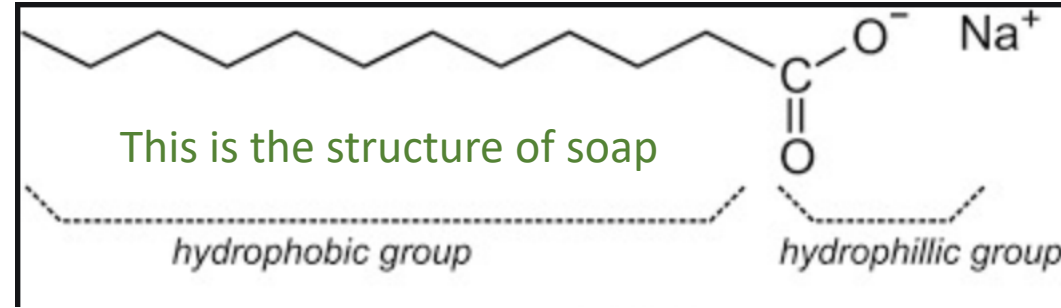
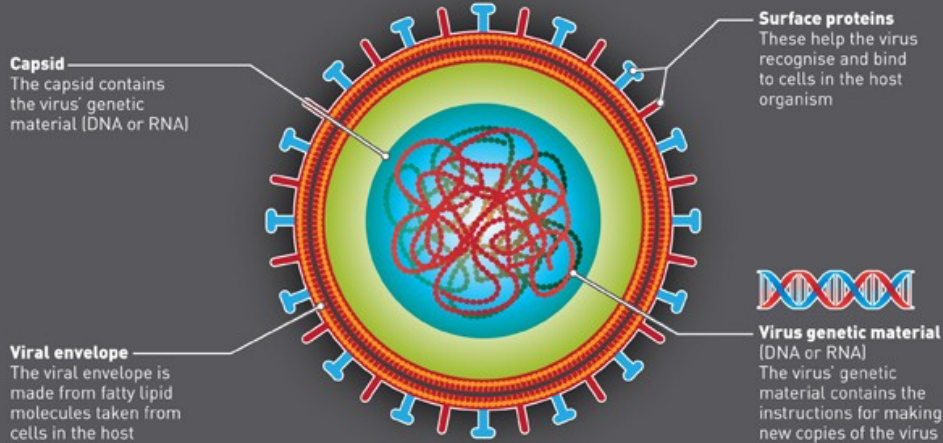


# The Chemistry Behind Hand Washing

By: Laura Harriss – Cobb County 4-H'er

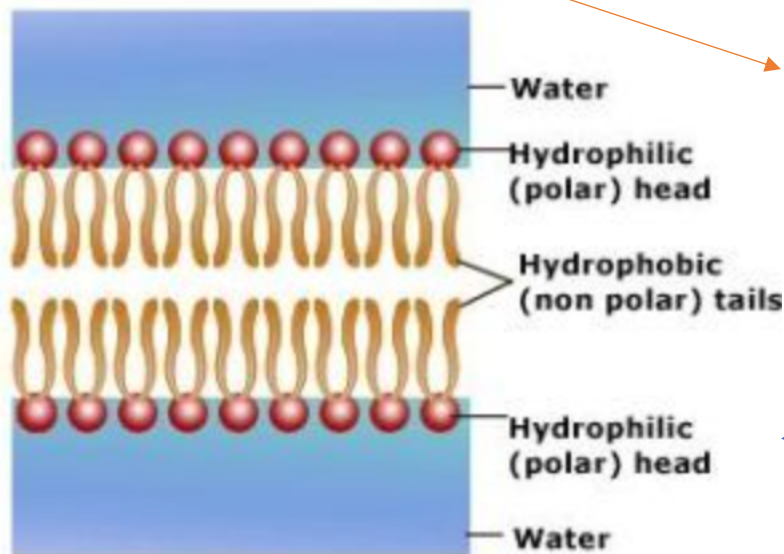
## VIRUS STRUCTURE



Hydrophobic = doesn't like water and naturally repels it

Hydrophilic = likes water and does not repel it.

When you wash your hands, the hydrophilic parts of soap interact with the hydrophilic parts of the lipid and the hydrophobic parts of soap interact with the hydrophobic parts of the lipid. If water makes it past the lipid layer, then it can break down the rest of the virus. If you only use water to wash your hands, you will not be able to break down any oils or viruses that may be on the surface of your hands.



The viral envelope is made up of lipids which look like this