

PROTIST KINGDOM TRAITS:

Kingdom	Unicellular or Multicellular	Heterotroph or Autotroph	Prokaryote or Eukaryote	Cell Wall or No Cell Wall
Protist				
Complete the table below for the major subcategories of the Protist Kingdom				
Protozoa				
Algae				

Heterotrophic = An organism that cannot make their own food.

Autotrophic = An organism capable of producing their own food. (Photosynthetic)

PROTOZOA (Animal-like Protist) (*HETEROTROPHIC*)

Sarcodina: Move by cytoplasmic projections called pseudopods

- Amoeba, Radiolaria

Ciliophora: Move by tiny hair-like projections called cilia.

- Paramecium, Stentor, Spirostomum

Zoomastigina: Move by whip-like tail called flagella

- Trypanosoma, Giardia

Sporozoa: Do not move on their own they move from host to host and reproduce by spores.

- Plasmodium (Malaria), Toxoplasma

ALGAE (Plant-like Protist) (*Phyta = Plant-like*) (*AUTOTROPHIC*)

Chlorophyta: Green Algae

- Unicellular (single celled) – Chlamydomonas
- Colonial (single cells living together in groups) – Volvox
- Filamentous (long filaments) – Spirogyra

Phaeophyta – Brown Algae – Large kelp of the sea

- Sargassum

Rhodophyta – Red Algae – A source of agar and other thickening agents (common seaweed)

- Corallina

Chrysophyta & Bacillariophyta – Golden/Brown Algae – The shells are used in some abrasive cleansers

- Diatoms

Pyrrophyta – Fire Algae – Many of these glow in the dark (makes the water look on fire)

- Dinoflagellates

Euglenophyta – Protozoa-like(very free swimming), (Eyespot) Contain chlorophyll but are not Chlorophyta.

- Euglena gracillis

■ Use your book and notes to complete the table below.

- PHYLUM = NAME OF THE MAJOR GROUP
- A = AUTOTROPH H = HETEROTROPH
- TRAIT = DISTINGUISHING FEATURE OF THIS PHYLUM
- EXAMPLE = SIGNIFICANT ORGANISM IN THIS PHYLUM

PHYLUM	“A” OR “H”	TRAIT	EXAMPLE
CHLOROPHYTA			VOLVOX
	H - HETERO	MOVE BY PSEUDOPODS	
	A – AUTO		AGAR SOURCE
	H – HETERO		PARAMECIUM
EUGLENOPHYTA		EYESPOT & FLAGELLA	
PHAEOPHYTA	A – AUTO		LARGE KELP
		FIRE ALGAE	DINOFLLAGELLATES
SPOROZOAN		PARASITIC PROTOZOA	PLASMODIUM
ZOOMASTIGINA			GIARDIA
	A – AUTO	GOLDEN – BROWN ALGAE	

MATCHING PROTIST KINGDOM TERMS:

- | | |
|---|-----------------------------|
| _____ is a tiny hair-like projection used by paramecia to move. | A. EYESPOT |
| _____ is sometimes known as yellow fever, this disease is transmitted by the anopheles mosquito. | B. PSEUDOPOD |
| _____ is the ability of an organism to give off a lighted glow. | C. PROTOZOA |
| _____ is the large nucleus of the paramecium responsible for asexual reproduction. | D. MICRONUCLEUS |
| _____ is a group of algae that have long slender rows like a thread. | E. MACRONUCLEUS |
| _____ is a group of algae where the individual cells live together in a group. | F. CILIA |
| _____ is a type of golden-brown algae that is found in fresh or saltwater and they have very precise centric or pennate shell shapes. | G. FLAGELLA |
| _____ is the reddish colored spot found on euglena used to detect light. | H. MALARIA |
| _____ are the animal-like protist. | I. GIARDIASIS |
| _____ are organisms that are not capable of making their own food. | J. RED TIDE |
| _____ is responsible for the Irish potato blight in the mid 1800's. | K. COLONIAL ALGAE |
| _____ is the smaller nucleus of the paramecium used in sexual reproduction (conjugation). | L. FILAMENTOUS ALGAE |
| _____ is the term for the cytoplasmic streaming of a sarcodine known as a false foot. | M. BIOLUMINESCENCE |
| _____ is the long slender whip-like tail of the zoomastigina. | N. DIATOM |
| _____ is the plant-like protist. | O. ALGAE |
| _____ is an organism that is capable of making its own food. | P. AGAR |

PROTIST NOTES

NAME _____

- | | |
|---|-------------------------------|
| _____ is a nutrient for culturing bacteria that is a product of red algae. | Q. WATER MOLD |
| _____ is caused by an explosion of dinoflagellates in a body of water. | R. AUTOTROPHIC |
| _____ An illness characterized by severe diarrhea and intestinal cramps, caused by a parasitic protozoan. | S. HETEROTROPHIC |
| _____ Flagellated, unicellular algae; many are photosynthetic | T. ORAL GROOVE |
| _____ A funnel-like structure used by ciliates for feeding. | U. MOUTH PORE |
| _____ The structure that forms food vacuoles that circulate throughout the cytoplasm of paramecium. | V. PHYTOPLANKTON |
| _____ The structure at the oral groove into which the paramecium sweeps food. | W. ZOOPLANKTON |
| _____ An organelle in protist that expels water. | X. CONTRACTILE VACUOLE |
| _____ One-celled algae. | Y. GULLET |
| _____ Microscopic animal organisms that drift in bodies of water worldwide; represent a basic level of feeding. | Z. UNICELLULAR ALGA |
| _____ A photosynthetic, aquatic microorganism. | AA. EUGLENOID |

Fungus-like Protist:

- There are two major categories of fungus-like protist; the slime molds and the water molds.

Describe a slime mold:

1. How are they protist-like?
2. How are they fungus-like?
3. Where would you most likely find a slime mold growing/living?

What are the two slime mold phyla?

- 1.
- 2.

Which phylum are the plasmodial slime molds?

Which phylum are the cellular slime molds?

Describe a water mold:

1. What is characteristic of water mold?
2. Besides water, where do water molds live?

What are the two water mold phyla?

- 1.
- 2.

Describe the “historic” event the *Phytophthora infestans* caused.

What happens to the leaves of a plant when a water mold infects them? Why?