

CHAPTER 2

THE WORLD OF MICROORGANISMS

1. Microorganisms (Microbes):

Very small organisms, which cannot be seen with the naked eye.

May be unicellular or multicellular.

May exist alone like amoeba or in colonies like Fungi & Bacteria found in ice-cold climate, hot springs, deserts, marshy lands etc.

MICROORGANISMS



2. Types of microorganisms: -

- Bacteria
- Fungi : Bread mould, Penicillium,
- Algae : Chlamydomonas, Spirogyra
- Protozoan : Amoeba, Paramecium

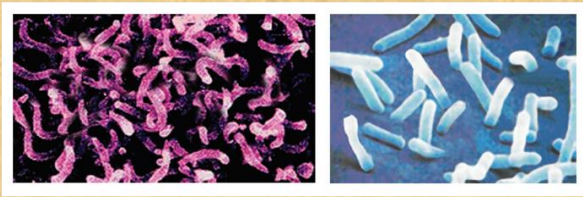
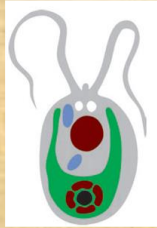


Fig. Bacteria



Chlamydomonas



Sptrogyra

Fig. Algae

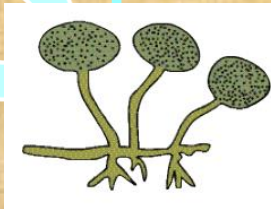


Amoeba

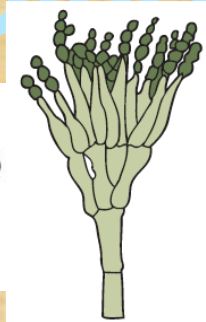


Paramecium

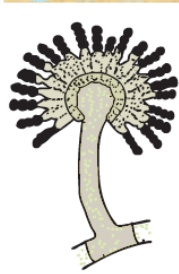
Fig. Protozoa



Bread mould



Penicillium

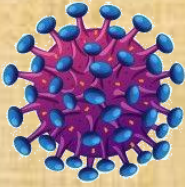


Aspergillus

Fig. Fungi

3. Virus:

They are different from other microorganisms as they reproduce only in the body of host organisms like bacteria, plants or animals.



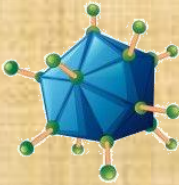
HIV



Hepatitis B



Ebola Virus



Adenovirus



Influenza



Bacteriophage

II. Friendly microorganisms:

a) Making curd from milk: The bacterium called *Lactobacillus* reproduces in milk and helps to convert milk into curd.

b) Making bread: The fungus called yeast reproduces in flour dough and produces carbon dioxide during respiration, which makes the dough soft and helps in making bread, cakes, biscuits, pastries etc.

c) Making alcohol: The fungus called yeast reproduces in sugar solution and converts it into alcohol. This process is called fermentation.

d) Making medicines: Such medicines are called antibiotics.

E.g. Streptomycin, tetracycline, erythromycin etc.



Increasing Soil Fertility Some Bacteria and Blue Green Algae are able to fix nitrogen from the atmosphere to enrich soil with nitrogen and increase its fertility. These microbes are called Biological Nitrogen Fixers.

Cleaning the Environment Microorganisms decompose dead organic waste of plants and animals.

