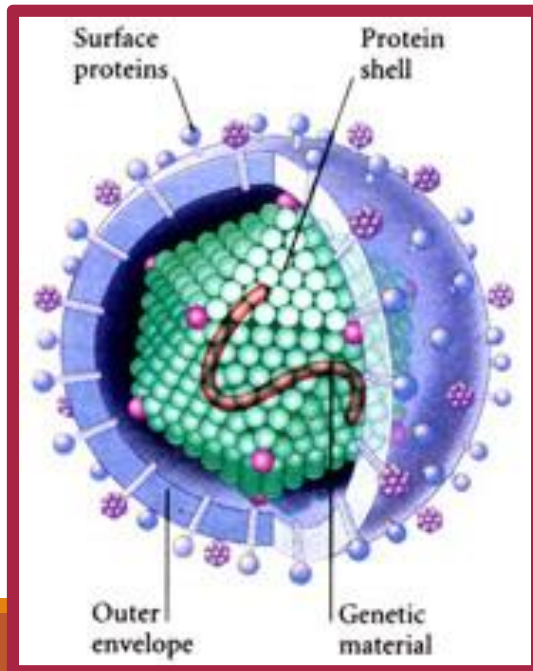
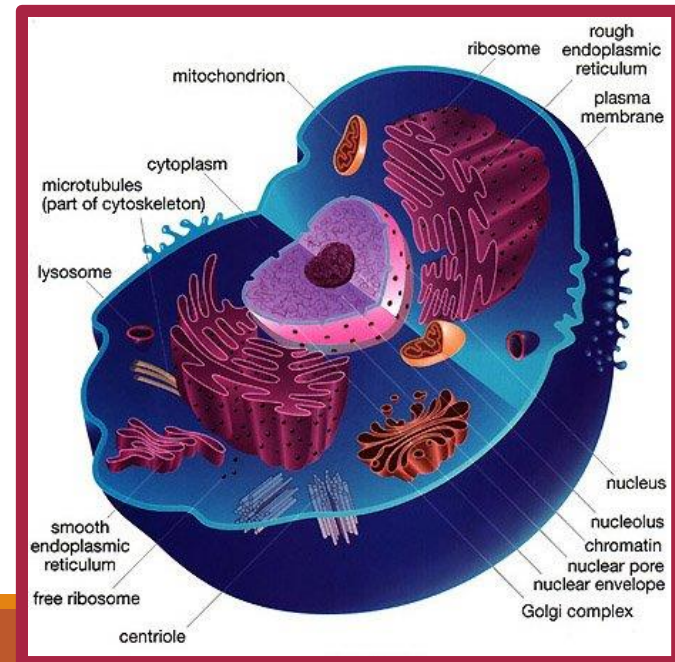


Are viruses
living?

A virus is an infectious agent made up of nucleic acid (DNA or RNA) wrapped in a protein coat called a capsid.
Viruses have no nucleus, no organelles, no cytoplasm or cell membrane — Non-cellular (not a cell)

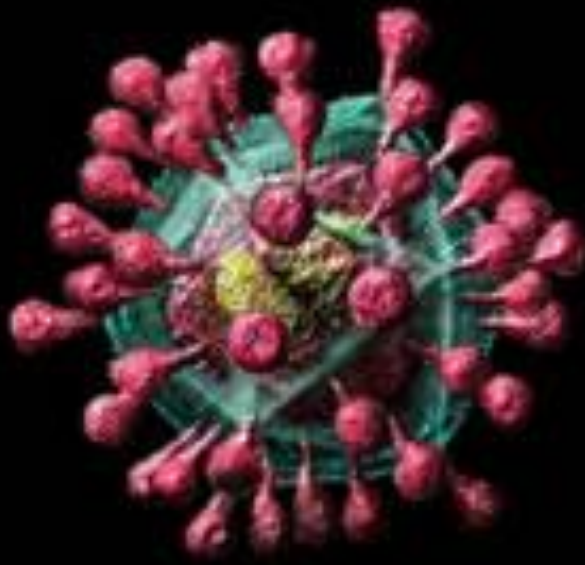


V

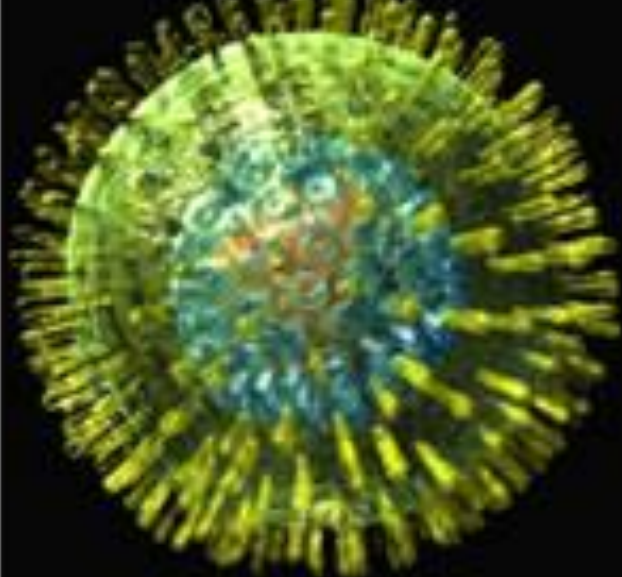




Hepatitis C virus



Coronavirus



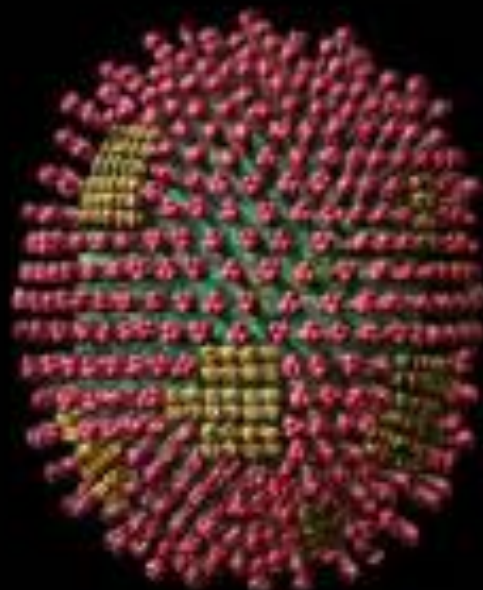
Herpes virus



Bird flu virus



Smallpox virus



Influenza virus

How Do Viruses Work?

- In order to replicate and make copies of itself, viruses need a **host cell**. **Any living cell** can become a host cell (human, animal, plant, and even bacterial cells!)
- Without a host cell, **viruses cannot function**
- Viruses can not store energy or make proteins
- Although any cell can theoretically become a host cell, **specific viruses** will only infect **specific cell**
 - (EX: HIV will *only* infect human T cells, a part of your immune system)

At the bottom of this page:

Write a paragraph (5-6 sentences) on the following:

What type of cell is a virus? Is a virus a living organism? Cite evidence based on what we have learned about life and viruses.

Virus

Living Cell

<i>Structure</i>	RNA or DNA core (center), protein coat (capsid)	Cell membrane, cytoplasm, genetic material, organelles
<i>Reproduction</i>	Copies itself only inside host cell--REPLICATION	Asexual or Sexual
<i>Genetic Material</i>	DNA <u>or</u> RNA	DNA <u>and</u> RNA
<i>Growth and Development</i>	NO	YES – Multicellular Organisms
<i>Obtain and Use Energy</i>	NO	YES
<i>Respond to Environment</i>	NO	YES
<i>Change over time</i>	YES	YES