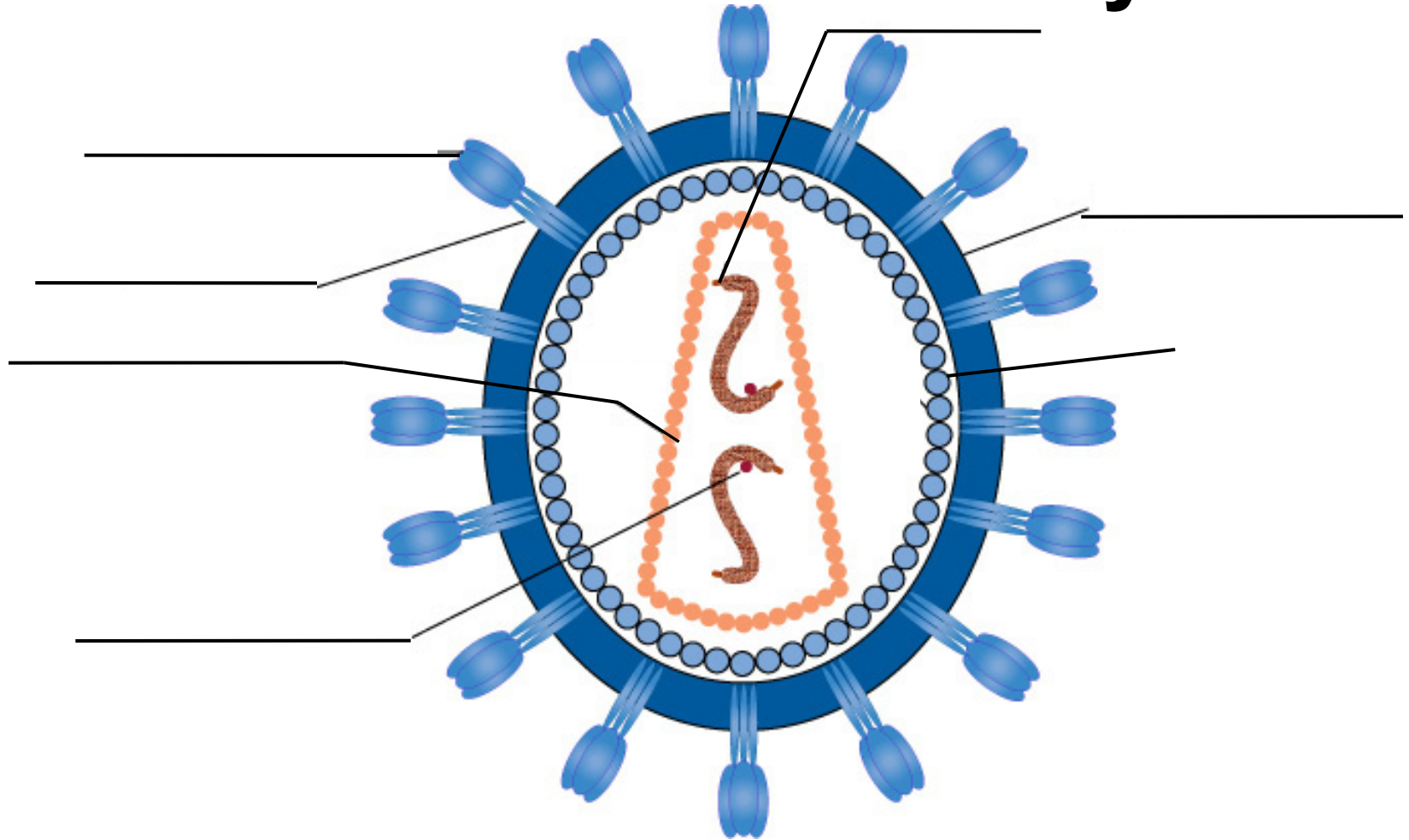


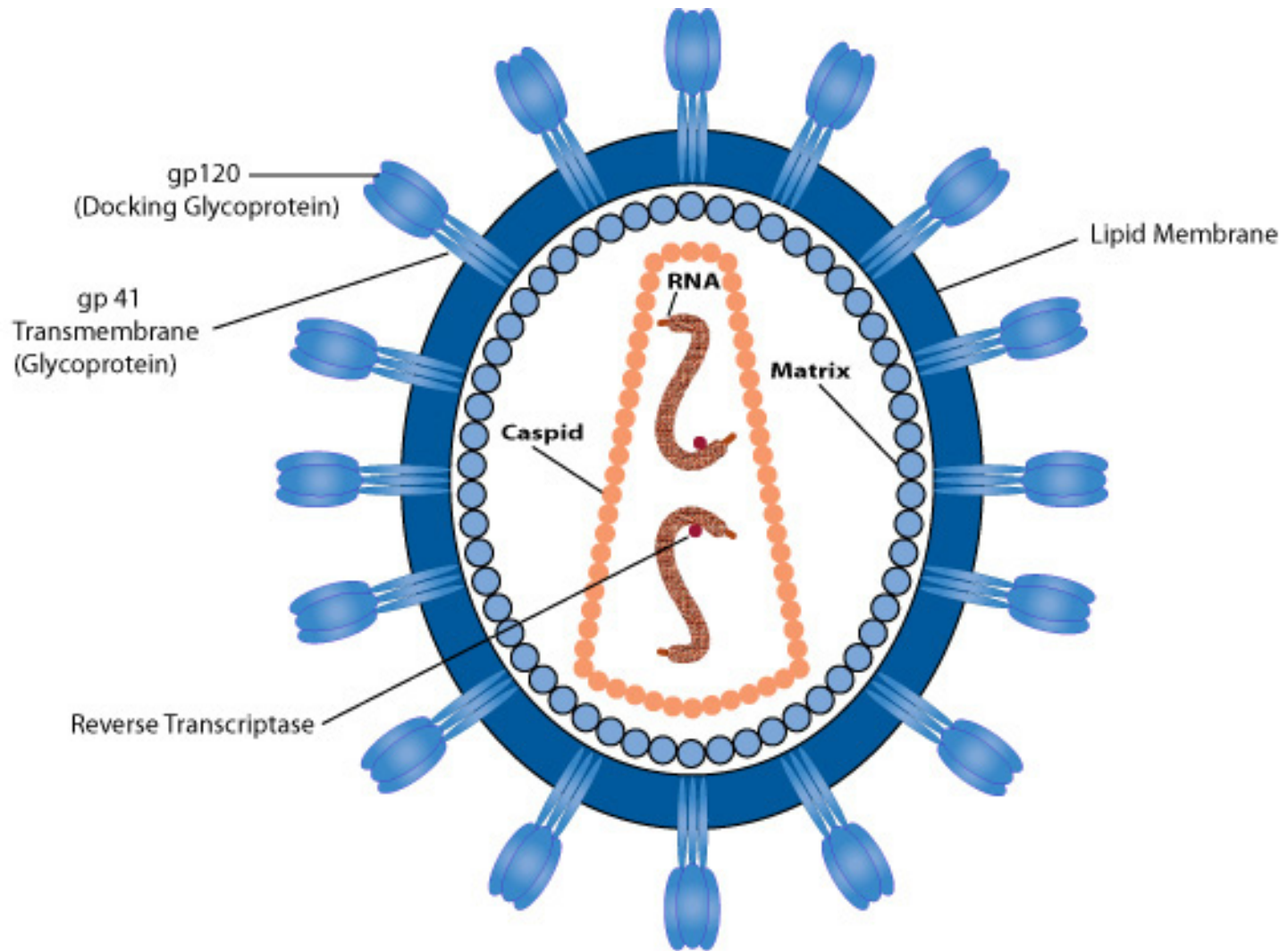
# Human Immunodeficiency Virus



Place the terms in the correct location on the HIV virus.

- Lipid membrane
- Reverse Transcriptase
- Capsid
- Matrix
- RNA
- Docking Glycoprotein (gp120)
- Transmembrane protein (gp41)

# Answer Key



# Human Immunodeficiency Virus

•**Lipid membrane**- fatty barrier is the outer most shell of the virus and is similar to the cell membrane of other organisms.

•**Capsid**- unique to viruses, this protein shell holds the genetic material of the virus. The HIV capsid is cone shaped.

•**RNA**- single stranded genetic information that is similar to DNA. There are 2 RNA strands located inside the capsid of the virus that each carry 9 genes. Since the RNA is single stranded it mutates more often than double stranded DNA. This means that the HIV is difficult to create a vaccine for.

•**Matrix**- protein substance that is between the lipid membrane and the capsid and is important in protecting the capsid and its contents.

•**Reverse Transcriptase**- this enzyme only found in viruses converts the RNA to DNA. Since HIV uses reverse transcriptase and a RNA method it is known as a retrovirus. The flu virus is another example of a retro virus.

•**Docking Glycoprotein (gp120)**- this protein attached to the transmembrane protein is used by the virus to attach and fuse to the human cell (T helper cell).

•**Transmembrane protein (gp41)** – this protein is attached to the docking protein and spans the lipid membrane. It also helps in attaching the virus to the host cell (T helper cell).

