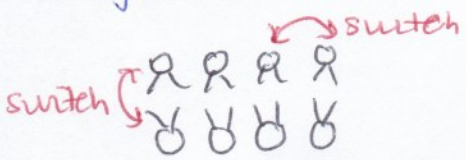
The fluid mosaic model

All the molecules in your entire body have kinetic energy. This means that they are continually moving in a random motion.

The same applies for the phospholipids making up the cell membranes.

Fluid:

- All components move about and they are not bound to eachother.
- molecules move freely, and regularly switch with adjacent molecules and even those below them (RARELY)



- when a phospholipid switches with one beneath it, it is said to 'flip-flop'. However this is very RARE, because [illegible] hydrophilic head [illegible] pass easily through the hydrophobic tails
= stable membrane.

Mosaic:

- There are many proteins of different shapes which give the membrane a mosaic like structure

Functions of membranes within cells:

① control entry & exit of materials in discrete organelles, eg. mitochondria & chloroplasts

② separate organelles from cytoplasm ⇒ specific metabolic reactions can take place within

③ Internal transport system ⇒ (GA; RER; vesicles)

④ Isolates enzymes that may cause damage (lysosomes)

⑤ Provide reaction surfaces (eg. mitochondrial = respiration)