

A Closer Look at the Cell Membrane

1665 Robert Hooke discovered cells in cork

1674 Leeuwenhoek first described living cells “animalcules”

Cell Theory

All organisms are made of cells

All existing cells are produced by other cells

The cell is the most basic unit of life

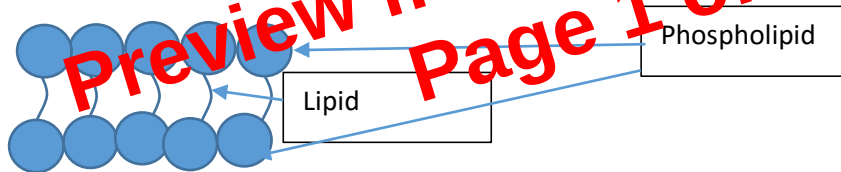
Cell Membrane

Protective barrier that encloses cell

Fluid and flexible

Contains proteins, lipids (not water soluble), and two layers of phospholipids

Selective permeability



Proteins & Lipids

Some of the proteins and lipids control the movement of materials into and out of the cell

Some proteins are “passageways” that allow nutrients & water into the cell and move wastes out of the cell

How do nutrients and water get in and out of a cell?

Diffusion: movement of material from high to low concentration (diffusion of water = osmosis)

The cells of organisms are surrounded and filled with fluids that are mainly water

Cell membrane is semipermeable: only certain substances can pass through.