Chapter 2.3

The fluid mosaic model

* Describes structure of the cell membrane
* According to this molecule the cell membrane consists of a bilayer
* This bilayer is made of phospholipids

Phospholipids

* Have hydrophilic and hydrophobic head and tail
* It repels outside liquids and keeps the cell internal liquids together
* Hydrophilic is made of a phosphate group called glycerol
* Hydrophobic is made of fatty acids
* Polar = attracts
* Non-polar = repels

Fluidity

* Proteins and other materials can move within the layer
* This is dependent on the amount of fatty acids
* The fluidity is also dependant on temperature and the presence of cholesterol

Why this happens

* Temperature – as it increases phospholipids can move more freely
* Protein – Integral proteins are a permanent part of the membrane, whereas peripheral proteins are temporary. Proteins that expand of both layer are called transmembrane proteins
* Carbohydrates – Recognises and is responsible for cell adhesion