

CHAPTER 2

THE WORLD OF MICROORGANISMS

Harmful microorganisms:

- i) Some microorganisms cause diseases in plants and animals. Such disease causing microorganisms are called pathogens.
- ii) Some microorganisms grow in food substances and produce toxic substances and makes the food poisonous.
- iii) Some microorganisms spoil materials like clothing, leather, wood etc.

Pathogens • Disease causing microorganisms.

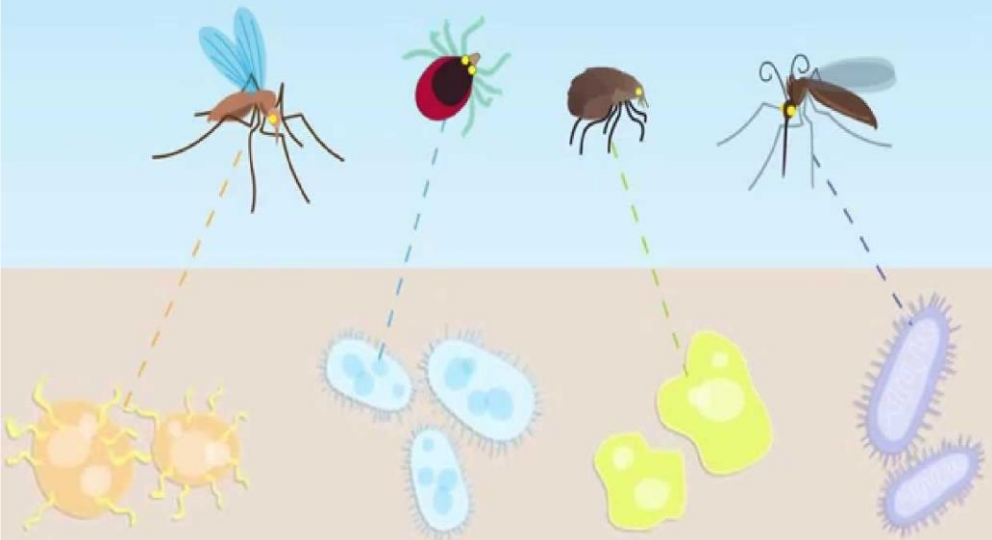
- Enter our body through air, water, food, contact or insects.
- Diseases, which can spread from an infected person to a healthy person are called communicable diseases.

E.g. cholera, common cold, chicken pox, tuberculosis etc.

Some insects and animals act as carriers of disease causing microbes.

E.g. House fly, Female anopheles mosquito (malaria), Female aedes mosquito (dengue fever) etc.

Carriers of Disease Causing Microbes



Disease causing microorganisms in plants: Microorganisms cause diseases in plants like rice, wheat, potato, sugarcane, apple, orange etc. These diseases reduce crop yield.



Some common human diseases caused by microorganisms

Human Disease	Causative Microorganism	Mode of Microorganism	Preventive Measures(General)
Tuberculosis	Bacteria	Air	Keep the patient in complete isolation. Keep the personal belongings of the patient away from those of the others. Vaccination to be given at suitable age.
Measles	Virus	Air	
Chicken Pox	Virus	Air/Contact	
Polio	Virus	Air/Water	
Cholera	Bacteria	Water/Food	Maintain personal hygiene and good sanitary habits. Consume properly cooked food and boiled drinking water. Vaccination.
Typhoid	Bacteria	Water	
Hepatitis A	Virus	Water	Drink boiled drinking water. Vaccination.
Malaria	Protozoa	Mosquito	Use mosquito net and repellents. Spray insecticides and control breeding of mosquitoes by not allowing water to collect in the surroundings.

Common plant diseases caused by microorganisms

Plant Disease	Microorganism	Mode of Transmission
Citrus canker	Bacteria	Air
Rust of wheat	Fungi	Air, Seeds
Yellow vein mosaic of <i>bhindi</i> (Okra)	Virus	Insect

Food Poisoning • Could be due to consumption of food spoilt by micro organisms

