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## 3. What are the characteristic features of Euglenoids?

Characteristic features of Euglenoids are as follows:

- Absence of a cell wall
- Their body is flexible due to the presence of protein-rich layer called pellicle.
- Two flagella are found that are of different length.
- They are autotrophic in the presence of sunlight and heterotrophic in the absence of sunlight.

## 4. Give a brief account of viruses with respect to their structure and nature of genetic material. Also name four common viral diseases.

Viruses are the infectious agents which are crystalline in structure when found outside the host cell. Genetic material will be either DNA or RNA (never both) which are present inside the protein core. The virus that infects plants has single-stranded RNA whereas viruses that infect animals are either single or double-stranded DNA or RNA. The capsid is their protein coat that inturn is made of smaller subunits known as capsomeres, guarding the nucleic acid.

Common viral diseases are –Influenza, AIDS, Herpes and Rabies

## 5. Organise a discussion in your class on the topic – Are viruses living or nonliving?

Living Characters

- They are host-specific
- Presence of genetic material
- Ability to multiply
- They have antigenic properties
- They are obligate parasites
- Mutations occur

Non-living Characters

- The cellular structure is absent
- They can be stored in bottles like crystals
- Energy storing or energy liberating systems are absent
- They cannot grow or multiply outside the host.