

8. _____ Dehydration Synthesis _____ is the process used to build polymers.
9. List the 4 macromolecules and their monomers, respectively.
1. _____ Carbohydrates _____ / _____ Monosaccharides (Simple Sugars) _____
 2. _____ Nucleic Acids _____ / _____ Nucleotides _____
 3. _____ Proteins _____ / _____ Amino Acids _____
 4. _____ Lipids _____ / _____ Fatty Acids and/or Glycerol _____
10. To break a polymer into its monomers, a molecule of water is _____ hydrolysis _____.
11. The bond holding together 2 amino acids is a _____ Peptide Bond _____.
12. _____ Chaperones _____ give individual proteins a chance to fold properly.
13. The bond holding together 2 nucleotides is a _____ Phosphodiester Bond _____, while the bond holding 2 nitrogenous bases together is a _____ Hydrogen Bond _____.
14. A nucleotide is made up of
1. _____ Nitrogenous Base _____
 2. _____ 5C Sugar (either Ribose or Deoxyribose) _____
 3. _____ Phosphate Group _____
15. The bond holding together 2 monosaccharides is a _____ C-O _____ bond.
16. **CONCEPTUAL QUESTION:** List the 3 disaccharides, the monosaccharides from which they form, and where we can see them used.

Disaccharide	Monosaccharides	Where are they used?
Sucrose	Glucose + Fructose	Table Sugar
Lactose	Glucose + Galactose	Milk Sugar
Maltose	Glucose + Glucose	Brewing Beer

17. The chemical properties of an amino acid are determined by its _____ R (side) _____ group.
18. A saturated fat _____ does not have _____ double bonds and is likely to be found as a _____ solid _____, while an unsaturated fat _____ does have _____ double bonds and is likely to be found as a _____ liquid _____.
19. Phospholipids are important to the cell because they form _____ Lipid Bilayers (cell membranes) _____.
20. There are 2 ways of determining whether you're looking at DNA or RNA, explain them. First, you can determine the (% of the sugar of a nucleotide, if a Hydroxy (OH) group present, we can conclude that this is RNA, indicating an RNA molecule. If a H is present, we can conclude that this is deoxyribose, indicating DNA. We can also look at the nitrogenous base, if the nitrogenous base is Uracil (U), we know we're looking at a strand of RNA because Uracil is only found in RNA, if the nitrogenous base is Thymine,