

# Algae and Lichens

Prepared by: Rana AlQusumi



Lichens

Phyla

Classification

Algae

# Characteristics

- 1-Belong to the Kingdom Protista.
- 2-Autotrophic(photosynthesis).
- 3-Lacking true roots, stems and leaves.
- 4-The plant body ranges from unicellular to multicellular structures.

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The main characters which are being widely used for algae classification are:

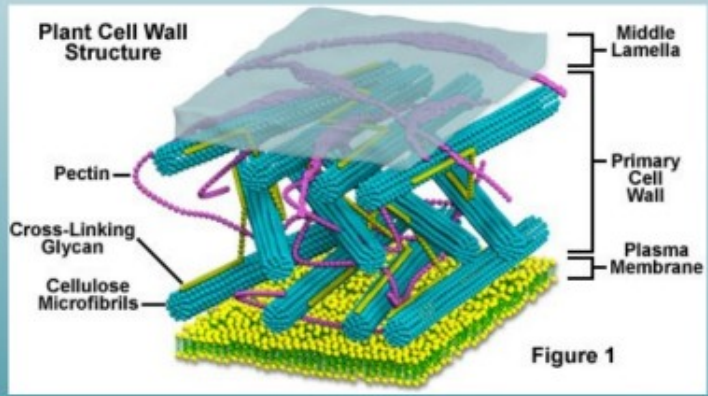
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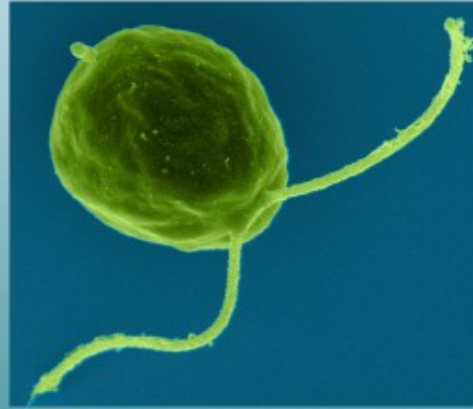
Food storage

Photosynthesis pigments

Flagella

Cell wall competition

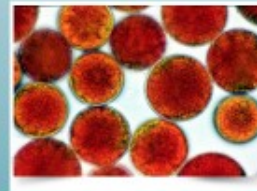




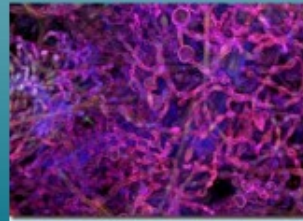
1-Chlorophyll

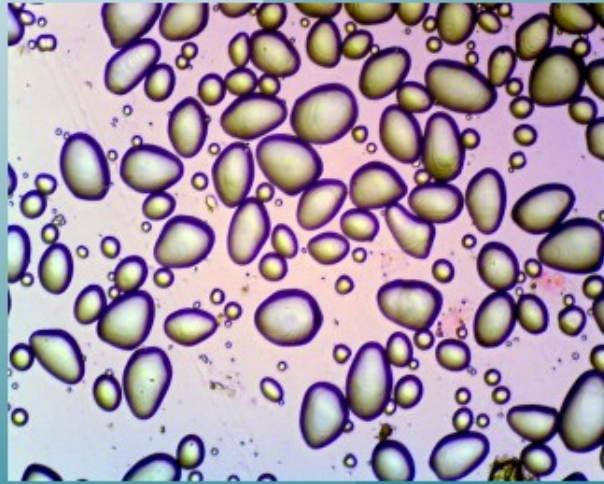


2-Carotenoids



3-Phycobilins







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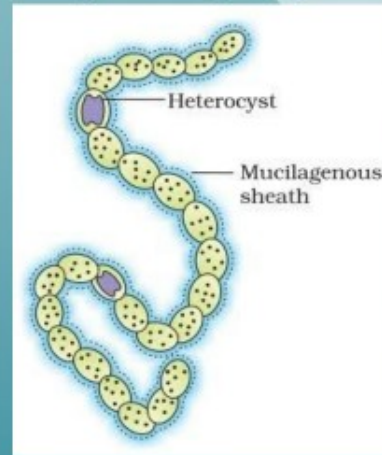
Algae

# Phyla of Algae:

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# Cyanophyta



Nostoc

Under the  
microscope



# Chlorophyta



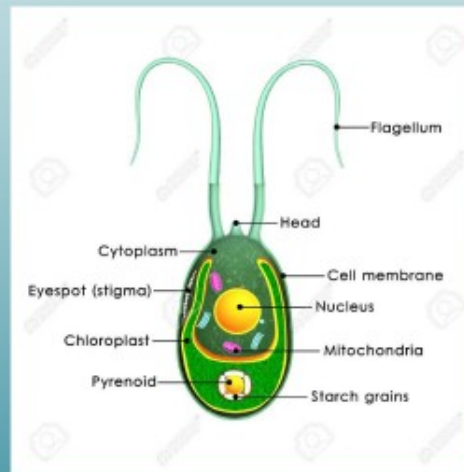
Chlamydomonas

Spirogyra

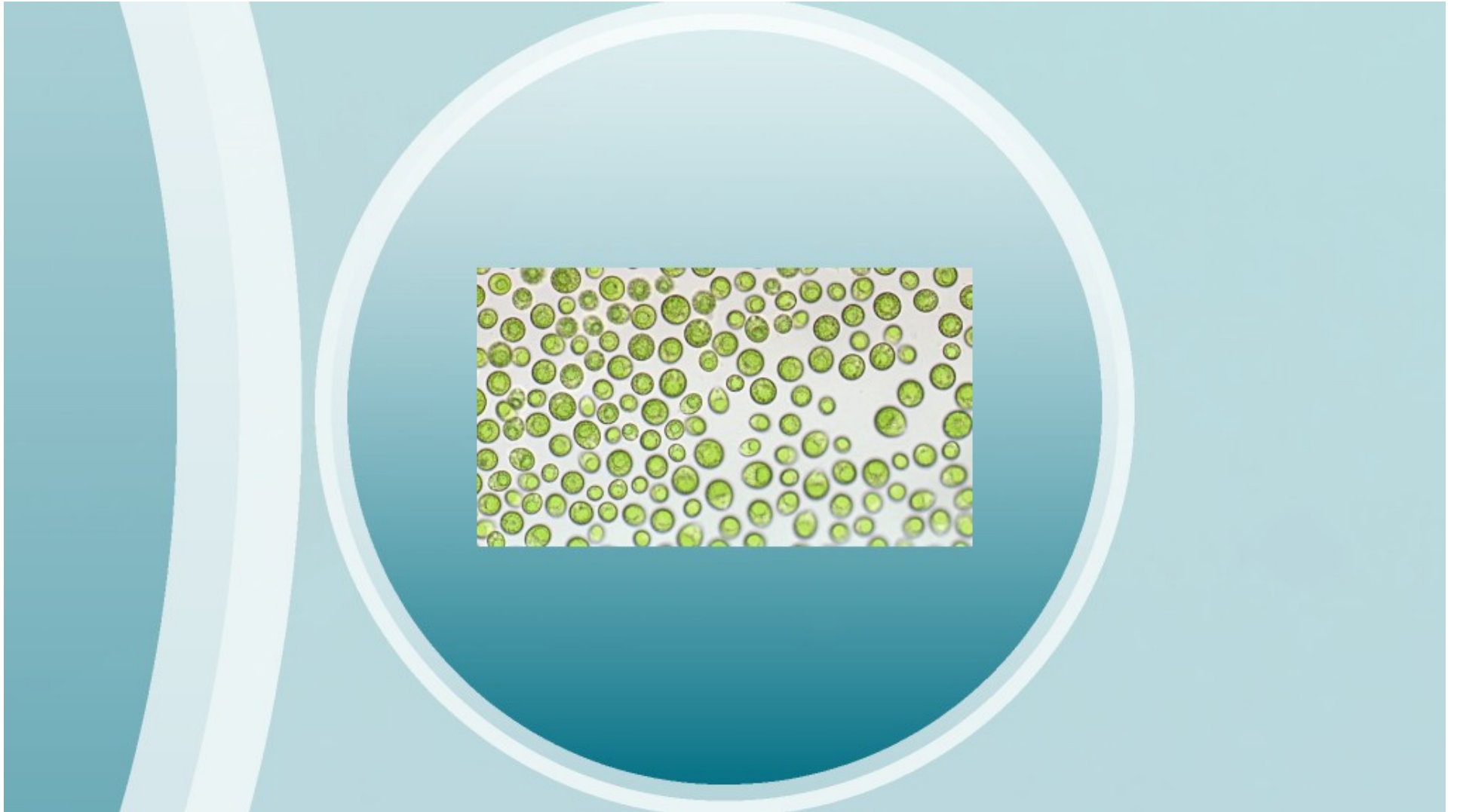
Pandorina

Volvox

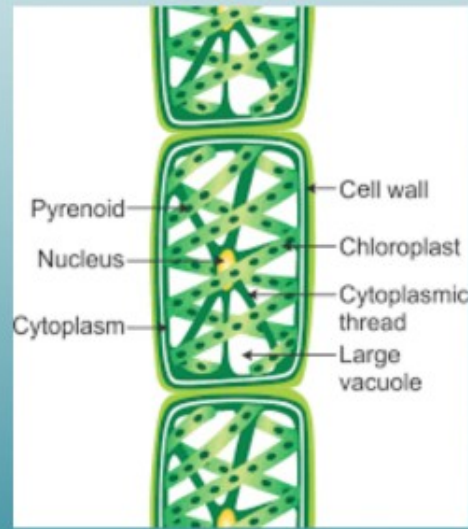
# Chlamydomonas



Under the  
microscope



# Spirogyra

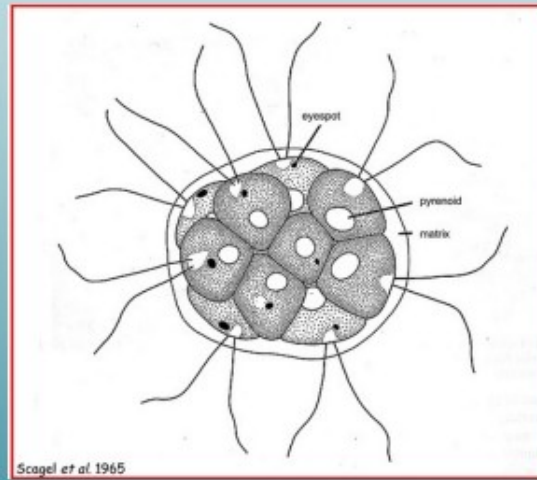


**Under the microscope**





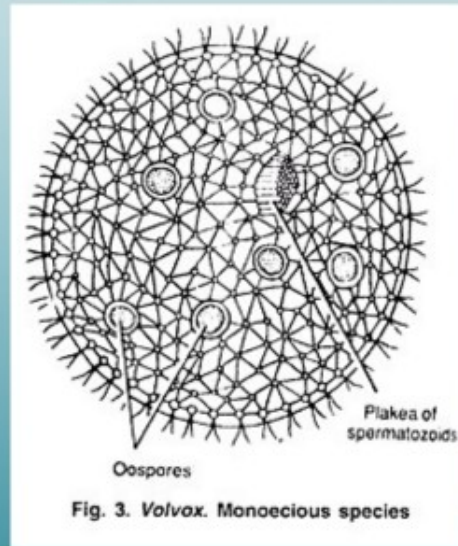
# Pandorina



Under the  
microscope



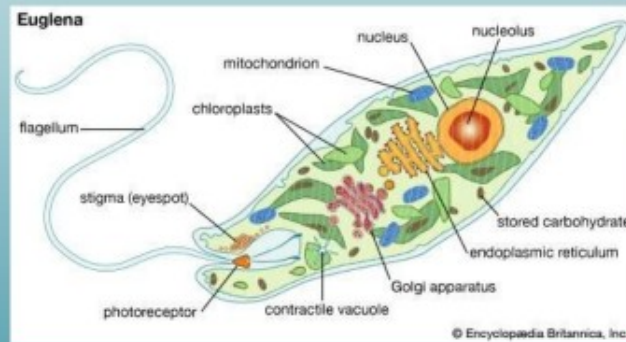
# VolVox



Under the  
microscope

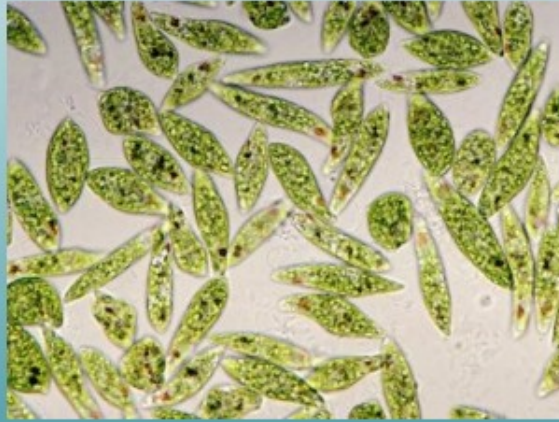


# Euglenophyta



Under the  
microscope

## Euglena



# Phaeophyta



Fucus

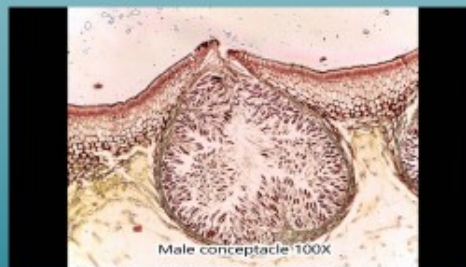
Under the  
microscope



Female conceptacle



Male conceptacle



# Rhodophyta



Polysiphonia

Under the  
microscope

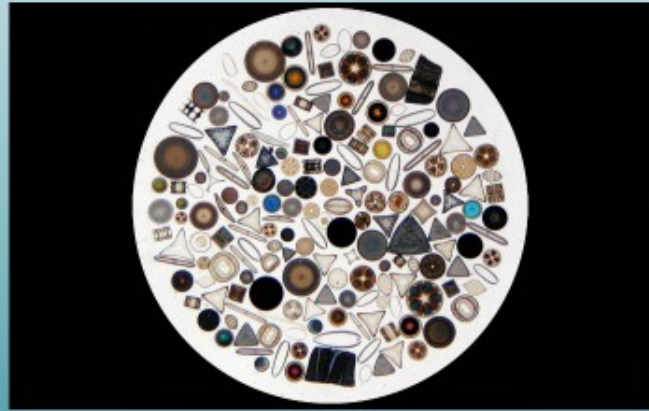
Male gametophyte



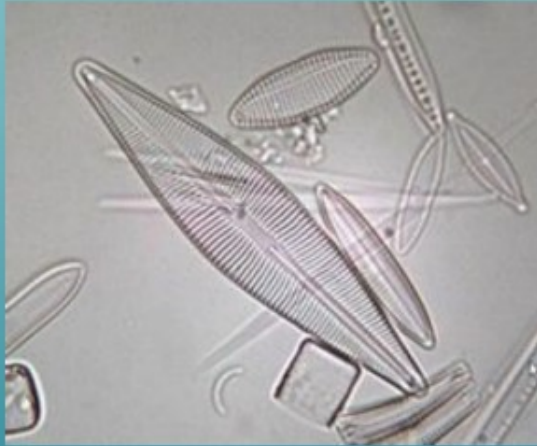
female gametophyte



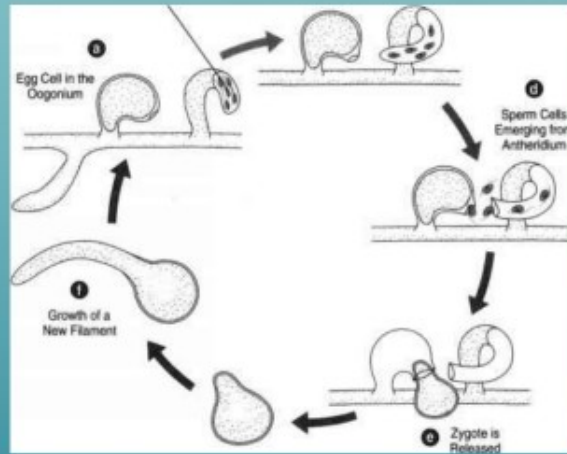
# Bacillariophyta (Diatoms)



Under the  
microscope



# Chrysophyta



## Vaucheria

Under the microscope



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# Lichens



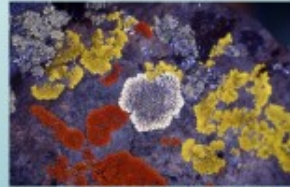
Symbiotic organisms in which fungi and algae form an intimate biological union.

## Types

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## Types:

Crustose(Crusty)



Foliose(Leafy)



Fruticose(Shrubby)



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Lichens

Phyla

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Algae



Losers quit when they fail.  
Winners fail until they succeed.

Robert T. Kiyosaki

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