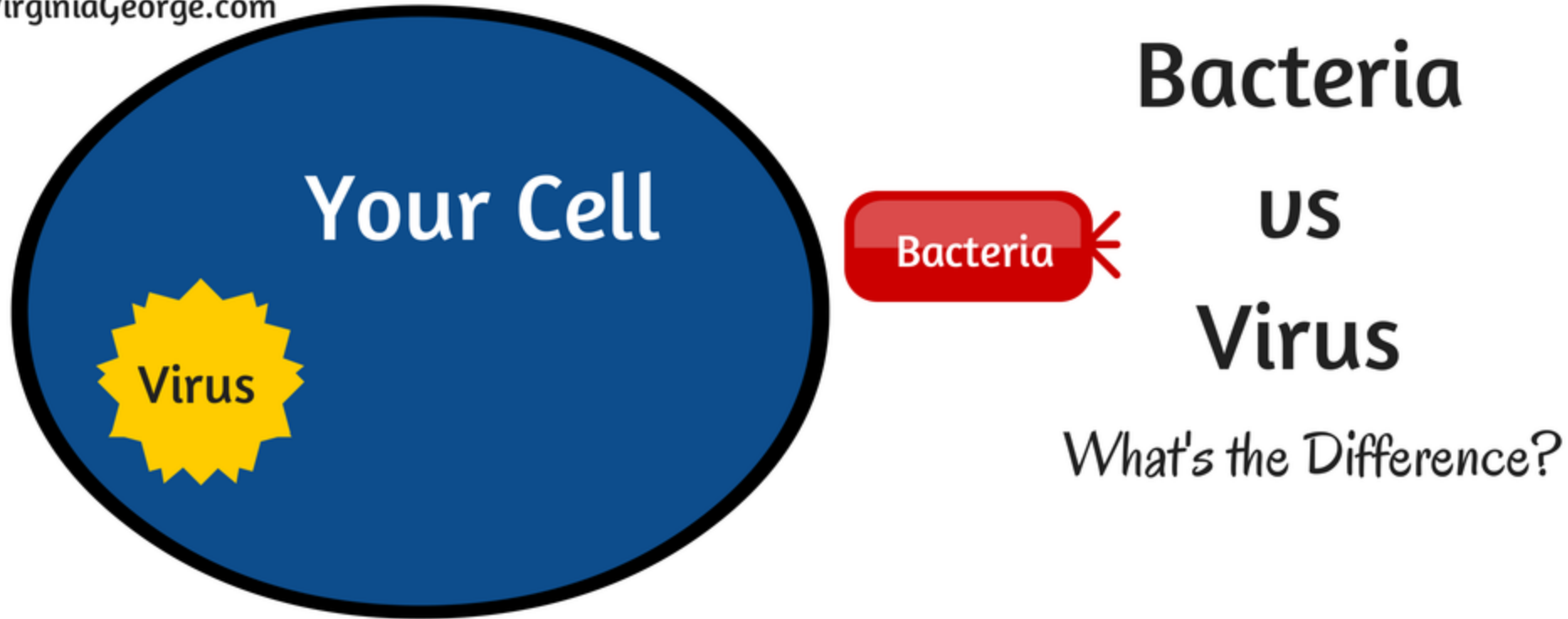
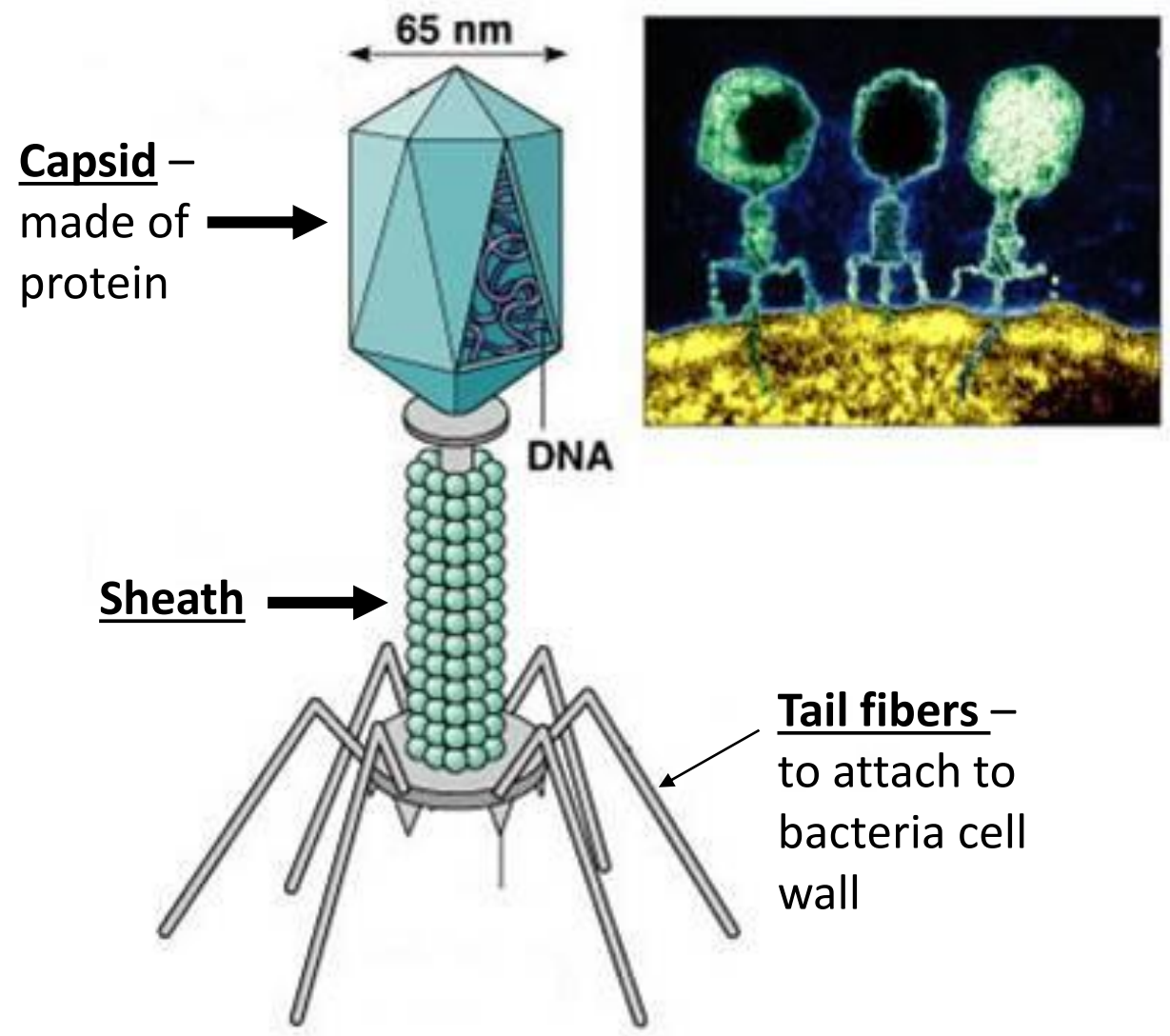


Virus

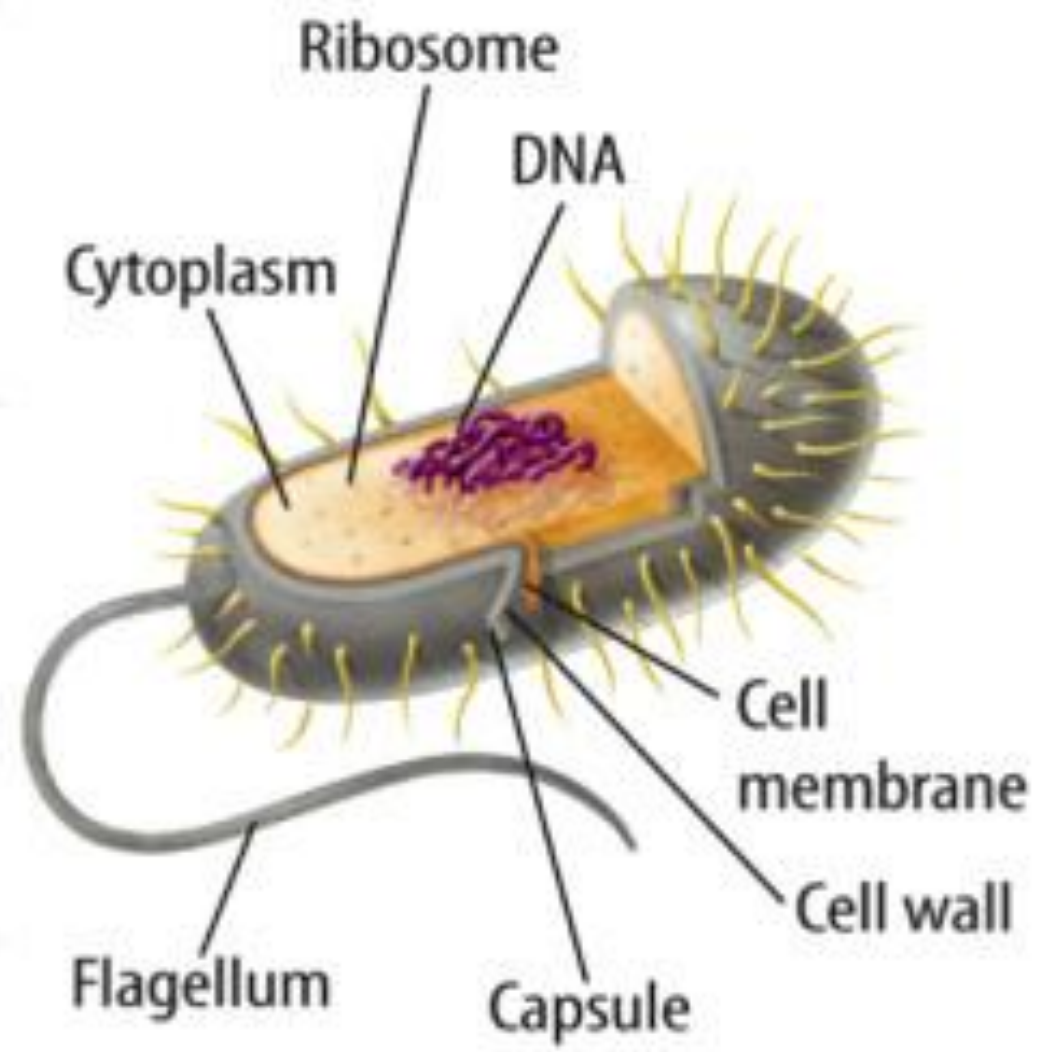
<https://www.youtube.com/watch?v=s-HThHRV4uo> (3:18)



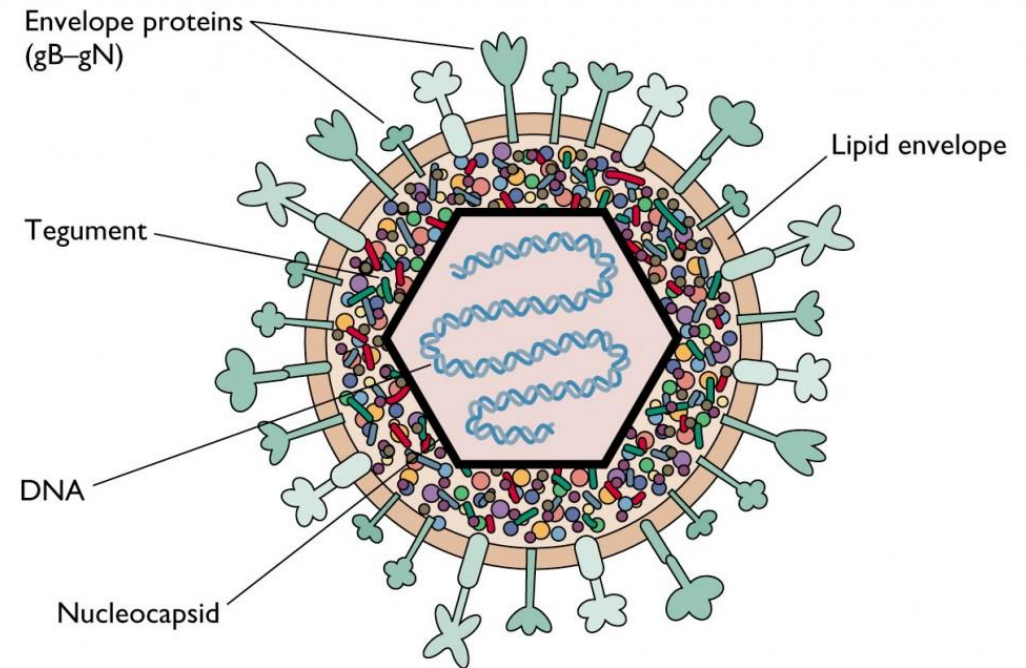
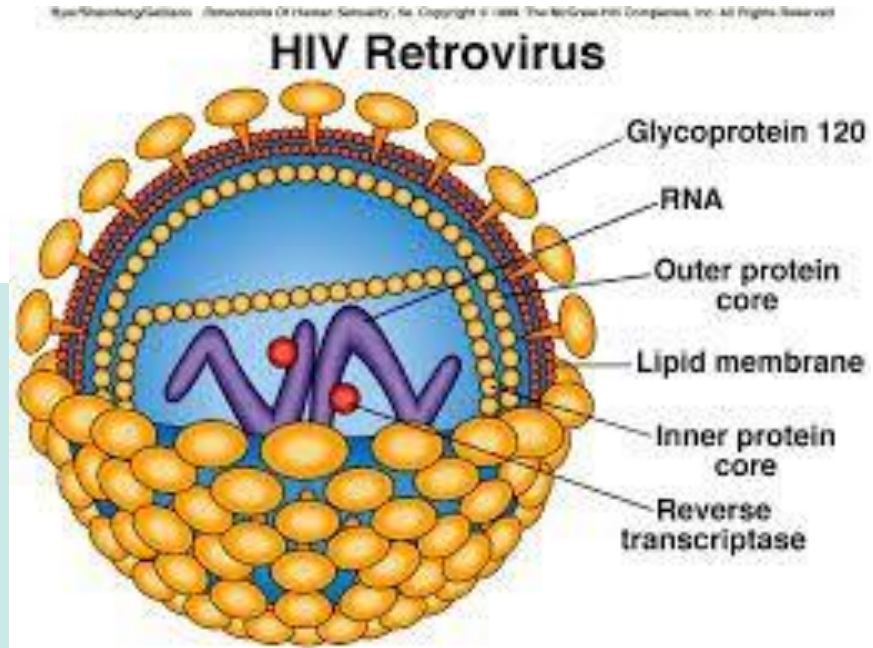
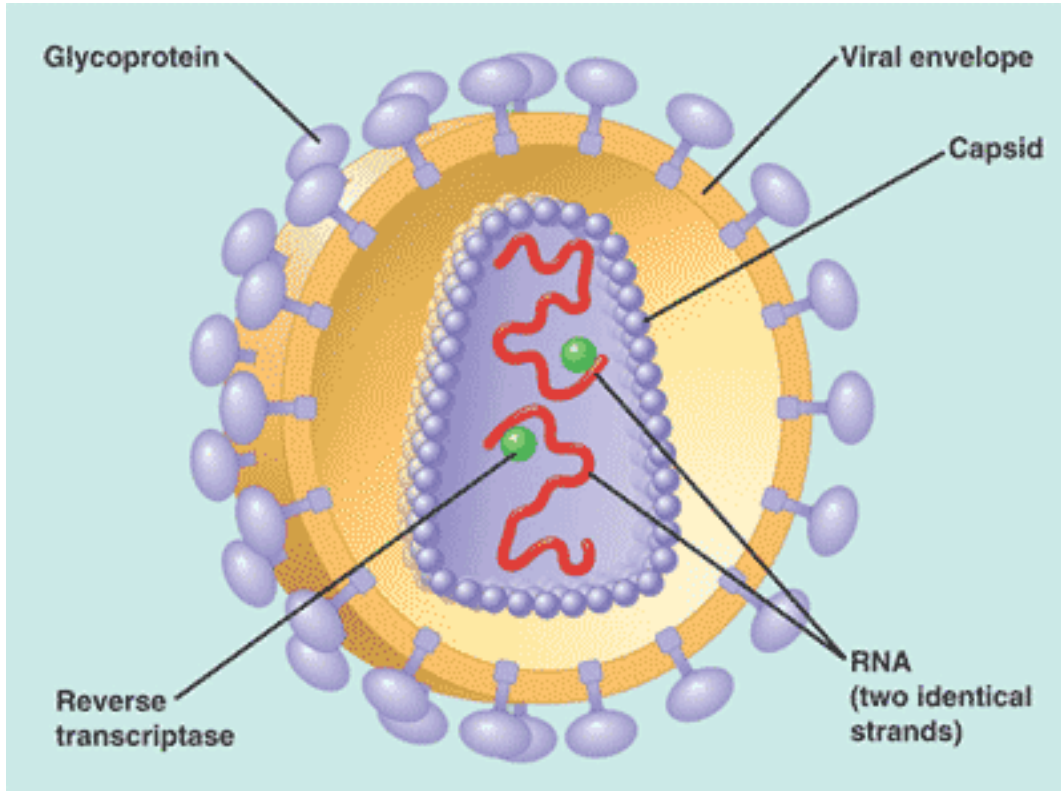
- A bacterium is a single celled organism that attacks other cells. It cannot penetrate the cell membrane and remains in the bloodstream.
- A virus is not a cell, but a particle that enters and infects a healthy cell.





(a) A T-even bacteriophage



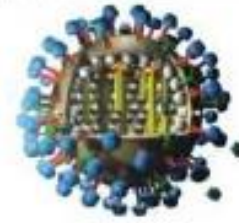
retrovirus



Viruses and Cells

Characteristic	Virus	Cell
Structure	DNA or RNA core, capsid 	Cell membrane, cytoplasm; eukaryotes also contain nucleus and organelles 
Reproduction	only within a host cell	independent cell division either asexually or sexually
Genetic Code	DNA or RNA	DNA
Growth and Development	no	yes; in multicellular organisms, cells increase in number and differentiate
Obtain and Use Energy	no	yes
Response to Environment	no	yes
Change Over Time	yes	yes

BACTERIA VS VIRUSES



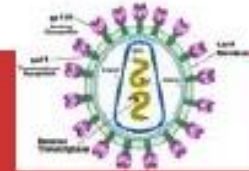
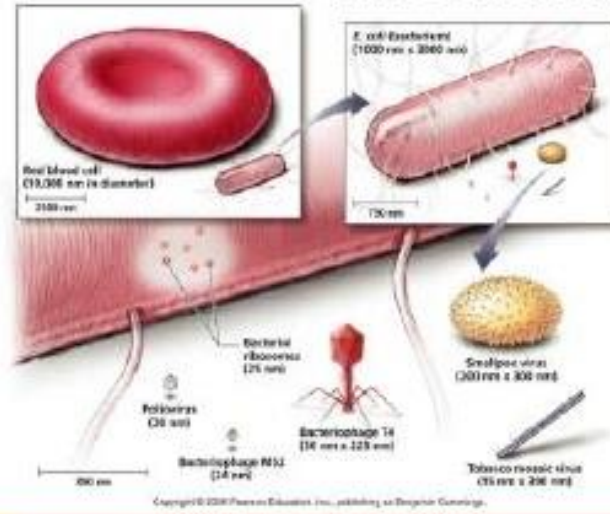
BACTERIA

- **Made of cells**
- **Can be killed by antibiotics**
- **Examples of disease caused by bacteria is strep throat**



VIRUS

- **Not made of cells**
- **MUCH SMALLER THAN CELLS**
- **Can't be killed by antibiotics**
- **Example of diseases caused by viruses are AIDS (HIV). Smallpox,**



How does a virus attack your body?

- <https://www.youtube.com/watch?v=Rpj0emEGShQ> (3:38)
- <https://www.youtube.com/watch?v=oqGuJhOeMek>

Build a bacteriophage:

<https://www.youtube.com/watch?v=8hA1BKyx5lA>