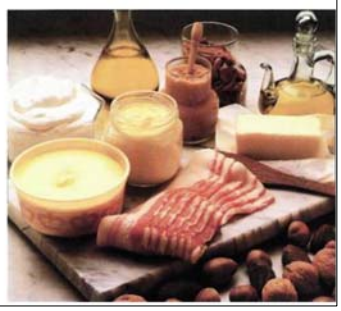
Lipids (aka Fats)

-Made up of C, H, O (very long chains)

-**Monomers** = fatty acid and glycerol



LIPIDS

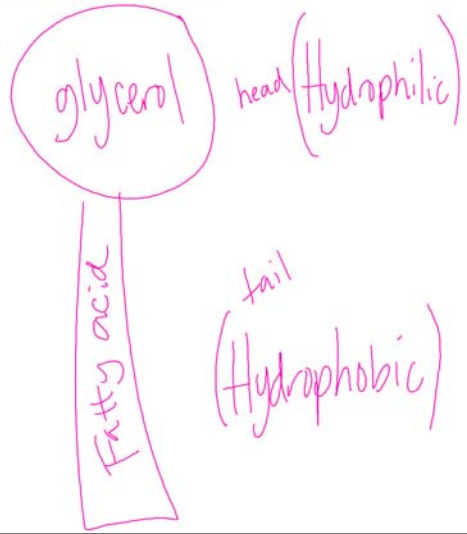
In H_2O: "H_2O" "fearing"

Insoluble = doesn't dissolve; Nonpolar; **Hydrophobic**

Soluble = dissolves; Polar; **Hydrophilic**

"H_2O" "liking"

MONOMER OF LIPIDS:



LIPIDS

- Include 4 types:
  1. Triglycerides (food fats) *
  2. Phospholipids (cell fats) *
  3. Steroids (hormones & cholesterol)
  4. Waxes (H_2O proof covering)

Functions of Lipids

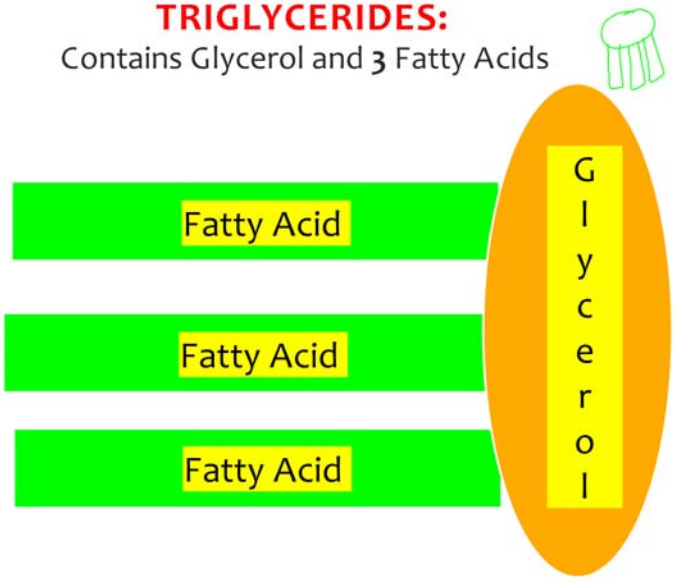
- Make up the cell membrane
- Provide H2O proof coverings
- Insulation (to keep warm)
- Protection (bones, organs)
- Long term E storage

energy

POLYMERS OF LIPIDS:

TRIGLYCERIDES:

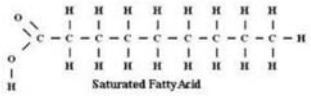
Contains Glycerol and **3** Fatty Acids



Saturated:

Solid @ room temp; from animals

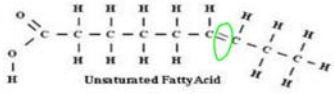
Ex: Butter, lard, bacon grease, crisco



Unsaturated:

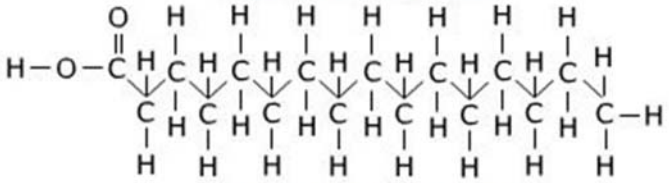
Liquid @ room temp; from plants

Ex: Oil

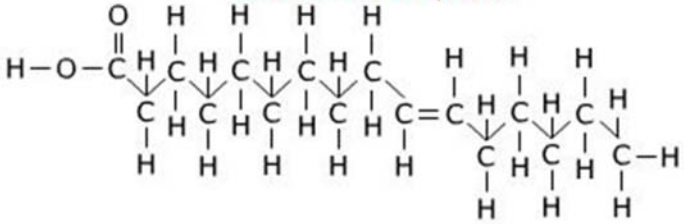


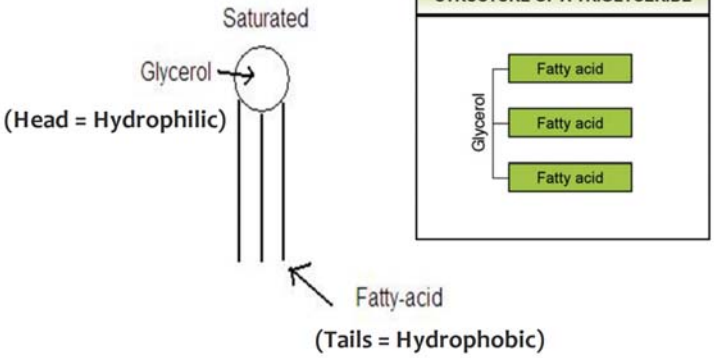
Fatty Acids

Saturated Fatty Acids



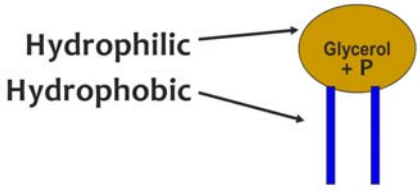
Unsaturated Fatty Acids



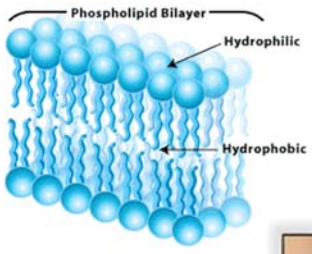


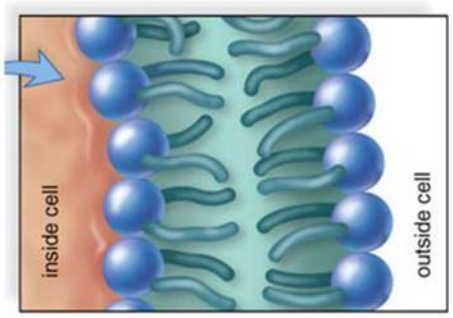
Phospholipid

(2 Fatty acid tails attached to Glycerol & **P** head)



Phospholipid Bi-layer





Waxes

- H_2O proof
- In Plants: protective coating
- In Animals: Protective layer (skin & fur)

Steroids

- Component of Cell membranes
- Ex: Cholesterol, hormones