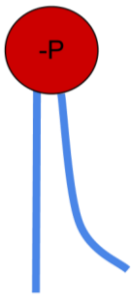
Prokaryotic Cell	Eukaryotic Cell
DNA in a ring form without protein	DNA with proteins as chromosomes/chromatin
DNA free in the cytoplasm (nucleoid region)	DNA enclosed within a nuclear envelope (nucleus)
No mitochondria	Mitochondria present
70S ribosomes	80S ribosomes
No internal compartmentalisation to form organelles	Internal compartmentalisation present to form many types of organelle
Size less than 10 micrometres	Size more than 10 micrometres

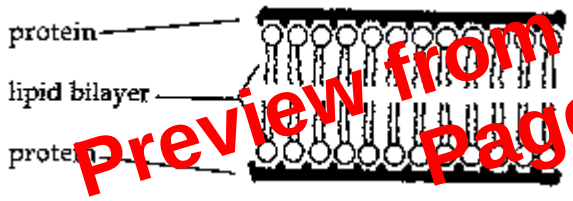
Cell Membranes

Phospholipids are one of the main components of membranes.



The hydrophilic head is made of a phosphate molecule and the hydrophobic tail is made of fatty acids (this means they are amphipathic). When they are placed in water the heads tend to face the water and the tails are forced to stick together, forming a bilayer. Cholesterol restricts movement of phospholipids and reduces the fluidity of the membrane. It also reduces the permeability of the membrane.

The **Davson-Danielli** model was the first idea proposed about the structure of the phospholipid membrane.



Analysis of experimental evidence has resulted in this model being replaced by the Singer and Nicholson model in 1972.