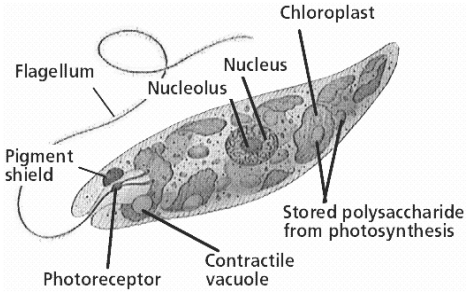
Protists & Fungi



I. Protists are single celled or multi-celled organisms that live in moist areas and are Eukaryotic organisms that have characteristics of plants, animals and fungi

A. Plant like protists - Known as algae and are plantlike because they make their own food *(classified by color)*

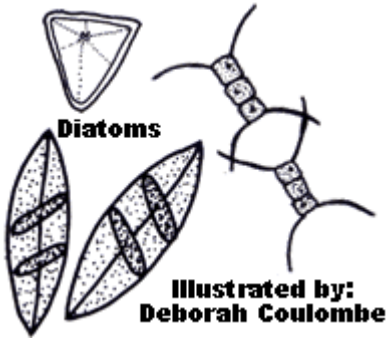
1. Euglenas – Phylum Euglenophyta

a. Make their own food when light is present (have chloroplasts)

b. Most move by flagella

c. Have eye spot, area sensitive to light

2. Diatoms - Phylum Chrysophyta Golden algae (chryso means gold)



a. Have golden brown pigment that covers the green of chlorophyll

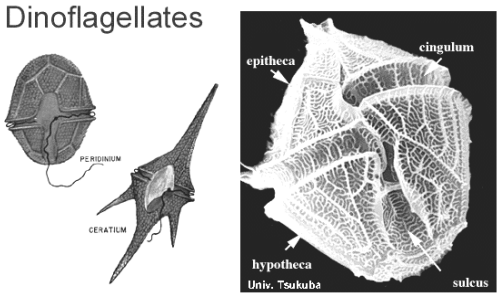
b. Silica shell is left behind when they die

1) The shell is used as scowering powder, tooth past, reflective paint and food conditioner

3. Dinoplagellates – Phylum Pyrrophyta

a. Have red pigments that give red color (pyrro means fire)

b. Has two flagella (Dino means spinning)



1) Have a forward spinning rotational motion

c. Important source of food for other organisms

4. Green algae - Phylum Chlorophyta

a. Have chlorophyll that makes tem

green (chloro – means green)

Volvox

5. Red Algae Phylum Rhodophyta

a. Red Algae Rhodo - means red

b. Live deeper in the ocean because of red pigment

c. Used to give smooth texture to food (Carageenan)

6. Brown Algae Phylum Phaeophyta

a. Grow tall

b. Giant kelp

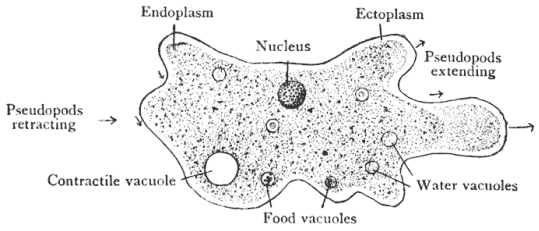
c. Used as food by animals and humans

1) Used in ice-cream and marshmallows

d. Used as fertilizers

e. P 234 Table 9-1

B. Animal Like Protists (Protozoa - *classified according to movement*



1. Sarcodines - Phylum Sarcodinia

a. Move by false foot called a pseudopod

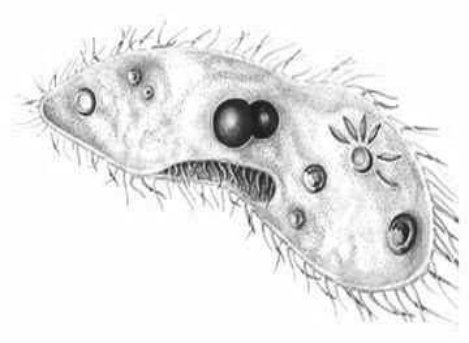
b. Engulf food by phagocytosis

c. Move by amoeboid movement

d. Live in water or liquid environments

2. Flagellates phylum mastigophora

a. Move by flagella



b. Some cause disease (African Sleeping Sickness)

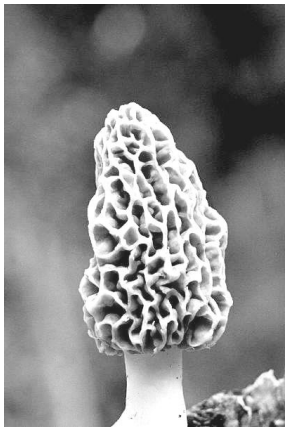
c. Some help termite digest wood

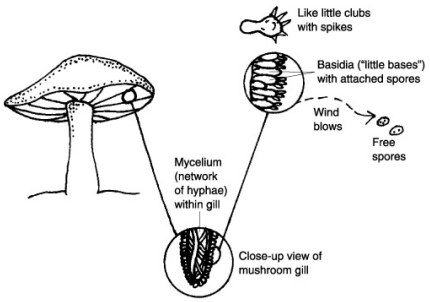
3. Ciliates phylum Ciliophora

a. Move by cilia

b. Paramecium are typical ciliates

c. Two nuclei
1) Macronucleus
2) Micronucleus
d. Oral groove - for obtaining food
e. Waste removed through the anal pore
4. Sporozoans – Phylum sporozoa
a. Parasites
b. Some cause disease as malaria
C. Fungus like protists - have features of both fungi and protista
1. Slime molds
a. Two parts of life cycle
1) Move like amoebas
2) Fruiting bodies that produce spores like molds
b. Water molds and downy mildew
D. Water molds & downy mildews
II. Kingdom Fungi - Eukaryote that gets its nutrients from another organism, dead or living
A. Characteristics of kingdom fungi
1. Get food from another source (most are saprophytes)
2. No roots stems or leaves
3. Body of organism made up of thread like hyphae
4. Produce spores for reproduction
5. Name after their spore producing structure
6. Myc means fungus
B. Zygote fungus Phylum - Zygomycota
1. Produce spores in sporangia
2. Often seen as black fuzzy bread mold





C. Sac Fungi Phylum Ascomycota
- **1. Produce spores in a sac called the ascus**
- **2. Include yeasts**
  - **a. Yeasts also reproduce by budding**
- **3. Cause elm disease, apple scab, rye disease**

D. Club fungi Phylum Basidiomycota
- **1. Produce spores in a club shaped structure called a basidium**
- **2. This group includes: Rusts, smuts, mushrooms, toadstools**

E. Imperfect Fungi Phylum Deuteromycota
- **1. Has characteristics of the other three phyla**
- **2. Includes: penicillium, ringworm, and athletes foot.**

III. Lichens are an organism that is a combination of two organisms as fungus and a green algae or a cyanobacteria

A. Have a mutualistic relationship, a relationship where both organisms benefit
- **1. The algae gets a moist warm protected place to live**
- **2. The fungus then feeds off the algae**

B. They grow on rocks and trees

C. Help make soil better