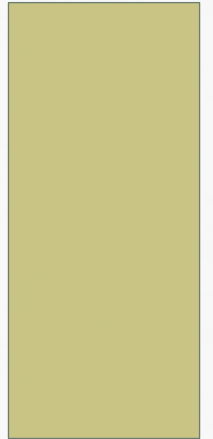


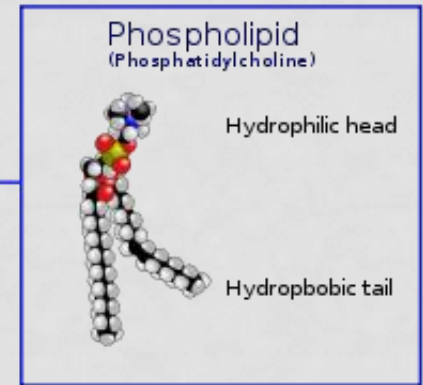
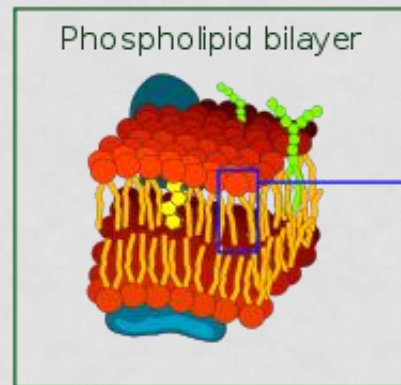
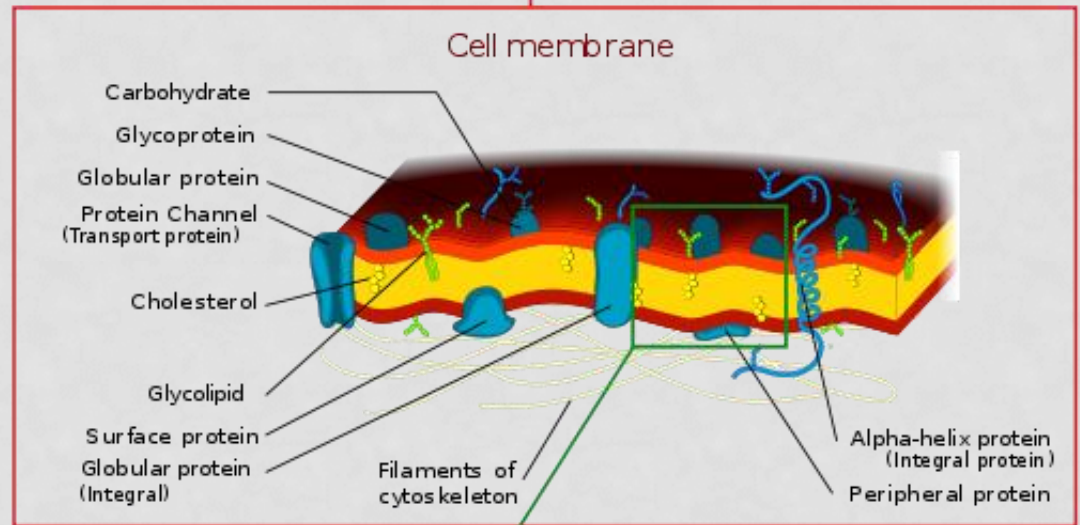
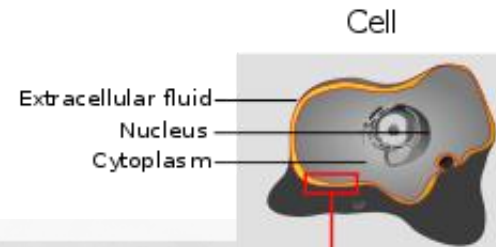
# CELL MEMBRANE

CH 3.3



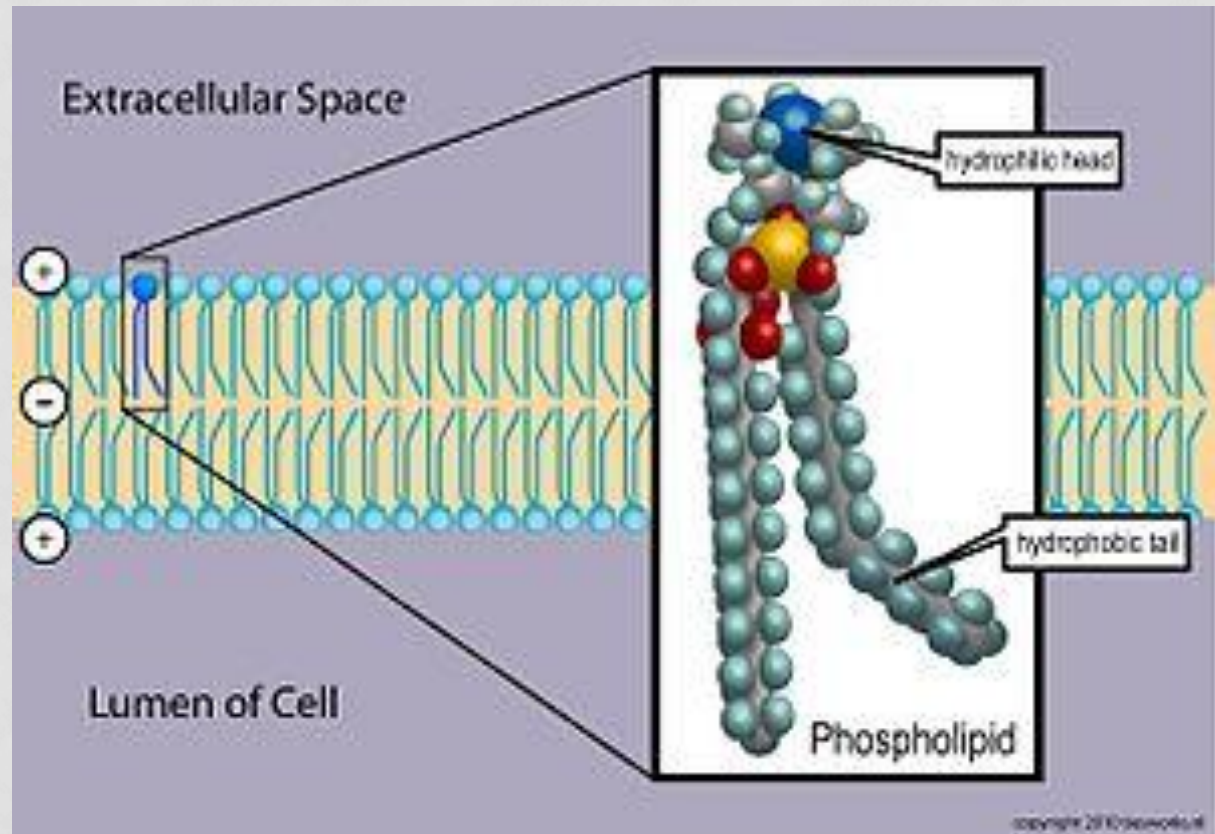
# STRUCTURE

- **AKA – Plasma membrane**
  - Outermost layer of cell
  - Composed primarily of phospholipids



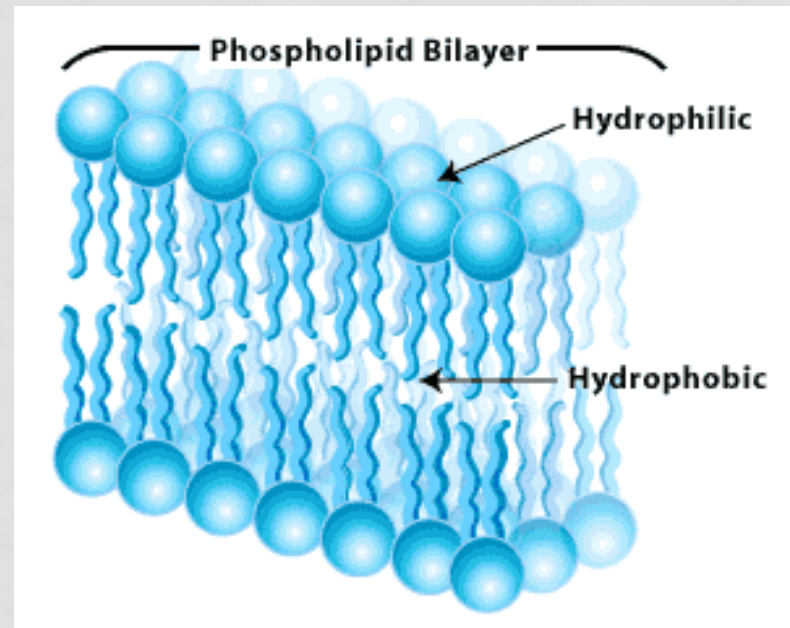
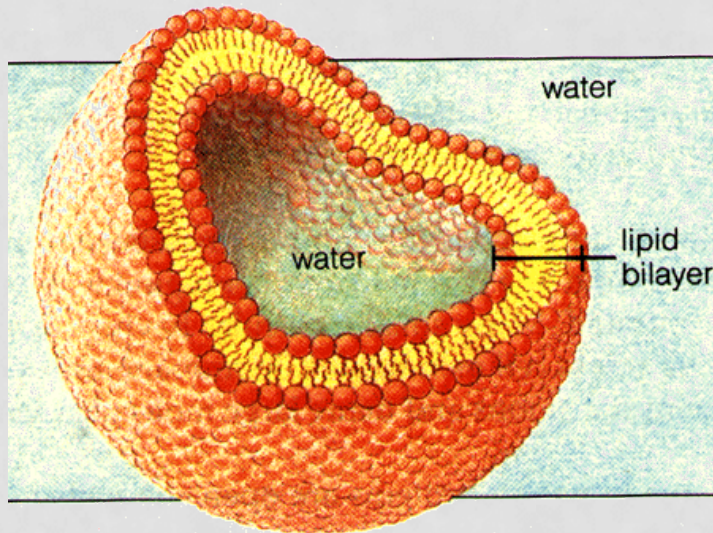
# PHOSPHOLIPIDS

- Polar 'head'
- Non-polar fatty acid 'tail'
- Double layer
- Tails face inward, heads face outward



# PHOSPHOLIPID BILAYER

- Double layer of phospholipids
  - Hydrophilic – ‘water loving’ heads turn out toward fluids and cytoplasm
  - Hydrophobic – ‘water fearing’ tails face inward away from fluids





# OTHER COMPONENTS

- **Transport proteins**
  - Allow passage of molecules
- **Cholesterol**
  - Structure
- **Membrane proteins**
  - Surface and integrated
  - Receptors – receive and send information
- **Glycoproteins** (carbohydrate + protein)
  - Receptors and signaling

# FUNCTIONS

- Provides protection and support
- Controls what enters and exits cell
  - Maintains homeostasis
  - How?
    - Selectively Permeable
    - Chemical nature limits what can directly cross bilayer (nutrients, gasses)
    - Transport molecules allow larger molecules through

# FLUID MOSAIC MODEL

- Fluid =  
Molecules move freely within cell membrane
- Mosaic =  
different types of molecules present

