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

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