Biomolecule Chart

Name:_____

Period:_____

	Carbohydrates	Proteins	Nucleic Acids	Lipids
Elements present				
Function(s)				
Monomer(s) Name				
Monomer(s) Structure (Draw)				
Polymer Name				
Polymer structure (Draw)				

1. On the back of this page, draw a polymerization (dehydration) reaction between two glucose molecules to make a disaccharide.
2. How do animals differ from plants in the storage of polysaccharides?
3. On the back of this page, draw a polymerization (dehydration) reaction for a dipeptide.
4. By adding water to a molecule of fat (lipid), it can be broken down into what two monomers? What is this reaction called?
5. Are Biomolecules organic? Why?
6. Are Biomolecules biotic or abiotic? Why?

(Note: Answers for questions 1-6 need to be on a separate piece of paper).

Chemical Test for Organic Molecules

I. Carbohydrate Chemical Tests

Substance	Benedict's Color After Heating	Iodine Color
Monosaccharide	→	→
Disaccharide	→	→
Polysaccharide	→	→

1. Based on the color change evidence, which type of carbohydrate is the Benedict's test used to detect? _____

2. Based on the color change evidence, which type of carbohydrate is the Iodine test used to detect? _____

Analysis

3. A certain sugar has no color change when tested with Benedict's solution or Iodine. Can you tell what type of saccharide it is? Explain

4. A certain sugar has no change in color when tested with Benedict's solution only. Can you tell what type of saccharide it is? Explain

II. Protein Chemical Tests

Substance	Color Change Due to Biuret's Reagent
Known Protein	→
Known Non-Protein	→

Analysis

5. Describe how to tell if a substance is a protein by using the Biuret's reagent test.

III. Lipid Chemical Tests

Substance	Description When Mixed with Sudan IV	Description When Rubbed on Brown Paper
Know Lipid		
Know Non-Lipid		