

Life Sciences 11

Microbiology Review

Viruses

1. What is the definition of a virus? What two components do all viruses contain?
2. List the living and non-living characteristics of a virus.
3. What is the dominant theory on the evolution of viruses?
4. Describe the Lock & Key Theory of Viral Specificity. Use the theory to explain why most viruses are species (or closely related species) specific.
5. List the 4 steps of the viral lytic cycle.
6. List the 4 steps of the viral lysogenic cycle.
7. Define the term retrovirus.
8. Explain what a vaccine is and how it works.

Microscope

1. Know the parts of the microscope and describe their function.
2. How is the apparent magnification calculated?
3. How is the actual size of a specimen calculated?
4. How is the drawing magnification calculated?

Bacteria

1. What are the general characteristics of all bacteria?
2. List the four phyla of bacteria and what is the major defining characteristic of each phylum?
3. What are some beneficial uses of bacteria?
4. What are some detrimental causes of bacteria?
5. How can bacteria growth be slowed or destroyed?
6. Definitions: colony morphology, cocci, bacillus, spirillum, diplo, strepto, staphlo, tetra, Gram positive, Gram negative, heterotrophic, autotrophic, chemotrophic, saprophytic, methanogen, binary fission, conjugation, pathogen, prokaryotic

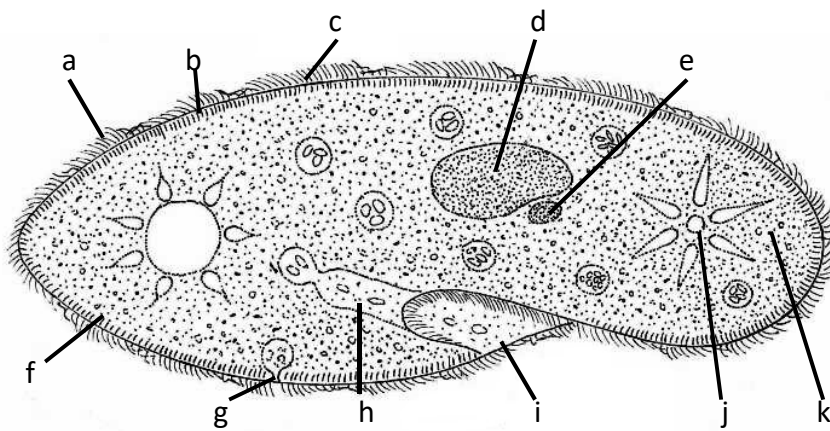
Protists

1. What is the 1 common characteristics of all protists (cell type)?
2. What is the major difference between protists and bacteria?
3. What is the difference between phytoplankton and zooplankton?
4. What are the 4 animal-like protists phyla and what is the means of locomotion for each?
5. What are the two ways that the animal-like protists obtain nutrition?
6. What are the 7 plant-like protists phyla?
7. What is the function of an eyespot in plant-like protists?
8. What are some harmful relationships of protists?
9. What are some beneficial relationships of protists?

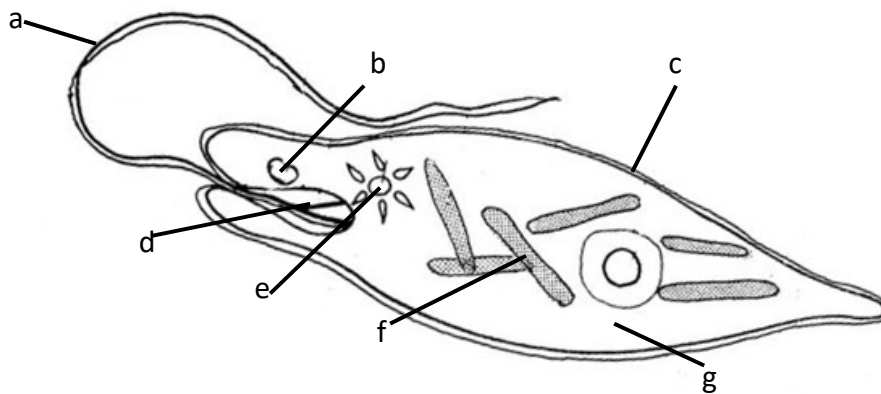
10. Definitions: pellicle, nucleus, gullet, food vacuole, anal pore, contractile vacuole, lysosome, cilia, flagellum, chloroplast, bioluminescence, red tide,

11. Label the parts of the following protists:

a. Paramecium



b. Euglena



c. Amoeba

