Cheatography

UNIT 1: Chemistry of Life AP Bio Cheat Sheet

by Caitlin_Carson_ via cheatography.com/134010/cs/27549/

Water

Polar (H2O)

Solvent

Cohesive Properties: Surface Tension & Adhesion

Thermal Properties: High Specific Heat

Water Vocab

Surface Tension: Measure of how hard it is to stretch or break the surface of a liquid. Water has a high surface tension b/c of the H bonding of surface molecules.

Adhesion: Substances stick to each other. Water sticks to plant cells walls from H bonding.

High Specific Heat: Before temp increase, water must absorb a lot of heat.

Hydrophilic: Water-loving

Hydrophobic: Water-fearing

Water pH

H+ = OH- (neutral ph)

H+ > OH- (acidic)

H+ < OH- (basic)

pH Scale

0-6 = Acidic

7 = Neutral

8-14 = Basic

Functional Groups

Hydroxyl	OH	Polar
Methyl	CH3	Nonpolar
Carbonyl	C=O	Polar
Carboxyl	COOH	Acidic
Amino	NH2	Basic
Sulfhydryl	SH	Polar
Phosphate	PO4	Acidic

Elements of Life

Carbon.

Oxygen.

Hydrogen.

Nitrogen.

Phosphorus.

Sulfur.

Sodium.

Calcium.

Iron.

Macromolecules

Macromolecules	Monomers
Carbs	Monosaccharides
Proteins	Amino acids
Lipids	Fatty acids
Nucleic Acids	Nucleotides

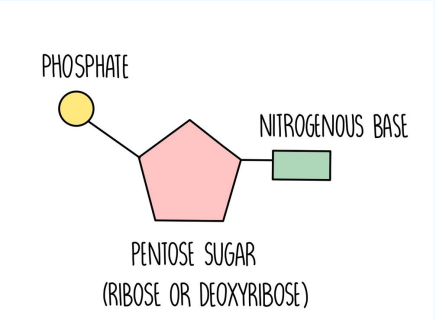
Nucleotide Parts

Phosphate Group

5-C Sugar

Nitrogenous Base

Nucleotide Structure



DNA vs. RNA

DNA	RNA
A - T	A - U
G - C	G - C
Double-stranded	Single-stranded
Deoxyribose sugar	Ribose sugar

Pyrimidines

Cytosine

Uracil

Thymine

*Think: CUT PIE

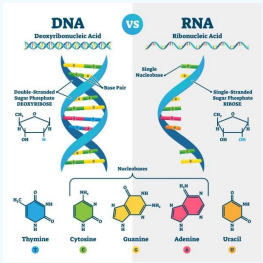
Purines

Adenine

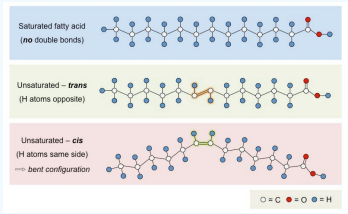
Guanine

*Think: GREEN APPLES are PURE!

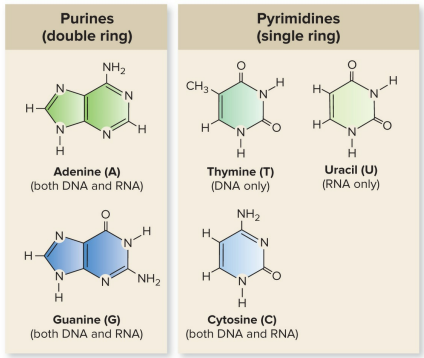
DNA & RNA Structure



Fatty Acids



Pyrimidines vs. Purines



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