

Source: [KBiologyMasterIndex](#)

1 | Bio-Molecules Quiz Review

1.1 | Paul's Review Sheet

... is here

1.1.1 | Carbohydrates

Use appearance size, and presence of functional groups to distinguish between the major classes of biomolecules we discussed (carbohydrate, lipid, proteins) and the subclasses within each

- *Glucose vs. fructose* —

1.2 | Helpful review items

Bonding in organic compounds, a review.

Common nonpolar bonds

Carbon-carbon
Carbon-hydrogen
Carbon-sulfur

Common dipole interactions

Carbon-nitrogen $\delta^+ - \delta^-$ Carbon-oxygen $\delta^+ - \delta^-$
Nitrogen-oxygen $\delta^+ - \delta^-$ Hydrogen-oxygen $\delta^+ - \delta^-$

Common ionic interactions

they come from acid-base interactions.

However, sometimes they are permanent. Look at the amino acid chart for those.

Why hydrogen bonding is excellent

Hydrogen bonding allows stronger dipole-dipole bonds than dipole-dipole bonds. They are still good ol covalent bonds.

These bonds basically combines Hydrogen w/ the most electronegative atoms.



Reading a line-angle representation.



In this type of representations, start with a line. End the line at every carbon.



Now, it is assumed that carbon is not going to just be happy with $\text{C}-\text{C}-\text{C}-\text{C}$.



So, we still the missing orbitals with hydrogen.

need 2 $\text{C}-\text{C}-\text{C}-\text{C}$ need 3

need 3 need 2

Figure 1: Screen Shot 2020-10-09 at 11:58:55 AM.png