Macromolecules!!!!

Lipids=all are hydrophobic (waxes are a fourth group) DON'T dissolve in H2O

Fats-long term energy (energy in fat is in a carbon hydrogen bond)

- SATURATED/UNSATURATED FAT -Structure is related to function in that lots bonds=long atom takes up space but its long term so you need a lot. E shape or rectangle
- PHOSPHOLIPID-fatty acid is also monomer. Makes a 16th note shape. The head of the phospholipid is polar and the tail is nonpolar. Likes or doesn't like water. Ampiphatic=both characteristics (hydrophilic and phobic)
- STEROIDS-build up incredible mass (anabolic steroid) NOTE. 1st slide is cholesterol molecule, which is base for making hormones like estrogen and testosterone.
    - Two classification of hormones steroid base or protein base.
    - Steroids are used for communication in the body.

Proteins

- Monomer=amino acid always four bonds there are 20 different amino acids (everyone has an amine group and a carboxyl group)
- 3D shape is essential and if anything happens the molecule is ruined.
- (poly) Peptide bond is made between carboxyl of one amino acid and an amine of another amino acid. Peptide bond means dehydration synthesis reaction
- sequence is determined by DNA
- Shape is due to h bonds between carboxyl and amines.
- Tertiary=folding due to r groups
- 4 levels-monomer, secondary, tertiary, quaternary (not required)

NUCLEIC ACID

- DNA, RNA, ATP
- DNA-genes, genetic info
- RNA-take genetic info and tell proteins what to do with it. Convert gene info form DNA into proteins
- ATP-energy transfer
- Monomer-nucleotide (phosphate group, sugar, and Nitrogen base)