

This is the **Higher Separate** version — includes all Higher Tier content (marked ★) and all Separate Science content.

Communicable diseases are caused by pathogens that can spread between hosts. Understanding transmission is key to prevention.

- Bacteria: produce toxins. Treated with antibiotics. Examples: salmonella, TB, gonorrhoea
- Viruses: invade host cells, replicate, lyse cell. Not treated with antibiotics. Examples: HIV, measles, influenza
- Fungi: grow on/in host. Examples: athlete's foot, rose black spot
- Protists: often spread by vectors. Example: malaria (Plasmodium, Anopheles mosquito)
- HIV: attacks T helper lymphocytes → immune system fails → AIDS
- Prevention: vaccines, antibiotics (bacteria only), safe sex, vector control, clean water/food

Key Terms

Pathogen	Organism causing disease — bacteria, virus, fungus or protist
Vector	Organism transmitting pathogen (e.g. mosquito for malaria)
HIV	Virus attacking immune system — leads to AIDS

■ **Exam Tip:** Antibiotics ONLY kill bacteria. They do NOT kill viruses. This is the most tested fact in this topic section.