

Viruses

Fill in the blanks

1. Viruses are not considered _____ organisms because they do not have a cell membrane or organelles.
2. A _____ is a type of virus that infects bacteria.
3. Viruses cannot replicate outside of host cells and can only infect specific cell types that contain _____ the virus can bind to.
4. Hepatitis can only infect _____ cells.
5. Viruses can have _____ or _____ as their genetic material.
6. Viruses are (bigger or smaller) _____ than bacteria.
7. When an RNA virus infects a cell, it sometimes convert its RNA to DNA using the enzyme _____.
8. The constant small changes in the genetic material of viruses means that they can _____ like living organisms.
9. We can get colds and the flu every year because they _____.
10. Influenza has the potential to cause pandemics because it can infect _____.
11. Influenza contains two important molecules: _____ allows influenza to bind to cells, and _____ allows the replicated virus particle to be released from the host cell.
12. A _____ infection is when viruses can infect more than one species, like influenza.
13. (RNA or DNA) _____ viruses can mutate more rapidly.
14. Viruses have 2 main mechanisms for replication. The _____ cycle causes the host cell to be killed when new virus particles are released and the _____ cycle allows the viral DNA to be integrated into the host DNA.
15. The stages of infection include:
 - a. _____
 - b. _____
 - c. _____
 - d. _____

16. HIV can infect cells and replicate and create new virus particles without killing the host cell, this is called _____.
17. HIV infects cells that have a _____ receptor.
18. Once a person infected with HIV becomes severely immune-compromised, they are considered to _____.
19. Type of viruses that cause vomiting and diarrhea are _____.
20. Match the virus with the mode of transmission: Warts, HIV, influenza, Hepatitis A
- Airborne or droplets inhaled _____
 - Skin to skin contact _____
 - Oral-fecal route _____
 - Blood and body fluids/ sexual transmission _____
21. Match the correct virus to the disease: **Rotavirus, Herpes, Influenza, Epstein-Barr, Hepatitis, HPV, HIV, Rhinoviruses, Coronavirus**
- A virus that infects the liver and can cause liver cancer or cirrhosis _____
 - Current type of virus causing global pandemic _____
 - A respiratory infection that resembles the common cold, but usually causes fever and muscle aches; resolves in about week in healthy people _____
 - A viral infection that causes warts _____
 - A common infection in young children that causes diarrhea and vomiting; usually resolves quickly, but can be fatal in developing countries where children are malnourished or do not have clean drinking water _____
 - Virus that infects B cells and causes a range of symptoms from no symptoms to extreme fatigue; 90% of adults infected at some point in their life _____
 - A virus that causes common colds _____
 - A viral infection caused by a retrovirus that infects immune cells and causes immunodeficiency _____
 - Transmitted by skin-to-skin contact, with outbreaks occurring during periods of stress; infectious organism can “hide” in sensory neurons between outbreaks _____