

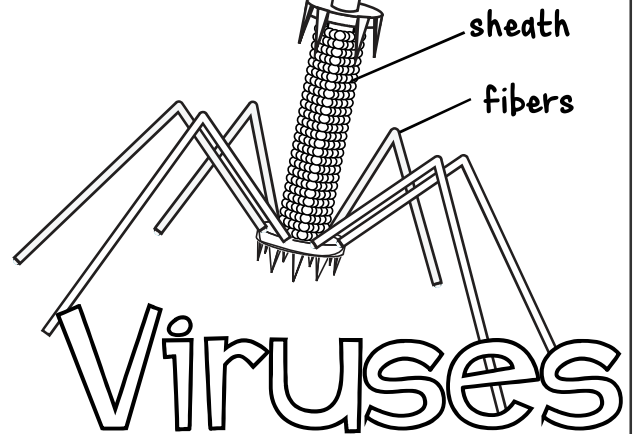
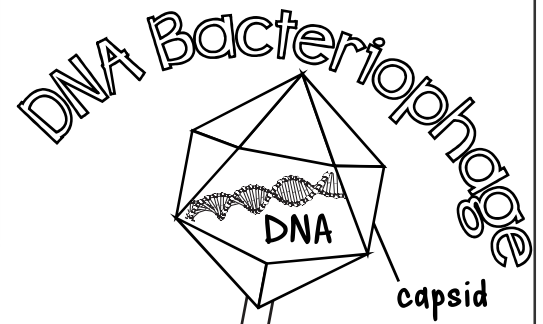
Variety of Viruses:

- Viruses come in all shapes and sizes
- Most viruses are _____ - they use specific proteins on the surface of host cells to infect them.
- _____ are viruses that infect bacterial cells.

Viruses and Human Health:

- Some viruses can cause serious human _____ or even _____.
- _____ can help prevent viral infection.
- When you get a vaccine from your doctor, the doctor injects you with _____ viruses, often just the _____ of the virus. This can help your body learn how to fight a virus before you're actually infected with that type of _____ during your lifetime.
- Vaccines have very low _____ and studies have shown they do NOT cause _____ (which is one of the common myths)

Name: _____



Genetic Information:

Some viruses have _____ and some have _____ as their genetic material, the instructions they use to tell a host cell's machinery to build new _____.

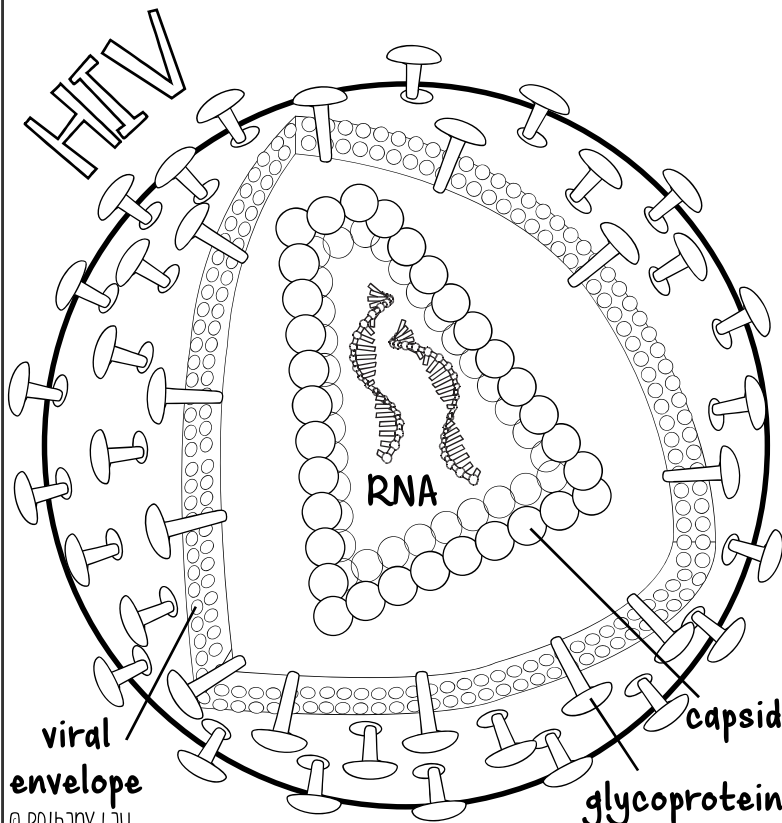
Capsid:

Viruses have a _____ layer called the capsid that protects their _____.

Viral Envelope:

Some viruses have a _____ membrane around their capsid called the _____.

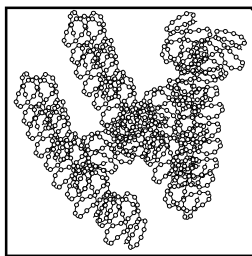
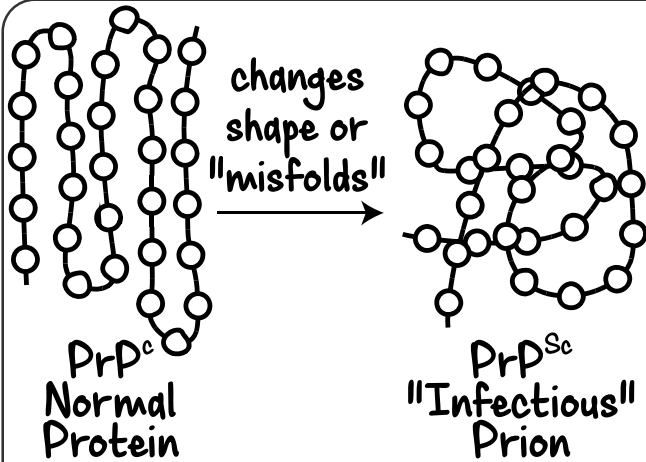
On the surface of the viral envelope, there can be _____, _____ attached to _____, that help the virus attach to host cells.



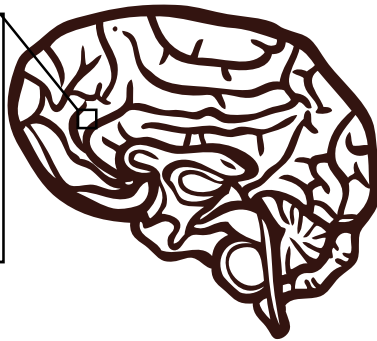
Name: _____

The Misfolding Problem:

- In our _____ cells, a protein called the PrP protein is produced. Scientists don't know what it actually does normally in our _____.
- Normally this protein is _____ a particular way and this fold is called Isoform PrP^c.
- Rarely, this protein can _____ and get stuck in an Isoform called PrP^{Sc}.
- This PrP^{Sc} is quite _____ as compared to other proteins, and sticks to other PrP^c, forcing them to also change structure to form more PrP^{Sc}.
- As more and more PrP^{Sc} stick to each other and build up in the cell, long fibers and _____ build up in the cells and tissues in the _____ or the nervous system.
- Prions are known to cause several neurological disorders including scrapie, _____, and human _____.
- Prion can be spread by _____ infected tissue, making this a unique case of infectious protein.

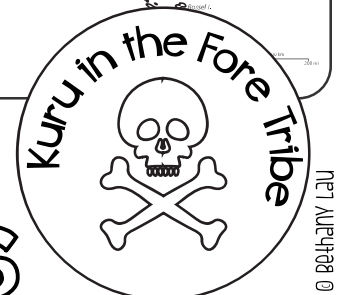
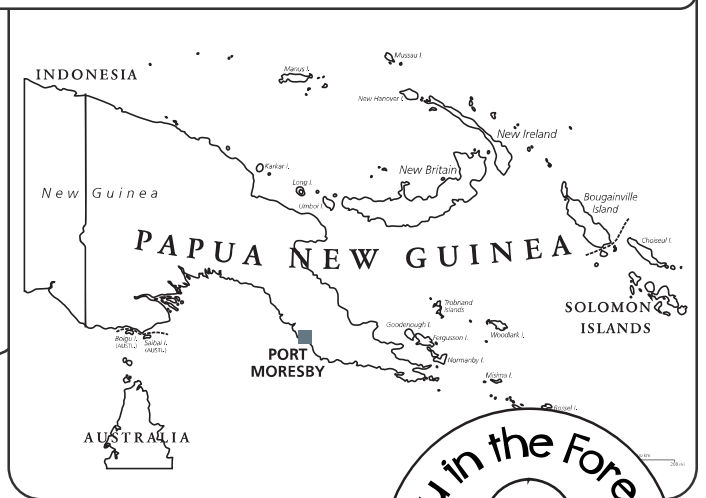


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The Kuru Story:

- Scientists discovered a prion disease called _____, which was common in the early 1900s in the Fore tribe in Papua New Guinea.
- The Fore Tribe was a _____ tribe that would eat their relative's _____ when they died. Scientists and doctors discovered that the _____ were being spread by eating infected tissue.



Prions: Infectious Protein Structures