① Protists

What You'll Learn:

Describe the characteristics shared by all protists.

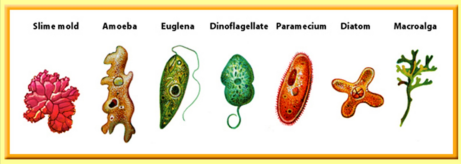
Compare and contrast the three groups of protists.

List examples of each of the three groups of protists.

Explain why protists are so difficult to classify.

What is a protist?

***Eukaryotic organism that lives in a moist environment.**



Protist Reproduction

***Most reproduce asexually through cell division (two new identical cells)**

***Some reproduce sexual. Two sex cells combine to form a new organism that is different than either parent.**

Classification of Protist

Characteristics of Protist Groups

Plantlike	Animal-Like	Funguslike
Contain chlorophyll and make their own food using photosynthesis	Cannot make their own food; capture other organisms for food	Cannot make their own food; absorb food from their surroundings
Have cell walls	Do not have cell walls	Some organisms have cell walls; others do not
No specialized ways to move from place to place	Have specialized ways to move from place to place	Have specialized ways to move from place to place

Plant-like Protist (Algae)

***Contain chlorophyll, cell walls, produce their own food, but do not have roots.**

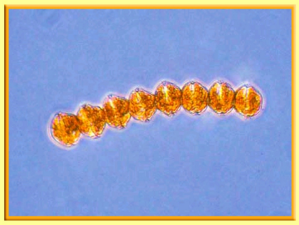
***Not all are green many have pigments that cover up chlorophyll**

Diatoms

***Found in water, brown pigment, and secrete glass like boxes around themselves.**

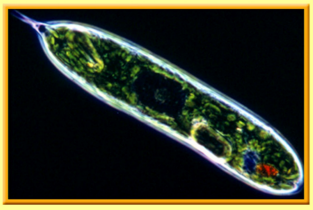
Dinoflagellates (fire algae)

***Have two flagella, chemical that makes them glow, some contain chlorophyll.**



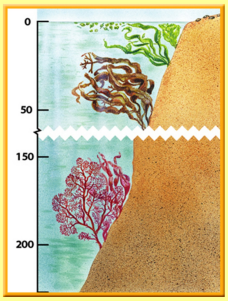
Euglenoids

***Contain characteristics of plants and animals. When light is present they produce energy, if it is not they consume other organisms.**



Red Algae

***Contain red pigment, live deep in the ocean, produce energy.**



Green Algae

***Most similar to plants.**

Brown Algae

*Important source of food and shelter

Importance of Algae

*Called the grass of the ocean. Important food source and produce oxygen.

Algae and the Environment

*Can produce a bloom which uses large amounts of resources

Algae andYou

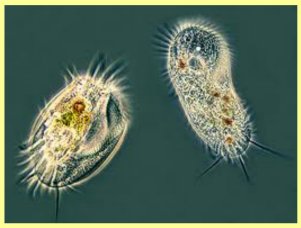
*Carrageen is used in cosmetics, food, and toothpaste

Animal-like Protist (Protozoans)

*Classified by how they move.

Ciliates

*Covered by cilia.



Flagellates

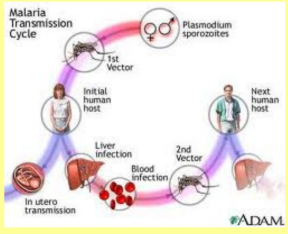
*Use flagellum to move and live in colonies.

Movement with Pseudopods

*Move with a false foot, most are parasites

Other Protozoans

*most are parasites and have complex life cycles



Importance of Protozoans

*Source of food, indicator species, and are a tell for oil.

Diseases in Humans

*many are parasites that cause disease in humans

Fungus-like Protists

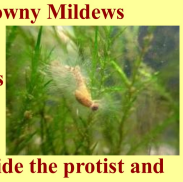
*produce spores like fungus, but they can move.

Slime Molds

*form delicate web structures on their food source

Water Molds and Downy Mildews

*grow as a mass of threads over plants/animals.



*digestion takes place outside the protist and they absorb the nutrients

*spores have flagella for movement

Importance of Fungus-like Protist

*Break down and recycle nutrients

Economic Effects

*Can cause damage to cash crops and animals.