Biology
Chapter 3 Infection and response

Communicable disease

What are pathogens

- Pathogens are very tiny living things called microorganisms that enter inside your body and cause diseases
- These diseases are called communicable diseases which means they are infectious and can spread easily from one person to another
- Both plants and animals can get infected by the pathogens

There are 4 main types of pathogens

1. Bacteria
2. Viruses
3. Protist
4. fungi

Bacteria

- Bacteria are very small living cells

- They are extremely small living cells and they are much smaller than the cells in your body
- In fact one Bacteria is about 1/100 the size of normal body cell
- They can reproduce very quickly in right conditions for example when its warm and their is enough food
- Some bacteria are harmless and even helpful but pathogenic bacteria can make you ill
- They can make you sick by producing toxin Which are poisonous substances that damage your body cells and tissues
- This damage causes the symptoms of diseases such as pain or weakness

Viruses

- Viruses are not living cells
- they are much smaller than bacteria about 1/100 the size of bacteria
- just like the bacteria viruses can also reproduced very quickly but they do this in a very different way

- A virus needs to enter your body cell to survive and reproduce
- Once it will get inside your body it takes control on the cell machinery and forces it to make new copies of viruses
- Making a lot of new viruses the infected cell burst and release all the new viruses into the body

Protists

- Protest are small living organisms and most of them are single cell
- They belong to group called you corriots
- which mean they have nucleus
- there are many different type of protest
- some protest act like parasite

What is parasite

- Parasite is a living thing that live on or inside another organism and that is called host and causes harm to it
- Parasite get food and shelter from its host and in return damages it

Protists are often spread by something called vector

- **A vector is an organism that carries the protist from one host to another but does not get the disease itself**
- **For example and insect like mosquito can carry a protist and cause Malaria without getting sick**