Chapter 21 Protists Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Period\_\_\_\_\_

1. What are protists?

* Eukaryotes that are not members of the plant, animal or fungi kingdoms
* They were the first eukaryotes (nucleus).

2. Characteristics of protists

* Most are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Can be heterotrophic or autotrophic
* Most live in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (some live in soil, animals, …)
* ALL are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (have a nucleus)
* Some can move – cilia, flagella, passive (float)
* Many reproduce by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (asexual)
* Some can reproduce sexually and asexually
* Some exchange genetic information by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (paramecium)

3. Type of protists

 A. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ protists (amebas and paramecium)

* Engulf and digest their food or absorb it from their environment

**Ameba**

* Lives in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Appear like \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Moves using pseudopodia – “false feet”
* Reproduce by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Ingests food by surrounding and engulfing it (\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_)
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ – removes excess water
* Can cause amebic dysentery – diarrhea and stomach upset from drinking contaminated water



**Paramecium**

* Live in water
* Move using \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Exhibits avoidance behavior
* Reproduces \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_(binary fission)
* Reproduces \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (conjugation)
* Ingests food through a mouth pore, gullet, then forms a food vacuole which fuse with lysosomes for digestion
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ – the paramecium stays the same shape (like a shoe)



 B. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (“algae”, phytoplankton, kelp and euglena)

* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the photosynthesis on earth is done by protists (producers)
* Provide energy through photosynthesis to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Provides \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to other organisms (kelp – 60m)
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ waste

**Euglena**

* Live in water
* Have \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ for movement
* Use \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ for photosynthesis
* Can turn into \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ if they are kept in the dark
* Has an \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ used for sensing light and dark



4. Protist diseases

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - an organism that lives on or in a host organism and causes harm to that organism

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - an organism that can carry a parasite, and infect other organisms

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Disease**  | **Protist**  | **Vector (carrier)**  | **Symptoms**  | **Details**  |
| Amebic Dysentery  | Entamoeba  | water  | diarrhea  | can get from tap water in some places  |
| Giardiasis ("beaver fever")  | Giardia  | water  | diarrhea, vomiting  | don't drink water from streams  |
| African Sleeping Sickness  | Trypanosoma  | tse tse fly  | uncontrolled sleepiness, confusion  | Only found in isolated areaslives in blood  |
| Malaria  | Plasmodium  | anopholes mosquito  | fever, chills, death  | can be treated with quininelives in bloodresults in millions deaths per year  |
| Toxoplasmosis  | Toxoplasma  | cats  | fetal death or brain damage  | pregnant women should avoid cat litter  |

Malaria life cycle - Found in hot, wet, tropical places

