

1. The picture shows three different bacteria shapes. **Label** each shape.







Match the term with its definition.

Term

Definition

- | | | | |
|-----------|---------------------|-----------|---|
| _____ 2. | lysogenic infection | A. | Compound that block the growth and reproduction of bacteria |
| _____ 3. | prion | B. | Protein coat surrounding a virus |
| _____ 4. | bacteriophage | C. | Misfolded protein that causes disease in animals |
| _____ 5. | antibiotic | D. | Bacteriophage DNA that is embedded in the host's DNA |
| _____ 6. | virus | E. | Viruses with RNA as their genetic material |
| _____ 7. | prokaryote | F. | Protective structure formed by a prokaryote when growth conditions are unfavorable |
| _____ 8. | prophage | G. | Examples include SARS, MRSA, Ebola, and bird flu |
| _____ 9. | pathogen | H. | Particle made of nucleic acid, protein, and in some cases, lipids; can replicate only by infecting living cells |
| _____ 10. | lytic infection | I. | Process where viral DNA becomes part of a host cell's DNA |
| _____ 11. | endospore | J. | Disease-causing microorganism |
| _____ 12. | binary fission | K. | Process by which some bacteria exchange genetic material |
| _____ 13. | vaccine | L. | Preparation of weakened or killed pathogen or inactivated toxins used to produce immunity |
| _____ 14. | capsid | M. | Process in which a host cell bursts after a viral infection |
| _____ 15. | retrovirus | N. | Organism consisting of one cell that lacks a nucleus |
| _____ 16. | conjugation | O. | Virus that infects bacteria |
| _____ 17. | emerging diseases | | Process of cell division used by bacteria |

Importance of Bacteria - Use each of the following terms (once only) to complete the passage.

antibiotics
nitrogen
yogurt

bacteria
nitrogen fixation
decomposers

normal flora
disease
symbiotically

Most (18) _____ are beneficial. Some bacteria are (19) _____ that return vital nutrients to the environment. Certain types of bacteria use (20) _____ gas directly and convert this gas into compounds that plants can use. This process is called (21) _____. Some bacteria called (22) _____ live in and on the human body. *Escherichia coli* live (23) _____ in the gut of humans and produce vitamin K, which humans need for blood clotting. Many food products such as cheese and (24) _____, are made with the aid of bacteria. Other bacteria make (25) _____. A small percentage of bacteria cause (26) _____.

Importance of Viruses - Use each of the following terms (once only) to complete the passage.

cancer-causing
nucleus
DNA

retrovirus
host cell

reverse transcriptase
HIV
RNA

Some disease-causing viruses have (27) _____ instead of DNA. This type of virus is called a (28) _____. The best-known virus of this type is (29) _____. Some (30) _____ viruses belong to this group. In the core of the virus is RNA and an enzyme called (31) _____, which is the enzyme that transcribes (32) _____ from viral RNA. Then DNA moves into the (33) _____ of the cell, and the (34) _____ manufactures and assembles new HIV particles.

35. Complete the Venn diagram below. Insert at least two ideas per area.

