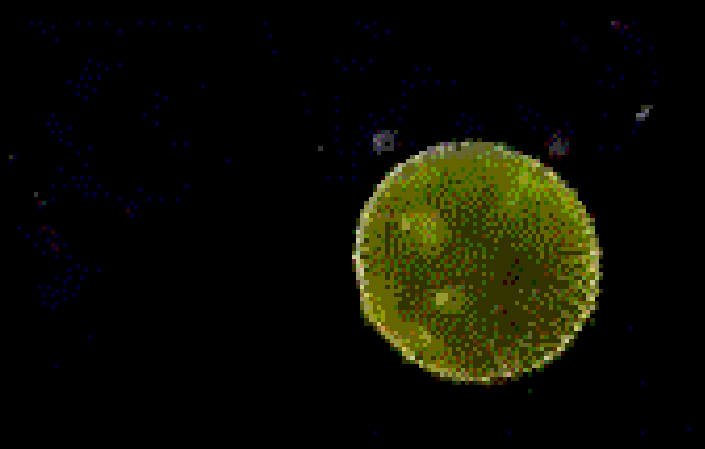
Two neighbouring cells connected
by a protoplasmic bridge

Volvox continued...

- photosynthesis and flagella help bring in nutrients.
- eyespots to help sense light.



Volvox continued...



- Movement- Many flagella help move the colony.
- Reproduction- asexual and sexual, daughters colonies created.

Volvox Videos



- [video 1](#)
- [video 2](#)
- [video 3](#)

Common Protists

Protist	Sketch	Movement	Food source (Energy)	Unique Structure
Euglena				
Amoeba				
Paramecium				
Volvex				

Protist	Structure	Locomotion (Movement)	Food source (Energy)	Specialized Cell Structure
Euglena	Unicellular	Flagellum	Feeds on other organisms; can make nutrients	Eyespot
Amoeba	Unicellular	Pseudopods	Feeds on other organisms	
Paramecium	Unicellular	Cilia	Feeds on other organisms	Oral groove and contractile vacuole
Volvex	Unicellular (lives in colonies)	Flagella	Makes nutrients	