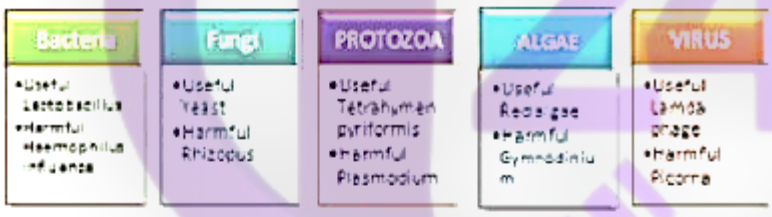
Chapter – 2

Micro-organisms: Friend and Foe

- **Micro-organisms:** Micro-organisms are too small and are not visible to the unaided eye.
- They can survive under all types of environment, ranging from ice cold climate to hot springs and deserts to marshy lands. They are also found inside the bodies of animals including humans.
- Micro-organisms are found in air, water and in the bodies of plants and animals.
- They may be unicellular or multicellular.
- Micro-organisms are classified into four major groups. These groups are bacteria, fungi, protozoa and some algae.
- Viruses are quite different from other micro-organisms. They reproduce only inside the host organism; bacterium, plant or animal cell.

- Based on the significance, micro-organisms can be useful or harmful to us.



Uses of microorganisms

- Protozoan cause serious diseases like **dysentery and malaria.**
- Some bacteria and blue green algae present in the soil fix nitrogen from the atmosphere and convert into nitrogenous compounds.
- Certain bacteria convert compounds of nitrogen present in the soil into nitrogen gas which is released to the atmosphere.
- **Pathogens:** Some of the microorganisms cause diseases in human beings, plants and

animals. Such disease causing microorganisms are called pathogens.

- **Cleaning of Environment:** The microorganisms decompose dead organic waste of plants and animals converting them into simple substances. These substances are again used by other plants and animals. Microorganisms can be used to degrade the harmful and smelly substances and thereby clean up the environment.