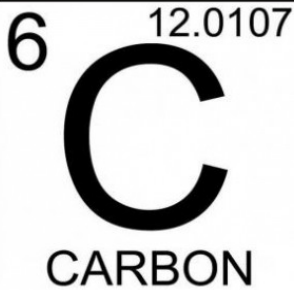


BIOL 1110-3.1



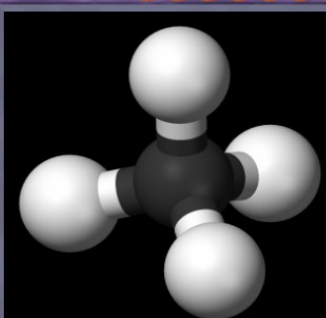
[CH.3]
Carbon can bond to form: Straight Chains, Branches, Rings, Balls, Tubes, and Coils-All Macromolecules in organisms have carbon atoms

ATK/1400 DEF/1700

26712583

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BIOL 1110-3.1.1



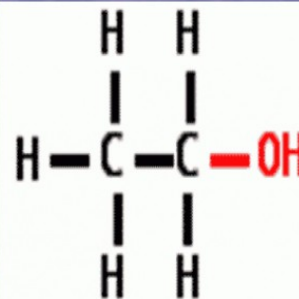
[CH.3 / Fusion]
Functional Groups: Hydroxyl, Carbonyl, Carboxyl, Amino, Sulfhydryl, Phosphate, Methyl

ATK/2600 DEF/2750

09751642

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BIOL 1110-3.1.1 #1



[CH.3]
Hydroxyl is Found in: Carbohydrates, Proteins, Nucleic Acids, Lipids

ATK/ 900 DEF/ 700

07639654

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BIOL 1110-3.1.1 #2



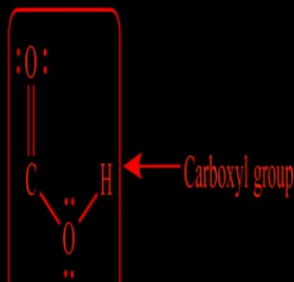
[CH.3]
Carbonyl is Found in: Carbohydrates, Nucleic Acids

ATK/ 900 DEF/ 700

24219157

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BIOL 1110-3.1.1 #3



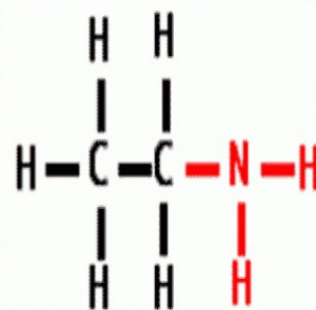
[CH.3]
Carboxyl is Found in: Proteins, Lipids

ATK/ 900 DEF/ 700

33589794

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BIOL 1110-3.1.1 #4



[CH.3]
Amino is Found in: Proteins, Nucleic Acids

ATK/ 900 DEF/ 700

11560217

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BIOL 1110-3.1.1 #5



[CH.3]
Sulfhydryl is Found in: Proteins

ATK/ 900 DEF/ 700

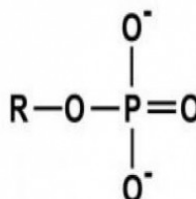
19693859

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BIOL 1110-3.1.1 #6



Phosphate Group



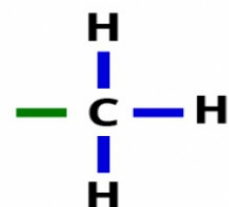
[CH.3]
Phosphate is Found in: Nucleic Acids

ATK/ 900 DEF/ 700

31005491

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BIOL 1110-3.1.1 #7



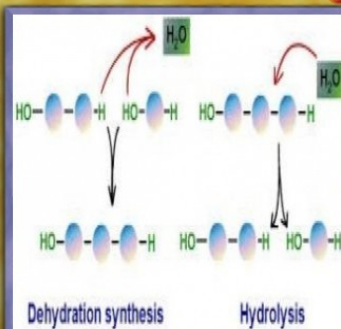
Methyl group

[CH.3]
Methyl is Found in: Proteins

ATK/ 900 DEF/ 700

08252696

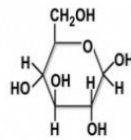
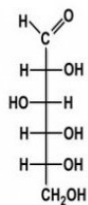
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[Ch.3]
Dehydration=The Removal of one H₂O Molecule;
Subunit added=1 H₂O Subtracted
Hydrolysis= The Reverse

ATK / 1100 DEF / 1200

Monosaccharide Structure

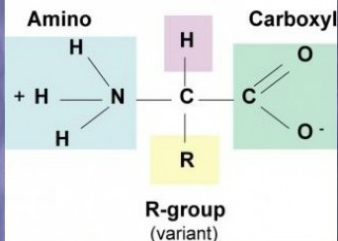


[Ch.3]
Single Sugars that cannot be broken down into smaller sugars; can have 3, 5, or 6 carbons. 6=Role in energy Storage-Glucose

ATK / 2100 DEF / 1400

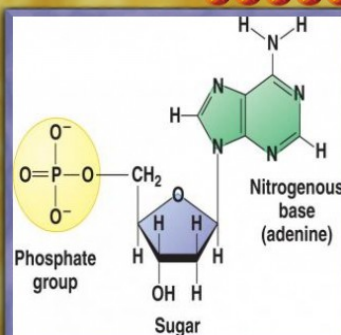
Amino Acid Structure

Hydrogen



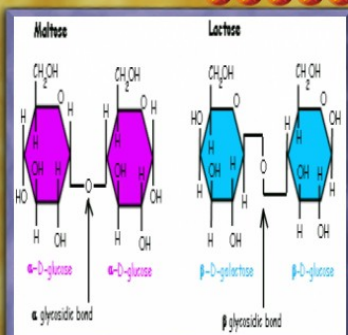
[Ch.3]
Nonpolar=CH₃; Polar Uncharged=O;
Charged=Acids or Bases that ionize;
Aromatic=Carbon ring-Nonpolar; Special=Link others

ATK / 2300 DEF / 2100



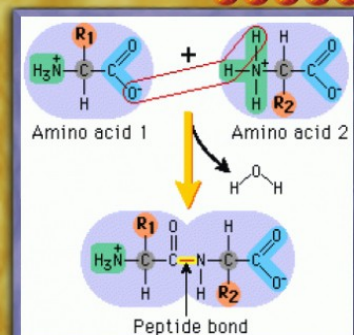
[Ch.3]
Nucleotide

ATK / 1900 DEF / 2100



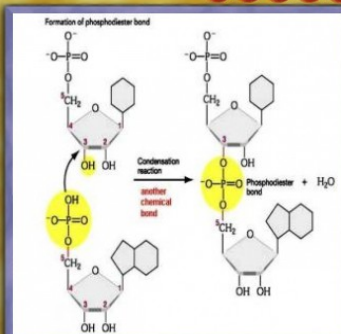
[Ch.3]
Glycosidic Bond: Bond of a sugar and another molecule

ATK / 1900 DEF / 1400



[Ch.3]
Peptide Bond: Bond between two Amino acids in excess of Water

ATK / 1900 DEF / 2400



[Ch.3]
Phosphodiester Bond: Bond between phosphate group and polynucleotide molecule

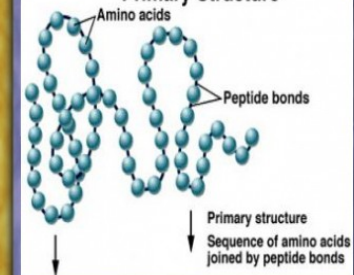
ATK / 2500 DEF / 2400



[Ch.3]
Protein Functions: 1. Enzyme Catalysis 2. Defense 3. Transport 4. Support 5. Motion 6. Regulation 7. Storage

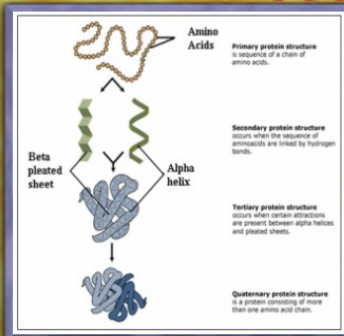
ATK / 1500 DEF / 1800

Levels of Protein Structure—Primary Structure



[Ch.3]
Two Amino acids are joined by peptides; Peptides are joined together to form polypeptides; Sequence of Amino Acids is a protein

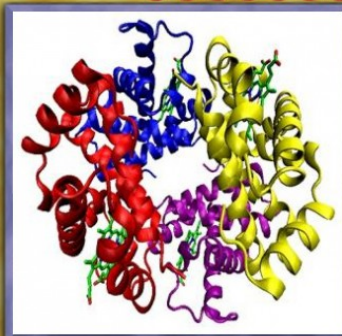
ATK / 1400 DEF / 1600

**[Ch.3]***Primary- Amino Acid Sequence**Secondary- Sequences are linked by H Bonds**Tertiary- Beta and Alpha are linked together**Quaternary- More than one Amino acid chain*

ATK / 1300 DEF / 1200

08828342

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B-PA
YU-6**[Ch.3]**

Peptide, H Bonds, Ionic Bonds, disulfide Bridges, Van Der Waals Interactions, and Hydrophobic Interactions all help to bind or fold different regions of the protein structure together

ATK / 2500 DEF / 2200

63114070

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B-PA
YU-6