1. __________Dehydration Synthesis________________ is the process used to build polymers.

2. 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 (can be for some lipids)__

3. To break a polymer into its monomers, a molecule of water is ____hydrolysis______

4. The bond holding together 2 amino acids is a ____Peptide Bond____________

5. ____Chaperones_________ give misfolded proteins a chance to fold properly.

6. The bond holding together 2 nucleotides is a ________Phosphodiester Bond________________ while the bond holding 2 nitrogenous bases together is a______Hydrogen Bond________________

7. A nucleotide is made up of:
   1. _____Nitrogenous Base______________________________
   2. _____5C Sugar (either ribose or deoxyribose)_________________
   3. _____Phosphate Group______________________________

8. The bond holding together 2 monosaccharides is a ___C-O-C Bond____________________

9. CHALLENGE 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	Germinating Grain

10. The chemical properties of an amino acid are determined by its ___R (radical) group______

11. 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__________

12. Phospholipids are important to the cell because they form ___Lipid Bilayers (cell membranes)__

13. There are 2 ways of determining whether you're looking at DNA or RNA, explain them. First, you can examine the 2'C of the sugar of a nucleotide. If a hydroxyl (OH) group present, we can conclude that this is ribose, 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