

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.

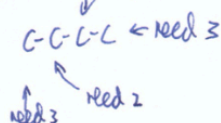


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