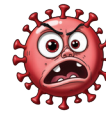




**BACTERIA:**

**BACTERIA** are single-celled microorganisms that lack a nucleus and have a simple cellular structure.



**VIRUS:**

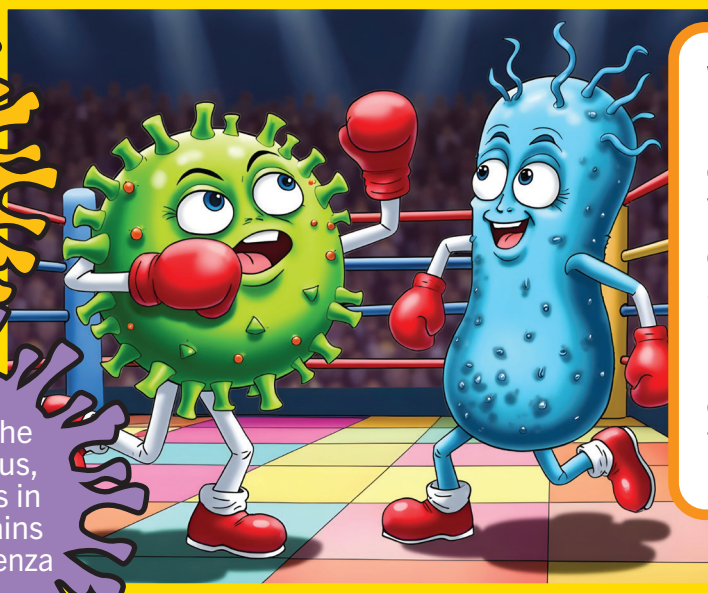
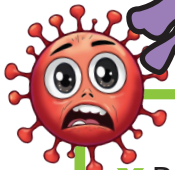
A **VIRUS** is a microscopic infectious agent that can only reproduce inside the living cells of a host organism.



**COLDS AND FLU ARE CAUSED BY VIRUSES, NOT BACTERIA.**

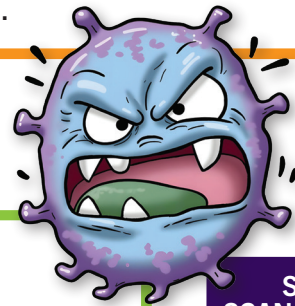
**COMMON COLD:** Caused by various viruses, most commonly rhinoviruses.

**FLU:** Caused by the influenza virus, which comes in different strains (such as Influenza A and B).



**WHY IS IT IMPORTANT TO KNOW THE DIFFERENCE?**

- Antibiotics do not work on viruses: they kill bacteria.
- Treatments focus on flu symptom relief. Over-the-counter meds help manage sore throats, chest infections etc.
- Prevention: Vaccines exist for the flu but not for the common cold.



**CHARACTERISTICS OF BACTERIA**

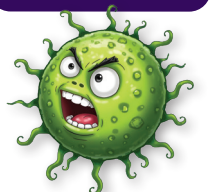
- ✗ Bacteria are unicellular and consist of one cell only.
- ✗ They have cell walls made of protein, a complex carbohydrate and fat molecules.
- ✗ Most bacteria are saprotrophs and feed on dead organic matter.
- ✗ They produce enzymes, which digest the food outside the cell.
- ✗ They reproduce asexually by one cell splitting into two to form new cells.



STOP, SCAN & STUDY!

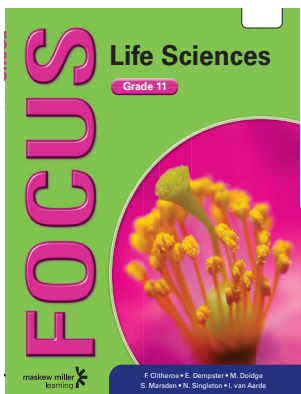


Scan the QR code & get subject study assistance!



**CHARACTERISTICS OF A VIRUS**

- \* Viruses have a very simple structure.
- \* Viruses are smaller than even the smallest cells and have no nucleus.
- \* The protein coat of a virus is called a *capsid*. The capsid protects the DNA and helps the virus to enter its specific host.
- \* A virus cannot reproduce on its own. Viruses only reproduce when they infect the host cells of other organisms.
- \* The proteins of the virus capsid stick to proteins on the surface of the host cell. It then injects its nucleic acid into the cytoplasm of the host cell. It takes over the functioning of the host cell and multiplies.



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